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Move ***into* PASS**

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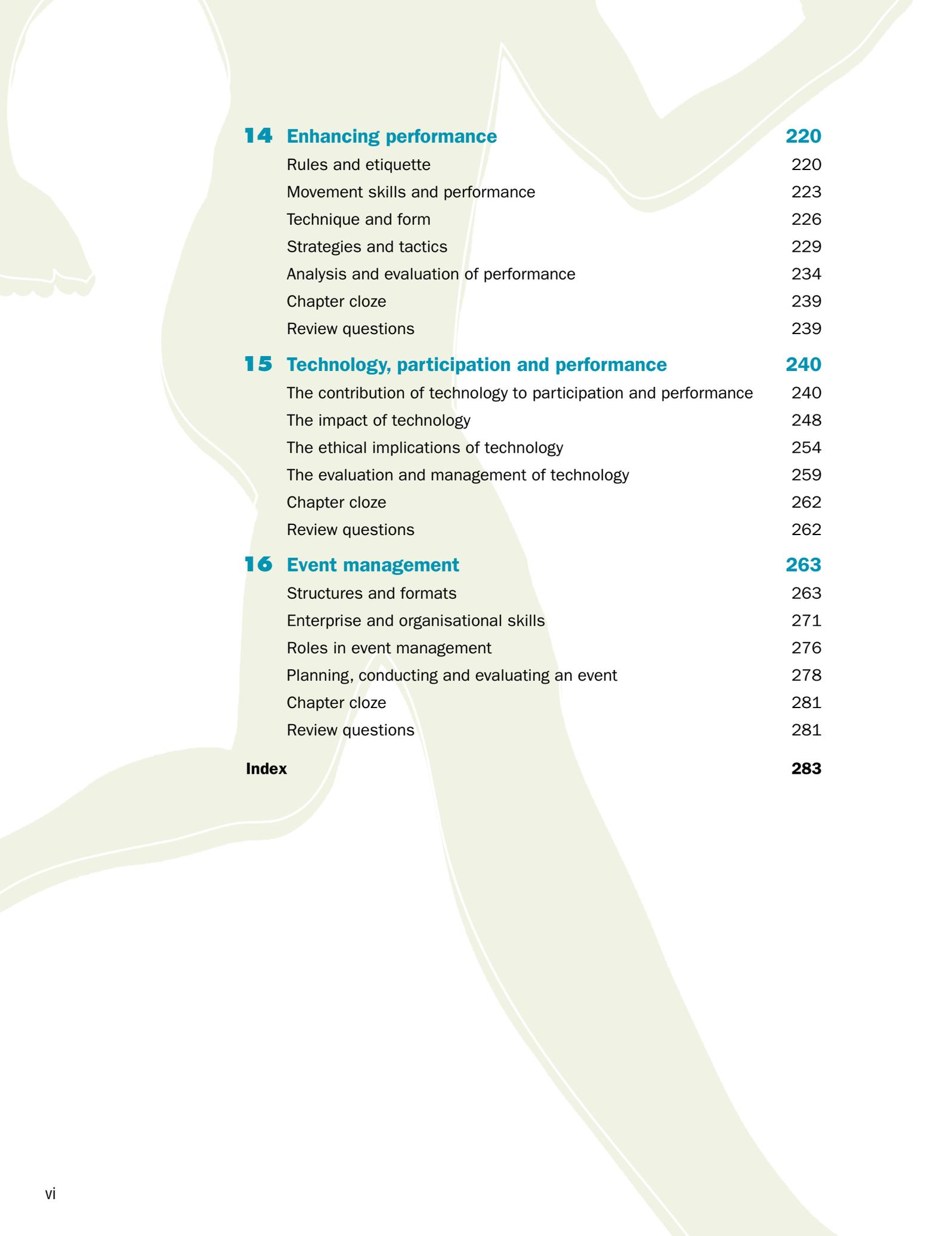
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Introduction

Move Into PASS is a stimulating and comprehensive text designed to be used in conjunction with the 100- or 200-hour course in *Physical Activity and Sports Studies*, a content endorsed course developed by the NSW Board of Studies, for years 9 and 10.

The book is designed to engage students in the core notion of lifelong physical activity.

It explores this subject in many contexts including:

- recreational, leisure and adventure pursuits
- competitive and non-competitive games
- individual and group physical fitness activities
- physical activity for specific groups.

Reflecting the intent of the syllabus, *Move Into PASS* demonstrates that regular physical activity is essential to improving health and quality of life. The content of the syllabus is outlined in detail and each chapter corresponds to the syllabus. A range of engaging activities and source material puts theory in context. A cloze exercise summarises the content at the end of each chapter, using keywords that are **bolded** throughout each chapter.

Like the syllabus, the book promotes the concept of learning through movement. It facilitates a range of learning experiences that provide for positive interaction with others, in both collaborative and competitive contexts.

As a text, *Move Into PASS* allows for the study of particular modules in depth. Students using the book will learn about the multi-faceted nature of relevant industries connected to the subject matter. They can work towards performance goals and pursue further training for careers in fields related to:

- recreation
- physical activity
- sports
- health.

Supporting this goal, the book also models useful skills in organisation, enterprise, leadership and communication.

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A stylized white outline of a human figure is centered on the page, spanning across the horizontal color divide. The figure is shown in profile, facing left, with its arms slightly away from its body. The background is split horizontally: the top half is a dark purple-blue gradient, and the bottom half is a bright lime green gradient. The text 'PART 1' is positioned across the middle, with 'PART' in white and '1' in a pink-to-purple gradient. Below the horizontal line, the text 'Foundations of physical activity' is written in black.

PART

1

Foundations
of physical
activity

1

Body systems and energy for physical activity

OUTCOMES

In this chapter a student:

- 1.1** discusses factors that limit and enhance the capacity to move and perform
- 1.2** analyses the benefits of participation and performance in physical activity and sport
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance
- 4.2** displays management and planning skills to achieve personal and group goals
- 4.3** performs movement skills with increasing proficiency
- 4.4** analyses and appraises information, opinions and observations to inform physical activity and sport decisions



STARTING POINT

To play sport and be physically active we need to move our body with relative ease and without undue stress. Our body systems play an important role to work together to efficiently move the body according to our body type, coordination and fitness level. The function of the skeletal, muscular, circulatory and respiratory systems all play a vital role in allowing our body to live and move effectively. This chapter outlines the importance of each system and explains how each system works together to allow the efficient movement of the human body. It examines how the body works to use energy for efficient movement and the relationship of the body systems that function together to allow movement for physical activity to occur.

Structure and function of the skeletal system

The **skeletal system** is the bone structure of the body. The adult human body consists of 206 bones; however, not all of these are used to perform physical activity. An infant has 350 bones, as they are not yet fused together. Figure 1.2 shows the names of all of the skeletal bones that contribute to the support and, together with the **muscular system**, the movement of the body.

The skeletal system is made up of two main sections, the axial skeleton and the appendicular skeleton, both of which are important to the movement of the body. The axial skeleton includes the skull, spine and thorax. This section of the skeletal system provides support and movement of the upper body (see the orange section of figure 1.2 on page 4). The appendicular skeleton

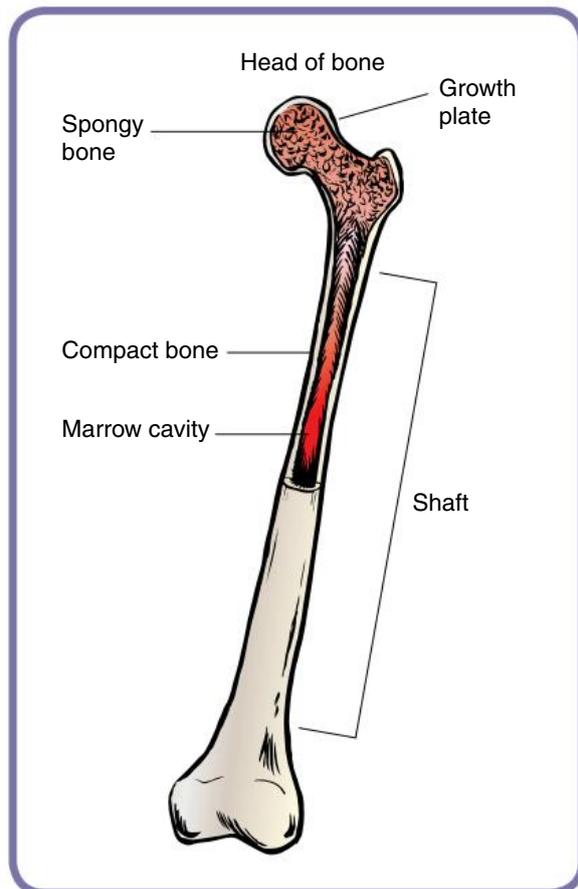
includes the bones of the upper and lower arms, the wrists and hands, the pelvic area, the upper and lower legs, and the feet. All of these bones enable the body to be upright and supported, and they work together with the muscles to enable movement while the body is stationary or travelling through space (see Table 1.1 on pages 10 and 11).

Role of the skeletal system

The skeletal system contributes greatly to the movement of our body. The spine supports our head and allows trunk rotation, together with the **voluntary** movement of our arms, legs, feet and hands according to the sport or activity we wish to perform.

Bones are very important to movement for physical activity and exercise can strengthen our bones, along with the intake of calcium-rich foods. Bones are the inner support system of the body. They provide a rigid structure for the body and, along with the joints and muscles, help the body to move effectively. Figure 1.1 shows the structure of a bone—it is a very simple structure, yet a very important one. The bones in our body are all alive and the end of the bone shown in figure 1.1 has a growth plate that is very important to the growth of the bone. If the growth plate is damaged the growth of the bone may be stunted and physical problems can occur. For example, damage of the growth plate in one femur bone (upper leg) could cause reduced growth in one leg, resulting in one leg being shorter than the other.

Figure 1.1 Structure of a femur bone



Why do you think the skeleton has been classified as axial and appendicular?



Learning experience

How well do you know the bones of the body? The box of bones pictured on page 4 is in need of recognition. Identify each bone using the list below and check your answers by using the picture of the skeletal system that follows (figure 1.2).

- Cranium (skull)
- Sternum (breast bone)
- Ribs (mid region of the body)
- Radius and ulna (lower arm)
- Femur (upper leg)
- Tibia and fibula (lower leg)
- Tarsals, metatarsals and phalanges (ankles, feet and toes)
- Patella (knee)
- Carpals, metacarpals and phalanges (wrist and hands)
- Pelvis (lower mid region—hip bones)
- Vertebral column (spine)
- Humerus (upper arm)
- Clavicle (collar bone)



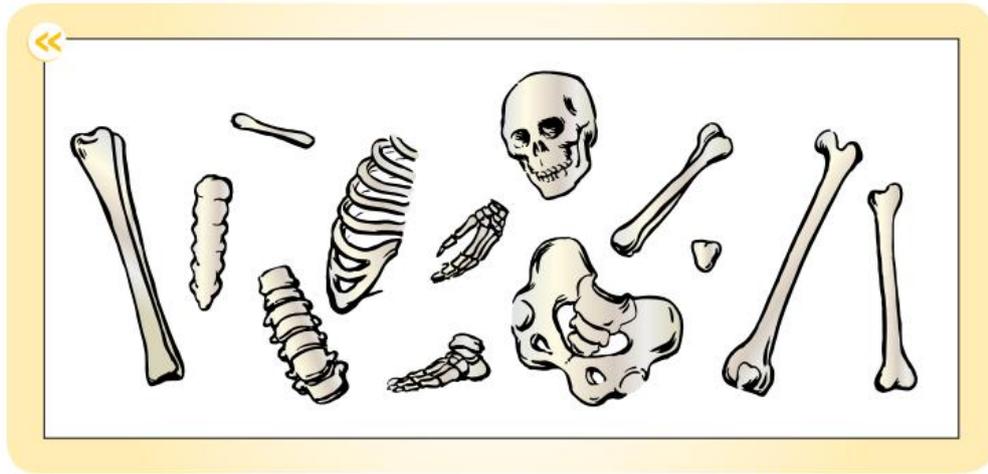
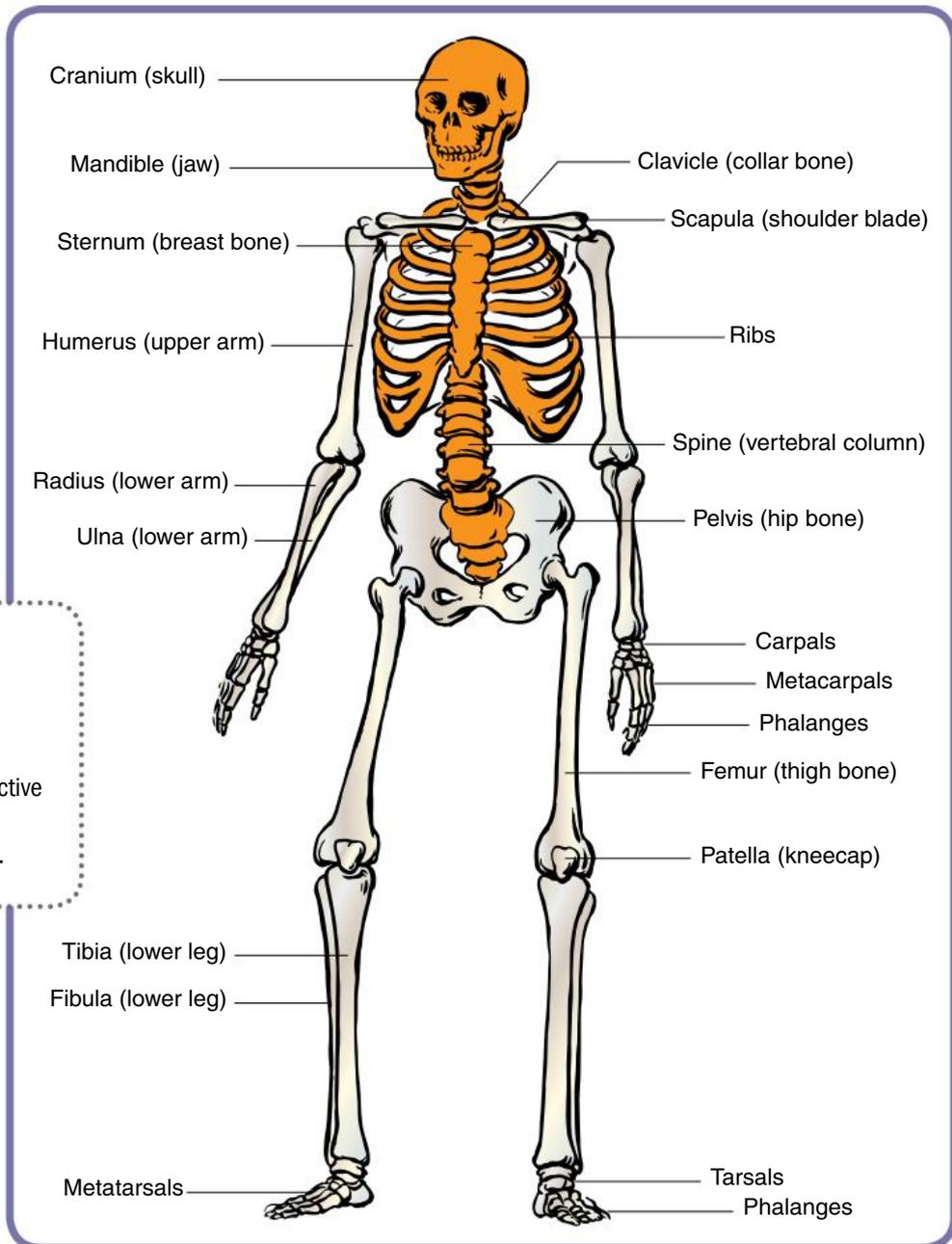


Figure 1.2
The skeletal system



Webconnect

Check your understanding of the location of bones by visiting the following interactive website: www.innerbody.com/image/skelfov.html.



Types of bones and joints

There are several different types of bones in the body. Some types vary in size and each have an important role to play in support and movement of the body. For example, long bones in the legs work with the joints and muscles to allow the body to stride out and extend when walking or running.

The bones in the body are classified by their shape and are grouped into six types: long, short, flat, irregular, sesamoid and sutural (see figure 1.2 for more detail).

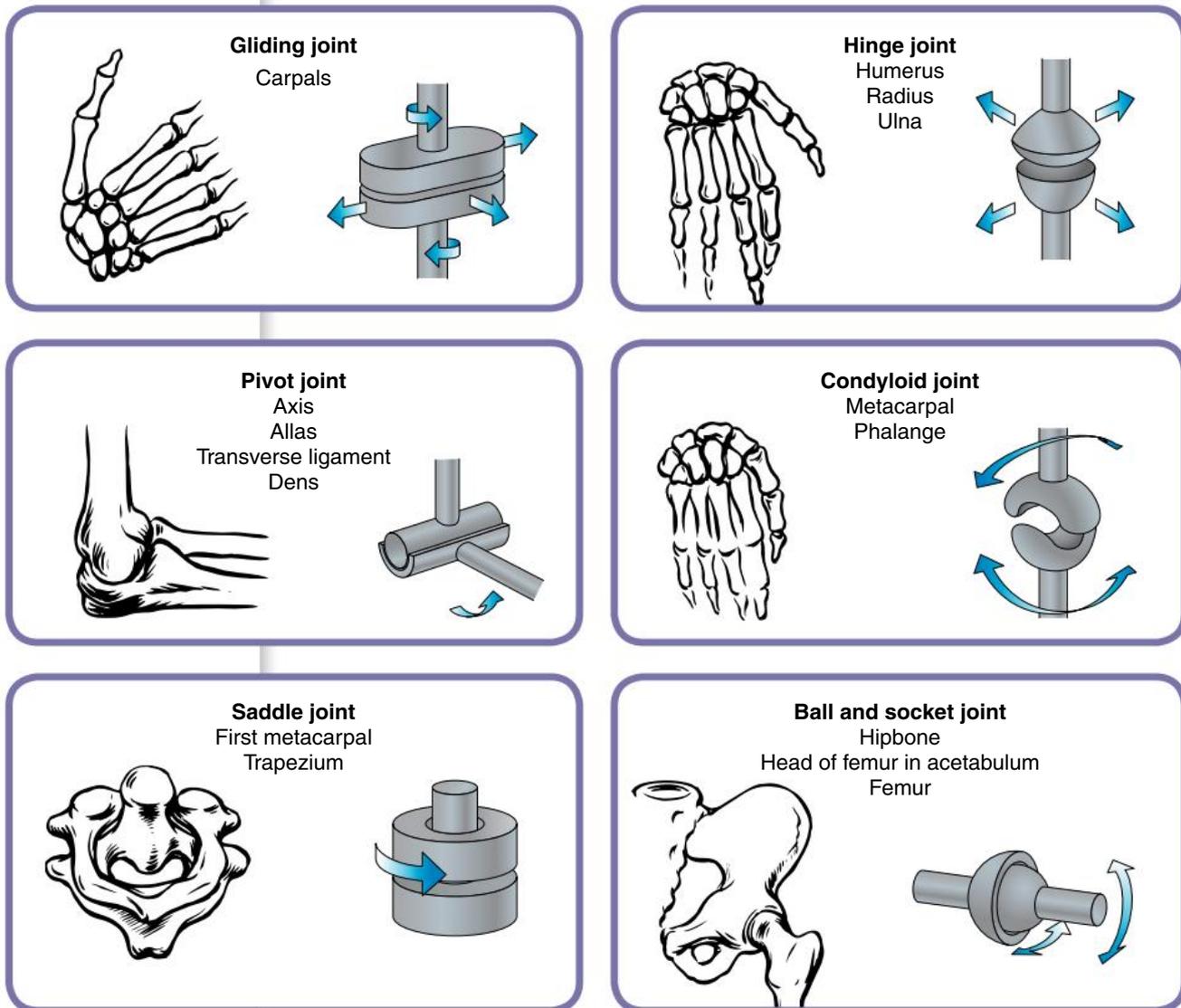
- Long bones are long and slightly curved for strength, and can be found in the arms and legs. The femur is an example of a long bone.
- Short bones are small and nearly equal in length and width. They can be found in the wrist and ankles. Tarsals are short bones.
- Flat bones are generally thin and flat, with the purpose of protecting vital organs. For example, the skull is a flat bone that protects the brain and the sternum and ribs are flat bones that protect the heart and lungs.
- Irregular bones are an unusual shape and are not like any other bones mentioned above. For example, the bones that make up the spine (vertebrae) and some facial bones are categorised as irregular bones.
- Sesamoid bones are small and must cope with considerable stress at times. Examples of sesamoid bones are those in the tendons of the knee (patella) and wrist.
- Sutural bones are somewhat immovable and are small bones found in the skull.

Bones are held together by connective tissue that allows movement between the joints. Joints that are relied on for movement in physical activity contain connective tissue that allows muscles and bones to work together to move. There are many types of joints that allow various parts of the body to move in many different ways. The type of joint that is located at the point where one bone meets another is determined by the movement it needs to make when a muscle contracts or relaxes. The size of the joint, or area that exists between two bones that meet, is a key factor that determines how much movement will occur at that joint. The more space between the two bones, the greater the movement. For example, the knee joint has a lot of connective tissue between and around the joint and therefore has a large range of movement. It is also a site of potential injury, as this larger space of connective tissue can be placed under a lot of strain during exercise. This is why knee injuries are common in sports that require a lot of running or change in direction.

In some parts of the body, movement can be restricted by the type of joint and by the degree of movement that joint allows. For example, the bones of the elbow are connected by a hinge joint that allows quite limited movement in one direction only. However, the shoulder has a ball and socket joint, which is the joint with the largest range of movement. When a person exercises, the way in which they move is restricted by six moveable joints, known as synovial joints. These joints and the range of movement they allow for are outlined in figure 1.3.

Evaluate why the bones of the body are a specific shape, given their location in the body.





from *Hole's human anatomy and physiology*, (1999), 8th edn, Shier, Butler and Lewis

Figure 1.3
Six moveable joints
of the body

Learning experience

- Match the following bones up with their type using the table opposite.

Type of bone	Name of bone
Long bone (L)	Tarsal
Short bone (Sh)	Patella
Flat bone (F)	Femur
Irregular bone (I)	Scapula
Sesamoid bone (SB)	Vertebra



- 2 Study the diagram of the skeletal system (figure 1.2) and complete the table below by naming the types of bones and their function during exercise.

Name of bone	Type of bone	Function during exercise
Vertebral column		
Femur		
Cranium		
Pelvis		
Ribs		
Carpals		
Tarsals		
Tibia		
Radius		
Ulna		
Clavicle		
Scapula		
Patella		
Humerus		

Basic contribution to efficient movement

The skeletal system is the inner core for stable movement of the body. Bones provide the internal frame for our muscles and joints to work together to perform voluntary movement. To enable our body to move efficiently, the skeletal system provides support and leverage so that well-balanced movement can occur. For example, to run in a well-balanced way an athlete needs to use the stability of the skeletal system, in combination with the muscular system, from the position of the head, shoulders, arms and midline, as well as extension and flexion of the hip, knee, ankle and toes, to stride out and run well. The skeletal system is our main support structure in all physical activities.



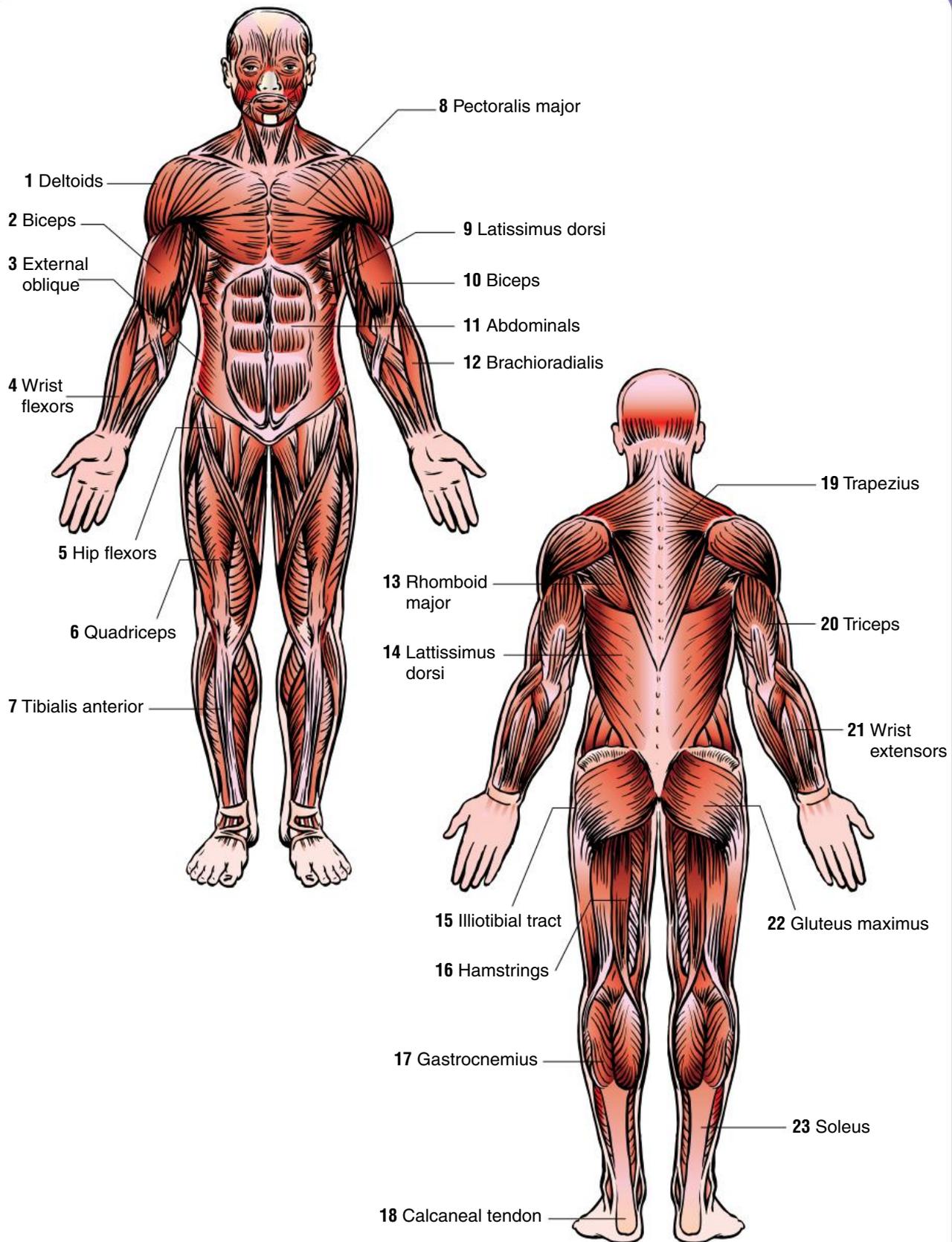
Webconnect

Visit the following website and build a skeleton: <www.ehc.com/vbody.asp>. What does the skeleton do when you have completed the structure?

Structure and function of the muscular system

The muscular system is a voluntary system. For movement to occur, the muscular system requires not only our will to move but also signals from our brain, sent by the central nervous system, which communicate that movement in a muscle should take place. In order for our body to participate in sport and physical activity, it needs to move effectively by combining the use of the

Figure 1.4 The major muscles of the muscular system



skeletal system, joints and muscles. The joints and muscles must voluntarily contract (tighten the muscle) and relax the muscle group to perform a selected movement. These movements can be discrete (one movement) or continuous (repeated movements).

Role of the muscular system

The role of the muscular system is to allow for movement to participate in day-to-day activities, and to perform sports and physical activity. The muscular system combines with the skeletal and circulatory systems to perform voluntary movements. The more movement muscles perform, the stronger and more efficient they become. This is known as a training effect. For example, a trained muscle will perform better than an untrained one. If the muscles stop training they become weaker, and reduce in size and efficiency. This is why an athlete needs to keep training to stay in good shape for competition.

Muscle movement

An example of the way a muscle uses contraction and relaxation to move or lift an object is the performance of a bicep curl. To perform a bicep curl with a hand weight, the hand needs to extend (open up) and hold the weight, and then contract to grip it. The arm is in a straight and slightly flexed position that is called an extended position. The hand is then raised towards the shoulder and the arm is flexed (bent toward the shoulder at the elbow)—contraction of the bicep muscles allows the weight to be raised. To lower the weight, the biceps relax and the triceps contract. The bicep and tricep muscles work together to perform the movement. (This action is illustrated in figure 1.5.) Many muscles work in groups like this, opposing each other to effectively perform a movement.

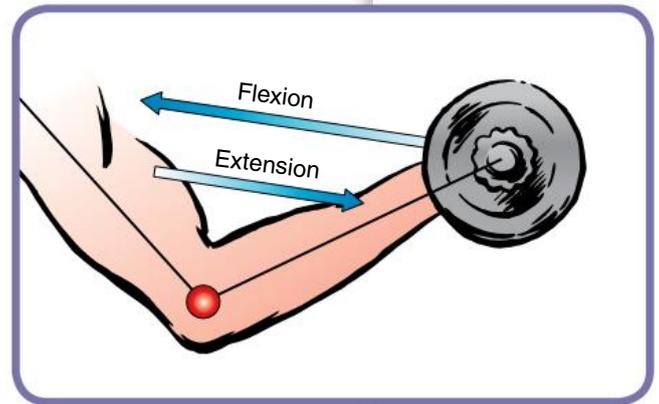


Figure 1.5
Bicep curl

Movement terms

Our body moves in different directions when we choose to perform an action. Table 1.1 outlines the way in which we describe the motion of the body and body parts. These terms are very important to describe what is happening during a physical activity skill. For example, a cyclist can be analysed for their flexion or extension at the hip, knee and ankle, and suggestions made to increase or decrease this movement to improve their performance.

To analyse movements, it is a good idea to think of each being performed starting in the anatomical position (standing with your hands by your side, with your thumbs facing outwards—see figure 1.6). All of the joint actions outlined in table 1.1 are performed using this starting position.

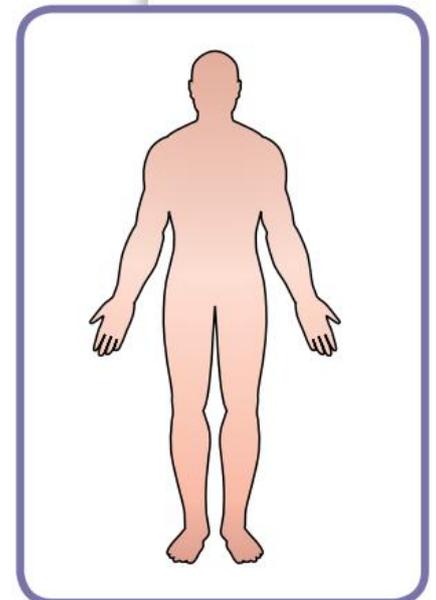
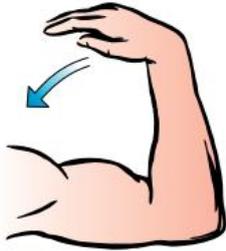
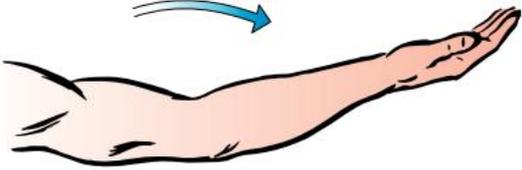
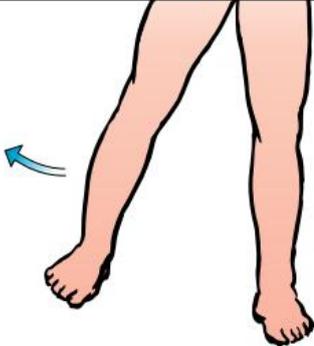
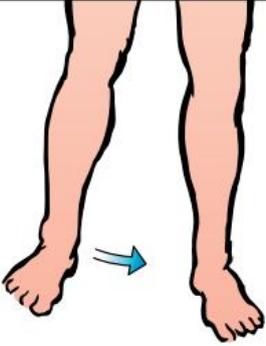
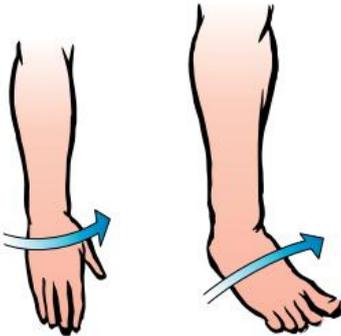
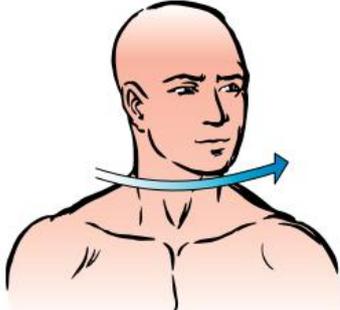
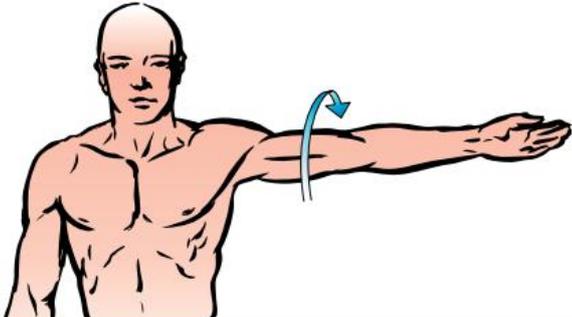


Figure 1.6
The anatomical position

Table 1.1 Joint actions

Joint action	Description of the joint action	
Flexion	An action involving the angle between two bones decreasing with the movement	 <p>A diagram of a human arm bent at the elbow. A blue curved arrow points from the extended position towards the shoulder, indicating the direction of flexion.</p>
Extension	An action involving the angle between two bones increasing with the movement (it is the opposite of flexion)	 <p>A diagram of a human arm straightened out. A blue curved arrow points from the bent position towards the hand, indicating the direction of extension.</p>
Abduction	An action that involves movement away from the middle of the body	 <p>A diagram of a person's legs from a front view. A blue curved arrow points from the midline of the body outwards to the left leg, indicating abduction.</p>
Adduction	An action that involves movement towards the middle of the body	 <p>A diagram of a person's legs from a front view. A blue curved arrow points from the left leg towards the midline of the body, indicating adduction.</p>
Pronation (inversion)	An action where the foot or hand is turned inward	 <p>Two diagrams of a foot from a top-down perspective. The left diagram shows the foot turned inward (pronation), and the right diagram shows the foot turned outward (supination). Blue curved arrows indicate the inward rotation.</p>

Joint action	Description of the joint action	
Supination (eversion)	An action where the foot or hand is turned outward (it is the opposite of pronation)	 <p>The illustration shows two limbs. On the left, a hand is shown with a blue curved arrow pointing towards the thumb side, indicating supination. On the right, a foot is shown with a blue curved arrow pointing towards the outer side, indicating eversion.</p>
Rotation	An action performed by turning the upper body or head to one side	 <p>The illustration shows a male torso and head. A blue curved arrow around the neck indicates the head turning to the right, representing rotation.</p>
Circumduction	An action that is similar to rotation but involves the circular motion of a limb	 <p>The illustration shows a male torso with the right arm extended horizontally. A blue curved arrow around the arm indicates a circular motion, representing circumduction.</p>
Plantar flexion	An action of the foot, where the toes are pointed forward (for example, pressing on an accelerator when driving)	 <p>The illustration shows a foot from a side view. A blue arrow points downwards from the heel, indicating the foot moving away from the ground, which is plantar flexion.</p>
Dorsi flexion	An action of the foot, where the toes are lifted upward (for example, taking your foot off an accelerator when driving and pointing the toe toward the knee; it is the opposite of plantar flexion)	 <p>The illustration shows a foot from a side view. A blue arrow points upwards from the heel, indicating the foot moving towards the ground, which is dorsi flexion.</p>



Learning experience

- 1 Stand in the anatomical position to start (see figure 1.6), and carefully perform all of the movement terms outlined in table 1.1 one at a time. Note the various body parts you use and refer to the joint actions in figure 1.3 for more information about the movements at the joints.
- 2 Copy table 1.1 into your workbook, adding a third column to the right, titled 'Sport example'. Complete the table, providing an example of an action performed in a sport that uses each movement in the table. (The example for flexion is completed for you below.)

Joint action	Description of the joint action	Sport example
Flexion	An action involving the angle between two bones decreasing with the movement	Cycling involves flexion at the torso, hip, knee and ankle

Structure of voluntary muscles

Unlike the heart muscle, which is an involuntary muscle, the skeletal muscles are voluntary (movement is initiated by choice). These muscles rely on joint mobility with the skeletal bones for leverage. This joint mobility exists because of the tendons that attach muscles to bones through connective tissue, and the type of connective tissue depends on the joint connecting the bones.

Basic contribution to efficient movement

There are several types of muscle fibres. The most important ones to sport and physical activity are fast twitch fibres for fast and short exercise, and slow twitch fibres for long duration and slow- to medium-paced physical activity. A sprinter will have more fast twitch fibres than an endurance athlete and the making of elite athletes will be determined by their ratio of these fibres, along with their body type and talent. Everyone has both fast and slow twitch fibres and training can enhance the performance of these fibres. This is why one athlete may seem like a natural sprinter while another may seem to be natural endurance athlete. Suitability to a particular sport comes down to the ratio of fibres in the body as well as the anatomical body type suited to a sport, along with natural talent and hard training.



Learning experience

After participating in an adequate warm-up, perform a repeated activity like step-ups, crunches or push-ups. Try to work continuously at a medium to hard intensity until you feel an uncomfortable burning sensation in your muscles and you cannot go any further.

This is an example of **anaerobic exercise** and your lactate system, or anaerobic energy system, is telling your body to stop. If an athlete tries to

push through this phase of exercise they will only be able to do so for a short period of time. The muscles will not feel comfortable at this phase of exercise and the burning sensation is a signal from the body that the intensity of the movement must be reduced or it will shut down and/or become injured. This is the body's in-built safety system and if an athlete pushes beyond this injury or collapse may result.

Structure and function of the circulatory system

The **circulatory system** is a very complex system that relies on the heart and lungs to circulate blood, oxygen and waste products around and out of the body. During exercise this system works very efficiently to circulate oxygen to the working muscles by pumping blood through the heart muscle. This important system also eliminates waste products such as carbon dioxide, water and, in anaerobic exercise, lactic acid.

The heart is the centre of the circulatory system. It is a smooth muscle that is positioned in the centre of our chest and is on 'automatic pilot'. This means that without instruction from the brain the heart will keep pumping blood around our body twenty-four hours a day, seven days a week, non-stop. Figure 1.7 demonstrates the cycle within the circulatory system.

Role of the circulatory system

The circulatory system regulates the blood circulation around the body, to transport oxygen to our muscles during exercise. When we are in a relaxed state our heart will pump slower than when we move around or perform vigorous exercise. When we exercise, the speed at which blood is pumped around our body is increased and our heart rate rises considerably. A heart that is working with ease is said to be an efficient one and the fitness of an athlete, particularly an endurance athlete, is an indicator of an efficient circulatory system.

Major components of the circulatory system

The following diagram illustrates the lungs, heart and body that make up the components of the circulatory system.

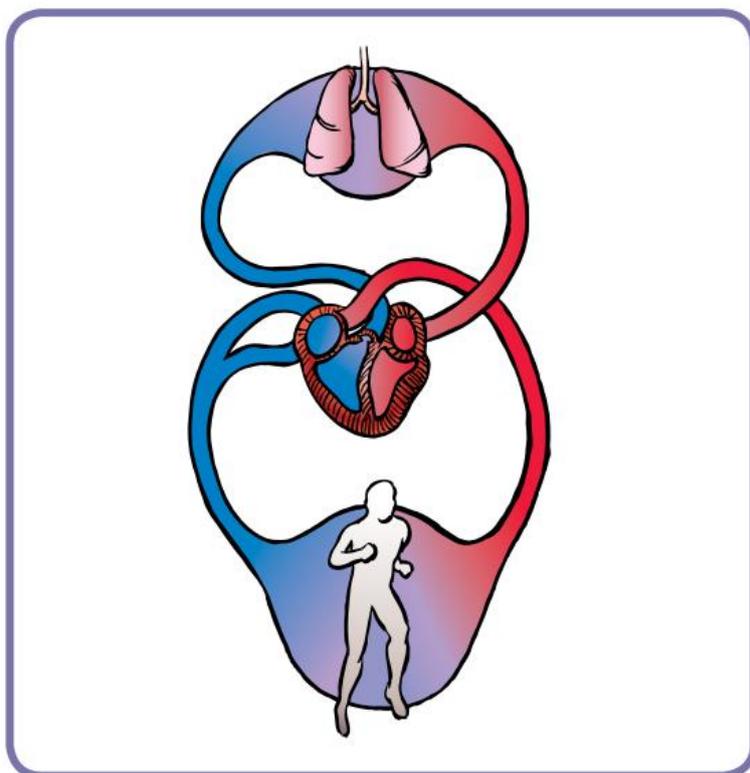


Figure 1.7
The circulatory system



Webconnect

- 1 Visit the following site to observe the circulatory system in motion: http://library.thinkquest.org/11965/html/cyber-anatomy_car691.html.
- 2 Visit the following site and observe an animated heart at work: www.ehc.com/vbody.asp.
- 3 After visiting the sites listed above, copy figure 1.7 into your workbook. Draw arrows on the diagram to indicate the flow of blood and oxygen in the circulatory system.

Basic contribution to efficient movement

In order to participate in physical activity and sports we need an efficient circulatory system. The heart and lungs work together to efficiently pump oxygen-rich blood around the body and filter the waste products from deoxygenated blood. The circulatory system is very important to our aerobic energy system and the way in which we use energy.

During exercise the heart will work much harder than at rest and a trained athlete will have a strong, fit heart to support their body during physical activity. If an athlete is physically fit they will have an efficient target heart rate for exercise and a relatively low resting heart rate (pulse). The average pulse rate for a fit teenager ranges between 60 and 70 beats per minute.

Pulse facts

A pulse is a measure of the beats your heart takes to pump blood around the body. It is usually measured at the radial (wrist) or carotid (neck) sites on the body. Your true resting pulse should be taken before you get up, after a good night's sleep.

Factors that can affect pulse rates include digestion (processing food after eating), stress, sickness and fatigue, as they can all increase the pulse rate because the body is working harder to recover from these situations.



Learning experience

Perform an adequate warm-up and then complete the following steps for sections A and B to see how well your body copes with the demands of exercise. Record your results in your workbook.

Section A

Complete the following tasks to determine your heart rate efficiency and estimate your fitness level.

- 1 Take your resting heart rate (pulse) and record the number of beats per minute. (This is RHR on the graph.)
- 2 Raise your heart rate by stepping onto and back off a step as fast as possible for 2 minutes. Take your heart rate immediately after stopping and record the number of beats per minute. (This is Step HR 1 on the graph.)
- 3 Walk slowly for 1 minute and then rest for 5 minutes. Take your recovery heart rate at the end of this rest and record the number of beats per minute. (This is Rec. HR 1 on the graph.)

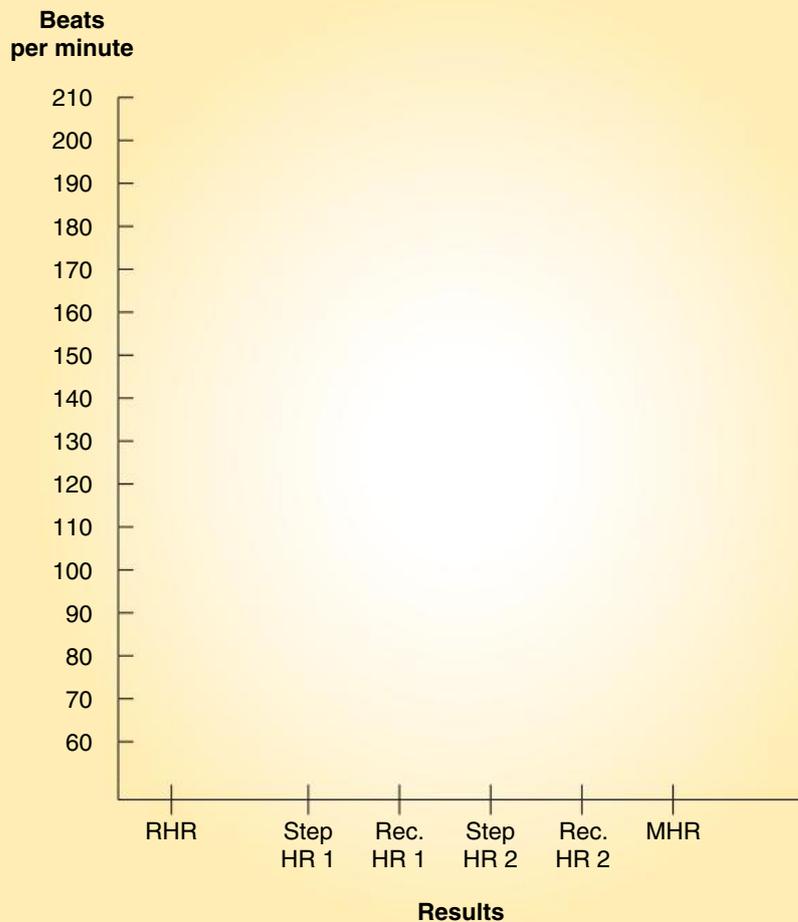
- 4 Raise your heart rate by stepping as fast as possible for 2 minutes. Take your heart rate immediately after stopping and record the number of beats per minute. (This is Step HR 2 on the graph.)
- 5 Walk slowly for 1 minute and then rest for 5 minutes. Take your recovery heart rate at the end of this rest and record the number of beats per minute. (This is Rec. HR 2 on the graph.)
- 6 Calculate your maximum heart rate using the following formula:
 $220 - \text{your age} = \text{beats per minute.}$
 (This is MHR on the graph.) Using the details you recorded in steps 1–5, work out how far off your maximum heart rate you were for each activity.

Section B

Using a line graph like the one on page 15, plot your results from section A and discuss this activity with your class.



Exercise and recovery heart rates



Structure and function of the respiratory system

The respiratory system consists of cavities that allow air to travel to our lungs and is a very effective system to supply oxygen to the body. The cavities and tubes of the respiratory system lead to our lungs and end with the very important alveoli (air sacks)—the point where oxygen is transported into our blood. The respiratory system works closely with the heart to create an efficient circulatory system.

Role of the respiratory system

The respiratory system supplies oxygen to all parts of the body. It supplies oxygen to our muscles to allow movement and oxygen to the brain to allow proper functioning of our body every second of every day. This system is very important for efficient **aerobic exercise**. It supplies oxygen to the body for all forms of exercise and is vitally important to all athletes, particularly endurance athletes whose main source of energy is oxygen.

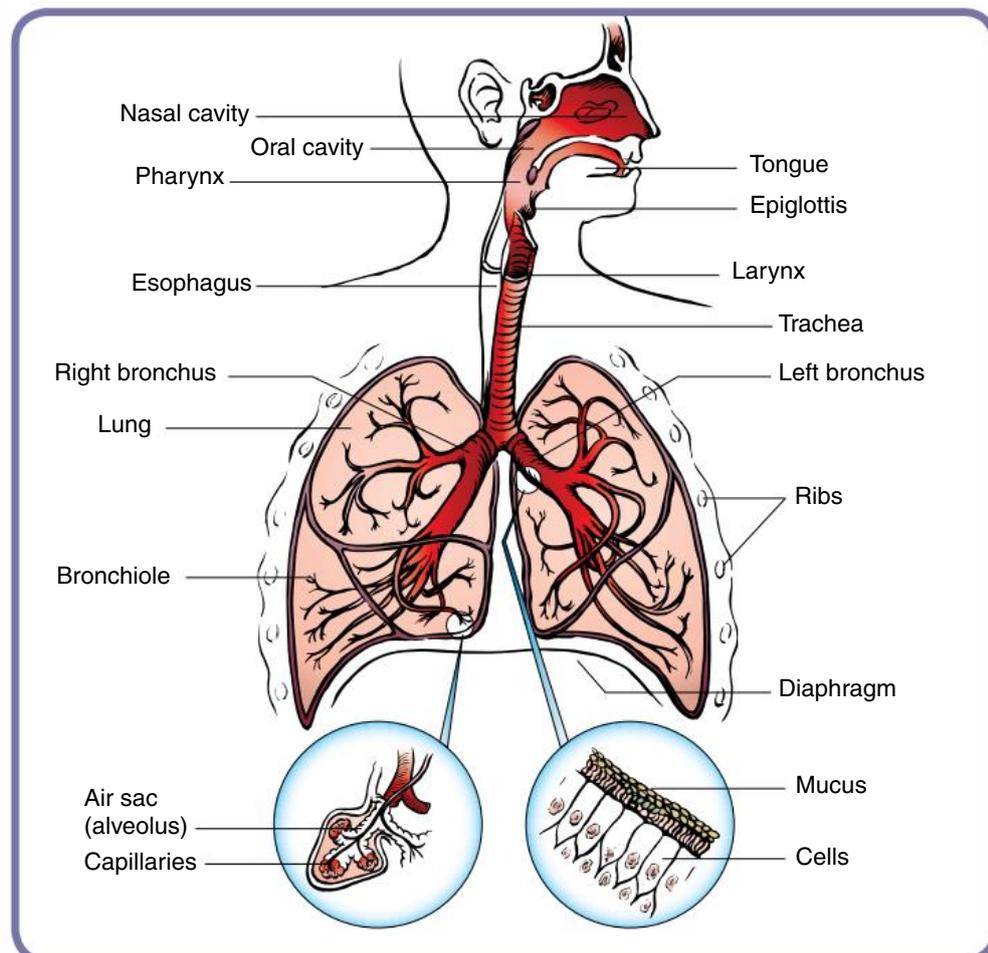
Major components of the respiratory system

The respiratory system extends from the mouth and nose, which inhale and exhale air that moves through the larynx and trachea to the left and right bronchus and, bronchioles and finally to transfer oxygen to the blood at the alveoli. The movement of air in and out of the body is created by pressure that is regulated by the movement of the diaphragm (the muscle below the lungs). This muscle moves down and the ribs rise to allow air to move into the body (inhale). The opposite effect is performed in breathing out (exhaling) by raising the diaphragm and lowering the ribs to force the air from the body.

Learning experience

- 1 Copy figure 1.8 into your workbook. Draw an arrow from the mouth/nose to the alveoli to indicate the direction of the air when this person inhales (breaths in) to show the movement and transfer of oxygen. Then draw an arrow to indicate the direction of the diaphragm (the muscle under the lungs) when a breath is inhaled.
- 2 Discuss with your classmates some reasons why the respiratory system might not work as well as it should when exercising. For example, asthma will restrict breathing during exercise. Can you think of other factors that could help or hinder the respiratory system?

Figure 1.8
The respiratory system



Basic contribution to efficient movement

In order to exercise efficiently we need to train our body and this includes our lungs. A trained athlete has a high lung capacity and will be able to transport oxygen with ease into the working muscles to enable efficient movement when exercising.

An asthmatic is a person who has an impaired lung capacity and will have to work harder to allow air to travel through the bronchioles, as their tubes are restricted by the condition of asthma.



Learning experience

This activity will indicate how well your lungs perform while participating in physical activity. Perform an adequate warm-up and then complete the following steps for sections A and B to see how well your body copes with the demands of exercise. Record your results in your workbook.

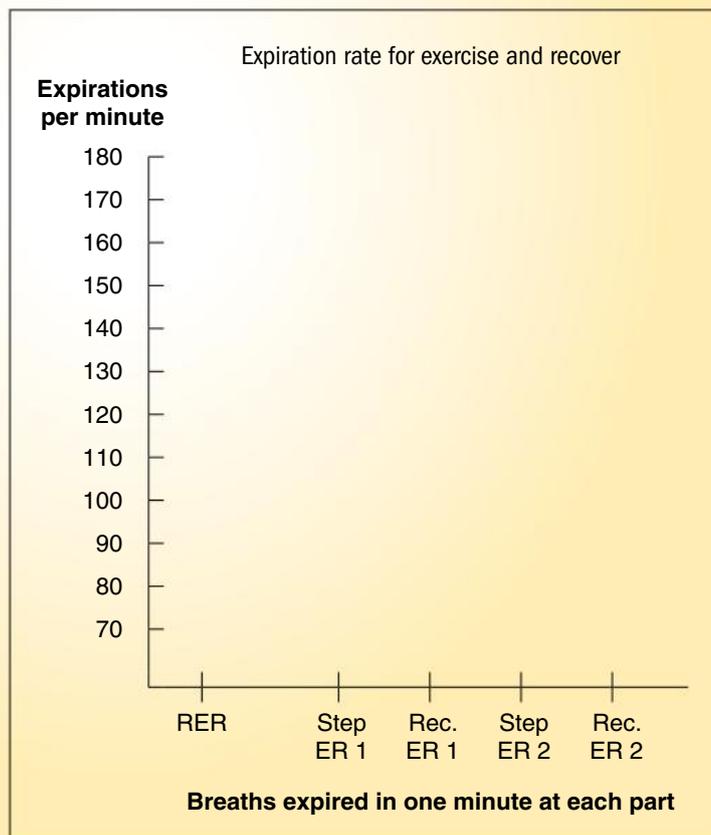
Section A

Complete the following tasks to determine your breathing rate efficiency and estimate your fitness level.

- 1 Count the number of breaths that you expire (breath out) in one minute to determine your resting expiry rate and record the number of expirations per minute. (This is RER on the graph.)
- 2 Raise your heart rate by stepping onto and back off a bench as fast as possible for 2 minutes. Take your expiration rate immediately after stopping and record the number of expirations per minute. (This is Step ER 1 on the graph.)
- 3 Walk slowly for 1 minute and then rest for 5 minutes. Take your expiration rate at the end of this rest and record your recovery breathing rate as expirations per minute. (This is Rec. ER 1 on the graph.)
- 4 Raise your heart rate by stepping as fast as possible for 2 minutes. Take your expiration rate immediately after stopping and record the number of expirations per minute. (This is Step ER 2 on the graph.)
- 5 Walk slowly for 1 minute and then rest for 5 minutes. Take your expiration rate at the end of this rest and record the number of expirations per minute. (This is Rec. ER 2 on the graph.)

Section B

Using a line graph like the one below, plot your results from section A and discuss this activity with your class.



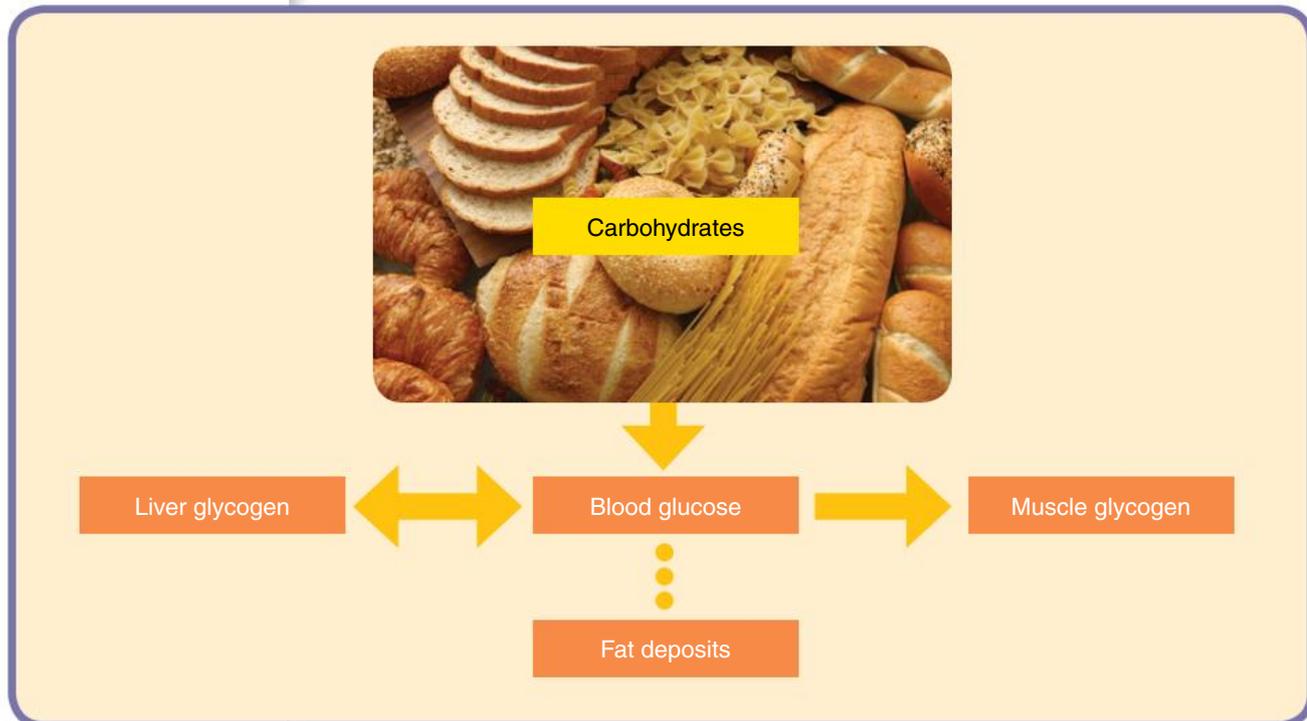
Energy and physical activity

‘You are what you eat.’ This saying indicates that what you put into your body is what you will get out of it—by eating healthy foods, you will look and feel much better. The intake of energy (the food we eat) for physical activity is an important factor to consider before, during and after the performance of any physical activity. If an athlete consumes a lot of sugary foods for instant energy (simple carbohydrates) this will not be of benefit to them, as this quick energy burst can result in very low energy levels soon after, as well as cravings for more. It is far better for an athlete to have a nutritious balance of foods in their diet to maximise their energy output. They will perform much better, feel great and as a result be able to maintain a healthier lifestyle.

Role of food as fuel sources

The three main nutrients we consume are carbohydrates, proteins and fats. The most efficient muscle fuel (or energy source we consume) are complex carbohydrates, as this nutrient supplies our muscles with glycogen, which in turn acts as an energy reserve for the muscles. Protein is important for muscle growth and repair, and fat is used for transportation of hormones and insulation, and can also be a source of fuel when glycogen stores are depleted (see figure 1.9).

Figure 1.9
Relationship between carbohydrates, glycogen and fats



from *The Fitness Leader's Handbook* Egger and Champion, published by Kangaroo Press

Anaerobic and aerobic energy production

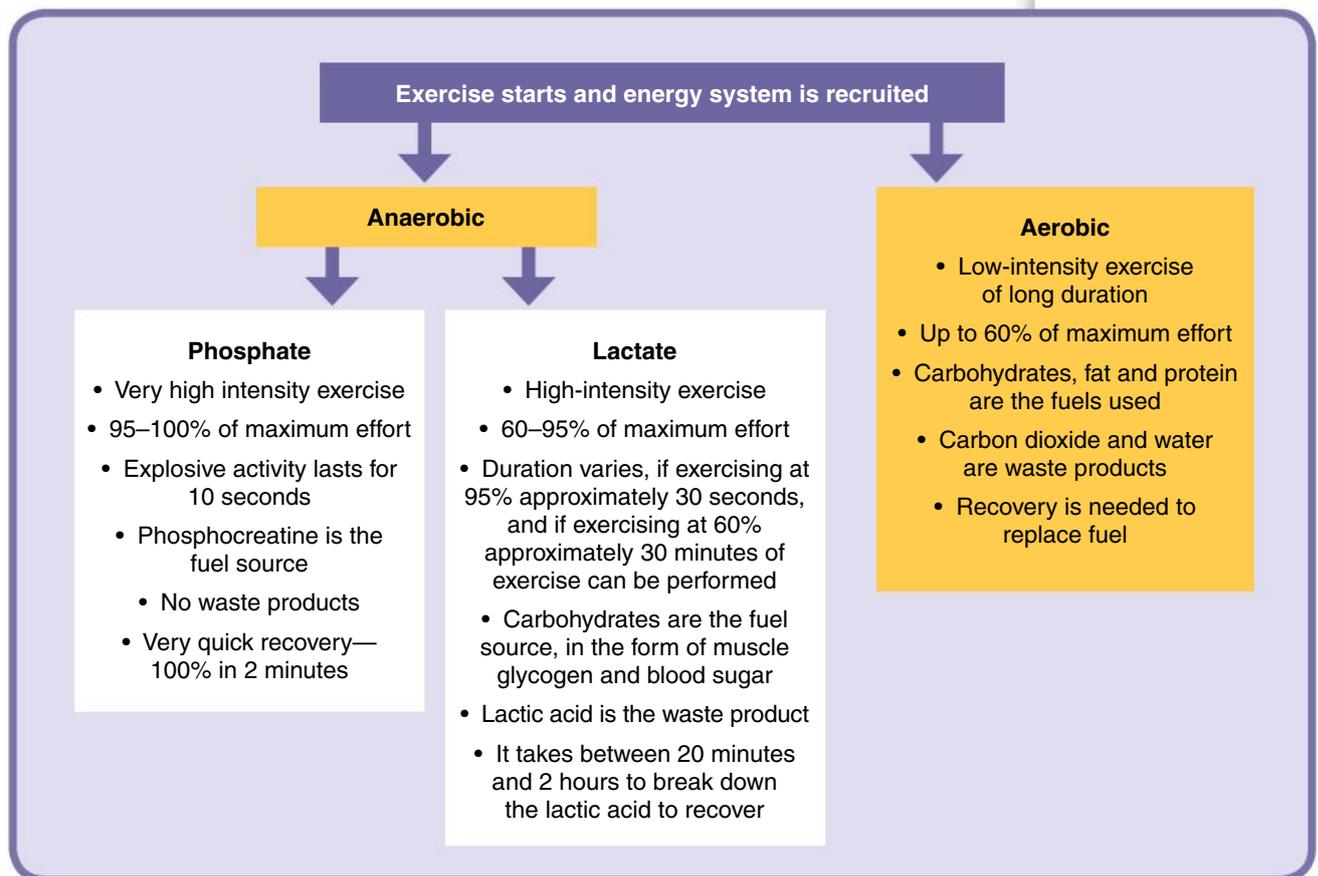
There are two main classifications for energy systems: the aerobic energy system and the anaerobic energy system.

The aerobic energy system is used for long duration or endurance exercise that uses oxygen to break down glucose. This system is used most often, as we use it for day-to-day living and basic activities. It is also the most important energy system for endurance athletes. Most physical activity will commence with this system and call upon the anaerobic system when faster or more powerful movement is required.

The anaerobic energy system is used for exercise that involves short duration or stops and starts. This system is broken into two types. The first is commonly known as the lactate energy system, which relies on the use of glycogen for energy, with lactic acid as the by-product. The second type is commonly known as the phosphate energy system. It relies on stores of creatine phosphate as the energy source and is used in very fast or explosive movements.

Of these three main ways that our body can make energy for movement, the energy system that is used is determined by the type, duration (the length of time) and intensity (how hard) of the exercise performed. Figure 1.10 illustrates the possible energy systems used by the body to move our muscles.

Figure 1.10
Energy for muscle contraction

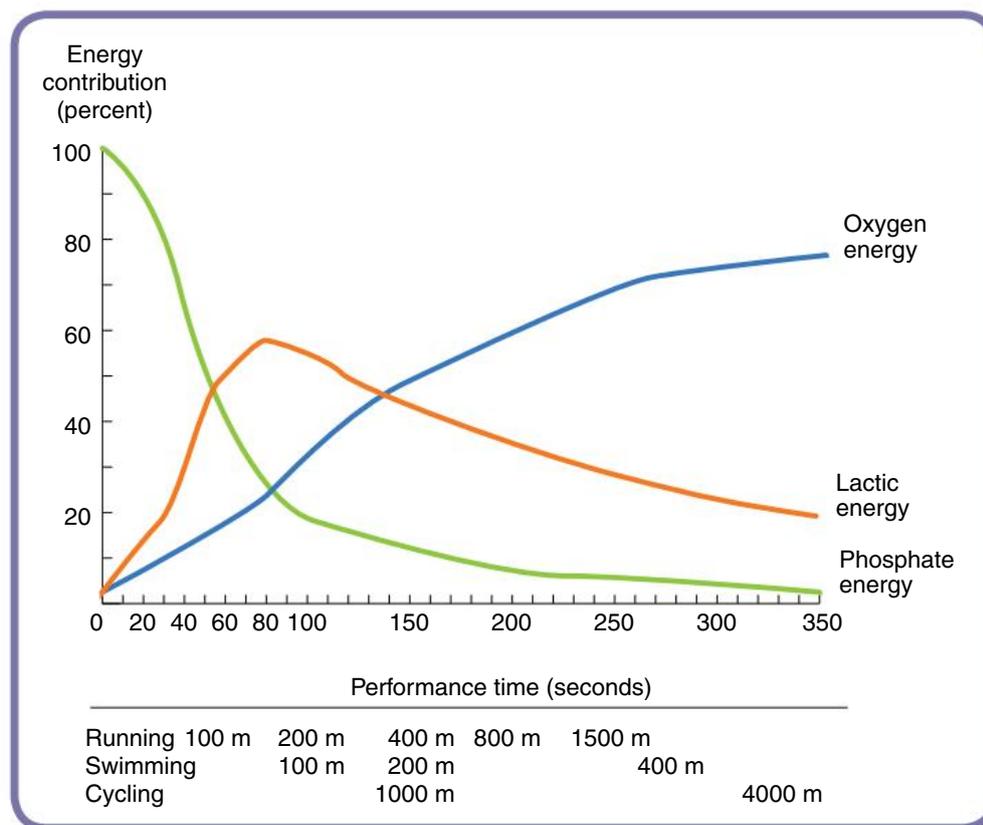


from *The Fitness Leader's Handbook* Egger and Champion, published by Kangaroo Press

A combination of these energy systems is used for participation in most sports or physical activities. For example, an endurance athlete would use the aerobic system for the majority of a long-distance event but to maintain the same speed up a steep hill they would need to use the anaerobic lactate or phosphate systems for a small amount of time. Figure 1.11 indicates how the energy systems overlap and how all are used to a degree in most sports.

Figure 1.11

Contribution of energy systems to sports events



from *The Fitness Leader's Handbook Egger and Champion*, published by Kangaroo Press

HotSpot



- 1 Analyse a sports performance on television, noting the energy system/s that you think are used by the athletes who participate in this sport.
- 2 Can you think of any factors that would affect the efficient use of the energy system in a chosen sport? (For example, environmental conditions.)
- 3 Name five physical activities or sports. Identify the energy systems used in each sport and explain how they are utilised.

Energy input versus energy output

When an athlete is participating in a sport or physical activity, they need to balance their **energy intake** (the amount of food and drink consumed) with their **energy expenditure** (exercise completed) to maintain a good level of energy. This is often a fine balance for athletes who have an intense training program. The basic principle to energy balance is outlined in table 1.2.

Table 1.2

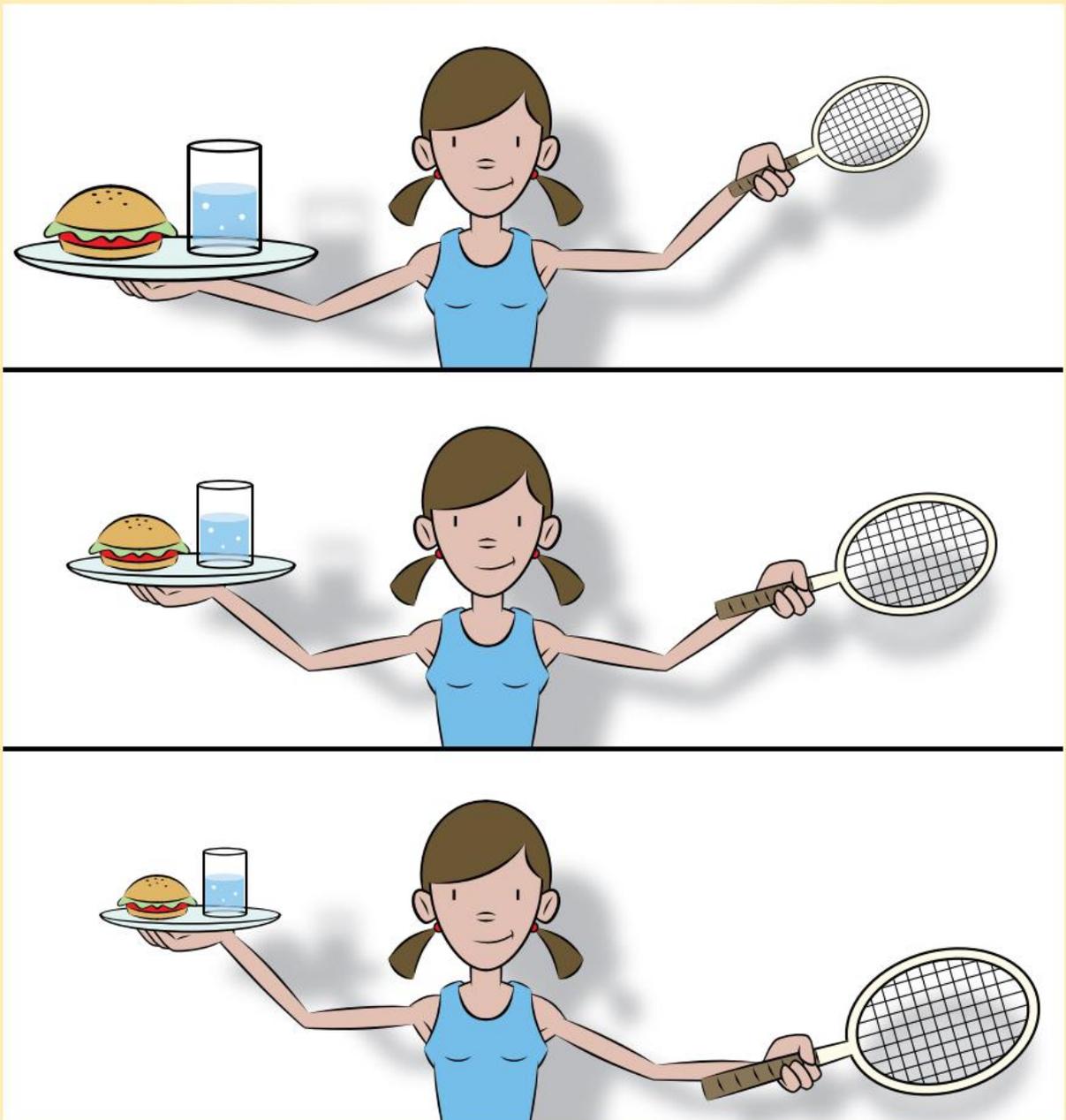
Energy balance

Description of energy balance	Result
Energy expenditure = energy intake	Stable, no change in weight
More energy expenditure + less energy intake	Weight loss
Less energy expenditure + more energy intake	Weight gain



Learning experience

- 1 Participate in a variety of fitness tests and determine the type of energy systems that you have used for each of the tests. Graph your results using the same format as figure 1.11.
- 2 Maintaining energy balance can be difficult. It takes a lot of organisation and exercise to keep a healthy body shape that allows an athlete to participate in the sport of their choice. Referring to the illustration below, complete the following.
 - a Give each diagram a title to represent the energy balance or imbalance that is illustrated.
 - b Write one sentence to explain the balance or imbalance that each diagram represents.



Interrelationships between the body systems

Each of the body systems relate to each other and need to function together for our bodies to perform successfully. There are many other factors that need to be considered in an athlete's training program, which are discussed in chapter 14.

It is vital that our body systems work together to efficiently perform a series of movements. All athletes rely on energy for their specific sport and the type of movement carried out will determine the energy system required and the way in which the body systems adapt to this activity will result in an efficient performance. A skilled and physically fit body will resemble an efficient machine that is well hydrated and fuelled, and is geared to automatically use the most efficient energy system for the task it is about to perform. This machine will perform well in the pursuit of effective movement during sport and physical activity if it is well tuned (trained).

The reliance of body systems on each other for effective functioning

The human body has an amazing capacity to adapt to the demand of exercise. When a person chooses to exercise, whether this exercise is mild or extremely active, the human body will activate the circulatory system (the cardiovascular and respiratory systems), together with the skeletal and muscular systems, to perform the voluntary movements that create the actions of an exercise pattern.

The human body and mind work together to allow a person to actively participate in many activities of choice. Our body systems rely on each other to work in harmony to move efficiently. An elite athlete, who works hard to improve their athletic performance through training, will be much more efficient in activating these body systems than an untrained person participating in sport for recreation. The type of sport in which a person participates will also affect the demand that is placed on each system; for example, an athlete who is a long-distance runner will place much more demand on their circulatory system than an athlete who is a javelin thrower.

Hydration and physical activity

The term **hydration** is used to describe the way in which the body uses and replaces fluid. Our body is made up of approximately 80% water and we need to keep this level stable or conditions such as dehydration, hyperthermia or heatstroke can cause health problems and a reduction in performance for an athlete.

Rapid fluid loss during physical activity can occur and several factors can increase this fluid loss. For example, humidity, high temperatures and the consumption of alcohol all cause unnecessary fluid loss.

Role and importance of water intake during physical activity

Drinking water or fluids containing water needs to be seriously considered by anyone participating in physical activity. The regulation of body fluids needs to be maintained by everyone prior to, during and after physical activity. If fluid, particularly water, is not consumed by an athlete they can become dehydrated, and in extreme cases of fluid loss may need medical attention to replace fluid in the body.

The intake of water to keep well hydrated is very important for everyone and is especially crucial for endurance athletes. All long-distance (or endurance) athletes, such as triathletes and marathon runners, need to balance energy intake with their fluid intake to allow them to perform at their best.

Figure 1.12

It is important to drink water or fluids containing water to remain hydrated

Managing fluid loss and replacement

While it is important to remain hydrated, the intake of too much water or weak electrolyte drinks can also be a danger. Hyponatremia, or water intoxication, is a very rare condition that can cause many complications, the worst being death. During events such as marathons, if too much water is consumed it cannot be processed by the body and this is how such complications occur.

Sources of hydration

Water is the best source of hydration for the body. However, many sports drinks are available and the market for these drinks is growing, with some targeting hydration through flavoured waters and electrolyte drinks. Drinks such as these need to be chosen carefully and factors such as content, cost and whether the drink supplies what the body needs following the specific demands placed on it by particular sports should be considered.

There are three main types of sports drinks and each one has a different purpose, depending on the type of training or competition in which an athlete is participating.

- Isotonic drinks are the most common sports drinks, also called electrolyte drinks. They are designed to quickly replace fluids lost by sweating, as well as provide a quick fix of glucose.
- Hypertonic drinks are used to supplement daily carbohydrate intake. They are high in carbohydrates. Long-distance or endurance athletes may use these after an event to help replenish their carbohydrate stores.
- Hypotonic drinks are designed to quickly replace fluids lost through sweating. They are low in carbohydrates and are the most efficient in replacing fluid and helping to reduce the effects of dehydration.





Learning experience

Purpose

To determine the appeal of sports drinks, including the difference between taste, content and value to hydration of the body during physical activity.

Teacher preparation

Select five to eight different drinks (depending on your class size, time length of the lesson and budget). Include water, cordial or soft drink and various other sports drinks. The teacher should cover the label of each drink or place each in a jug and number each one so that the students cannot identify each drink during the tasting process. Each student will need their own cup.

NOTE: The teacher needs to be aware of and make provisions for any allergies before purchasing and serving drinks.

Step 1

The teacher pours a small sip of the drinks, one at a time, and communicates the number allocated to that drink. Students taste the given drink.

Step 2

In a table such as the one below, students record the number of the drink and a description of the taste (for example, sweet, sour, bitter, etc.).

Step 3

Students give each drink a rating out of 10 for suitability as a sports drink (1 being not suitable for a sports drink and 10 being very suitable).

Number	Name of the drink	Description	Rating

Step 4

The teacher reveals the names of the drinks and the class inspects the label to analyse contents.

Step 5

Conclude with a class discussion.

Closing question

Which drink do you feel is the best one to hydrate the body after exercise? Why?

Chapter cloze

When a choice to move is made one or more systems of the body will be activated to produce a _____ movement. The _____ is the inner support bone structure for our body and works together with the efficient system of the heart, blood vessels and lungs in our body, known as the _____. The _____ is a voluntary system that requires our will to move and the central nervous system to send signals from our brain to the muscle to communicate movement to occur.

When a person participates in physical activity, they may perform _____, which is exercise of long duration that uses oxygen as the main energy source, or _____, which is exercise of short duration that does not use oxygen. Some physical activities require a combination of both systems.

Whether a person is an elite or recreational athlete they will need to take into consideration several factors to maintain efficient performance. _____ is exercise completed. _____, or fuel, is the amount of food and drink consumed. The type of exercise and fuel are vital to efficient performance and a person who wants to perform well will also keep their fluid intake up as they exercise, to maintain _____ and balance water loss.

aerobic exercise
anaerobic exercise
circulatory system
energy expenditure
energy intake
hydration
muscular system
skeletal system
voluntary

Review questions

- 1 Briefly describe how bones are held in place.
- 2 How does oxygen reach the working muscles during exercise?
- 3 Explain the process of flexion and extension of the hamstring muscles and give two examples of this movement.
- 4 Which body system is the most important to exercise? Why?
- 5 How does an athlete balance their energy to perform well? Discuss the demands of training and competition in your answer.

2

Physical activity for health

OUTCOMES

In this chapter a student:

- 1.1** discusses factors that limit and enhance the capacity to move and perform
- 1.2** analyses the benefits of participation and performance in physical activity and sport
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance
- 4.2** displays management and planning skills to achieve personal and group goals
- 4.3** performs movement skills with increasing proficiency
- 4.4** analyses and appraises information, opinions and observations to inform physical activity and sport decisions



STARTING POINT

Physical activity is a key contributor to a healthy life. In Australia, a first world country well equipped with activity choices and support, most barriers to physical activity reside inside our minds. However, participation can be enhanced as benefits such as personal enjoyment and social interaction are experienced by individuals and communities.

Models of physical activity and fitness

The health of Australians has changed over time due to increasing use of technology and sedentary lifestyles. In recent times, young people are spending more time using electronic equipment, such as television, computers, handheld games, MP3 players and mobile telephones, rather than being physically active. **Obesity** in young people is a major issue and results in short- and long-term health problems. To combat these problems, the focus of models of health promotion for young people has shifted from **physical fitness** to **physical activity**.



Figure 2.1 Rather than being physically active, young people are spending more time with ‘electronic entertainment’

Learning experience

Interview a person of a different generation to you. Write a report on how their experience growing up was different to the lives of young people today, particularly in relation to physical activity and how they spent their leisure time. Below are some questions you could include in your interview.

- What years were you in high school?
- How did you travel to school?
- How did you spend your time before and after school?
- What did you do on weekends?
- Did you use technology such as computers?
- How many hours a day did you watch television?
- What sedentary activities did you do?
- Did you play much sport?
- How physically active were you?
- What do you think of young people’s lives today?



Notions of physical activity, fitness and exercise

There are many terms to describe movement and activity, and although they are all interrelated it is important to make the distinction between physical activity, physical fitness and **exercise**.

Physical activity is a general term used to describe any movement made by the body that uses energy in the form of kilojoules or calories. It does not have to be formal exercise; it can be everyday incidental movement like housework, walking to school and climbing the stairs. Physical activity also includes exercise for the purpose of improving and maintaining physical fitness; for example, stretching to improve flexibility or running to improve cardiovascular fitness. Therefore, all exercise is physical activity but all physical activity may not be exercise. Physical fitness is the ability to perform moderate to vigorous physical activity on a regular basis (this will be discussed in detail in chapter 3).



Figure 2.2
Helping around the house counts as physical activity



Learning experience

Copy the table below into your workbook and circle the correct category for the following activities.

Activity	Category
Watering the garden	Physical activity / Exercise
Swimming 1 kilometre in 20 minutes	Physical activity / Exercise
Walking 5 minutes to the bus stop	Physical activity / Exercise
Playing jump rope for 15 minutes	Physical activity / Exercise
Playing a game of basketball	Physical activity / Exercise

Changing knowledge about physical activity and fitness

Over the past few decades there has been increasing research on health and physical activity, and it is now known that there are many benefits of regular physical activity on health and wellbeing. The benefits of physical activity can be **physical**, **mental** and **social**. Benefits of regular physical activity can include:

- improved long-term health and a longer life
- lowered risk of many diseases, including coronary heart disease, colon cancer, diabetes and osteoporosis
- reduced blood pressure
- weight management
- building stronger bones and muscles
- increased muscular strength and endurance
- increased cardiovascular fitness
- better coordination, agility and flexibility
- improved balance and spatial awareness
- increased self-esteem and physical confidence
- improved mental health and wellbeing
- reduced stress, anxiety and depression
- feeling more energetic
- better sleep
- increased social opportunities—you meet more people and develop friendships

Figure 2.3

Physical activity has mental, physical and social health benefits



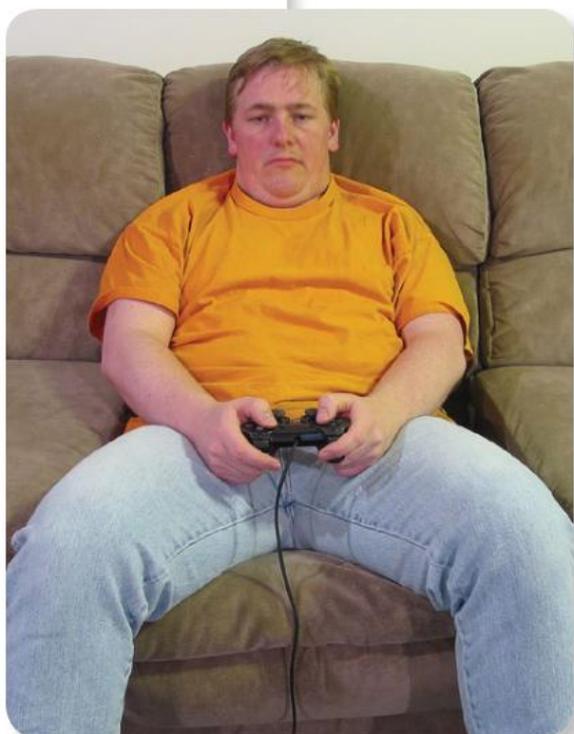
Guidelines for physical activity

In 2004 the Australian Government developed guidelines for the minimum level of physical activity required for good health. Australia's physical activity recommendations for children and young people include the following.

- Children and young people should participate in at least 60 minutes (and up to several hours) of moderate- to vigorous-**intensity** physical activity every day. This can build up throughout the day with a variety of activities.
- Children and young people should not spend more than 2 hours a day using electronic media for entertainment (for example, computer games, the internet, television), particularly during daylight hours.

Figure 2.4

Children and young people should limit the time they use electronic media for entertainment



Learning experience (ICT)

Download the National Physical Activity Guidelines for children, adolescents and young adults from the following website: <www.health.gov.au> and follow the links 'For Consumers' to 'Education and Prevention' to 'Nutrition and Physical Activity'. Answer these questions.

- 1 Why is physical activity important?
- 2 Why shouldn't you spend more than 2 hours a day watching television and using computer games?
- 3 What are the differences between recommendations for children, adolescents and adults?
- 4 What suggestions are given for being more physically active?



Learning experience

- Copy the table opposite into your workbook and write your own personal top-ten benefits of being physically active.
- Do you do enough physical activity? How much time do you spend being inactive? Keep an activity diary like the one below for one week to observe your regular physical activity levels. Record what you do throughout each day, how long you spend on each activity and whether it is active (A) or inactive (I).

I participate in physical activity because ...

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Example	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
15 min. walk to school (A)							
1.5 hours sitting in class (I)							
20 min. sitting at recess (I)							
30 min. PE lesson (A)							
1 hour sitting in class (I)							
30 min. eating lunch (I)							
30 min. in the library (I)							
1.5 hours sitting in class (I)							
5 min. car ride home (I)							
1.5 hours on the internet (I)							
2 hours watching TV (I)							
10 min. cleaning room (A)							
15 min. text messaging friends (I)							
8 hours sleeping (I)							

HotSpot



Analyse your activity diary and calculate how much time you spend being active and inactive. Note how much **screen time** you have and how much of your activity is of moderate or vigorous intensity.

Make sure you include the following:

- total time active for the week
- average time active per day
- total time inactive for the week
- average time inactive per day
- total screen time for the week
- average screen time per day
- total time moderate/vigorous activity
- average time moderate/vigorous activity per day.

Now suggest some ways that you can get more physical activity into every day. Suggestions include:

- walk short distances instead of being driven
- go for a walk at recess
- play active games at lunch
- join a sporting group after school or on weekends
- limit my screen time to a maximum of 2 hours per day.

Low, moderate and vigorous levels of physical activity

Levels of physical activity are referred to by intensity. This simply means how hard your body is working to participate in the activity. Levels can be low, moderate or vigorous.

- Low levels of physical activity raise the heart rate only slightly and include activities like walking, gardening and housework.
- Moderate levels of physical activity raise the heart rate to 50–70% of the maximum heart rate and may produce light sweating. Examples include cycling, skateboarding and brisk walking.
- Vigorous levels of physical activity work the heart at 70–85% of the maximum heart rate and include swimming laps, running and playing physically demanding games like netball or football.

Learning experience

In pairs, time each other at various levels of physical activity for 2 minutes and then take your heart rate and record it to see the different impact intensity has on the body. Also record how you feel after the activity; for example, normal breathing, puffed, tired, sweaty. Below is an example of how you could set out your findings.

Low intensity (walking) heart rate: _____

How I feel: _____

Moderate intensity (jogging) heart rate: _____

How I feel: _____

Vigorous intensity (running) heart rate: _____

How I feel: _____



Factors influencing appropriate intensity of physical activity for health

There are several factors that influence the appropriate nature and intensity of physical activity. These include age, **body composition**, previous activity and illness.

- **Age**—It is important to be physically active throughout your life; however, our bodies have different health and fitness needs at different ages. Generally, children cannot increase muscle size until after puberty and heavy resistance training can be dangerous to their growth. Older people, over the age of about 30, may also have limitations due to changing hormones and potential chronic overuse injury to joints. Therefore, low-impact activities like walking, yoga and swimming can be more appropriate than high-impact activities like running or aerobics. The recommended maximum heart rate (MHR) decreases as you get older, so the intensity of exercise must also decrease to stay within the recommended range of working heart rate.

Figure 2.5

It is important to be active at any age



- **Body composition**—The amount of muscle and fat you carry on your body due to genetics and lifestyle is your body composition. Some people are better suited to long-distance events and others are more proficient in sprinting. People who are overweight may find it difficult to exercise and tire easily, and therefore may need to start at a lower intensity.
- **Previous activity**—Current fitness status influences the most appropriate intensity and nature of physical activity. If a person is currently inactive, it is important to have a gradual build up of physical activity. If you do too much too soon you risk the occurrence of injury and burnout. As fitness improves, activity intensity and duration can be increased.
- **Illness**—If you are recovering from an illness or injury it is wise to ease your body back into fitness gently rather than jumping straight back into a vigorous regime.

Learning experience

Work out your optimal working heart rate using the following formula:

Maximum Heart Rate (MHR) = $220 - \text{your age}$

Example: for a 12 year old

$220 - 12 = 208$ (MHR)

$85\% \times 208 = 176$ beats per minute (bpm) target heart rate for vigorous physical activity.

Now work out your own optimal working heart rate for each level of physical activity and check back to the previous learning experience to see if you were working hard enough!

My MHR ($220 - \text{your age}$) = _____ bpm

50–70% MHR (moderate) = _____ bpm

75–85% MHR (vigorous) = _____ bpm

Influences on physical activity choices

Figure 2.6

Peer groups can influence physical activity choices

Participation in physical activity can be influenced by a number of factors. Different groups of people have varying likelihood of regular participation in physical activity due to these factors.



Social determinants

The activity levels of family members and friends can impact on a person's physical activity choices. Parents' expectations and perceptions of physical activity will set an example for their children. Active parents and siblings will value physical activity and this encourages children to be active and generally have an active lifestyle. Friends and peers will also impact on physical activity choices in the way time out of school is spent. If the peer group perceives physical activity as valuable and enjoyable, there will most likely be positive attitudes about being active. Family status may also impact on a young person's physical activity choices, as they may not be able attend training or sports if both parents work full-time or if they are part of a single-parent family.

Economic and financial determinants

A family's socioeconomic status can influence a young person's physical activity choices in many ways. Parents may have to work long hours and therefore cannot supervise young people doing outdoor activities. Families with a low income may not be able to afford membership to sporting groups or sporting equipment and this may limit physical activity participation. Low socioeconomic neighbourhoods may lack physical activity facilities and therefore access to activities may be limited.

It is important to remember that although being physically active can be expensive, there are plenty of activities you can participate in for free.



Webconnect

Visit the following website to find creative ways to make up games with minimal equipment and facilities:
<www.verbnow.com/game_generator/>.

Cultural determinants

Different cultures have varying ideas about physical activity. Some cultures tend to be more sedentary, while others are very active. The customs and dress of some cultures may inhibit certain types of physical activity. Gender roles in certain cultures also impact on how physical activity is seen for boys and girls. A lack of knowledge of local sports or language may also hinder physical activity choices.

Physical determinants

Physical factors influence physical activity choices in many ways. Physical factors include body weight, body composition, medical conditions such as blood pressure, and physical limitations or disabilities. A person's physical abilities and limitations will determine what they are able to do with their bodies. Whether you are male or female may also impact on physical activity choices, due to stereotyping. For example, sports that emphasise posture and rhythmic movement, such as dance and gymnastics, are stereotypically seen as feminine sports while sports that require strength or power and speed, such as football, are typically seen as masculine sports.

Environmental determinants

Environmental influences on physical activity include where you live, the landscape of your neighbourhood, the climate and the availability of space for physical activity. For example, people living in the city have different opportunities for physical activity to people living in rural and remote areas. Cities can be crowded, with limited backyard space, while rural areas have vast areas to use for activity; however, cities may provide more opportunities for sporting facilities and organised sporting groups than rural areas. The proximity of parks or beaches may also affect physical activity. The climate may impact on whether people participate in indoor or outdoor activities, due to rain and cold or heat and humidity.



Figure 2.7
The environment can influence physical activity choices



Options available for physical activity

The options available in your local community will influence physical activity choices. These options can include facilities such as swimming pools or dance studios, and sporting teams or groups to join. Schools are also a major influence on options for physical activity, depending on what sports and facilities they offer.

Learning experience

- 1 Search your local community and make a list of all the physical activity options for your local area. You could use the internet, phone books or community noticeboards. Include your school in your search, and discuss access to recreational areas, equipment, costs and availability to young people.
- 2 Many people find believe there are barriers to being involved in physical activity and

will make up all sorts of excuses not to be physically active. Here are some common excuses for not exercising. Think of some advice in response to the following excuses.

- I can't afford to exercise.
- I'm too old to exercise.
- I don't have enough time to exercise.
- I don't like exercise, it's boring.
- I'm too tired to exercise.

Case studies

Sally is 15 years old and an only child. She lives with her mum, who is a 33-year-old nurse and often works until late at night doing shift work. They live on the fourth floor of a two-bedroom unit in the suburbs of a capital city. Sally's mum is often tired, as she works long hours to financially support them, so Sally tries to help by doing the housework and cooking when she gets home from school. Sally gets up early to travel to school, so she is often in bed by the time her mum gets home from work but she tries to stay awake to say goodnight.

Figure 2.8 Sally



Chris is a 13-year-old boy who lives with his grandparents in a coastal town. Chris's grandparents are retired and both are 75 years old. Chris often spends his afternoons at the beach with his friends and then goes home to do his chores around the house before dinner. The town is surrounded by a beautiful national park and is also renowned for its local boys' cricket team.

Figure 2.9 Chris

Fatima is a 12-year-old girl who lives with her widowed father and older brother. She is a little overweight and gets teased at school so she doesn't like to participate in Physical Education classes. Fatima dreads going to PE classes even though many other girls in her school are very physically active. Being the only girl in the family, Fatima is expected to take care of the household duties.

Figure 2.10 Fatima



Garry is a 14-year-old boy who lives on a farm with his parents and two sisters. Garry's parents are very active and involved in working on the farm. Garry was left-handed and used to work on the farm a lot but lost part of his left arm in a machinery accident six months ago. He still helps his dad on the property but gets frustrated, as he is still getting used to the amputation. Garry and his family live about an hour from the nearest town and facilities, and he and his sisters have to travel one hour on the bus to get to school.

Figure 2.11 Garry



Learning experience

- 1 The class will be divided into four groups and each group will be allocated one of the above case studies. In your group, discuss the potential positive and negative influences on physical activity choices for your allocated case study. Suggest some ways in which the person in your case study could build more physical activity into their lives. Present your conclusions to the class with a role-play.
- 2 Conduct a survey of the leisure patterns of young people between 3.30 pm and 7.30 pm. Choose five people of high school age, identify their physical activity levels, analyse their reasons for choosing to participate in these activities, and formulate strategies to increase participation in active leisure pursuits. Put your findings into a table like the one below.

Person	Activity	Level of activity	Reason for participation	Strategy for more activity
Example: Alex	Reading	Inactive	Enjoyment	This person could walk the dog for twice as long instead of watching television out of boredom
	Homework	Inactive	Compulsory!	
	Watching television	Inactive	Boredom	
	Walking the dog	Active	Exercise	
	Eating dinner	Inactive	Hungry	
	Watching television	Inactive	Favourite show	
Person 1				
Person 2				
Person 3				
Person 4				
Person 5				

Physical activity and improved quality of life

Physical activity undertaken as a regular lifestyle choice leads directly to a better quality of life. A general sense of wellbeing, mental alertness and lower stress levels all follow on from regular physical activity.

Benefits related to the health priority areas

Physical activity participation leads to many benefits in relation to Australia's current health priority areas. Australia's current health priority areas include:

- cardiovascular disease
- cancer
- diabetes
- mental health
- asthma
- injury.

There are many benefits associated with participating in regular physical activity, including reduced risk of premature death, cardiovascular disease, stroke, type 2 diabetes and colon cancer. Physical activity also leads to

prevention or reduction of hypertension, and can lead to a reduction in tobacco, alcohol or other substance use. Physical activity is also consistently linked to improvements in child and adolescent psychological wellbeing. Young people experience mental health benefits from participation in regular physical activity, including improved feeling states and improved mood, enhanced self-concept, increased self-esteem, and decreased stress, anxiety and depression. Participation in regular physical activity also has benefits for building and maintaining healthy bones, muscles and joints, and development of coordination.

Other physical benefits

There are many proven and reported benefits of regular physical activity. Being physically active on a regular basis will give you more energy, reduce body fat, increase lean muscle and help strengthen bones. Regular physical activity is a key factor in weight control and it helps prevent obesity.

Figure 2.12
Get active!



Physical benefits also include better coordination, agility and flexibility, and improved balance and spatial awareness. Physical activity strengthens the immune system, and can contribute to the reduction of pre-menstrual stress (PMS) and relief from arthritis and lower back pain. Physical activity also encourages social interaction, increases productivity at school or work and reduces overall health costs. Physical activity is vital for overall wellbeing.



Learning experience (ICT)

Conduct an internet search to find more details on the health benefits of physical activity and write a list of benefits under the headings 'Physical benefits', 'Mental benefits' and 'Social benefits'.

One example of a website you could visit is

<www.health.nsw.gov.au/public-health/health-promotion>.



Learning experience

- 1 Research and explain the benefits of regular physical activity for one of the health priority areas.

Present your findings as a colourful poster to be displayed on the noticeboard.

- 2 The class will be divided into six groups to investigate the relationship between physical activity and health by debating the following topics. Two teams will debate each topic, one for and one against the statement. You will spend one lesson in the library to gather information for your debate topic and

to formulate your arguments. In the next lesson, each group will present either the pros or cons of their given topic.

- An overweight, physically active person is healthier than an inactive person of healthy weight.
- Moderate physical activity provides the best benefits compared to vigorous physical activity.
- Physical activity for fitness is more important than physical activity for health.

HotSpot



Write a speech advocating walking and cycling to school or work as a way of developing higher levels of community fitness. Comment on the benefits to:

- individuals
- communities
- the environment.

Chapter cloze

A major issue in the health of young Australians is _____. To combat this issue, the focus of health is now _____, which refers to everyday movement. To increase the health-related and skill-related aspects of _____, you need to include _____ at a moderate to vigorous _____. The many benefits of physical activity can be _____, _____ and _____. Choice of appropriate physical activity can be influenced by many factors, including _____. The recommended guidelines for young Australians include no more than 2 hours of _____ per day.

body composition
exercise
intensity
mental
obesity
physical
physical activity
physical fitness
screen time
social

Review questions

- 1 What are the Australian physical activity recommendations for children and young people?
- 2 Identify six benefits of physical activity on health and wellbeing.
- 3 What are the six main influences on physical activity choices?
- 4 Discuss the factors influencing the appropriate intensity of physical activity for health.
- 5 Explain how physical activity has changed over time, comparing your generation to an older generation.

3

Physical fitness

OUTCOMES

In this chapter a student:

- 1.1** discusses factors that limit and enhance the capacity to move and perform
- 1.2** analyses the benefits of participation and performance in physical activity and sport
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance
- 4.2** displays management and planning skills to achieve personal and group goals
- 4.3** performs movement skills with increasing proficiency
- 4.4** analyses and appraises information, opinions and observations to inform physical activity and sport decisions



STARTING POINT

Physical fitness is an important aspect of a healthy lifestyle. There are different types of physical fitness, that can contribute to performance and overall health through appropriate training. This chapter discusses ways of developing and measuring physical fitness.

Physical fitness

Physical fitness is the ability to perform moderate to vigorous physical activity on a regular basis. This level of fitness requires an understanding of the different components of physical fitness and an awareness of the relationship between training and performance.

Definitions of physical fitness

Physical fitness refers to **health-related** and **skill-related components** of fitness, which impact on the ability to perform physical activity on a regular basis. Health-related physical fitness describes the components of fitness that keep you healthy, including cardiovascular fitness, strength, muscular endurance, flexibility and body composition. Skill-related physical fitness describes the components of fitness that require certain skills like agility, balance, coordination, power, reaction time and speed.

Health-related physical fitness

There are five components of health-related physical fitness:

- **Cardiovascular fitness** is sometimes referred to as aerobic fitness and is the ability of the heart, lungs and blood vessels to supply oxygen to the muscles during prolonged physical activity of moderate to vigorous intensity.
- **Strength** is the maximum amount of force a muscle or muscle group can produce in a short period of time.
- **Muscular endurance** is the ability to exert force several times while resisting fatigue.
- **Flexibility** is the ability to move a joint through its complete range of movement and the degree of flexibility is specific to each joint.
- **Body composition** is a measure of the proportionate relationship of body tissues, including muscle, bone and fat. In terms of fitness, it refers to the percentage of body weight that is made up of body fat.

Skill-related physical fitness

There are six components of skill-related physical fitness:

- **Agility** is the ability to change the direction of the body or body parts quickly and with control.
- **Balance** is the ability to keep the body upright or in position while static or moving.
- **Coordination** is the ability to move different parts of the body together at the same time.
- **Power** is the ability to use strength with speed, or the maximum force exerted in the shortest time possible.
- **Reaction time** is the amount of time it takes to respond to stimulus.
- **Speed** is the ability to perform movement quickly.

The benefits of physical fitness

In chapter 2 we discussed the many benefits of regular physical activity on health and wellbeing. The benefits of physical fitness include the same physical, mental and social benefits listed in chapter 2, plus some more specific potential benefits depending of the type of physical fitness training.

The benefits of physical fitness can include:

- improved cardiovascular endurance
- increased strength
- increased flexibility
- improved muscular endurance
- decreased body fat
- increased lean muscle mass
- increased power
- increased balance
- improved agility
- increased speed
- improved coordination
- improved reaction time.

The benefits received from physical fitness will vary from person to person depending on the type and level of training in which they are involved.

Figure 3.1

Yoga improves many components of fitness, including strength, flexibility and balance



Learning experience

Think about the types of physical activity you participate in and list the four you most enjoy. How do these physical activities assist in developing physical fitness?

Copy the table below into your workbook and assess how the activities you enjoy doing may develop the health-related and skill-related components of physical fitness. Place a cross next to any components of fitness your activity may improve and then answer the questions that follow. >>

Components of fitness	Example: Yoga	Activity 1: _____	Activity 2: _____	Activity 3: _____	Activity 4: _____
Cardiovascular fitness					
Strength	X				
Muscular endurance	X				
Flexibility	X				
Body composition	X				
Agility					
Balance	X				
Coordination	X				
Power					
Reaction time					
Speed					

- 1 Which activity improved the most components of fitness?
- 2 Were the health-related or skill-related components of fitness most commonly improved?
- 3 Which components of fitness are not being developed in the physical activities you enjoy?
- 4 What activities could you participate in to develop these missing components of fitness?

The contribution of physical fitness to participation and performance

A person's level of fitness can contribute to their participation in physical activity and their performance in sport. A person with a higher level of fitness may be more willing and able to participate in a variety of physical activities due to increased confidence, fitness, ability and skill level. A person with a high level of physical fitness is more likely to perform well in physical activities or sports due to their resistance to fatigue and heightened health-related and skill-related components of fitness. However, it is important to remember that physical fitness can be very specific and someone who trains hard for a specific sport and performs well in that sport may not perform as well in a sport they have not trained for. For example, a runner may train daily and perform well in long-distance running but not be able to swim more than a few laps in the pool because they do not have the specific strength and fitness for swimming.



Learning experience

Activities:

- weight training
 - touch football
 - swimming
 - basketball
 - long jump
 - folk dancing
 - surfing
 - horse riding
 - soccer
 - 100-metre sprint running
- 1 Participate in four of the activities listed opposite (or others allocated by your teacher).
 - 2 In small groups, analyse the activities in which you participated in terms of the components of fitness.
 - 3 List the components of fitness in order of priority for each activity.
 - 4 Explain how each activity requires each component of fitness and explain how physical fitness enhances the performance of each activity.
 - 5 Justify how physical fitness enhances the safety of each activity.
 - 6 Choose one of the activities analysed and design a poster displaying the elements of fitness required for the activity. Present your chosen activity and poster to the class.

Physical activity versus physical fitness

Physical activity is a term used to describe any movement made by the body that uses energy. It includes everyday incidental movement like cleaning your room, walking to the bus and climbing the stairs instead of taking the lift. Physical activity also includes exercise for the purpose of improving and maintaining physical fitness. Physical fitness is the ability to perform moderate to vigorous physical activity on a regular basis.

Current research and initiatives

Research over the past few years has shown that only about half of the Australian population achieve the minimum level of physical activity recommended in the National Physical Activity Guidelines for Australians. Research has also shown that Australia is now one of the fattest developed nations in the world, with obesity rates doubling over the past few decades. In response to this, the focus of health promotion for young people has shifted from physical fitness to physical activity.

As it is now becoming increasingly accepted that regular vigorous physical activity has many benefits for health and wellbeing, there have been many government initiatives developed to encourage the improvement of Australians' health. Some examples of these initiatives in Australia in recent years are outlined below.

The Healthy Active Ambassadors Program

The Healthy Active Ambassadors Program targets young Australians and aims to raise awareness of the importance of healthy living and particularly maintaining healthy body weight. The ambassadors include well-known healthy, active people like Harry Kewell, Brett Lee, Hi-5, Brooke Hanson and Layne Beachley.

Healthy Weight website

The Healthy Weight website offers free information on many aspects of being healthy and maintaining a healthy weight. This includes information on factors that can affect your weight; nutrition and eating a healthy, balanced diet; recommendations for physical activity to maintain health; and tools and tips for eating well and being active. It also has a **body mass index (BMI)** calculator to help measure your healthy weight.

National Children's Nutrition and Physical Activity Survey

This survey, conducted in 2007, called Kids Eat Kids Play was designed to provide information about the dietary intake and body size and weight of children aged 2 to 16 years, and activity patterns of children aged 5 to 16 years. The information gathered from this survey can influence how governments and other organisations promote good nutrition and healthy lifestyles in Australia.

Around Australia in 40 Days Challenge

This initiative was an interactive walking challenge for high school students. Participants wore pedometers and the aim was for teams of students to take enough steps to effectively 'walk around Australia' in 40 days or less. The use of pedometers encouraged students to walk more steps each day and therefore increase physical activity.

Building a healthy, active Australia

As part of the conditions of funding under the Australian Government's school funding legislation for 2005–08, it was suggested that each state and territory government and non-government education authority be required



AROUND IN 40 DAYS

SMALL STEPS TO BIG THINGS



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ABOUT THE AROUND IN 40 DAYS WALKING CHALLENGE

To encourage secondary school students to increase the amount of movement they do each day, the Australian Government is running the Around Australia in 40 Days Walking Challenge (the Challenge).

THE CHALLENGE

The Challenge sends participants on a virtual trek around Australia, visiting twenty of the country's many and varied **'Big Things'**, such as the Big Banana in Coffs Harbour NSW, the Big Lobster in Kingston SA and the Big Ned Kelly in Glenrowan VIC.

Using a pedometer, participants will record the number of steps they take each day, with the aim to take enough steps to complete the route within 40 days.

To walk the distance in real terms, participants would need to cover 11,574 kilometres* or 23,148,000 steps! To do this at 10,000 steps a day, it would take 2,315 days or almost six and a half years!

To walk the distance in real terms will obviously take too long, so for the purposes of the Challenge each step taken is equivalent to 30 metres. Teams that average 10,000 steps a day (9,645 to be exact) will cover the distance in 40 days.

WHERE DO WE WALK?

The virtual route starts and finishes at the Big Pineapple in Gympie QLD and works its way around Australia travelling through all States and Territories.

Check out the map with the walking route below.

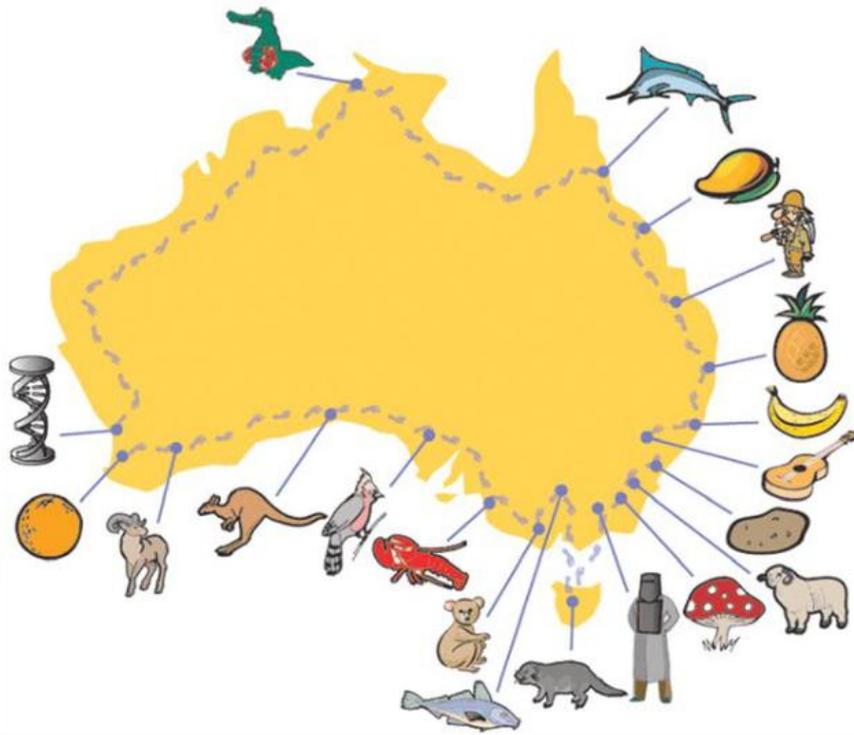


Figure 3.2
 'Around Australia in 40 days' sends students on a 'virtual trek' visiting 'Big Things' around the country

to include in their curriculum at least 2 hours of physical activity each school week for primary and junior secondary school children. This initiative is known as the Active School Curriculum. The funding also includes an initiative called Active After-School Communities. This program provides Australian families with a convenient and practical opportunity to support the healthy development of their primary-school-aged children through after-school physical activity programs.

Get Moving

The Get Moving campaign targets children and adolescents, as well as parents, to communicate the need for greater levels of physical activity among young people. The Get Moving website includes quizzes, information, television commercials and fun ideas for physical activity.

Webconnect

See the tips for healthy living at: <www.walkingchallenge.gov.au>.

Learn about the Healthy Active Ambassadors Program at:
<www.healthyactive.gov.au>.

Take a look at the Healthy Weight website at:
<www.healthyactive.gov.au>.

See the official Kids Eat Kids Play website at: <www.kidseatkidsplay.com.au>.

Check your knowledge with a quiz on the Get Moving campaign website at:
<www.healthyactive.gov.au/getmoving>.



Learning experience

In small groups, design your own initiative or campaign to improve the health and wellbeing of young Australians. Present your initiative to the class using posters, pamphlets, role-plays and demonstrations.

Developing physical fitness

Unlike physical activity, which can be of any intensity, physical fitness requires regular moderate to vigorous training to develop each of the health-related and skill-related components.

FITT principle

The **FITT principle** is a guideline for physical fitness training. The elements of the FITT principle are outlined on the next page.

- **Frequency**—how often you do physical activity or the number of exercise sessions you complete each week. Frequency depends on your training goals; for example, strength fitness training may only require two to three training sessions a week, while cardiovascular fitness training requires three to five sessions per week.
- **Intensity**—how hard you perform physical activity. It refers to the level of effort exerted during exercise—low, moderate or vigorous—and is dependent on the type of fitness training. For example, intensity can be determined by measuring heart rate for cardiovascular fitness, or the amount of weight lifted for strength training.
- **Time**—the duration of each exercise session. To build cardiovascular fitness, each session time should be a minimum of 20 minutes of continuous activity.
- **Type**—the kind of activity or nature of the exercise performed. Different types of activity will develop different components of physical fitness. For example, running will improve cardiovascular fitness but will not improve flexibility unless you incorporate flexibility training like **stretching**.

The FITT principle for cardiovascular fitness training and strength fitness training is summarised in table 3.1.

Table 3.1

The FITT principle for cardiovascular and strength fitness training

FITT	Cardiovascular	Strength
Frequency	3–5 times a week	2–3 times a week (per body part)
Intensity	Moderate to vigorous 60–80% maximum heart rate (MHR)	3 sets of 10–15 repetitions
Time	20–60 minutes	30–45 minutes
Type	Cardiovascular activity	Compound (working many muscle groups) or isolated (working one muscle group)

Learning experience

Explain how can you apply the FITT principle to make a difference to your own cardiovascular fitness and strength.

F Frequency
I Intensity
T Time
T Type



Designing training programs

There are many factors to consider when designing training programs, including various **training principles** and different **types of training**.

Training principles

There are six principles of training that should be considered when developing training programs. These include warm-ups and cool-downs, progressive overload, specificity, reversibility, variety, and training thresholds.

- **Warm-ups and cool-downs** should always be included at the beginning and end of a training session. The warm-up allows the athlete to be physically and mentally prepared for their training session. It gets the blood moving around the body; warms the body, which increases the elasticity of the muscles, ligaments and tendons; increases the heart rate; and decreases the risk of injury to the body. The cool-down slows the heart rate; cools the body; brings the blood back to the heart rather than pooling in the muscles; and again, decreases the risk of injury to the body. It is important to include stretching in the warm-up and cool-down as this reduces muscle soreness and aids in recovery of the muscles.

Figure 3.3

Stretching is an important part of every training session, particularly in the cool-down



- **Progressive overload** is used to improve performance and training benefits. The body needs to be continually loaded beyond its normal levels; for example, running for more time or lifting heavier weights. As the body adapts to the new load, the training program must be adjusted to progressively provide more load.
- **Specificity** in training programs is important to the exact demands of the designated sport and to the individual needs of the athlete. For example, a swimmer needs to spend most of their training in the pool.
- **Reversibility** can occur when training stops or decreases, and results in a loss of fitness benefits. For example, if an athlete stops strength training they will lose strength, and if an athlete excludes stretching they will lose flexibility.
- **Variety** is important in training programs to avoid boredom and to maintain motivation.
- **Training thresholds** must be appropriate to an athlete's designated sport. Training thresholds refer to the amount of exercise required to improve fitness in either the aerobic or anaerobic energy systems (these systems were explained in detail in chapter 1).

Types of training

There are three main types of training, including aerobic training, strength training and flexibility training.

- **Aerobic training** increases the efficiency of the aerobic energy system and improves cardiovascular fitness. It also reduces the risk of heart disease and helps to control body weight. During aerobic training the heart rate must be increased and continuously remain at a suitable working heart rate for at least 20 minutes. Types of aerobic training include continuous training, fartlek training, interval training, circuit training and aerobics.
- **Strength training** increases the body's strength, power and muscular endurance through contracting the muscles during training. Types of muscle contraction used in training include isometric contractions, isotonic contractions, isokinetic contractions, eccentric contractions and concentric contractions.
- **Flexibility training** improves the movement allowed by the joints of the body by lengthening and increasing the elasticity of the muscles around the joints. Flexibility reduces the risk of injury and decreases muscle soreness and stiffness. Types of flexibility training include static stretching, ballistic stretching and proprioceptive neuromuscular facilitation (PNF) stretching.

Linking programs to specific components of fitness

Training programs need to develop components of physical fitness relevant to a specific context. It is important to understand that different sports require different components of fitness. Training programs need to be specific to a sport to ensure that the appropriate fitness components are being enhanced. Cardiovascular activities, such as long-distance swimming or running, mostly require cardiovascular fitness and muscular endurance. While flexibility and strength training may also assist long-distance swimmers or runners, their main focus in training would be cardiovascular fitness and muscular endurance because these are the fitness components they most need for performance. Similarly, a gymnast would focus on balance and flexibility training more than speed, because their performance requires these specific components of fitness. Not being specific in training can be detrimental to performance.

Learning experience

- 1 Find definitions for the following terms related to each type of training. Include an example for each definition.

Aerobic training

- Continuous training
- Fartlek training
- Interval training
- Circuit training
- Aerobics

Strength training

- Isometric contractions
- Isotonic contractions
- Isokinetic contractions
- Eccentric contractions
- Concentric contractions

Flexibility training

- Static stretching
- Ballistic stretching
- PNF stretching

- 2 Copy the table on the next page into your workbook. Identify the specific energy systems, components of fitness, training principles and types of training for the sports listed.



Activity	Energy system	Fitness components	Training principles	Types of training
Example 1500 metre swim	Aerobic	Cardiovascular fitness Muscular endurance Flexibility	Variety Training threshold	Aerobic Strength Flexibility
Soccer				
Long jump				
Marathon run				
100 metre sprint run				
Rugby league				
Snowboarding				
Classical ballet				
Surfing				
Netball				

Safety and injury prevention

There are factors to be considered when designing and implementing physical fitness programs for young people to ensure safety and injury prevention.

Before beginning any training program, the first step is pre-activity screening. Pre-activity screening is the process of collecting health-related information, including personal information, medical conditions, family history and exercise history. It is very important to complete a pre-activity screen before **fitness testing** or training to avoid injury or an unforeseen problem, and to collect information that may be useful for the basis of the physical fitness program.

Figure 3.4
Pre-activity screening is important before beginning a training program



As discussed in principles of training, it is important to include a warm-up and cool-down in every training session to prepare the body and reduce the risk of injury and muscle soreness.

There are specific safety factors for young people in relation to strength training. Pre-pubescent adolescents should not lift heavy weights, as this can cause permanent damage and impact on their growth. Young people should focus on correct strength training techniques using light weights or their own body weight.

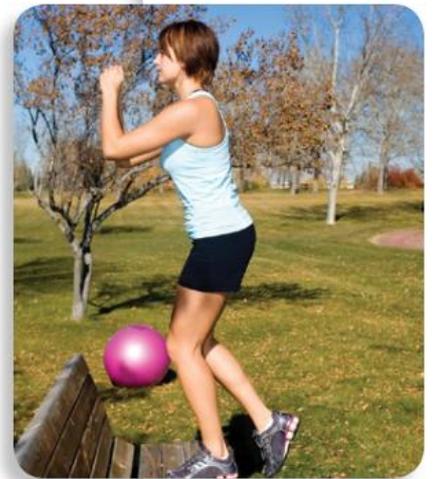
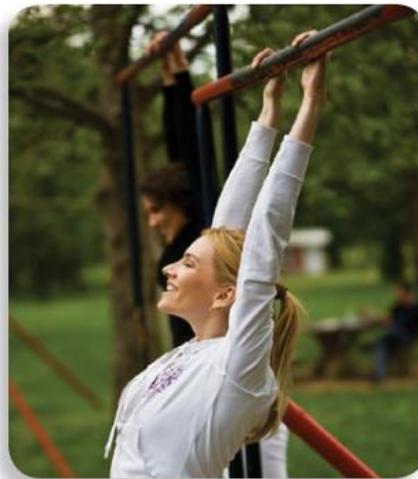
Some other general safety factors include ensuring sun safety, staying well-hydrated, wearing protective clothing and using equipment such as helmets or shin guards, ensuring that the equipment being used is safe, and staying mentally alert during practice.

Recognising myths and fallacies

Many products and strategies are promoted as being rapid and effective in the development of physical fitness, increasing strength or losing weight. It is important to remember that no matter what advertisers promote, there is no quick fix. You do not need to buy special machinery, equipment or pills and potions to be fit and healthy. Physical fitness requires regular training and application of the principles we have discussed. Although many people claim they cannot afford to exercise or go to the gym, physical fitness does not need to be costly. There are many exercises you can do with minimal equipment and space.

Figure 3.5

Exercise for free by using stairs for step-ups, a bench for triceps dips, a skipping rope, a playground for chin-ups or just walk in the great outdoors





Learning experience

Try out simple ways to be active at home by developing a physical fitness routine using readily available equipment, such as a fitness ball, skipping rope, stairs, hand weights (or tin cans and bottles), and an exercise mat or towel.

In small groups develop a five-station circuit with the equipment available in your class.

Ensure the overall circuit exercises different parts of the body and works on different components of fitness. Include strategies for safety and injury prevention. The groups will present their exercises and the whole class will participate in each circuit.

Measurement and evaluation

Measurement and evaluation in physical fitness is important in developing training programs and improving performance. Measurement and evaluation allows for an understanding of progress and highlights any weaknesses that need to be improved for performance. Measurement and evaluation can also be used to monitor general health and wellbeing.

Purpose of physical fitness measurement

The purpose of physical fitness measurement is to assess a person's capacity to perform physical activity. In the school context, physical fitness measurement can be used to assess student achievement (although this is not recommended); to evaluate the effectiveness of school fitness programs; and as a strategy for learning about fitness concepts. Other reasons for measuring fitness include educating individuals about their current fitness status, using the results to develop exercise and training programs, providing data for future evaluation of training programs and to motivate individuals to achieve specific health and fitness goals.

Usually physical fitness measurement, or fitness testing as it is commonly referred to, refers to the health-related components of physical fitness (cardiovascular fitness, strength, muscular endurance, flexibility and body composition), as these are seen to be more essential to long-term health. However, there are also measurements for the skill-related components of fitness.

Measurement protocols

Fitness testing must be conducted in a safe environment with trained assessors. Instructions must be clear to ensure safety and confidentiality of results should be assured. It is important to reduce comparison and avoid potential embarrassment, and to focus on educating the individual about personal health and fitness and setting personal fitness goals.

Fitness tests should be both valid and reliable. Validity is the degree to which a fitness test measures what it is intended to measure. Reliability is the degree to which repeated tests give the same results. To ensure validity and

reliability it is important to use validated tests with consistent test conditions in a consistent test environment. It is important to remember that different parts of the body can have varying degrees of fitness; for example, you may be flexible in your hamstrings but not your shoulders, or you may have a lot of lower-body strength but not upper-body strength. Therefore fitness tests can give an indication of the components of physical fitness but they are specific to the body part or muscle group being tested.

Health-related fitness tests

The common fitness tests used to measure health-related components of physical fitness include the following.

- **Cardiovascular fitness** can be measured with the multi-stage fitness test and the 1.6 kilometre run. The results from these tests can be compared to standardised averages according to age and sex, and are ranked as excellent, good, average, below average or poor.
- **Strength** can be measured by the grip test, which uses a dynamometer gripped by the hand. Results can be compared to averages for males and females.
- **Muscular endurance** is commonly measured by push-ups on a chair or curl-ups. Push-up results can be compared to averages by sex and curl-up results can be compared to averages by sex and age.
- **Flexibility** is measured with the sit and reach test, and results can be compared to sex and age averages.
- **Body composition** can be measured with skinfold tests; however, results can be inaccurate if the assessor is not highly experienced. Calculating BMI is a simple method of indicating healthy body weight.

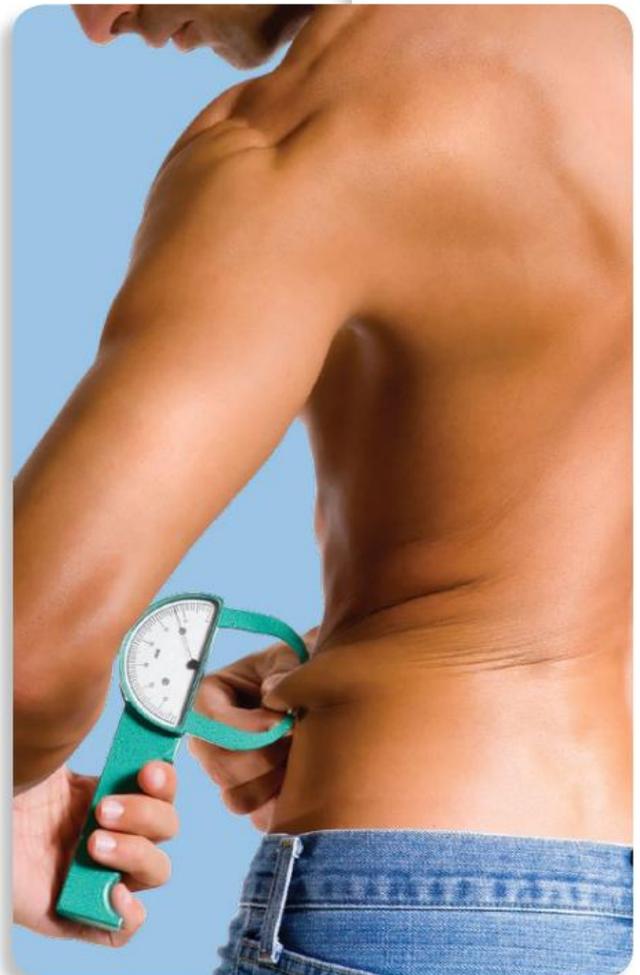
Skill-related fitness tests

The common fitness tests used to measure skill-related components of physical fitness include the following.

- **Agility** can be measured by a shuttle run test, where the person being tested has to change directions quickly. The test is measured with time and averages compared for males and females.
- **Balance** is measured by the stork stand, where you are timed standing on one leg. Test results can be compared to average time in seconds.
- **Coordination** can be measured with the hand wall toss. The person being tested throws a tennis ball at a wall with their right hand and then catches it with their left hand. They then repeat this using opposite hands. The total number of catches in 30 seconds is recorded and can be compared to averages for males and females.

Figure 3.6

Body composition can be measured by skin-fold tests



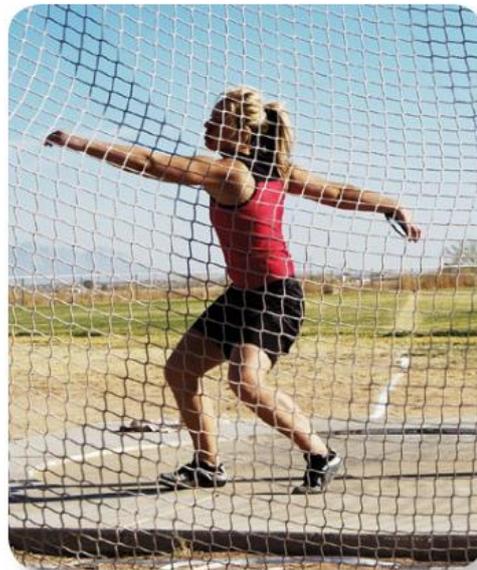
- **Power** is commonly measured by the standing long jump or vertical jump tests. Both of these tests measure leg power. Results are measured in centimetres and can be compared to averages for males and females.
- **Reaction time** can be tested with the ruler test. The ruler test involves the tester holding a ruler between the outstretched thumb and forefinger of the person being tested, with the thumb initially lined up at the zero point on the ruler. The ruler is then dropped and wherever it is caught is measured in centimeters and can be compared to standard averages.
- **Speed** can be measured by running a 50-metre sprint, which is recorded in seconds and can be compared to norms for age and gender.

HotSpot



In pairs, research how fitness measurements and evaluations are used in a particular context, such as in injury rehabilitation or team selection. Present your findings in a written report and prepare an oral presentation summarising the main findings of your report.

Figure 3.7
Fitness testing could help you set goals for specific sports



Interpreting and processing results

Once you understand the nature of fitness testing and the types of tests for health-related and skill-related fitness, it is also very important to be able to interpret and process results so that you can make recommendations and design strategies to improve each component of fitness.



Learning experience

- 1 Participate in the health-related and skill-related fitness tests described earlier, depending on the availability of the testing equipment at your school.
- 2 Measure your health-related and skill-related physical fitness levels and record your results so that you can compare them to the next time you test your fitness.
- 3 Compare your results to the standard norms given with each test and record your ranking (excellent, good, average, below average, poor).
- 4 Design strategies to achieve specific fitness goals relevant to your personal fitness results.

Positive and negative outcomes

Fitness testing may generate different reactions from different people. Some people feel fitness testing has positive outcomes, as it allows them to keep track of their fitness over time and set specific goals to improve their fitness, and encourages them to be physically active. Others find that fitness testing has negative outcomes, as it makes them feel unfit or embarrassed at being compared to their peers. It may discourage them from participating in physical activity. To combat these negative outcomes, fitness testing should not be used as an assessment tool of achievement in class and fitness test results should be private to each individual. Test results should be compared only to standardised test averages and not to others in the class. Measuring height and weight in class can also be a sensitive issue throughout puberty while the body is growing and changing, and this personal information should not be compared with that of others. The aims of fitness testing should be to educate individuals and to encourage participation in physical activity.



Learning experience (ICT)

Investigate the positive and negative effects of fitness measurements on participation in physical activity and sport by gathering the views of young people. Survey five high school students, asking the following questions.

- 1 What experience have you had with fitness testing?
- 2 How did it make you feel?
- 3 What are the positive aspects of fitness testing for young people?
- 4 What are the negative aspects of fitness testing for young people?
- 5 How does fitness testing affect young people's participation in physical activity and sport?

Collate the gathered information into an Excel spreadsheet and present your results to the class.

Chapter cloze

The ability to perform physical activity on a regular basis is known as _____ and includes _____-related and _____-related components. When designing training programs, there are six _____ and three _____ to consider. It is also useful to use the _____ principle as a general rule for training. It is important to include _____ in training sessions to avoid injury. The assessment of a person's capacity to perform physical activity is known as _____. A formula to calculate healthy body weight is _____.

BMI
fitness testing
FITT
health
physical fitness
skill
stretching
training principles
types of training

Review questions

- 1 What are the health-related components of physical fitness?
- 2 What are the skill-related components of physical fitness?
- 3 Describe the FITT principle.
- 4 Define and explain the six principles of training.
- 5 Analyse the positive and negative outcomes of school physical fitness testing.

4

Fundamentals of movement skill development

OUTCOMES

In this chapter a student:

- 1.1** discusses factors that limit and enhance the capacity to move and perform
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance
- 4.3** performs movement skills with increasing proficiency



STARTING POINT

Movement skills are the tools that people use to participate in sports, games and general physical activities. An individual's level of movement skill can be measured by how efficiently they complete a certain goal-directed movement task. While fundamental movement skills provide the basis for participation in all sports and physical activities, specialised movement skills are sport specific and are required for more advanced activities. Movement skills can be classified in many ways and are learnt most efficiently through quality practice.

The nature of movement skills

Movement skills are actions that require body movement to achieve predetermined objectives. They can involve small movements, such as throwing a dart; large movements, such as a sprint run; or a combination of both, as in spin bowling in cricket. All movement skills are goal-directed and require practice to achieve proficiency. Skilled performers have excellent movement skills and make few errors. In the early stage of skill development, novice performers make frequent large errors and need to see the skill demonstrated effectively to help them learn. Movement skill performance can be improved with quality instruction, a supportive environment and opportunities to practise.

Figure 4.1
An example of a skilled movement



Types of movement skills

Movement skills can be classified in a number of ways. In the first instance, skills can be classified in regard to how difficult they are to perform. In this way, skills are classified as either **fundamental movement skills** (FMS) or specialised movement skills.

Fundamental movement skills are the building blocks for all types of games, physical activities and sports. Examples include running, jumping, hopping, galloping, skipping, catching, throwing, kicking and striking. Specialised movement skills are more complicated and are specific to certain physical activities and sports; for example, the javelin throw and the golf swing.

Another way to classify movement skills is by the type of movement they involve. Based on this classification, movement skills can be described as locomotor, non-locomotor or manipulative.

- **Locomotor movement skills** involve moving the body from one point to another, such as running, swimming and cycling.
- **Non-locomotor movement skills** are performed while you are stationary, such as a static balance (for example, an arabesque or a stork stand), bend, sway and twist. Pivoting in basketball is also an example of a non-locomotor skill.
- **Manipulative movement skills** involve the control of a piece of equipment, such as a ball, bat or stick. Examples include bowling in cricket, striking in baseball and throwing a dart.

Learning experience

Working with a partner, choose two popular sports and list the locomotor, non-locomotor and manipulative skills involved in each. Compare your results with the rest of the class.



Fundamental versus specialised movement skills

Fundamental movement skills provide the foundation for participation in most major sports and games. FMS are less complicated movement skills and include locomotor, non-locomotor and manipulative skills. Unlike specialised movement skills, FMS can be performed in a wide variety of physical activities. For example, the overarm throw is an FMS that is used in netball, basketball and cricket. Specialised movement skills are generally more difficult to perform and are specific to a certain sport or physical activity. For example, the golf swing is a specialised movement skill that is only used in the game of golf.

The sprint run, vertical jump, overarm throw, catch, two-handed strike and kick are all fundamental movement skills. The key points for each are outlined below.

Sprint run

Running is a locomotor skill used in most games, sports and physical activities. The key points of the sprint run are:

- head and chest held up to create erect posture
- body leaning slightly forward
- high knee lift as leg swings through
- arms and legs moving forward without sideward deviation
- elbows bent at 90°
- arms drive forward and back in opposition to legs
- head held high with face relaxed.

Vertical jump

The vertical jump is a locomotor skill that forms the basis for jumps used in a variety of sports and activities, including athletics, gymnastics, basketball, netball, rugby and volleyball. The key points of the vertical jump are:

- eyes focused forward or upward throughout the jump
- crouched with knees bent and arms behind the body
- arms used to generate upward force
- legs straighten in the air as arms are thrust forward
- lands on the balls of the feet and bends knees to absorb impact.

Figure 4.2
Running technique

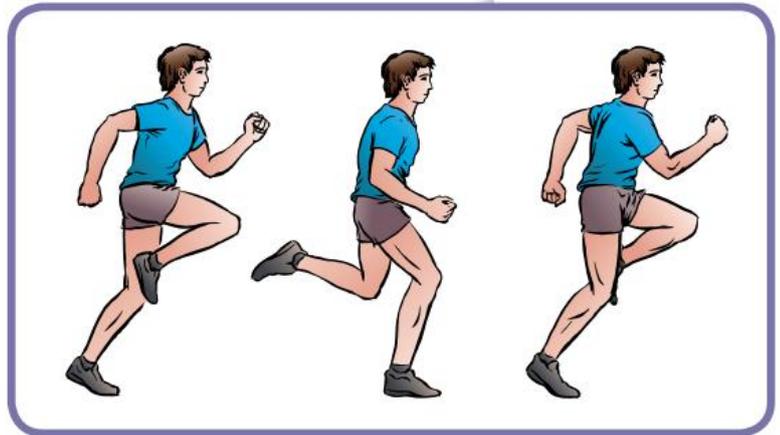
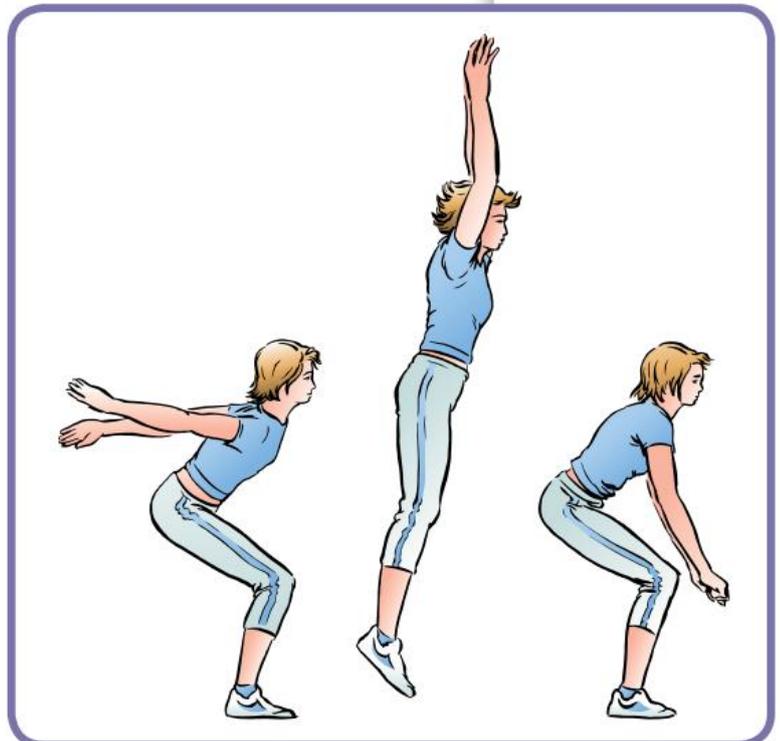


Figure 4.3
Vertical jump technique

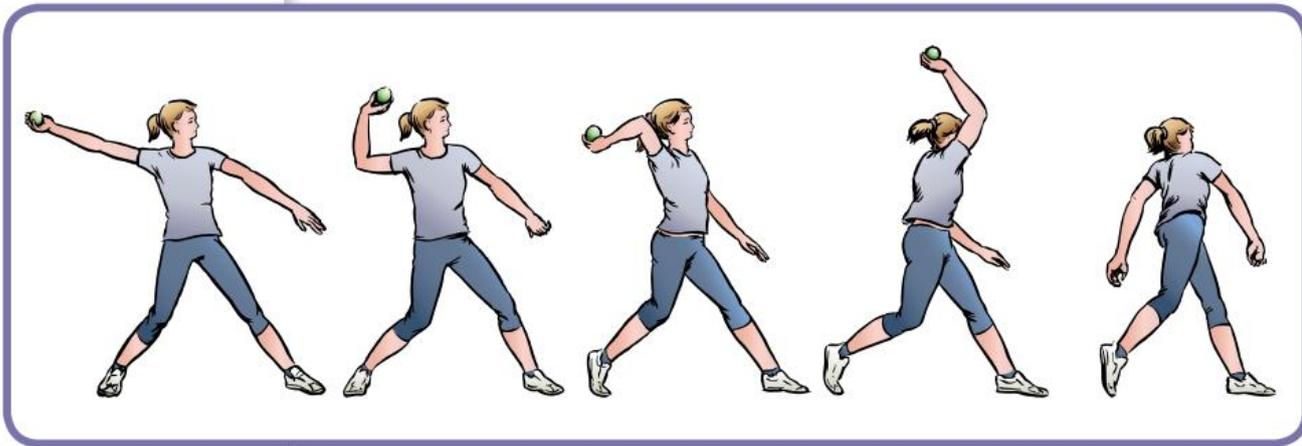


Overarm throw

The overarm throw is a manipulative skill used in cricket, softball, netball, basketball and many other sports. The key points of the overarm throw are:

- standing side-on to the target
- as the throwing arm is moved in a backswing, weight is shifted to the back foot
- throwing arm moves in a downward and backward arc
- steps towards target with foot opposite the throwing arm
- hips and then shoulders rotate forward
- throwing arm follows through, down and across body.

Figure 4.4
Overarm throw technique

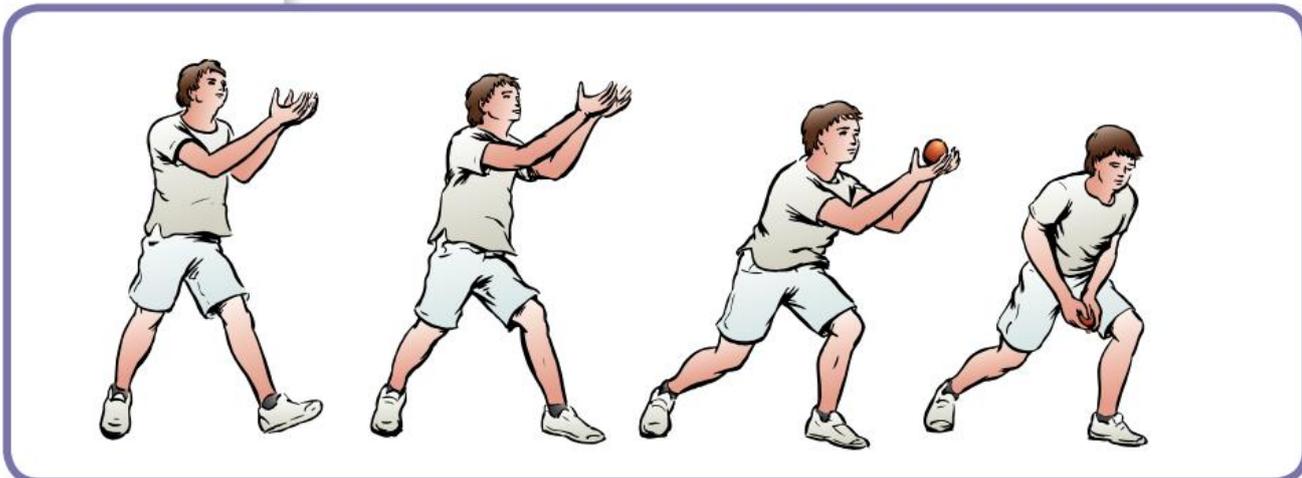


Catch

Catching is a manipulative skill used in cricket, softball, baseball, netball, rugby and basketball. The key points of the catch are:

- eyes focused on the object throughout the catch
- feet move to place the body in line with or behind the object
- hands and fingers relaxed and slightly cupped to catch the object, without grabbing at it
- object is caught cleanly with the hands only
- elbows bend to absorb the force as the object makes contact with the hands.

Figure 4.5
Catching technique



Two-handed strike

The two handed strike is a manipulative skill that forms the foundation of a number of advanced skills, including the drive in cricket, the strike in T-ball and baseball, the golf swing and the ground strokes in racquet sports. The key points of the two-handed strike are:

- standing side-on to the target
- eyes focused on the ball throughout the strike
- hands next to each other, the bottom hand matches the front foot
- steps towards target with the front foot
- hips and then shoulders rotate forward
- ball contact made on the front foot with straight arms
- follows through with the bat around the body.

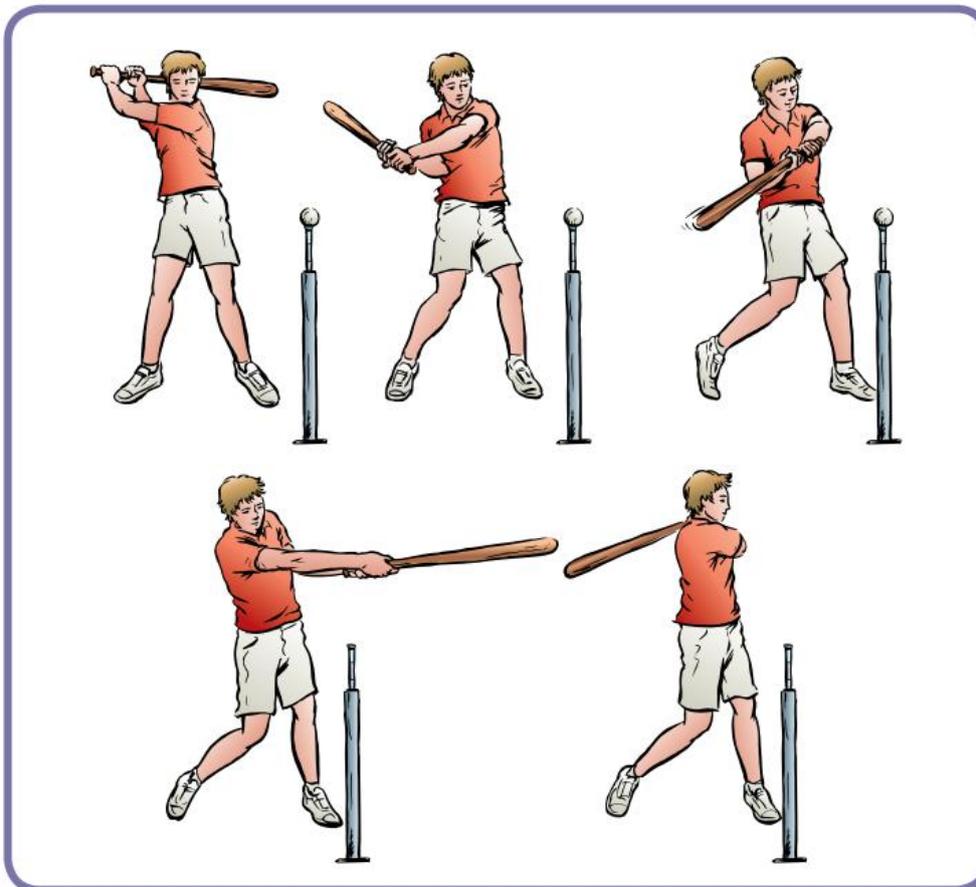


Figure 4.6

Two-handed strike technique

Kick

The kick is a manipulative skill used in soccer, rugby and Australian Rules football. Although there are differences in the technique used for various sports, the key points for the stationary place kick are listed below:

- eyes focused on the ball throughout the kick
- forward and sideward swing of the arm opposite to the kicking leg
- non-kicking foot placed beside the ball, pointed towards the target
- arms kept out to the side for balance
- contacts the ball with the top of the foot (shoelaces) or instep
- kicking leg follows through high, towards the target area.

Figure 4.7
Kicking technique



Learning experience

Working in groups of four or five, use the key points from the six fundamental movement skills described in this chapter (sprint run, vertical jump, overarm throw, catch, two-handed strike and kick) to evaluate the skill proficiency of your group members.

Each student will demonstrate their best technique in relation to each of the FMS by completing the skill three times.

Using a checklist, observers rate the components of the respective skills (1 = needs work, 2 = fair, 3 = good).

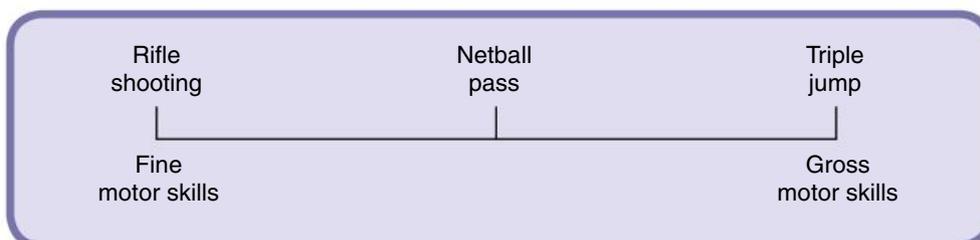
Skill continuums

Classifying movement skills is difficult because they have many characteristics that can change in different situations. Furthermore, each skill can be classified using a number of dimensions. These dimensions include type of muscular involvement, continuity of the skill, whether or not the skill is self-paced, environmental factors influencing performance, level of interaction with other competitors, degree of difficulty and level of organisation. Each of these dimensions is a continuum. At each end of the continuum the dimensions are opposites (for example, open versus closed), while the middle represents a merging of the characteristics.

Muscular involvement continuum

Gross motor skills involve large muscle movement, in which the precision of movement is not as important as the successful execution of the skill; for example, running and jumping. **Fine motor skills** require motor control of the small muscles of the body to achieve the skill outcome. They generally involve hand–eye coordination and a high degree of precision; for example, writing and spin bowling.

Figure 4.8
The muscular involvement continuum



Continuity continuum

Continuous motor skills have no distinct beginning or end points. The start and finish of the skill is determined by the performer or by an external force, but not by the task itself. For example, in swimming and running the performer's movements are a continuous flow of actions. Discrete motor skills have distinct starting and finishing points; for example, pitching in softball is a discrete skill, because when the ball is released the skill is complete. Serial skills comprise several discrete skills put together into a series; for example, a triple jump consists of several discrete skills performed together in a sequence.

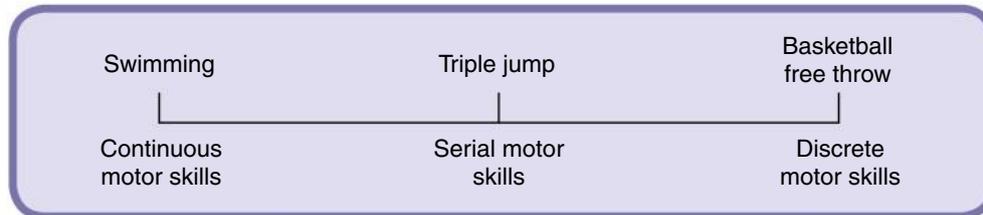


Figure 4.9
The continuity continuum

Pacing continuum

Skills that can be completed at a rate controlled by the performer are called self-paced skills; for example, the basketball free throw can be done slowly without an opponent blocking the shot. The performance of externally paced skills is dictated by external factors. The speed at which a player kicks the ball in a game of soccer will be influenced by the presence of defending players. In the example below, the rugby union conversion attempt is in the middle of the continuum because once the kicker begins their movement to kick the ball, the opposition can attempt to charge the kick down.

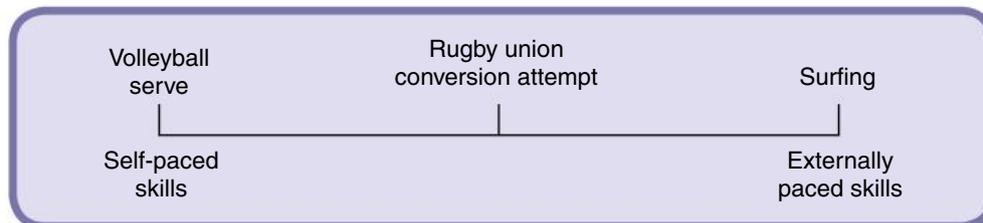


Figure 4.10
The pacing continuum

Environmental requirements continuum

Closed skills are performed in predictable environments where the performer determines when to start the action; for example, dart throwing, archery, tenpin bowling. **Open skills** are performed under conditions where the surrounding environment is unpredictable and constantly changing. There is less certainty about what to do and when to do it, with limited time to make decisions; for example, rugby, hockey, sailing and surfing.

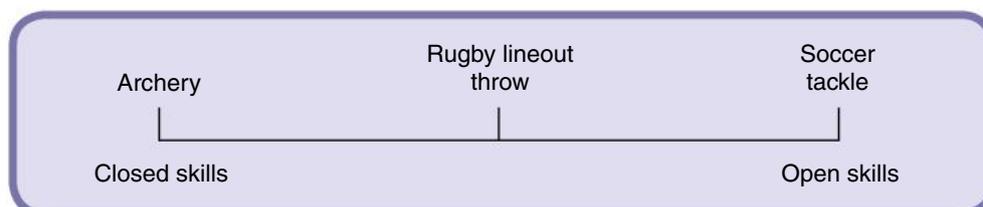
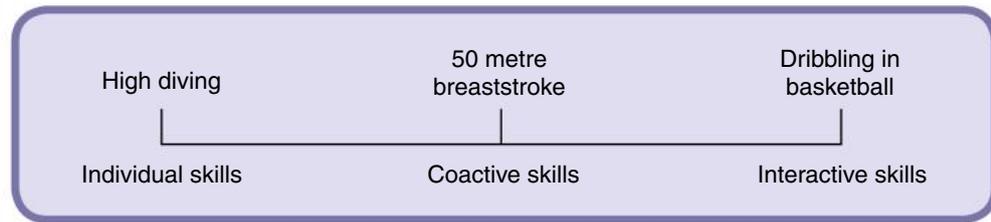


Figure 4.11
The environmental continuum

Interaction continuum

Individual skills are those performed in isolation without opposition or the cooperation of team-mates; for example, a high diver's competitor cannot directly influence performance. **Coactive skills** are performed at the same time, but competitors cannot directly impact on the performance of others. In a 50 metre breaststroke race a swimmer cannot physically prevent their opponent from achieving a good time, but they are competing at the same time. **Interactive skills** are those in which performance can be directly influenced by the opposition. For example, a point guard dribbling the ball in basketball must avoid having the ball stolen by the opposition.

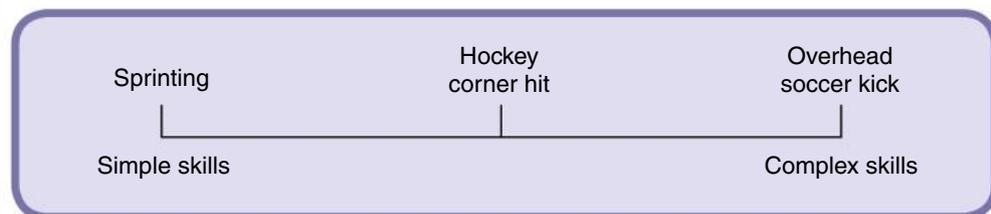
Figure 4.12
The interaction continuum



Difficulty continuum

Factors such as the amount of information to be processed, the speed of performance, fitness components required and accuracy required contribute to the complexity of a task. For example, jogging has only a few components and is regarded as a simple skill. A complex skill involves multiple components and mastery requires complicated and extensive training; for example, an overhead scissor kick in soccer.

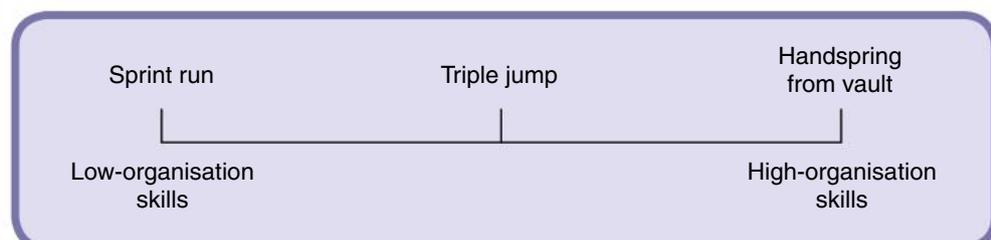
Figure 4.13
The difficulty continuum



Organisation continuum

Most skills are comprised of a number of subcomponents. Low-organisation skills are comprised of fewer and less-complex components; for example, swimming and running. Highly organised skills involve closely integrated and difficult subcomponents that need to be combined. A handspring from a vault in gymnastics is an example of a highly organised skill because it involves run-up, take-off, vault contact, rotation in the air and a landing.

Figure 4.14
The organisation continuum





Learning experience

Draw the continuums listed below and place the following specialised skills on each of the continuums listed: soccer goal kick, rugby tackle, 100 metre sprint and handstand.

- Muscular involvement continuum
- Continuity continuum
- Pacing continuum
- Environmental requirements continuum
- Interaction continuum
- Difficulty continuum
- Organisation continuum

The transfer of movement skills

Skill transfer refers to the effect of learning and performance in one movement skill on the learning and performance in another movement skill. Proficiency in fundamental movement skills provides the foundation for many specialised skills and helps individuals learn skills more quickly. There are also examples of specialised skills that transfer between sports and activities.

Positive transfer of movement skills

Positive skill transfer occurs when proficiency in one movement skill is enhanced by previous learning and experience in a similar movement skill. For example, the movement patterns involved in surfing are similar to the movement skills involved in skateboarding and snowboarding. The positive transfer of movement skills will help an individual learn a new, similar skill more easily.

Figure 4.15
Skateboarding skills transfer to surfing



Negative transfer of movement skills

Negative skill transfer occurs when the learning of a new skill is impeded by knowledge of and experience in a similar movement skill. This may occur when skills share some similarities but have important differences. For example, although the tennis and squash forehand strokes appear similar, the wrist action is very different. The tennis forehand requires a firm wrist, while the squash forehand requires flexible use of the wrist. Negative skill transfer will make it difficult for an individual to learn a new skill.

Figure 4.16

Although the tennis and squash forehand strokes appear similar, the wrist action is very different



Learning experience

The overarm throw is a fundamental movement skill that can be transferred to a variety of specialised skills.

Working in pairs in a tabloid set-up, participate in the following skills:

- volleyball overhead serve
- javelin throw (using a soft javelin)
- tennis smash
- basketball overarm throw
- tennis overhead serve
- overarm throw using a tennis ball
- badminton smash.

After completing the tabloid, discuss the common elements shared by all of the skills performed.

Learning experience (ICT)

Using video footage or clips from a YouTube or Google video, examine the following specialised movement skills: tennis serve, volleyball overhead serve, rugby league tackle, javelin throw, ice hockey dribble, field hockey dribble, rugby union tackle and baseball pitch.

- 1 Identify the key points of each skill.
- 2 Which skills might be an example of positive skill transfer?
- 3 Which skills might be an example of negative skill transfer?
- 4 Describe the possible consequences of negative skill transfer.
- 5 Describe the benefits of positive skill transfer.

Practice

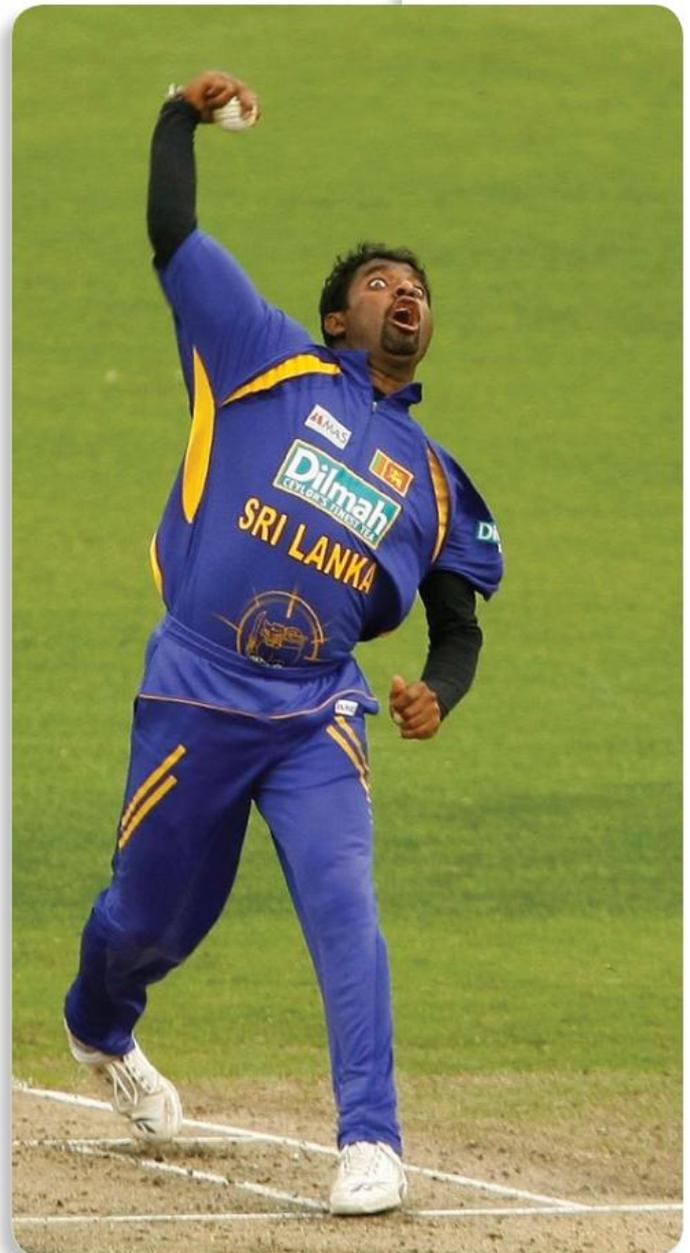
Practice is the term given to the process of learning and improving movement skills. Movement skills can be practised in a number of ways. While traditional practice will require individuals to physically perform movement skills, skills can also be improved through **mental rehearsal**, which is another form of practice. It is recommended that individuals use a variety of practice techniques to develop movement skill proficiency.

Qualities of effective practice

While individuals will develop movement skill proficiency at different rates, skill level can be increased through quality movement skill practice. The following qualities of effective practice have been identified to help people learn skills more efficiently.

- ‘Perfect practice with feedback makes perfect.’ It is not enough for individuals to just receive the opportunity to practice; the emphasis should be on quality of movement. This can be achieved by focusing on technique rather than outcome. For example, someone learning how to shoot a free throw in basketball should focus on addressing the key points of the skill rather than the outcome of the shot—that is, whether or not the basketball went through the hoop.
- In all sports and physical activities the simplest skills should be learnt before the more complicated ones. The correct sequencing of skills can help to promote skill development, maintain individual motivation and prevent injury. For example, the skill sequence in volleyball is dig, set, serve, spike, block then dive.
- Complicated skills should be broken down into smaller parts when they are being learnt for the first time. For example, individuals learning the tennis serve for the first time should learn how to toss the ball correctly before attempting to complete the full serve.
- Pressure should be increased as skill proficiency improves. Once individuals become more confident performing skills, additional pressure should be added. The practice should progress from ‘closed’ to ‘open’ on the environmental requirements continuum, with gradual increases in the skill performance and

Figure 4.17
Muttiah Muralitharan has an unorthodox bowling style



decision-making demands. For example, dribbling in hockey should be first learnt without any external pressure; as proficiency increases, the task should become more difficult, with defenders introduced, culminating in a game context.



Learning experience

Debate the following topic as a class.

To what extent should a coach insist on the development of conventional technique? For example, if a young cricket bowler is generating speed and accuracy with an unusual action, should their technique be reconstructed?

Practice methods

There are many variations to the types of practice that can be undertaken to enable athletes to improve their performance. The most appropriate practice method will depend on a number of factors, including the amount of time available, the ability of the athletes, the equipment available and the type of skill to be learnt. Practice methods include the following.

- **Massed practice** involves long, continuous practice sessions. Better initial results are achieved with massed practice but more injuries tend to occur because of mental and physical fatigue. Massed practice is suitable when the skill is simple, motivation for learning is high and time available for practice is short.
- **Distributed practice** involves practice sessions that are spread out over a set time and are alternated with rest periods. Better long-term learning and retention of the skill is achieved with distributed practice. Distributed practice is useful when the skill to be learnt is new and complex, fatigue may lead to injury, attention spans are short and motivation is low.
- **Whole practice** involves practising the skill in one complete sequence. Practising the skill as a whole can help an athlete appreciate the complete movement and execution of the skill. This method is appropriate when the skill being learnt is simple and does not include multiple components or when the performer is at the advanced stage of skill development.
- **Part practice** breaks the task into distinctive parts for individual practice. Once each part of the task is mastered, the skills are combined to form a whole. For example, the lay-up in basketball might be taught by breaking the skill down into the footwork and then the shooting action separately. Part practice is useful when the skill being learnt is complicated and when the performer is in the early stages of skill development.

Duration and frequency of practice

It is difficult to determine the optimal time period for a practice session, because it will depend upon factors such as the learning stage, the level of interest and age of the participants, the frequency of training sessions, weather conditions and the nature of the skills being learnt. Short, well-organised practice sessions result in more efficient movement skill development than longer sessions, which often result in physical and

mental fatigue. Practice sessions should be spread out over a period of time rather than compressed into one long session. The amount of rest time in relation to practice time will be also be influenced by the learning stage, the level of interest and the age of the participants.

Mental practice and rehearsal

Mentally practicing a skill can improve your learning of a motor skill. In this type of practice you do not physically practice the skill but rather rehearse in your mind. Many athletes will use mental rehearsal to visualise themselves performing a skill before actually performing it. Combining mental and physical practice often gives improved results. The advantages of mental practice include increased confidence and the prevention of physical fatigue.

Learning experience

Conduct a lab on the types of practice needed to learn a new skill (for example, lacrosse throw, basketball lay-up, ball juggle). The class will be divided into five groups and each group will be given a different type of practice.

- 1 Learn the skill using massed practice
- 2 Learn the skill using distributed practice
- 3 Learn the skill using whole practice

- 4 Learn the skill using part practice

- 5 Learn the skill using mental rehearsal only (no physical practice allowed)

Predict the results and give reasons for your predictions. Discuss the final results of each method as a class.

Draw conclusions about the most appropriate practice method when learning to juggle.



The value of mastering fundamental movement skills

Research suggests that there is a window of opportunity for the development of fundamental movement skills. The first eight years of a child's life are regarded as the 'golden years' for skill development, because this is the time during which new skills are learnt more easily. However, individuals do not automatically develop FMS; skills are instead learnt through quality instruction, a supportive environment and opportunities to practice. The development of FMS is an important part of the primary and secondary Personal Development, Health and Physical Education (PDHPE) curriculum in New South Wales. Research suggests that it takes between 240 and 600 minutes for the average child to become proficient in one FMS.

Relationship between skill level and participation in physical activity

Fundamental movement skills are regarded as the foundations of an active lifestyle because they represent the prerequisites for participation in most physical activities. Once an individual has proficiency in a range of FMS they

will possess the basics to learn more complicated specialised skills. Many of the specialised movement skills share similar movement characteristics with FMS. Data from the 1997 New South Wales Schools Fitness and Physical Activity Survey (NSW SFPAS) indicated that students who had high FMS proficiency were more active than students with low FMS proficiency. More specifically, adolescents who were more skilful were found to spend more time in organised physical activity; for example, sports teams, gymnastics and dance clubs. Research also suggests that children who are more competent in these skills have higher levels of aerobic fitness and are less likely to be overweight.

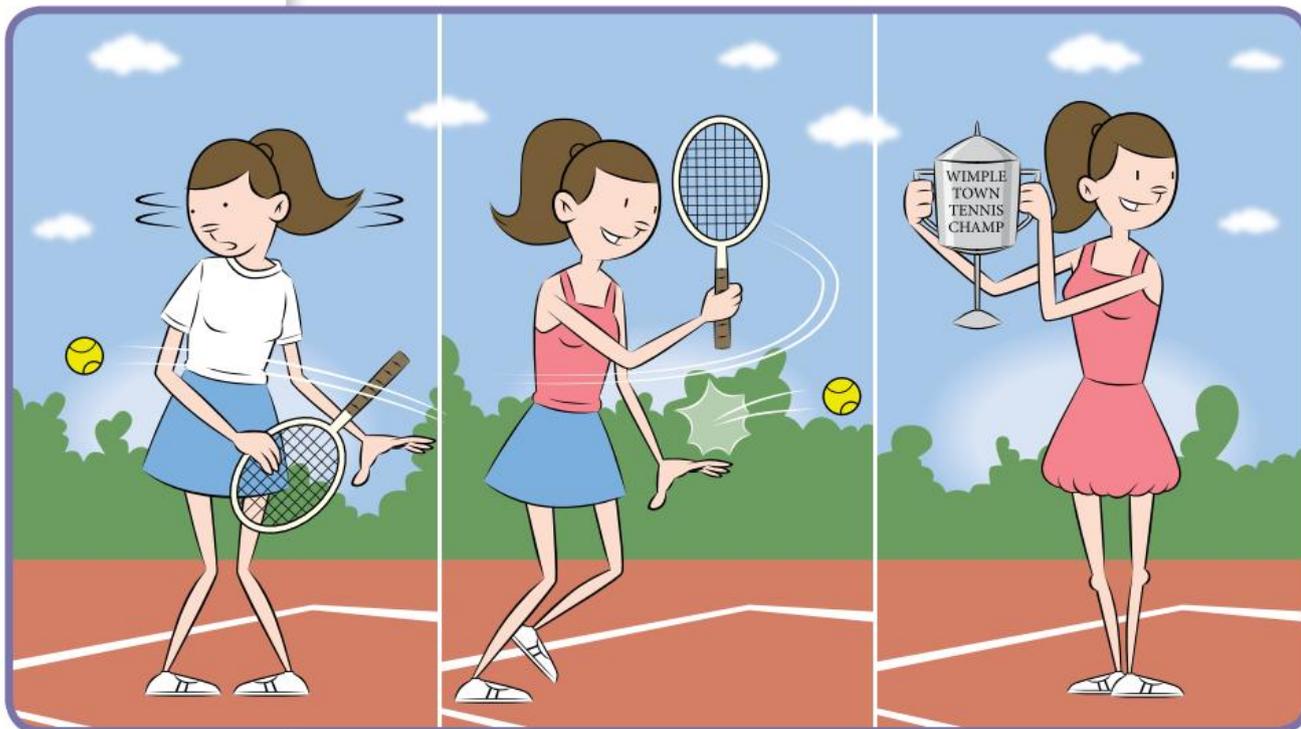
The acquisition of specialised movement skills

Individuals progress through a number of stages as they develop proficiency in new movement skills. Individuals move through these stages at different rates and some individuals may never reach the final stage. Characteristics of the three stages of skill acquisition are listed below.

- **Cognitive stage:** frequent large errors, great deal of feedback required, learners need to learn about how to execute the task, learners need to see the skill demonstrated correctly, performance is inconsistent
- **Associative stage:** fewer errors, participant learns to detect and correct performance errors, learner relates to the correct technique, performance becomes more consistent
- **Autonomous stage:** automated performance of the skill, skill actions are highly refined, less emphasis on skill mechanics and more on tactics and strategies, this stage may be unachievable for most.

Figure 4.18

A person's proficiency in new movement skills increases as they progress through the stages of development





Learning experience

- 1 Working in pairs, design and implement a 20 minute physical activity session to develop a specialised movement skill (for example, spin bowl, torpedo pass, rugby drop-kick, baseball pitch).
- 2 Present your session to another pair of students.
- 3 Support the students by providing constructive feedback in relation to their movement skill performance.
- 4 What stage of skill acquisition did they reach? Provide evidence to support your conclusions.

Current research and programs

In 2004, the New South Wales Centre for Overweight and Obesity conducted a comprehensive study of New South Wales school students. The study, known as the NSW Schools Physical Activity and Nutrition Survey (SPANS), aimed to identify the risk factors for being overweight among young people and assessed 5400 students from kindergarten to Year 10. The SPANS study assessed children on a number of FMS to determine the relationship between FMS, obesity, fitness and physical activity. The FMS findings from the NSW SFPAS and SPANS encouraged researchers to evaluate the impact of physical activity programs focusing on FMS proficiency on obesity and physical activity behaviour in children. The Hunter and Illawarra Kids Challenge using Parent Support (HIKCUPS) was an obesity treatment intervention designed to increase physical activity through FMS development. Similarly, the Switch Play intervention evaluated in Victorian primary schools included school-based FMS lessons. Both interventions helped children to become more active and reduce their weight through participation in programs focusing on FMS development.



Learning experience (ICT)

Using the following website, access the SPANS report and answer the following questions relating to fundamental movement skills: <www.health.nsw.gov.au/pubs/2006/spans>.

- 1 What did the New South Wales Department of Education and Training do in response to the FMS findings from the 1997 NSW FPAS?
- 2 List the FMS assessed in the SPANS study.
- 3 Describe the relationship between FMS and body mass index (BMI) among boys in the SPANS study.
- 4 Describe the relationship between FMS and cultural background among girls in the SPANS study.
- 5 Compare the FMS findings from the SPANS study conducted in 2004 to the 1997 NSW FPAS.

Chapter cloze

_____ are the building blocks for all types of games, physical activities and sports. Running is an example of a _____ because it involves large muscle groups. Writing requires greater precision and use of smaller muscles, and is therefore considered to be a _____.

_____ are performed in predictable environments where the performer determines when to start the action. _____ are those performed in isolation without opposition or the cooperation of team-mates. _____ refers to the effect of learning and performance in one movement skill to the learning and performance in another movement skill.

Visualising the performance of a movement skill without physically performing the skill is known as _____.

More injuries tend to occur with _____ because of mental and physical fatigue. _____ involves breaking a movement skill into smaller parts and then learning them. The _____ is the first stage of skill acquisition and is often characterised by frequent errors.

closed skills
cognitive stage
fine motor skill
fundamental
movement
skills
gross motor skill
individual skills
massed practice
mental rehearsal
part practice
skill transfer

Review questions

- 1 Explain why the development of fundamental movement skills is important for participation in lifelong physical activity. In your answer discuss the positive and negative transfer of skills.
- 2 Discuss the open–closed skill continuum and how it relates to learning a new movement skill.
- 3 Critically evaluate the various practice methods identified in this chapter.
- 4 Describe how an individual moves through a number of stages as they learn and master a new skill.
- 5 Choose one of the following sports and identify the characteristics of the major skills involved using the continuums discussed in this chapter: soccer, rugby, netball or basketball.



Nutrition and physical activity

OUTCOMES

In this chapter a student:

- 1.1** discusses factors that limit and enhance the capacity to move and perform
- 1.2** analyses the benefits of participation and performance in physical activity and sport
- 4.2** displays management and planning skills to achieve personal and group goals
- 4.4** analyses and appraises information, opinions and observations to inform physical activity and sport decisions



STARTING POINT

Nutrition is known to be a vital factor of our health—some people say ‘you are what you eat’. Nutrition is important for general healthy living but there are also specific nutritional considerations for physical activity and weight management, which will be discussed in this chapter.

Nutrition for health and physical activity

Nutrition has a considerable impact on our health and physical activity performance. Specific groups of people have varying nutritional requirements dependent on factors including age, gender, physical activity, pregnancy and weight management needs. There is so much information about nutrition in the media, including **fad diets**, supplements and the latest trends, that it can be confusing to know what is actually good for you in terms of healthy nutrition. In this chapter we look at nutritional requirements for healthy living, nutritional planning for physical activity, advertised nutritional products and weight management.

Figure 5.1
Information about
nutrition can be
confusing



Nutritional requirements for healthy living

It is important for all people to have good nutrition and to eat healthy foods, and the government has developed recommended dietary guidelines for the general population. Some of the general dietary guidelines for young people in Australia are:

- enjoy a wide variety of nutritious foods
- eat plenty of vegetables, legumes and fruits
- eat plenty of wholegrain cereals, breads, rice, pasta and noodles
- include lean meat, fish, poultry and/or alternatives
- include milks, yoghurts, cheese and/or alternatives
- drink plenty of water
- limit saturated fat and moderate total fat intake
- choose foods low in salt
- consume only moderate amounts of sugars and foods containing added sugars
- encourage and support breastfeeding of babies.

Five food groups

These general dietary guidelines support the balanced consumption of the five food groups:

- 1 Breads and cereals—including rice, pasta and noodles (preferably wholegrain)
- 2 Fruit
- 3 Vegetables and salad
- 4 Meat and protein products—including lean meat, poultry, fish, eggs, nuts and dried legumes
- 5 Dairy—milk, cheese and yoghurt or a calcium-rich alternative.

Food pyramid

Another common way of breaking down the food groups is with the food pyramid, which shows what foods you should eat least, moderately and most.

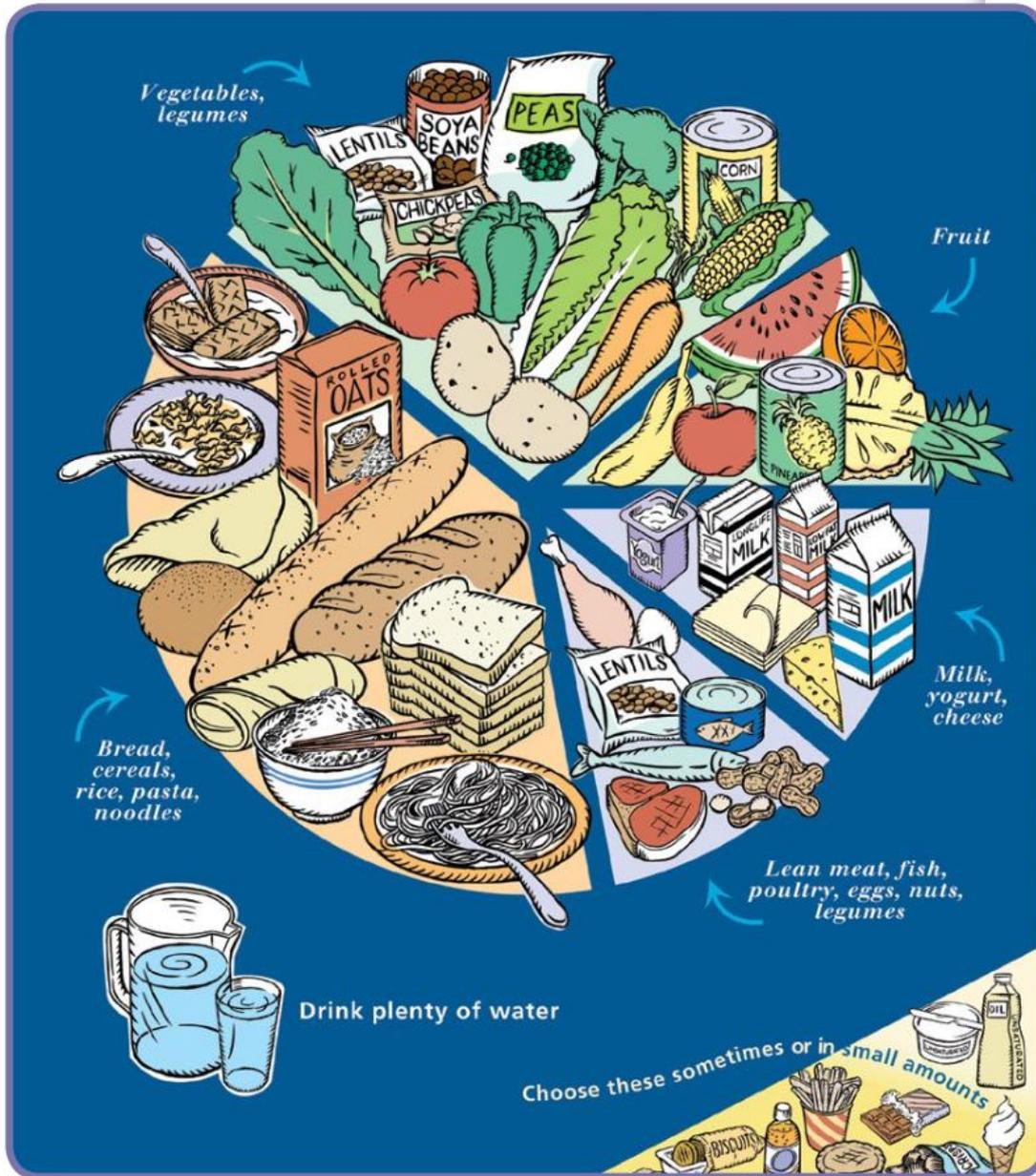


Figure 5.2
The Australian
guide to healthy
eating

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Learning experience

Research how many serves a day of each food group someone your age should be consuming.

Foods	Number of servings per day
Breads and cereals	
Fruit	
Vegetables and salad	
Meat and protein products	
Dairy or alternatives	



Nutrients

There are six food **nutrients** that the body requires for optimal health and functioning. These nutrients include carbohydrates, proteins and fats, which provide the body with energy; and vitamins, minerals and water, which do not provide energy (**kilojoules/calories**) but are very important in the functioning of a healthy body.

- **Carbohydrate** is a nutrient in starches and sugars that supplies the main source of energy to the body. Starches are found in grains and some vegetables. Sugars are found in fruits, dairy and sweet foods. Fibre is a type of carbohydrate that does not provide energy, as your body cannot digest it; however, it has a very important function in keeping the bowels regular. Carbohydrates should make up to 60% of your total kilojoules each day.
- **Protein** is a nutrient that builds, repairs and maintains body cells. Proteins are found in animal products and some plants, such as legumes. Protein is essential for the body as it provides some amino acids that the body cannot manufacture itself. Protein should make up to 15% of your total kilojoule intake each day.
- **Fat** is a nutrient that helps the growth and repair of cells, and provides energy to the body. Fats are found in animal products and some plant products, such as nuts and vegetable oils. No more than 30% of the total kilojoules consumed each day should be from fats.
- **Vitamins** are nutrients that assist in the growth and repair of body cells and include vitamin A (retinol), B1 (thiamine), B2 (riboflavin), B6 (pyridoxine), B12 (cobalmin), C (ascorbic acid), D, E (tocopherol), K, biotin, niacin, pantothenic acid and folate.
- **Minerals** are nutrients that regulate the activities of the cells and include calcium, phosphorus, magnesium, sodium, potassium, iron and zinc.
- **Water** is the nutrient most needed by the body as over half of our body weight is made up of water. Water carries nutrients to the cells, helps flush out waste materials and assists in regulating body temperature.

Learning experience

- 1 Copy the table at right into your workbook and explain the function of the nutrients listed, giving examples of food sources for each.
- 2 Compare the nutritional labels of several varieties of the same food (for example, cereal, bread, milk or cheese) and choose the healthiest option based on the recommended dietary intake (**RDI**) of nutrients.

Name of nutrient	Functions of the nutrient	Examples of food source
Carbohydrate		
Protein		
Fat		
Vitamins		
Minerals		
Water		



Learning experience (ICT)

You may see many different symbols on your food labels. Go to the following website and explain each of the following food label symbols:

<www.nutritionaustralia.org>

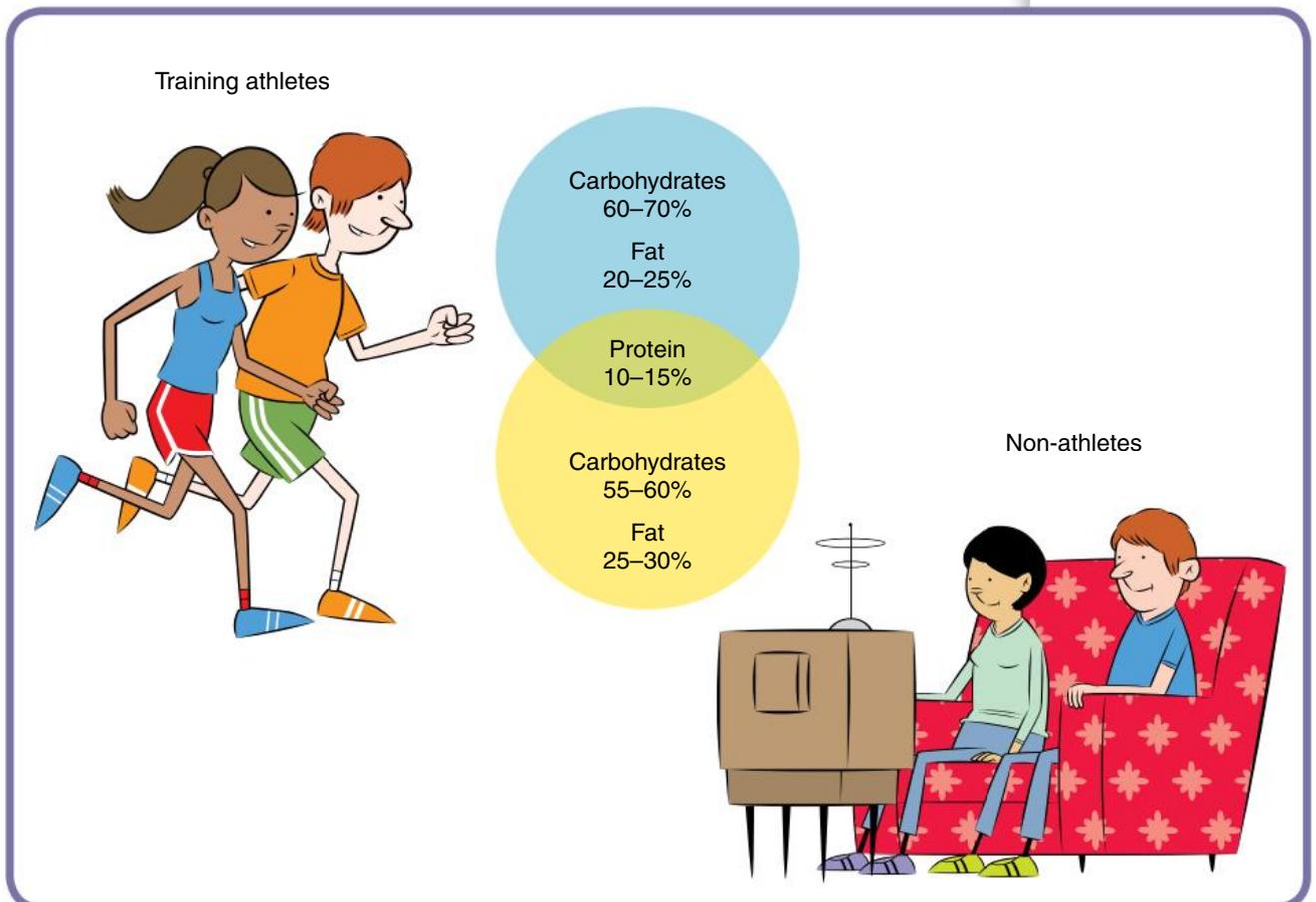


Nutritional requirements for physical activity

Athletes who have high levels of physical activity have different nutritional requirements from the general population. Nutritional factors can influence and enhance training, recovery and performance during competition. Physically active people generally require more complex carbohydrates (60–70% of total diet), less fat (20–25% of total diet), and approximately 1 gram of protein per kilogram of body weight per day. Physically active people also need a higher water intake to account for fluid loss in training.

*National Heart Foundation Certified Trade Mark used under license

Figure 5.3 Differences in nutritional requirements





Learning experience

- 1 Read the case study at right and write a sample one-week eating plan for Greg, explaining the RDI and nutritional requirements for his lifestyle, based on the information given.
- 2 Keep your own food diary for one week by writing down absolutely everything you eat and drink each day—make sure you don't leave anything out! Using the five food groups and the food pyramid examine your dietary intake for the week in relation to the nutritional guidelines.

Case study

Greg is 17 years old, 180 centimetres tall and weighs 75 kilograms. Greg competes in triathlons and has a heavy training schedule. Every week he completes 5 hours of swimming, 10 hours of cycling and 8 hours of running. Greg also walks 15 minutes to school and back each day, and goes surfing when he has weekends free of competition.



HotSpot



After analysis of your one-week food diary, set some goals (try to think of at least five) and include some suggested strategies to improve your nutrition with healthy eating habits.



Webconnect

Search and assess the value, accuracy and reliability of a range of internet sites with nutritional information related to physical activity. Rank them in your order of preference for appropriateness to adolescents. Here are a few examples to get you started:

<www.nutritionaustralia.org> <www.nutrition.nestle.com.au> <www.foodnut.com.au>

Nutritional planning

There are many options and factors to consider in nutritional planning for physical activity. Nutritional intake impacts on energy levels and it is important to replace energy after activity. Hydration is also a significant nutritional factor that will be discussed.

Intake before, during and after physical activity

There are different requirements for nutritional intake before, during and after physical activity. For example, it is important not to eat too much too soon before being physically active, and it is important to replace energy expended during physical activity by eating.

Before physical activity

It is best to eat a snack at least 1 to 2 hours before physical activity, or a large meal 3 to 4 hours before a competition. Snacks and meals prior to activity should be low in fat and mostly consist of complex carbohydrates. Foods that are high in fats and proteins should be avoided, as the body takes a longer time to digest these nutrients. It is also important to drink adequate fluids prior to physical activity.



Figure 5.4

Fresh fruit is a great healthy snack

During physical activity

It is important to remain hydrated during physical activity to avoid dehydration, particularly in hot or humid weather. Carbohydrate supplementation through sports drinks can be useful in sustained vigorous activity or competition.

After physical activity

It is important to replace both fluid and energy after physical activity or competition events. The best energy source after physical activity is food with high complex carbohydrate content. It is best to avoid soft drinks, caffeine and alcohol.

Energy requirements during activity

Researchers believe that consuming carbohydrates during physical activity events can improve endurance by maintaining energy levels and avoiding fatigue. It is unnecessary to consume carbohydrates during events under 90 minutes, as you should be able to consume enough energy prior to team sports and shorter events. Sports drinks can provide energy in the form of carbohydrates but it is better to ensure proper nutrition prior to activity lasting less than 90 minutes. Endurance events or physical activity lasting longer than 90 minutes may require extra energy, which can be found in sports drinks, fruit or muesli bars. In all events it is vital to remain hydrated with water to avoid dehydration. It is recommended to have up to approximately 1 litre of water per hour of physical activity.

Factors to consider when planning healthy nutritional intake for physical activity

There are several factors to consider when planning healthy nutritional intake for physical activity, including the duration of the event, the nature of the physical activity, the level of energy being used by the physical activity, and the food likes and dislikes of the athlete.



Learning experience

Design a basic nutritional plan for participation in a physical activity event such as an outdoor expedition, a fun run or a triathlon. Research the needs of the athlete and provide a sample menu for before, during and after the event.

Marketed nutritional products

There are many nutritional products that are marketed as being beneficial for training and competition. These marketed nutritional products include liquid meals, nutritional bars and supplements. Although there are situations in which these products can be beneficial, there are also many fads and fallacies to consider in relation to nutritional products.

Figure 5.5

It is important to check the nutritional content of marketed nutritional products



Liquid meals

Carbohydrate liquid meal supplements can be useful for athletes who are having difficulty meeting their requirements for a higher **energy intake**. Liquid meal supplements are quick to consume and packed with energy and nutrients. They can be easier to consume than extra food if your goal is to increase your energy intake.

Nutritional bars

Nutritional bars are also useful as snacks that are quick to consume, full of energy and nutrients, and easy to carry. With any nutritional product it is important to study the food label to check the ingredients and nutrients to ensure you are not just consuming a food high in fat and sugar. Nutritional products should be high in complex carbohydrates and low in fat and simple sugars.

Supplements

Many athletes take nutritional supplements in the belief that it will enhance their physical performance and ensure they have no nutritional deficiencies. Supplements are generally vitamins and minerals. Supplementation is not necessary unless the athlete has a particular vitamin or mineral deficiency, such as iron or calcium deficiency. Most people can get all the nutrients they need from a healthy, well-balanced diet.

Advertising techniques used to promote nutritional products

Companies use marketing to sell their products but they may not always be healthy products for the consumer. Think of all the advertisements you see for nutritional products every day, and how advertising techniques lure people to buy their products.

Fads and fallacies

There are many myths and misconceptions about nutrition and physical activity. There are fad diets and physical activity trends that often claim to be effective when they may not be, and they can often have negative consequences on health and wellbeing. Perhaps you or someone you know has tried one of these fads only to discover it was a fallacy!



Webconnect

Take the Mythbusters test at www.nestle.com.au/Nutrition/Myth+Busted/Default.htm to see if you can bust the latest nutrition myths.

Learning experience

- 1 Find five examples of advertising techniques used to promote nutritional products in a variety of media (such as magazines, television advertisements and billboards) and using sporting personalities.

Analyse each advertisement in terms of who it is targeting, its effectiveness and whether it is a positive or negative use of media.

- 2 In small groups, brainstorm and critically appraise some common myths and misconceptions about nutrition and physical activity. Make up your own television advertisement about a ridiculous fad and perform it in front of the class to demonstrate the extreme measures advertisers go to in order to promote their products.



Nutrition, physical activity and weight management

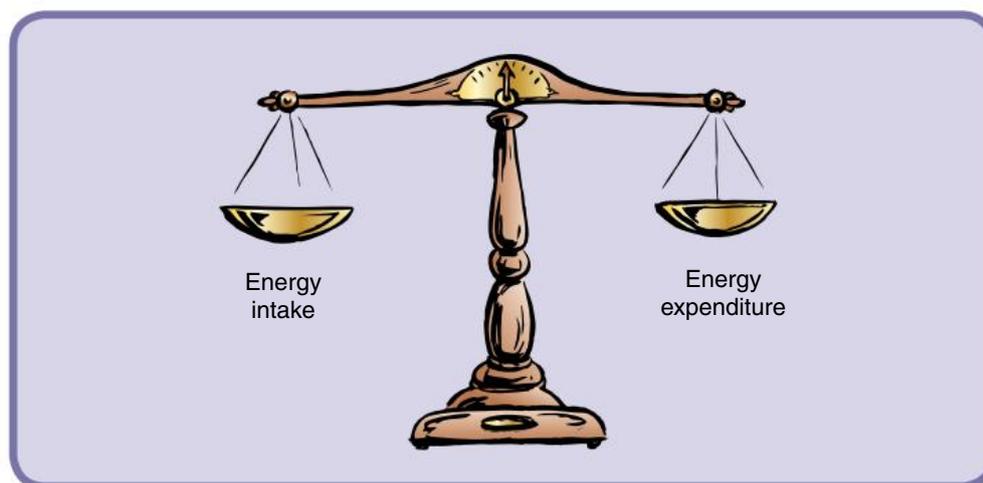
Nutrition and physical activity are the two main contributing factors to healthy weight management. The combination of nutrition and physical activity in relation to weight management is referred to as energy balance.

Energy balance model

Although we are surrounded by a multitude of ‘lose weight fast’ schemes, weight management comes down to one very simple equation called the **energy balance model**.

Energy balance refers to the balance of energy going into your body through what you eat and drink in relation to the amount of energy expended by your body through physical activity and daily living. If your energy intake is *higher* than your **energy expenditure**, you will gain weight and if your energy intake is *lower* than your energy expenditure, you will lose weight. If your energy intake is *equal* to your energy expenditure, you will maintain weight.

Figure 5.6
The energy balance model



Benefits of diet and physical activity in weight management

The best way to lose, gain or maintain weight is to incorporate diet with physical activity. This also leads to so many health benefits from good nutrition and physical fitness that you are not only at your healthy weight but you are feeling great, too.

Healthy weight loss and weight gain

Based on the principles of energy balance discussed above, healthy weight loss and weight gain is about a simple equation. To lose weight you must expend more energy than you consume, while to gain weight you must consume more energy than you expend. There are many advertised quick-fix solutions that are not healthy options for losing weight. These programs, pills and potions

may have an immediate weight-loss effect but they are not a long-term solution, and often have negative health consequences. Due to their strict guidelines that are often difficult to maintain, some diets do not work for long-term weight loss. Healthy weight loss or gain occurs over time through proper nutrition and physical activity. A healthy weight loss or gain target is 0.5–1.0 kilogram per week.



Learning experience

- 1 In pairs, brainstorm about what is offered in your school canteen and write a letter to the principal with some suggestions for healthier options for lunches and snacks. Include the following questions in your brainstorm.
 - What types of foods are sold in your school canteen?
 - Do they sell junk food (for example, lollies, chips, cookies or soft drinks)?
 - Are there a wide variety of healthy foods available?
 - Are the foods available nutritious?
 - What healthy food options do you think the school canteen should offer?
- 2 **Debate topic:** Nutrition is more important than physical activity in managing weight. Prepare an argument for and against the debate topic and get ready to participate in a class debate.
- 3 Copy the table below into your workbook and compile your own list of ten top tips for healthy weight management (the first one is done for you).

Ten top tips for healthy weight management

1	Participate in physical activity for 1 hour every single day
2	
3	
4	
5	
6	
7	
8	
9	
10	

- 4 In small groups, research a fad diet that you have seen or heard advertised and discuss the daily nutritional intake of the suggested eating plan with your group. Present your findings to the rest of the class in relation to healthy nutritional guidelines.

Chapter cloze

The study of food and how it affects the body is called _____. Carbohydrates, proteins, fats, minerals, vitamins and water are all _____ that nourish the body. There is a _____ for each nutrient.

To manage weight it is important to follow the simple equation of the _____, which weighs up _____ against _____. Energy is measured with either _____ or _____. It is important to understand that _____ don't work and can often have negative health consequences.

calories
energy balance model
energy expenditure
energy intake
fad diets
kilojoules
nutrients
nutrition
RDI

Review questions

- 1 What are the five food groups?
- 2 What is a healthy balance of foods according to the 'Australian guide to healthy eating' illustrated on page 77?
- 3 Explain the principles of the energy balance model.
- 4 Describe the six food nutrients.
- 5 Discuss the top tips for weight management.



Participating with safety

OUTCOMES

In this chapter a student:

- 1.1** discusses factors that limit and enhance the capacity to move and perform
- 1.2** analyses the benefits of participation and performance in physical activity and sport
- 4.2** displays management and planning skills to achieve personal and group goals



STARTING POINT

There is a level of risk in all activities. This risk should be identified, evaluated and addressed before any activity takes place. This chapter discusses risk environments and behaviours, and outlines the importance of risk assessment and risk management.

Risk environments

Human behaviour is the most common cause of injury; however, in certain circumstances the nature of the environment can be viewed as a contributing factor. In some cases, the environment may even be the most significant factor contributing to the injury.

Identifying risk environments

Risk is inherent to all activities; however, the degree of risk varies depending on the nature of the activity, the environment in which it occurs and the behaviour of people involved in the activity.

The degree of risk can be exacerbated by environmental variables, such as:

- weather and climatic conditions
- tidal changes
- quality of the playing surface
- suitability of equipment.

Whitewater rafting has inherent risks such as the location of the environment usually being remote and therefore some distance from medical assistance. Travelling at speeds heavily determined by the rapids, the presence of rocks in the water and other environmental hazards, such as low-hanging tree branches, can potentially pose risks.

Once risks such as these are identified, action can be taken to manage them. For example, to address environmental risks in whitewater rafting organisers will generally provide skill and safety instruction prior to the activity, insist on participants wearing protective equipment such as life jackets and helmets, and carry communication devices such as walkie talkies and mobile phones.

It is incumbent on organisers, administrators and activity leaders to identify potential risks that exist in their activity and in the environment, and to put processes in place to manage those risks.

Figure 6.1

Natural environments can offer excellent opportunities for physical activity but they also pose some risks



Risk behaviours

Human behaviour is the most common factor contributing to injury and it is important to remember that behaviour is closely linked to attitudes and values. In order to prevent injury and promote safe participation, it is useful to initially focus on helping people examine their attitudes and values towards participation, personal safety and the safety of others. When safety of self and others is a priority, then subsequent behaviours are more likely to reflect that and promote safe participation.

Identifying risk behaviours

The behaviour of participants, officials and spectators can impact on the level of risk associated with an activity. Risk behaviours that need to be addressed include:

- insufficient skill level or poor technique
- insufficient fitness level
- lack of experience
- poor refereeing or umpiring
- failure to abide by rules
- unequal matching of opponents
- failure to use safety equipment
- recklessness
- **negligence.**



Figure 6.2
Playing by the rules and avoiding violent play helps make playing sport safer for everyone

Factors influencing risk behaviours

Among the most appealing aspects of physical activity and sport is the uncertainty that often accompanies it and the challenge of wanting to achieve something special. There can be the uncertainty about the result, the hope that the experience will be a great one, and even the fear that possibly something might go wrong as well as the challenge of achieving something that you (or others) have never done before. For many people, there is something inherently attractive about risk, uncertainty and challenge.

Some physical activities and sports are notorious for having ‘adrenaline junkies’ as participants. Skydivers literally take their life in their hands each time they jump because the consequence of a parachute failing to open is quite likely fatal. Similarly, big wave surfers are known for seeking the largest and most ferocious waves.

The challenge for administrators, officials and participants is to retain the positive elements of risk, challenge and/or uncertainty while managing the associated potential for harm. Usually this is achieved by managing the behavioural, environmental and organisational factors as thoroughly as possible.

Learning experience

- 1** In pairs, discuss the following questions.
 - a** What physical activities and sports do you participate in?
 - b** What environmental risks can affect these activities?
 - c** How are these risks managed?
 - d** What behavioural risks can affect these activities?
 - e** How are these risks managed?



- 2 Read the case study on the Quiksilver Big Wave Invitational and complete your own research into the sport of big wave surfing, then answer the following questions.
- Identify safety measures that surfers take to manage the associated risks of big wave surfing.
 - Tow-in surfing is a way for surfers to access large waves that cannot normally be surfed. What additional risks does this form of surfing pose? How are these risks managed?
 - When patrolled beaches in Australia are closed during big swells, some surfers choose to still go out. Debate the appropriateness of them doing so.

The Quiksilver Big Wave Invitational in Memory of Eddie Aikau

The Quiksilver Big Wave Invitational in Memory of Eddie Aikau is a surfing event held on Oahu's north shore that takes place in the Hawaiian winter each year, when the waves are suitably big—over 20 feet by the Hawaiian scale. The event has only been held seven times since its inception in 1985.

The event honours late Hawaiian surfer and lifeguard Eddie Aikau, who was notorious for his attitude in taking on some of the world's biggest waves. Aikau is the surfer referred to in the saying 'Eddie would go', which has been immortalised as a slogan on T-shirts and bumper stickers to encourage people to take on challenges, particularly in relation to surfing.

The event is an elite one and surfers can compete by invitation only. The invited group

remain on standby during the holding period and then travel to the precise location once the appropriate size swell is identified.

To view footage of big wave surfing from the Big Wave Invitational and other events, go to <http://surf.quiksilver.com/2006/bigwave/index.php>.

Footnote: Eddie Aikau was a legendary Hawaiian surfer and lifeguard who died in 1978 when he was taking part in an historic canoe trip with nine others from Hawaii to Tahiti. The canoe capsized and Aikau swam in search of help but was never heard of again. His body was never found, despite an extensive air and sea search.

Figure 6.3

Big wave surfers participate in a high-risk activity but they seek to manage those risks effectively



Assessing risk

Assessing risk is something that people have always done to some degree prior to participating in or organising physical activity and sport. The difference now is that there is greater community expectation that risk will be assessed in a formal way for virtually all physical activities and sports.

Features of a risk assessment

A **risk assessment** refers to the process of identifying in advance potential risks arising from an event to be held, or activities or duties to be undertaken. From this initial assessment informed judgments about the suitability of the event, activity or duty can be made and steps to satisfactorily minimise each of the identified risks can be taken. If the risks identified cannot be satisfactorily minimised, then it may be appropriate to cancel or substantially alter the event, activity or duty.

A risk assessment enables individuals or organisations to weigh up the intended outcomes of the event, activity or duty against the potential for harm or the likelihood of that harm occurring.

The key features of a risk assessment are:

- identifying possible outcomes
- estimating the likelihood of each outcome occurring
- estimating the seriousness of injury or illness that may result
- investigating what **precautions** can be taken to reduce the risk of negative outcomes occurring and/or the degree of injury or illness.

Underlying a risk assessment needs to be a clear appreciation of the importance or value of the activity. If the event, activity or duty is of significant importance, then precautions can be put in place to minimise some risks and it may be the case that some risks are seen as worth accepting.

When embarking on an expedition to climb Mount Everest, groups take precautions such as employing a local Sherpa to guide them, monitoring weather forecasts, wearing appropriate clothing, carrying essential supplies and emergency equipment, and training for months beforehand. However, they also accept that some variables beyond their control, such as avalanches and unpredictable extreme weather changes, can occur, and the potential to minimise these risks is limited. Those who choose to proceed elect to accept those risks.

Skills for risk assessment

When undertaking a risk assessment it is important to remain objective and clear-headed. You will also need to use your knowledge, skills and experience to predict possible outcomes and the likelihood of those outcomes occurring, and to estimate the potential for harm.

Being objective and clear-headed is important because there are times when the person doing the risk assessment may be influenced by their pre-conceived notions of how the event, activity or duty should take place. For example, the person may be particularly keen for the activity to proceed in the way it had been originally planned or in the way it has traditionally been conducted, despite the risks that would be involved. This may influence the

findings in a risk assessment they conduct. It is important to put aside this enthusiasm and any preconceptions, and assess the activity and each identified risk on its merits.

Table 6.1 is a risk assessment matrix that can be effectively applied to sport and physical activities. It works on the presumption that a possible consequence estimated as a ‘one’ should require immediate attention, a ‘two’ should be continually reviewed and a ‘three’ to ‘six’ be monitored.

The matrix should be applied in the following way:

Step 1: Identify all potential risks

Step 2: For each risk ask:

- What is the likelihood of this outcome eventuating?
- How severely could this outcome hurt someone or make them ill?

Step 3: What processes could be put in place to reasonably reduce the likelihood of the outcome occurring and/or reduce the severity of injury or illness?

Table 6.1

Risk assessment matrix

Likelihood (How likely?)	Consequence (How severely could it hurt/make ill?)			
	First aid needed	Medical attention needed	Serious injury / illness resulting	Permanent disability / death resulting
Very unlikely	6	5	4	3
Unlikely	5	4	3	2
Likely	4	3	2	1
Very likely	3	2	1	1

Once a risk has been identified and the likelihood and consequences have been estimated using the matrix, planning needs to be done to propose precautions that could reduce the risks. Table 6.2 shows a template that can be used to plan the implementation of precautions when risks are identified.

Table 6.2

Precautions table

Risk identified	Level of risk (1-6)	Precautions to be put in place	New level of risk (1-6)

It is important to note that risk assessments should be done with due care and consideration. The potential for negligence to be proven may be increased if it is shown that potentially harmful consequences were identified in a risk assessment and then not addressed through taking reasonable precautions.



Learning experience

In small groups, plan a 20 minute physical activity session for your PASS class. Apply the risk assessment matrix and precautions table to this activity.

With the permission of your teacher, and after they have approved the content of the sessions, conduct the activity for your classmates.

Evaluate the effectiveness of your session based on the following criteria:

- safety of all participants and instructors
- enjoyment of the activity by participants and instructors.

Identify challenges associated with conducting activities, and therefore doing risk assessments, at venues that are public spaces or run by private organisations.

Sources of advice and support

People responsible for conducting a risk assessment should ideally have experience and a degree of expertise in the activity they are assessing. This is so that identification of possible outcomes and risks is based on valid grounds. Where the person doing the risk assessment does not feel that they possess the necessary experience or skills, it is important that they make this known and seek support.

A number of people within an organisation may be able to provide advice and support, or alternatively, external organisations may be accessed. Some examples of these external organisations include:

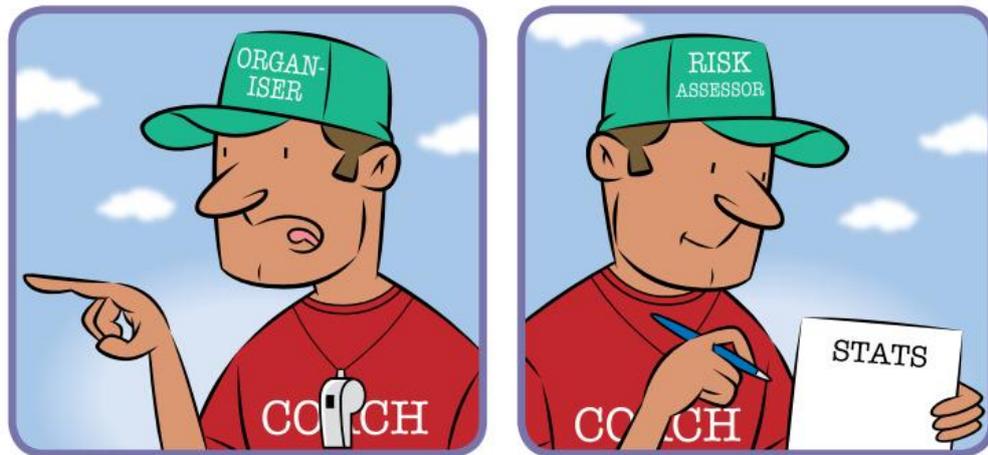
- New South Wales Police <www.police.nsw.gov.au>
- St John Ambulance Australia <www.stjohnnsw.com.au>
- Surf Lifesaving Australia <www.slsa.com.au>
- The Royal Life Saving Society Australia <www.rlssa.org.au>
- Bureau of Meteorology <www.bom.gov.au>
- The Weather Channel <www.weatherchannel.com.au>
- State Emergency Service <www.ses.nsw.gov.au>.

Managing risk

It is important to recognise that assessing risk is only one step in the process of promoting safe participation in physical activity and sport. The second step is to put processes and actions in place that manage those risks to the point that they are either no longer any risk at all, or that they are of such a low level that the activity is deemed safe to proceed.

Figure 6.4

There are times when it is important for a person to take off their organiser's hat and put on their risk assessor's hat



Behavioural factors

Under common law, all people owe others a **duty of care** not to cause injury as a result of their negligent actions or failure to act. This is a strong message to participants that they need to act responsibly in physical activities and sport for their own safety, as well as the safety of others.

In an increasingly litigious world, people are more willing to seek compensation through the courts for injuries incurred through the negligent behaviour of others. Recent examples have included cases where injuries were incurred as a:

- consequence of violent play
- result of activity leaders asking participants to perform a task that the leader should reasonably have known was beyond the participants' capabilities
- consequence of a coach asking a player to play a position that they should reasonably have known the player was not physically suited to or had not developed the necessary skills for.

In addition to managing risks posed by others, individuals need to manage risks over which they have direct control. It is important that individuals work to develop their skill level to match the level at which they want to participate or compete.

Similarly, it is important that correct movement patterns and techniques are learnt. For example, incorrect techniques can place undue pressure on muscles and connective tissue, often leading to sprains, strains, tears and inflammation. In cricket, fast bowlers are now being taught to bowl with very front-on or very side-on actions, as research indicates that fast bowlers whose actions are a not quite front-on or side-on are more prone to back injuries. In tennis, incorrect movement patterns on the serve can place undue stress on the shoulder joint and incorrect movement patterns on the ground strokes can increase the likelihood of tendonitis at the elbow.

Poor fitness levels can also be a factor, as the potential for injury is increased when participants are fatigued. Fatigue can make good decision-making more difficult, thus increasing the potential for mistakes and accidents to occur. It can also cause participants to adjust their technique as a means of conserving energy, thus performing movement patterns likely to cause injury.

As participants increase their skill and fitness levels and gain more experience, the potential for harm can be managed more effectively.

Environmental factors

Activities and sports that take place indoors have a greater potential to manage environmental risk factors because the environment is a more controlled one. Ambient temperature can be managed through heating or air conditioning, rain and wind are not factors, and playing surfaces and equipment can be prepared and maintained without disruption from the elements.

This does not mean indoor events are without environmental risks. If during a break in a match a player spills water on an indoor netball court with a timber floor, the potential to slip will be increased unless the floor is dried.

Outdoor activities and sports are at the mercy of climatic and weather conditions. For example, a cricket pitch that has been exposed to the rain may cause balls to ‘jump up’ at the batsmen or move sideways off the pitch, and may increase the risk of being hit. Overexposure to ultraviolet rays and sunburn are also common environmental risks posed by outdoor activities and sports.

Activities and sports that rely on environmental factors for their function can be particularly susceptible to risks. Surfing, skiing, ocean swimming, mountain biking and rock climbing are all examples of how nature and the environment are integral to the functioning of the activity or event. When natural environmental extremes occur, such as large sea swells, blizzards or heavy rain, the activity becomes far more dangerous and careful consideration needs to be given to implementing additional safety measures or cancelling participation.

Insect bites

Athletes competing internationally need to manage the risks inherent in their sport as well as risks associated with international travel, such as jetlag, coping with unfamiliar foods and emotional issues related to homesickness.

One environmental risk factor not often considered is insect bites in tropical climates. In 1992, golfer Peter Lonard was in the early stages of his professional golf career when he returned to his Sydney home from playing a tournament overseas. He began to experience fevers and felt lethargic and unwell for several months. Eventually it reached the point where Lonard could not get out of bed in the mornings. He was spending his days sleeping or watching television because he had no energy to do anything more.

After many tests and incorrect diagnoses Lonard was finally told that he had Ross River Fever, which was most likely contracted from a mosquito bite while playing golf overseas. By this stage, Peter Lonard was no longer playing professionally, was overweight, had difficulties with his eyesight and had returned to his old job working in the pro shop of Oatlands Golf Club.

After two years recuperating, Peter Lonard had laser eye surgery, regained his fitness and his golf form, and returned to playing professional tournaments.

He has since had an outstanding career, winning numerous prestigious Australian tournaments, playing on the United States PGA Tour and earning over \$15 million in career prize money.

Australian tennis player Samantha Stosur has experienced similar misfortune, having experienced health problems including viral meningitis stemming from being bitten by a tick while playing overseas in 2007. The health problems have taken Stosur a long time to recover from and have caused her to miss a number of major events, including the 2008 Australian Open tournament.



Figure 6.5
Australian golfer Peter Lonard



Learning experience

- 1 Identify risks specifically associated with participating in physical activity and sport internationally.
- 2 To what extent can these risks be managed?

Organisational factors

While all people owe others a duty of care, there is a higher duty expected of some organisations, such as those administering, organising and leading physical activities and sport. Because of the organisation's position of responsibility, authority and expertise in the field, the onus is on them to ensure that reasonable steps are taken to prevent harm to participants.

The organisation may be deemed to be in breach of its duty of care if a participant is injured and the risk of harm was foreseeable and reasonable precautions that would have prevented such harm were not taken. Common precautions that organisations have taken to prevent harm in physical activity and sport are identified in table 6.3.

Table 6.3
Common precautions
taken by sporting
organisations

Precaution	Example
Modifying rules	The Australian Rugby Union modified scrummaging rules at all levels to require opposing front-rowers to touch before engaging. The measures are even more stringent at junior levels. These measures were introduced to reduce the impact on the head and neck of front-rowers.
Safety equipment	Cricket Australia's junior policy recommends that junior and youth players should not be allowed to bat or field in close during a match or at practice where a hard ball is being used without wearing a helmet with a face guard.
Playing fields	The National Football League in the USA developed goalposts that have their base behind the end zone and extend onto the field above head height. This was designed to prevent players being injured running into the goalposts. Australian Rules football and the rugby codes use protective pads placed around the post as their precautionary measure.
Technology	Sports such as ocean sailing require competitors to include technologies such as Global Positioning Systems (GPS) on boats and on each crew member to assist in locating them if they experience difficulties.
Weather conditions	The Women's Tennis Association tour has an extreme heat policy that dictates that matches are not played outside once temperatures reach 35° celsius.
Testing for Performance Enhancing Drugs (PED)	PED are tested for primarily to prevent athletes deriving an unfair advantage but it is also a duty of care owed to athletes to protect them from personal and external pressure to use PED, which are generally harmful to health.



Learning experience

- 1 In pairs, discuss one sport and one recreational physical activity in which you have both participated. Identify safety precautions that were put in place.
- 2 Locate the New South Wales Department of Education and Training document *Guidelines for the Safe Conduct of Sport and Physical Activity in Schools* at <www.sports.det.nsw.edu.au/spguide>. Click on the link titled 'Guidelines for Specific Activities' and locate the sport and the physical activity that you discussed in question 1. Compare and contrast the recommendations in the document with what you recall from your experience.
- 3 As a class, discuss why organisations place heavy emphasis on safe practices when conducting physical activity and sport. Predict the future development of how physical activity and sport organisations will respond to managing risk.

- 1 Select a physical activity or sport and track the evolution of protective equipment in that activity or sport.
- 2 Discuss the impact this evolution has had on safe participation.
- 3 Examine how other interventions, such as rule changes, have complemented the safety improvements derived from protective equipment advancements in this activity or sport.
- 4 Research the support provided to schools and junior clubs by the peak body representing this sport and evaluate their safe participation policies.



Injury management

Despite undertaking comprehensive risk assessments and putting in processes and actions to manage identified risks, accidents sometimes still occur in physical activities and sports. Therefore, it is critical that relevant staff are trained and available to provide immediate injury assessment and management.

Injury assessment

TOTAPS is widely regarded as the recognised response for assessing injuries in the first instance. It is a progressive approach that enables judgments to be made at each stage of the assessment, and as such the assessor can make the decision at any point to cease the process and send the injured player for medical attention as appropriate.

TOTAPS is an acronym that stands for:

- T** Talk
- O** Observe
- T** Touch
- A** Active movement
- P** Passive movement
- S** Skills test.

The process is implemented by talking to the injured person (and/or others) to determine the nature and extent of their injuries. Questions that might be asked include the following.

- Where exactly does it hurt?
- Can you rate the pain on a scale of 1–10, with 10 being the worst?
- How did it happen?
- Did you hear anything when it happened?
- Have you had any injuries like this previously?

Observation is the second step and this involves looking for signs of the injury and its seriousness. Signs to look for include discolouration, deformity, swelling and bleeding. Making comparisons with uninjured parts of the body, such as comparing an injured left ankle with the uninjured right ankle, can be helpful.

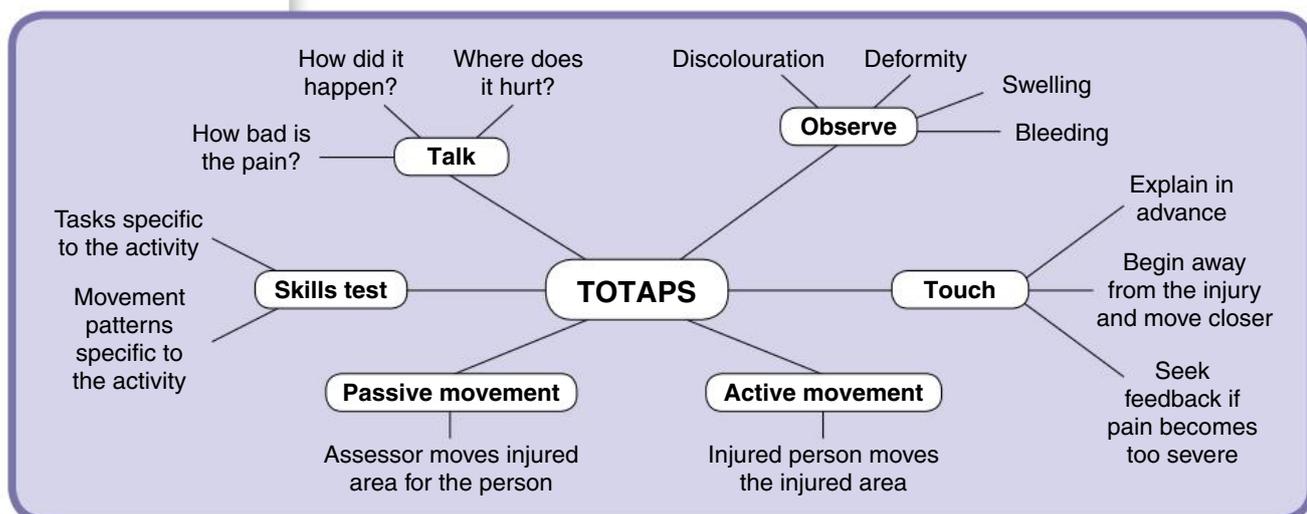
Touch is used to provide information about the extent of pain being experienced and to feel for any abnormalities. Before touching the injured person, advise them that this is the next step in the assessment process to ensure that they are comfortable with being touched. Tell them exactly what you will do and where they will be touched. It is good practice to begin touching slightly either side of an injured area and gradually moving closer to the injury itself. This will give the person an opportunity to indicate when the pain of being touched is becoming too severe.

Active movement refers to asking the injured person to move the injured area of their own accord. This allows judgments to be made about the injured person's capacity to continue participating in the activity and gives them initial control over testing out their own injury.

Passive movement is when the assessor moves the injured area for the person. This is an opportunity to establish the extent of pain-free movement without the injured person holding back or compensating for the injury by placing more strain on other parts of the body.

Skills tests are the final step in the process and they are used to help determine the injured person's capacity to resume participation. Skills tests that are used are typically specific to the movement patterns and tasks that will be required in the activity and that will place reasonable pressure on the injured area. If the injured person can satisfactorily complete these tasks at a suitable intensity, then they may be able to resume participation.

Figure 6.6
TOTAPS mind map



Immediate treatment

Immediate treatment of injuries by non-medically trained people usually consists of basic first aid. In cases where injuries are serious, then medical assistance should be sought.

Common first-aid treatments used in sport and physical activity contexts include:

- using **RICER** (rest, ice, compression, elevation and referral) for soft tissue injuries such as strains, sprains and tears to muscles and connective tissue
- using splints and bandaging for immobilising fractured bones
- rinsing knocked-out teeth with milk and holding them in place
- applying **PPB** (pads, pressure and bandages) to bleeding wounds
- managing hypothermia by warming the injured person, using blankets
- administering reliever medication for asthma attacks.

Injury rehabilitation

Injury rehabilitation is a specialist area that requires input from professionals with specific knowledge and expertise. Physiotherapists, sports medicine practitioners and other qualified people should be called upon to help devise rehabilitation programs for injuries that have required medical attention.

The injury rehabilitation process can include interventions such as:

- cold and heat therapy
- massage
- progressive mobilisation and stretching
- taping and bandaging
- training programs to safely regain fitness levels
- structured returns to training and play that specify the time allowed to train or play, and activities that are and are not permitted.



Learning experience

In groups, complete the following tasks in relation to one of the scenarios listed opposite (or one that your group writes) and then share your work with the other groups.

- 1** Demonstrate how TOTAPS would be applied in this situation.
- 2** Explain the most appropriate immediate response to this injury or condition.
- 3** Outline precautions that could have been taken to prevent this situation arising.
- 4** Outline some long-term strategies that may be needed to allow rehabilitation from this injury or condition.

Scenario one

A 16-year-old elite junior tennis player collapses during a match played in high temperatures with high humidity. The player has a high body temperature, seems confused and complains of dizziness and nausea.

Scenario two

A footballer injures his thumb while making a tackle. There are reports from other players of hearing a 'crack' and the thumb is very swollen.

Scenario three

A 28-year-old elite netballer feels her knee give way when she lands awkwardly on it after catching a pass. She has had two previous reconstructions on the same knee.

Scenario four

Two volleyball players dive to make the same shot and clash heads. One player is a bit shaken but otherwise uninjured while the other one is bleeding from a head wound, and after vomiting is very drowsy.

Chapter cloze

All people owe others in society a _____ not to cause them injury. While many sports and physical activities carry inherent _____, _____ can be taken to minimise them. An effective way to do this is by undertaking a _____ prior to physical activities and sports being conducted.

In cases where harm occurs as a result of recklessness or carelessness, liability may be increased due to _____.

Preventing injuries is a critical part of participating with safety and so too is having the skills, resources and processes to respond effectively if injuries do arise. People should be on hand who are able to perform injury assessment strategies such as _____, and have the capacity for immediate treatments, such as _____ and _____, to be applied as necessary.

duty of care
negligence
PPB
precautions
RICER
risk assessment
risks
TOTAPS

Review questions

- 1 Identify environmental and behavioural factors that can impact on the degree of risk present in physical activity and sport.
- 2 Explain ways that skills for conducting risk assessments effectively can be developed.
- 3 Using one physical activity or sport example, explain in detail how a risk assessment can be applied effectively.
- 4 Evaluate the importance of sports organisations developing safe participation policies.
- 5 Justify the need for professionals to be involved in developing injury rehabilitation plans.



PART

2

Physical activity
and sport in
society

7

Australia's sporting identity

OUTCOMES

In this chapter a student:

- 1.2** analyses the benefits of participation and performance in physical activity and sport
- 2.1** discusses the nature and impact of historical and contemporary issues in physical activity and sport
- 2.2** analyses physical activity and sport from personal, social and cultural perspectives
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance



STARTING POINT

Australia has well-developed traditions of sport that tend to demonstrate a unique set of characteristics. These characteristics include values like mateship, teamwork and perseverance. Taken together, these values are sometimes referred to as Australia's 'sporting identity', a big idea made up of past and present sporting experiences.

The role of sport in shaping Australia's identity

From suburban backyard to Olympic stadium, from weekend spectator to highly trained athlete, sport in Australia is seen as a national **obsession**. From the early colonial days in Australia, convicts and free settlers used sport as a way to define their nation. Defeating 'mother England' in cricket became a source of national pride. Unlike in **Britain**, sport in Australia could be played all year round due to the climate. There was no shortage of playing space, and sport was viewed as a way for young men to express their **masculinity** and develop mateship. The early European settlers in Australia participated in horse racing, hunting, prize fighting, rowing and cricket—games inherited from their homeland. The nature of these sports was modified to suit the climate, interests and resources of the new colony.

Sport was a masculine pursuit in the early colonial days and often linked with the 'public house'. The role of women in sport was largely determined by social traditions and the dominant masculine **culture**, confining women's physical activity pursuits to 'ladylike' sports, such as croquet and tennis.

Today, sport is still seen as a characteristic of Australian life. The mass **media** has changed the nature of modern sport, influencing what we see and how we see sport. Sport has become big business. Multinational companies sponsor players, participants purchase brand-name sports clothing and equipment, and high-profile players are used as marketing agents. There is an increasing trend toward mass spectatorship, as opposed to participation.



Figure 7.1

The Melbourne Cup is a sporting event that 'stops a nation'



Learning experience

- 1** In a small group, compile a list of what you see as the top 10 sporting moments in Australia's history.
- 2** As a class, review each group's top 10 list and rank the sporting moments in relation to their contribution to shaping Australia's sporting identity.
- 3** Copy the table below into your workbook and provide reasons why you believe the top 10 sporting moments you listed have shaped Australia's identity.

Top ten sporting moments in Australia (e.g. <i>Australia II</i> winning the America's Cup in 1983)	Reason sporting moment contributed to shaping Australia's identity
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

The history of sport in Australia

Sport in the colony of Australia had different meanings for different groups of people. For the wealthy upper class, sport was a reflection of and link to their British heritage. It provided an avenue for maintaining certain British customs and characteristics. Character-building qualities, such as leadership, good sportsmanship, perseverance and fair play, were encouraged in school sports. Sport was viewed as an avenue to create socially desirable citizens. However, sporting opportunities were very different for the lower and upper classes. Sport was also a way to maintain the social barriers that existed in Britain.

For the wealthy, sport was played by amateurs—those who had the finances to purchase equipment and uniforms and to contribute toward club fees or membership, and who did not receive any remuneration for their participation. Sports played by the wealthy included cricket, rugby union, Australian Rules football, tennis, hunting, rowing, horse riding and athletics.

Participation in sport also provided a source of entertainment for the convicts and lower classes. Extra income could be gained by betting on or participating in a prize fight or professional running (pedestrianism). The Stawell Gift is the world's oldest foot race and commenced in 1878. The wealthy class sponsored participants who were rewarded with prize money. Many of the early participants were young Indigenous men.

Sport was viewed as a masculine activity in colonial Australia, with few opportunities for women to participate. Sport in the colonies was characterised by mateship, toughness, loyalty, courage and determination: all qualities that define Australia's **national identity**. Women were considered spectators, although for the few wealthy women who did participate in sport, suitable feminine activities were played, including tennis, croquet and golf.

Sport became a vehicle for creating Australia's national identity. Cricket successes against England assisted in establishing a sense of the emerging nation's independence and the worthiness of convict stock. In 1868 the first sporting team toured outside Australia—an Indigenous cricket team who secretly travelled to England to participate in a five-month tour.

Figure 7.2
The first sporting team
to tour outside Australia





Learning experience

As a class, construct a timeline to demonstrate changes in the nature of sport in Australia.

Allocate groups of students to specific periods of time from European settlement until the present and investigate the nature and role of sports within that time period. Include:

- who played the sport (men/women, upper/working class, European/Indigenous)
- how and where the sport was played
- what influenced the nature of the sport (prize money, politics, nature of equipment, media, gender roles)

- who the heroes of the time were and how they contributed to Australia's sporting identity.

Each group then prepares an information card titled 'Snapshots in time' to detail the sports and events in which Australians participated during that time period.

Attach the information cards along the timeline and display it on a wall in the classroom. As a class, review the timeline and discuss reasons why changes occurred in the nature of sports from settlement until today.

The contribution of sport to local and national identity

Australia is seen as a nation of sport-loving people who have the economic, political and geographic capacity to support large-scale sporting events. Historically, the physical harshness of the Australian environment prompted a national identity of toughness, mateship and the ability to overcome hardship. These qualities engendered a sporting spirit in the early colony, supported by national factors—such as the gold rush, Federation, the Depression, the world wars, and the ANZAC tradition—and local factors that were particular to a town or community.

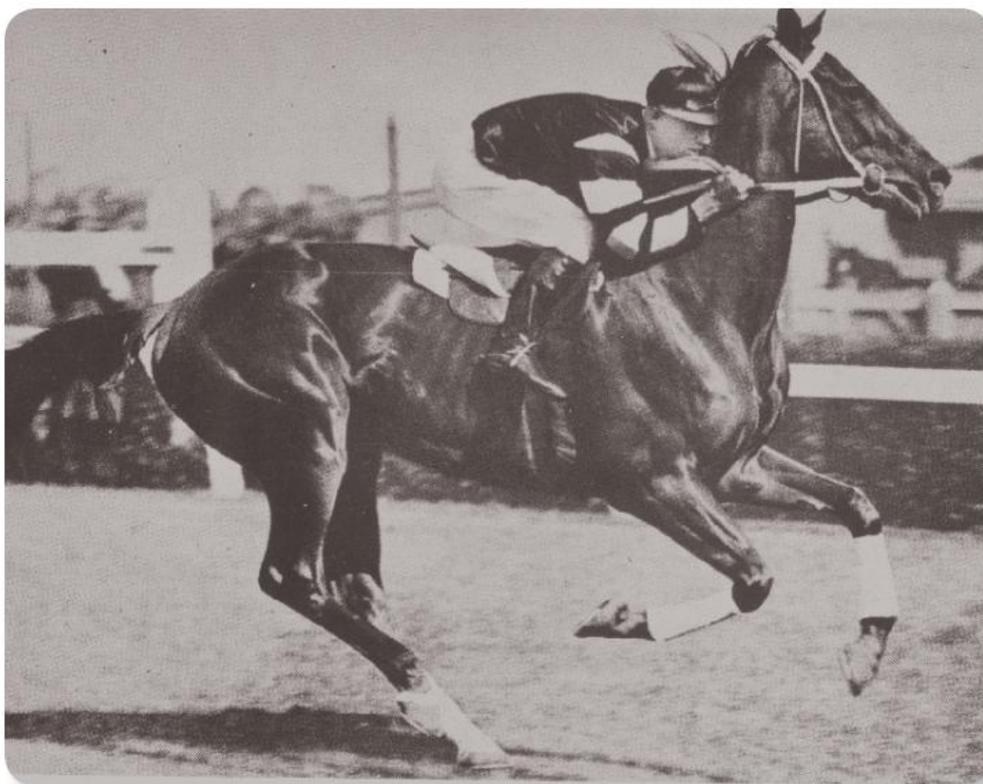
National identity

Australia's national sporting identity has been achieved through successes in international competitions such as the Ashes. Historically Australia measured its success against Britain; however, in more recent times Australia has come to measure itself more often against the sporting prowess of the United States of America.

Australians make heroes of their most successful sportsmen and women, and museums have been established to celebrate and represent their sporting achievements. Sir Donald Bradman and the racehorse Phar Lap are two examples of Australia's prized sporting heroes. The Melbourne Cup is a sporting event that 'stops a nation', indicating to other nations the value attributed to sport in Australia.

Australia performs well in international events, such as world cups and the Olympics. These successes contribute to a distinct national identity perpetuated by the media and continue to be based on the well-versed values of 'having a go' and 'supporting the underdog', so representative of Australian culture.

Figure 7.3
Phar Lap, a national sporting hero



Learning experience (ICT)

Create an electronic poster to highlight how the notion of being an ‘underdog’ has its origins in the development of the ANZAC tradition. Scan newspaper headlines and import historic photos of the diggers battling against adversity during World War I. Include a 200-word report that synthesises your findings.

Access the following site to gather information and images for your e-poster: Australian War Memorial <www.australiansatwar.gov.au/stories>.

Local identity

There are economic and social benefits for cities and towns boasting a national sporting hero. For example, sporting Donald Bradman brought fame and recognition to the town of Bowral, where a museum has now been built in his honour. For many rural communities, the emergence of a successful sports person ‘puts the town on the map’, bringing acknowledgment of and respect for the local community. Many regional communities take pride in being the training grounds for the nation’s future sporting heroes.

Interestingly, local identity can also be gained from the types of sports played in a community. For the residents of Alice Springs, the dry riverbed of the Todd River is best known for the annual Henley-on-Todd Regatta, where participants race in bath tubs and bottomless boats along the dry, sandy bed.



Figure 7.4
Henley-on-Todd brings sporting recognition to a local region

Perceptions of Australia and sport

Perceptions of Australia and sport tend to emerge from what is central to commercial media coverage. These perceptions tend to focus on Australia as a successful smaller population able to defeat teams and individuals from much larger countries. However, through media coverage, specific groups that are not as central to advertising revenue have also played a role in shaping Australia's sporting identity at a grassroots level.

Despite social, economic and cultural barriers, women have contributed to Australia's sporting identity. Many of the sports played in Australia in the early days reflected those played by the rich upper-class British; however, the reality of the Australian environment required colonial women to participate in shooting, rowing, archery, swimming and horse riding as part of their everyday activities. Women's participation was often inhibited by social values and by their impractical fashion. Today women participate in a variety of sports, including some that were traditionally male dominated, such as rugby union, boxing and soccer.

Indigenous Australians have also contributed significantly to Australia's sporting identity. Despite racial and socioeconomic difficulties, athletes such as Catherine Freeman, Nova Peris-Kneebone, Patrick Johnson and Anthony Mundine have not only become international sporting heroes but also contribute to their Indigenous culture as role models for young Indigenous Australians. Both Freeman and Peris-Kneebone have been awarded Young Australian of the Year, in 1990 and 1997 respectively.

Learning experience (ICT)

Visit the following website and connect to 'She's game: women making Australian sporting history': <www.womenaustralia.info/exhib/>. This site highlights the stories of 16 women and 4 sporting teams and clubs who have contributed significantly to Australia's sporting identity.



Select one of the stories and prepare a five-slide PowerPoint presentation for the class that outlines:

- a brief history of the woman's or team's sporting achievements
- the contribution the individual or team has made to the sporting identity of their community and Australia.

Print the PowerPoint document as a notes page for the class and present it, accompanied by a two-minute speech. Ensure that you don't just read the PowerPoint slides. Include some interesting facts and an activity for the class to complete, such as a crossword puzzle, or host a game show of simple questions based on your presentation.

Kevin Coombes

In 1960 Kevin Coombes became the first Aboriginal person to participate in the Olympic Games. He was a Paralympian who played wheelchair basketball. He represented Australia in five Paralympics—in 1960, 1968, 1972, 1980 and 1984—as well as in the Commonwealth Wheelchair Games in New Zealand, the Silver Jubilee Games in Britain in 1977, and the World Challenge in Los Angeles, USA.

Coombes was awarded an Order of Australia Medal (OAM) in 1988 and is a member of the Aboriginal and Islander Sports Hall of Fame. The article below describes Kevin Coombes' outstanding contribution to Australian sport. His sporting fame provided him with the opportunity to advocate for improved literacy levels in Aboriginal youth.

Kevin Coombes, *Deadly Vibe*, issue 92, October 2004 **This sporting life**

Indigenous Australians all share a fierce pride and adulation when it comes to our sporting heroes, and we all love nothing more than cheering them onto greatness from the sideline as they do us proud. But what happens when the bright lights of the stadiums, the cameras and thousands of adoring eyes no longer shine on those who have excelled to the best of their ability and then retired triumphantly, leaving behind many unforgettable memories and magic moments?

Deadly Vibe catches up with one of our most successful Olympians to find out how retirement has treated them.

Kevin Coombes:

'When I played my last game, the final of the Australian Championships in Canberra, there was a tear in the eye,' explains one of Australia's greatest Paralympians, wheelchair basketballer Kevin Coombes.

'It was the gold medal game and I announced to my team mates before the match that it would be my last.'

In an amazing career that spanned 24 years, Kevin reached the absolute pinnacle of his sport, leading his country against the world's best while meeting some of the highest profile celebrities around, from sporting stars to prime ministers

and princes. Kevin was Australia's first Indigenous Paralympian, and played basketball for Australia in five Paralympics during the 1960s and '70s. He was a member of the first-ever Australian Paralympic basketball squad that headed to Rome for the inaugural Paralympics in 1960 and would go on to captain the Australian team during the 1974 Commonwealth Games in New Zealand, the 1977 Jubilee games in London and was the captain-coach of the Australian team during the 1972 Paralympics games in Germany.

'Initially when I retired from sport, I was lost, and really not sure what I would do with the rest of my life,' says Kevin.

'But soon I began to realise that it was far from the end, and I kept on reinforcing to myself all the time that life does go on. Not long after I became the commissioner of the National Wheelchair Basketball League, and staying in contact with the sport was very important. I still go out to watch games today and have stayed close friends with my old teammates who now are like family,' he says.

With the same passion and commitment he gave to his sport, Kevin took the same kind of approach to tackling life after sport. Over the years, Kevin has been a member of various boards, including

the national Indigenous advisory committee, which included other people such as Garry Ella, Charles Perkins and Lowitja O'Donaghue, for the Sydney Games in 2000.

Kevin also worked with the Indigenous Ambassadors Program, which promotes the importance of literacy and education to Indigenous youth. As part of his role as an ambassador, Kevin spoke directly to young Indigenous people about the importance of working hard for your goals and achieving your dreams through hard work and dedication.

'I'm totally committed to everything that I do, and I think that comes from playing sport at such a high level for so long,' says Kevin.

'You keep that mentality that if you're going to do something you have to give it your all and make sure it's successful—you don't train so hard just to come second.'

Today, Kevin maintains his involvement with Aboriginal hostels and is a member of the Indigenous Committee for the 2006 Commonwealth Games in Melbourne. In 1993, Kevin's sporting achievements and his work with the Indigenous community were recognised with an Order of Australia Medal. For Kevin, though, his major highlight in retirement was being acknowledged and recognised by his own people when he carried the torch for the Paralympics Opening Ceremony in Sydney in front of 100 000 people, the only Indigenous person to do so.

'I think to excel at that elite level in sport, you have to be a little selfish, so you need to reward those people who supported you during your career after you retire,' says Kevin.

'I was able to enjoy a great career thanks to the support of all my friends and family, and my success is due to them.'

Catherine Freeman

Catherine Astrid Salome Freeman, OAM (born 16 February 1973) is an Australian athlete who is particularly associated with the 400 metres race. As an Aboriginal Australian, she is regarded as a role model for her people, and by many in the non-Aboriginal community as a symbol of national reconciliation between Indigenous and non-Indigenous Australians. She was born in Slade Point, Mackay, Queensland. The Slade Point 'Cathy Freeman Oval' is named after the famous athlete.

At the 1994 Commonwealth Games in British Columbia, Canada, she created a great deal of controversy by waving the Aboriginal flag as well as the Australian flag during her victory lap of the arena. Normally, only the national flag is so waved. There was no such controversy when she did the same after winning her gold medal at the Sydney 2000 Olympics, even though the use of non-national flags at the Olympics is officially forbidden.

Freeman won two World Championships in the 400 metres event, in Athens (1997) and Seville (1999). At the 1996 Atlanta Olympics, she won the silver medal behind Marie-José Percec of France.

On 25 September 2000 Catherine Freeman won the 400 metres Olympic title in front of her home

crowd during the Sydney 2000 Olympics. The medal was regarded as Australia's 100th gold medal. Earlier, she had lit the Olympic Flame in the Games' Opening Ceremony. This made her the only person to light the Olympic flame and go on to win a gold medal at the same games.

Figure 7.5

Catherine Freeman is a famous Indigenous Australian athlete





Learning experience

- 1 Read the case study on Kevin Coombes (on pages 108–9) and complete the following activity.

Imagine you are lobbying the committee who awards the Order of Australia Medal (OAM) to recognise Kevin's sporting achievements. Write a letter to the editor that outlines Kevin's achievements and highlights his contributions to sport. Use persuasive language and acknowledge his position as a role model for paraplegics and Indigenous people, and his contribution to Australia as a nation.

- 2 Read the biography of Catherine Freeman (on page 109) and conduct your own research to find similar biographical details on Nova Peris-Kneebone.

Prepare a 'Sporting hall of fame' poster that fully details both athletes' contributions to the Australian sporting identity. Include the events in which they competed, their results, their contributions to ceremonies, and the awards and recognition of their achievements they have received, both as sporting heroes and as Indigenous role models.

HotSpot



As a class, participate in a carousel debate. A carousel debate requires students to face each other in two concentric circles. The inner circle assumes the role of the negative, while the outer circle assumes the role of the positive. Students speak to the person standing opposite them for 30 seconds, then the students in the outer circle move around the circle three places to face a new partner and students assume the opposite viewpoint. The debate resumes. Repeat this process several times. Debate topic: Aboriginal athletes should use their fame to promote Indigenous causes.

- 1 Copy the following table into your workbook and note the arguments you heard during the debate.
- 2 Write a brief evaluative statement based on the arguments presented.

Reasons for	Reasons against

Webconnect

Connect to the Australian Sports Commission's Traditional Indigenous Games website at www.ausport.gov.au/participating, which describes a series of Indigenous games played in different areas of Australia. These games are closely linked to the natural environment and the daily lives of the people.

As a class, participate in a selection of these games or teach students from another class to play them.





The impact of major events and competitions

Hosting major sporting events provides economic and political benefits for the host country, city or local region. Tourist spending contributes increased financial support, while media coverage of the event provides public recognition and places the host region 'on the map'.

Local, state, national and international events

Major sporting events bring recognition and economic support to the host area. Regional towns, cities and countries benefit significantly from the influx of spectators, participants and support staff of sporting events; businesses of the host area benefit economically from dollars spent on food, accommodation, sporting apparel, local interests and souvenirs.

For all major sporting events, infrastructure needs to support the hosting of an event. For local councils, this may mean ensuring that local sporting facilities include the latest technological scoring systems, or that pitches and court surfaces are in excellent condition and spectator-viewing areas are of an adequate size.

The most significant international sporting events in recent Australian history have unquestionably been the 2000 Olympics in Sydney and the 2006 World Cup Soccer. These events were some of the largest and most publicised sporting events on the world stage, and contributed to positioning Australia positively in the international sporting and economic arena.

In the words of then International Olympic Committee President Juan Antonio Samaranch, 'these were the best games ever'. Australia, and in particular Sydney, showcased its organisational ability, architecture, media,

Figure 7.6

Beach cricket is now played as a competitive sport that highlights Australia's sporting identity

culture, entertainment, hospitality and generosity of spirit as volunteers and hosts. The Sydney 2000 Olympic Games were highly successful, not only because Australia achieved its highest medal tally in history (16 gold medals) but also because of the efforts of the 47 000 volunteers.

Similarly, the Australian soccer team made history in the 2006 World Cup in Germany by securing a place in the last 16 teams. For the first time in 32 years, Australia contested Italy in the quarterfinals. Despite losing 1–0 during the final seconds of injury time, the team transformed the nation's commitment to the game by scoring goals in the Group F rounds, winning 3–1 against Japan and playing with national pride.

The impacts of hosting major international events like the Sydney 2000 Olympics and the achievements of athletes in the 2006 World Cup are numerous and wide-ranging. Some significant areas that can be affected (with examples taken from the 2000 Olympics) include:

- sporting infrastructure (the Olympic Park facilities were built and remain after the Games)
- sporting expertise (Australian coaches, trainers and sports medicine professionals have since been recruited to other nations)
- tourism (an influx of international visitors to Australia was noted in 1995–2004, creating millions in tourist revenue and creating approximately 150 000 new jobs)
- participation rates (participation rates in sports represented at the Games increased, particularly in water polo, hockey, athletics and beach volleyball)
- Indigenous issues (public recognition of the achievements of Indigenous people and promotion of these athletes as positive role models—Catherine Freeman lighting the torch and Nova Peris-Kneebone completing the first leg of the torch relay).



Learning experience

Use a range of data sources to investigate how sporting events such as the Melbourne Cup, the Sydney to Hobart Yacht Race, and the Bathurst 1000 impact on local areas of Australia.



Figure 7.7
Volunteers contributed greatly to the success of the Sydney Olympic Games in 2000

The local impact of international participation

The local impact of hosting or participating in international sporting events such as World Cup soccer or rugby, the Ashes, or swimming and athletic meets is paramount for Australian sport. For example, following Australia's successes in the 2006 World Cup soccer, widespread interest in the game has increased and Australia is bidding to host the 2018 FIFA World Cup.

Factors influencing Australia's sporting identity

Australia's sporting identity is greatly influenced by factors such as the media, political considerations, culture and the effect of sponsorship. The attitudes and behaviours of spectators, officials and participants also have a major impact.

Media

Sport and the media are two of the most powerful socialising tools in Australia. The media can provide a specific sport with an international profile, create heroes and role models, increase spectator appeal and encourage attractive profitable **sponsorship** opportunities. Through the media, sports transmit messages about social issues like gender, ethnicity, national identity, violence, sexuality and social class.

A content analysis of print and visual media reveals that football, horseracing, and, seasonally, cricket and tennis are given the most print space and airtime. These traditionally male-dominated sports, with Anglo-Celtic origins, shape our ideas of how sport should be played and which sports should be programmed for reading, viewing or listening. The media design their content for particular spectator audiences; for example, the Australian media generally cater for male fans, rather than female or ethnic sports audiences.

Australian media generates heroes of sportspeople, much like the stories of bushrangers and stockmen, in an effort to re-create and reinforce the national identity of Australia's past.

As represented on players' uniforms and spectators' memorabilia, the media has assisted in promoting our national symbols, emblems and colours, and has contributed to Australia's burgeoning national consciousness.

Politics

Sport is influenced by politics from international and internal sources. The Olympic Games have been used as a venue for many political protests. At an international level, sporting boycotts are an avenue for protesting against political conflicts. For example, the International Olympic Committee banned South Africa from competing in the Games for 32 years because of its maintenance of apartheid legislation, and Catherine Freeman voiced her



Figure 7.8

The boxing kangaroo is a symbol of Australia's sporting identity



political support for Indigenous Australians during her victory lap of the Commonwealth Games in Canada by carrying both the Australian and Aboriginal flags.

Sport is also used by politicians to raise their profile and herald support from Australian voters. Many Australian prime ministers have attended finals of national sporting events, and the most notable political statement was made by Bob Hawke in 1983 when he declared a national holiday the day the *a II* yacht won the America's Cup. Each year, the Prime Minister selects cricket players to compete in an Australian team for the Prime Minister's XI at Manuka Oval in Canberra. In 2005, John Howard made a controversial decision to play the traditional match on the same day that Australian Van Tuong Nguyen was scheduled to be hanged in Singapore for drug smuggling.

Politics also exists within sporting associations. Player selection, funding and future planning decisions may be affected by club and officials' bias.

Figure 7.9

Australia II winning the America's Cup in 1983 renewed interest in yacht racing and brought international recognition to Australia's sporting ability

Learning experience

- 1 In a small group, prepare a television commercial that promotes Australia and its national sporting identity. The commercial needs to promote the sport-loving identity of Australians and include a range of national icons, symbols and heroes that you think typify our national sporting identity.
- 2 Investigate how the successes of high-profile athletes and teams have impacted on the broader community.

Consider charities such as the Steve Waugh Foundation <www.stevewaughfoundation.com.au> or the George Gregan Foundation <www.georgegreganfoundation.com.au>

and investigate the aims of your chosen foundation and the outcomes of their efforts.

- 3 Using the internet and other sources, investigate examples of how sport is used for political purposes at the Olympic Games. Examples might include the 1936 Berlin Olympics and Hitler's propaganda, 1956 Melbourne Olympics boycott, 1968 Mexico Olympics and the Black Power protest, 1972 Munich Olympics and the Palestinian Black September group, 1996 Atlanta Olympics and the pipe-bomb explosion and 2004 Athens Olympics and the US team accommodation on an ocean liner.

Players, spectators and officials

When attending a sporting match, the attitudes and behaviours of players, spectators and officials may be under public scrutiny. Player abuse of referees, spectator violence and officials' poor handling of field or court situations can result in damaging the reputation of the individual, the sport and the nation. Incidences such as the sacking of the umpire Steve Bucknor in the 2008 Cricket Test in Sydney, the actions of Chela—the Argentinean tennis player who spat at Lleyton Hewitt—and spectator violence at the Australian Open tennis tournament present negative perspectives of Australian sport.

'Just forget about it, mate'

Lleyton Hewitt's major rivals for the Australian Open title have defended his on-court intensity in the wake of the spitting row that has overshadowed the Australian's march into the fourth round.

Yesterday, as Juan Ignacio Chela was fined \$2600 for spitting at Hewitt during their third-round clash on Saturday night, defending champion Roger Federer and four-time winner Andre Agassi both defended Hewitt against charges his behaviour had incited the Argentinian's behaviour.

In a tense fourth set, Chela became agitated when Hewitt celebrated an unforced error that gave the No. 3 seed a break-point. On the next point Chela served the ball on the full directly at Hewitt and then at the change of ends appeared to spit in his direction.

Federer conceded Hewitt's intensity did aggravate opponents but said that was no excuse for Chela's behaviour.

'It definitely plays a role but I don't think you should go (to) that extreme,' the Swiss master said after he progressed into the quarter-finals.

Federer said there was no need for Hewitt to repress his naturally aggressive style. 'I understand him. Geez, he's in Australia, you know. He wants to win this tournament so badly and he's showing it. He wants people to feel it.

'What is "tone it down"? Three "c'mons" less per match? That's not going to make any difference. We all agree, I mean, he's fine the way he is.'

Agassi said he had no problems with Hewitt's combative style, adding he preferred not to waste energy worrying about his opponents' behaviour.

'What I do watch and admire is his competitiveness and his game. And I find that when I'm out there

against him, I need to step up because of what he brings to the table, not because of how he chooses to conduct himself,' he said.

Yesterday, Chela became the 15th player to be fined for poor behaviour during the tournament. Although he was not warned by the chair umpire during the match, Chela was fined after a video review, the resultant penalty greater than the \$1500 imposed on Fabrice Santoro last year when he spat at a line judge.

After defeating Chela on Saturday night, Hewitt tried to defuse the situation by publicly accepting an apology from the Argentinian but there was tension between the camps with Hewitt's coach Roger Rasheed involved in a verbal altercation with Chela's trainer Fernando Aguirre after the match.

Hewitt, who plays Rafael Nadal today, said he was disappointed but accepted the apology. 'He apologised at the net after the match and I accepted his apology ... I don't think it is the right thing, no. It's unfortunate because we were having a good dogfight match out there. We're both competitive blokes out there. We were both going for it.

It's sad something like that happens. But at the end of the day, he apologised at the net when we shook hands. I said: "Just forget about it, mate".'

For his part, Chela denied that he spat at Hewitt although he did concede his frustration with the Australian's on-court antics. 'There was spitting but not in Lleyton's direction. Lleyton thought it was in his direction and at the end of the match I apologised but I was not spitting at Lleyton,' he said.

Taking offence

Players who have been fined at this Australian Open

Men

- Julien Varlet (Fra): audible obscenity, \$US250 (\$A325)
- Novak Djokovic (Scg): racquet/equipment abuse, \$US250
- Todd Reid (Aus): racquet/equipment abuse, \$US500 (\$A650)
- Irakli Labadze (Geo): audible obscenity, \$US1000 (\$A1300)
- David Nalbandian (Arg): racquet/equipment abuse, \$US500
- Flavio Saretta (Bra): verbal abuse, \$US1500 (\$A1950)
- Igor Andreev (Rus): coaching and actions of coaches, \$US1000
- Guillermo Canas (Arg): coaching and actions of coaches, \$US1000
- Pavel Vizner (Cze): racquet/equipment abuse, \$US500
- Juan Ignacio Chela (Arg): unsportsmanlike conduct, \$US2000 (\$A2600)
- * Cecil Mamiit (US) successfully appealed \$250 fine for audible obscenity.

Women

- Maret Ani (Est): coaching and actions of coaches, \$US250
- Aniko Kapros (Hun): racquet/equipment abuse, \$US500
- Magui Serna (Esp): audible obscenity, \$US1000
- Nadia Petrova (Rus): coaching and actions of coaches, \$US1000
- Karolina Sprem (Cro): coaching and actions of coaches, \$US1000
- * Zuzana Kucova (Svk) successfully appealed \$250 fine for unsportsmanlike conduct.

Sponsorship

Being an elite athlete is a full-time occupation and requires substantial money to finance tournament fees; travel costs; accommodation; trainer, physiotherapist, sports psychologist, dietician and coach fees; and the purchase of clothing and equipment. Sponsorship is a way for athletes to finance their participation in elite sport. The amount of money athletes, sports, teams or clubs earn from sponsorship usually equates with the amount of publicity they receive. The local netball club may attract small local businesses as sponsors and in return promote their business through advertisements in club bulletins, or on-ground signage and player uniforms.

However, elite athletes and high-profile sports earn significant sums of money from large corporations in return for product endorsement, media commercials, newspaper space and airtime. For smaller or lesser-known sports and clubs, sponsorship is often limited.

Sponsors supply athletes with brand-name clothing and equipment to showcase when playing in tournaments covered by the international media. Athletes act as promoters of a particular product or brand name. The term 'brand' is derived from the pre-12th century English word *brant*, meaning burn; it came to mean a burned-in mark such as those used on livestock or slaves. Today, adding an identifying logo to sports attire and equipment is a reflection of its value. The Nike swoosh, for example, has become synonymous with Michael Jordan and being an exceptional athlete.

Sponsorship can have significant benefits for individuals, regions and states, including:

- economic growth for a region (for example, in Phillip Island for the Phillip Island Grand Prix, and in Sydney for the Eastern Creek Raceway)

- improved administration of the sport, which may include employment of qualified full-time staff to act as business managers and promoters
- increased recognition of the athlete/s and thus greater opportunity for participation in international events
- increased recognition of the sport, particularly increased media coverage
- development of juniors program, increasing the depth of skill and ability throughout the club ranks.

Sponsorship also has disadvantages for athletes, clubs and regions. These can include:

- media coverage that focuses on male-dominated professional team sports
- sponsors changing the nature of the game (as with Kerry Packer and one-day cricket)
- sponsors altering competition titles and breaking with tradition (for example, New South Wales Open Tennis changed its title to the Medibank International)
- restrictions imposed by contractual agreements between players and companies
- players having competing sponsors at different representative levels.

Cultures

Australian sport is dominated by male sports with Anglo-Celtic origins. Sports such as rugby union, cricket, tennis, golf, and horseracing have significant player numbers and are prominently represented in both print and electronic media. This dominance of particular types of sports silences both other sports and other cultures. The multicultural nature of Australia today raises the question as to the suitability of these sports for both Indigenous and migrant players. For some cultures, participation in certain types of physical activities and sports is seen to be inappropriate due to modesty, femininity or religious beliefs. For some young women from Muslim cultures, pursuing traditional physical activities such as dance is important, while participating in mixed-sex competitions and swimming in public is culturally inappropriate. For Indigenous Australians, Australian Rules football is a favoured sport, with its origins firmly linked with their culture.



Figure 7.10

The origins of Australian Rules football are closely linked to the culture of Indigenous Australians

As the cultural representation of Australia continues to change, sports ‘inherited’ from other countries may gain in popularity.



Learning experience

- 1 In groups of three, read the newspaper article titled ‘Just forget about it, mate’ (on pages 115–16). Prepare a brief report for the class that explains how player behaviour influences Australia’s sporting identity. How might spectator and official behaviour also influence Australia’s sporting identity? Can you think of some recent examples?
- 2 Select a local sport and investigate the nature of its sponsorship.
 - Are they sponsored? If so, by whom?
 - How much does the club/event/team/athlete receive in sponsorship?
 - What are their obligations to the sponsor?
 - What do they receive from their sponsor?
 - How does receiving sponsorship impact on the identity of the athlete/club/sport/team?
- 3 Select a local community event in which to participate, such as a fun run or walkathon, and prepare a list of potential community sponsors for this event. How would you contact these sponsors? What might you request from them? What might you offer them in return for their financial support? How could you encourage them to sustain their sponsorship of future events?
- 4 As a class, participate in a range of sports and physical activities from other countries, such as belly dancing, table tennis, volleyball, tai chi and kick-boxing, or in traditional Indigenous games.

Future perspectives on sport in Australia

In the future it is predicted that sport will become more competitive with further technological advances in playing surfaces, equipment and clothing. Prize money will increase as a result of the desire of multinational companies to gain media exposure and product endorsement. Elite athletes will be geared toward performance in terms of records, limits and results. The boundaries of human performance will be pushed through improved training schedules, techniques, equipment and the desire to win.

Improvements in psychological research may assist athletes to focus throughout matches and ‘psych out’ their opponents. Advances in sports medicine may support athletes to return more efficiently to play after injury and reduce rehabilitation time.

Participation rates

Participation in spectator sports may rise in response to the at-home leisure trend and engaging in physical activity pursuits may decrease due to the threat of litigation, and public safety and personal security concerns. The types of physical activities in which people participate may alter due to changes in climate and with the impact of technologically designed sports equipment, such as step machines, rowing machines, exercise bikes and virtual combat such as paintball. Physical activity may increasingly be undertaken indoors, at home and as a virtual activity.

Future barriers

There are a range of barriers to participation in physical activity, including age, family commitments, skill level, disability, culture, religion, family priorities, motivation, access and social support structures. However, with community action and support, strategies could be employed to overcome these barriers.

In the future, barriers to participation will continue to include a range of physical and sociocultural factors; however, with the increased costs of facility development and maintenance, and insurance premiums, the gap will widen between socioeconomic groups in their ability to access a range of sports and physical activities.

New directions in sporting pursuits

Sporting pursuits may change in the future as technology advances. Playing surfaces, sports clothing, equipment and even rules may alter the types and nature of physical activity. Sports may be developed that target particular groups of people to accommodate ability levels, interests and health and fitness needs. However, any technological innovations will need to be guided by sports governing bodies to protect player health and safety.

The role of the media may impact on how sport is played in the future. To adapt to the needs of broadcasting, playing sections may be shortened, player clothing may become more appealing to the spectator eye and rules may alter to increase the speed or appeal of the game.

Figure 7.11

Boules, also known as petanque or bocce, originated in Europe. It is an example of a sport 'inherited' from other countries represented in Australian culture.



Chapter cloze

Sport in Australia is seen as a national _____. Sport was a way for young men to demonstrate their _____. Many of the sports played in the early days were inherited from _____. In recent times, sport has been influenced by the various factors, including _____, politics and _____. The _____ shapes our attitudes and behaviours to sport. Australia's _____ has been influenced by a harsh environment, and other factors, such as the ANZAC tradition, the world wars, the Depression and the gold rush.

Britain
culture
masculinity
media
national identity
obsession
sponsorship

Review questions

- 1 Identify an example of a local, national and international sporting association and event. Select one of these examples and analyse how the sporting association or event provides opportunities for participation and representation.
- 2 Discuss how sport and physical activity in Australia has been influenced by historical and contemporary issues. Use a range of historical and contemporary examples to highlight your response.
- 3 Discuss the social and economic implications of Australia's performance in international sporting events. Use two sporting events as case studies to highlight your response.
- 4 Critically analyse the role of the media in shaping behaviours and attitudes to sport.
- 5 Explain how the success of high-profile athletes and teams has impacted on the broader community.



Lifestyle, leisure and recreation

OUTCOMES

In this chapter a student:

- 1.2** analyses the benefits of participation and performance in physical activity and sport
- 2.2** analyses physical activity and sport from personal, social and cultural perspectives
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance
- 4.2** displays management and planning skills to achieve personal and group goals
- 4.4** analyses and appraises information, opinions and observations to inform physical activity and sport decisions

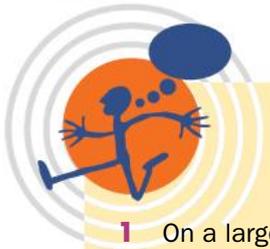


STARTING POINT

Participation in leisure and recreation is important to maintain health and wellbeing. Australians participate in a broad range of cultural, artistic, sporting, hobby and adventure activities during their leisure time. Participation in leisure and recreation has physical, mental, social, cognitive and spiritual benefits. The nature of participation in leisure and recreation in Australia is changing due to technology, working hours, domestic duties, and other social and cultural factors.

Perceptions of lifestyle, leisure and recreation

The way we perceive lifestyle, **recreation** and **leisure** is dependent on a range of social and cultural factors including our age, gender and commitments. Leisure and recreation are important aspects in leading a healthy lifestyle and can be classified into specific categories depending on the nature and purpose of the participation. People participate in competitive activities for rewards such as winning or getting trophies, sponsorship, clothing and certificates. Other activities may be cultural, such as playing a musical instrument, performing drama, dancing or painting. Hobbies like scrapbooking, reading, listening to music, drawing or bushwalking also provide participants with **mental benefits** and social benefits.



Learning experience

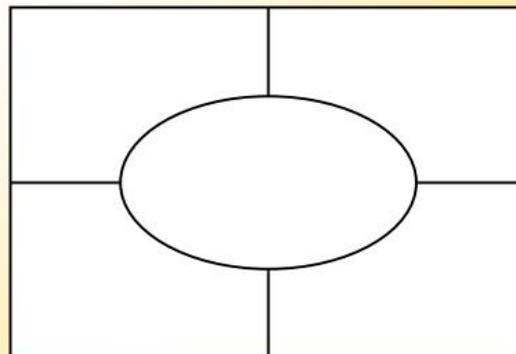
- 1 On a large sheet of paper, draw each member of your family and include pictures of the types of leisure and recreation activities in which they participate. Attempt to classify these activities as cultural, artistic, sporting, hobby or adventure.
- 2 Working in pairs, mime a series of activities. Pairs present your mimes to another pair and classify each of the activities according to the following categories:
 - active or passive
 - sport
 - individual
 - hobby
 - team
 - arts
 - competitive
 - entertainment
 - cooperative
 - play.

Consider that some of activities may be classified into more than one category.

- 3 Using a placemat strategy, in groups of four draw icons and write words or phrases that you think define the terms 'leisure' and 'recreation'. All members of the group should share their responses so that the group can construct a shared definition of these terms. Compare each group's definition with the textbook.

Note: the placemat strategy requires four students to sit around a piece of butcher's paper and complete the activity in their 'paper space'. Common definitions will be written in an oval drawn in the middle of the paper.

A placemat strategy template



Defining leisure and recreation

The term 'leisure' is derived from the Latin word *licere*, which means 'to be permitted' or 'to be free'. The dictionary of sociology defines leisure as 'free time after the practical necessities of life have been attended to'. Therefore, leisure is generally defined as freedom or license to choose—time left over after working, being at school or participating in essential activities like doing homework, showering, eating, sleeping or completing household jobs. Leisure is commonly considered to be the opposite to work; however, one person's work might be considered another person's leisure. Leisure can include activities such as sport, the arts and entertainment, tourism, hobbies, socialising or play.

The term 'recreation' stems from the Latin *recreation* or 'restoration' to health. In other words, recreation is time spent on activities that freshen the mind and the body. The dictionary of sociology defines recreation as 'any activity pursued during leisure, either individual or collective, that is free and pleasure giving, having its own immediate appeal, not impelled by a delayed reward beyond itself'.



Figure 8.1
Leisure and recreation
come in many forms

Range of leisure and recreation pursuits

Leisure and recreation can take many forms. Activities might be artistic, active, passive, competitive, relaxing, distracting or entertaining, and can be participated in as an individual or as a group or team. The range of leisure pursuits available in your local area may include sporting clubs, cultural activities, art and craft opportunities, performing arts societies, and entertainment venues such as cinemas or community halls.

Personal needs and interests

Choice of and participation in leisure activities are influenced by a range of personal, social and opportunity factors. Personal influences include needs and interests, physical ability, culture, age, gender, personality, confidence level, attitudes and perception, marital status and stage in the life cycle.

Figure 8.2

Some leisure activities involve accepting a challenge and positive risk-taking

Leisure and recreation may be based on the need for:

- fitness
- fun
- health benefits
- challenge
- risk
- social interaction
- self-improvement
- personal development
- intellectual improvement
- competition
- relaxation
- exploration
- entertainment
- learning new skills
- cultural and family commitment
- aesthetic appreciation.



Learning experience

- 1 In pairs, search through magazines to gather a range of activities that represent leisure and recreation. Prepare a poster with these activities and number each one. Use this poster as a stimulus to gather data from family, neighbours and other community members to investigate their perceptions of leisure and recreation. Prepare a checklist sheet to record which of the numbered activities the participants classify as leisure and recreation. Share the findings of this research with the class in a brief oral presentation.
- 2 Devise a survey to determine the types of leisure and recreation pursuits in which students in Year 9 and 10 regularly participate. Include questions relating to:

- the type of leisure and recreation pursuits
- levels of participation
- barriers to participation
- influences on participation.

In groups of four, collate the data and prepare graphs to represent the results of your survey. Publish these graphs in the school newsletter or, as a class, draft a letter to the mayor of your local council requesting further facilities based on your findings.

- 3 Copy a table like the one on page 125 into your workbook and identify a list of examples of leisure and recreation activities that satisfy each of the needs listed above. Examples for the first two are provided.



Needs	Example of activities
Aesthetic appreciation	Opera, ballet, art gallery, bushwalking, bird watching, photography, pottery, painting
Entertainment	Watching a DVD, going to the cinema, attending a rodeo, being a spectator at a footy match

- 4 As a class, participate in a range of leisure and recreation activities, including active, passive, competitive, cooperative, hobbies, sports, cultural activities, and arts and entertainment. Analyse which of these activities best meets your current needs and provide reasons for your choices.

Copy the following retrieval chart into your workbook to assist you in gathering data for this learning experience.

Consider how this chart might differ for people with a disability, the elderly, people living in rural and remote locations or the homeless.

Leisure, recreation activity	Suits my needs (yes/no)	Reasons why
Watching the Year 7 hockey team play their finals	No	I need to be active. I get frustrated just watching a game. It was exciting and action-filled but I wanted to be playing. I learnt a few strategies to use in my game.

Patterns of participation

Observing and monitoring patterns of participation in leisure and recreation can be useful for providers of facilities and resources. Being aware of what type of activities are undertaken by specific groups and the frequency and time of use can assist councils and other recreation providers to plan for future leisure and recreation needs.

Leisure and recreation needs for specific groups

Leisure and recreation needs will be different for different groups of people. Depending on the time available for participation, motivation, physical ability, age, gender, cultural background, level of education, confidence level and other social and environmental factors, people will have different leisure and recreation needs. Groups with specific leisure and recreation needs include the elderly, people with a disability, children, Aboriginal and Torres Strait Islander people, people of culturally diverse backgrounds, people living in rural and remote locations, prisoners, the homeless, the unemployed, carers of children, and people living with HIV/AIDS.

Leisure and recreation needs of the elderly

In recent years Australia's population has been described as 'ageing'. Given this, plans need to be made to cater for the specific leisure and recreation needs and interests of elderly populations.

In the most recent 2005–06 Multi-Purpose Household survey, conducted by the Australian Bureau of Statistics, the participation rates for sports and physical recreation were shown to decline with increasing age, with the lowest level (49%) being reported for those aged 65 years and over. However, a significant percentage of older people participate in both **incidental** and planned physical activity, such as household chores, walking, gardening, home exercise, lawn bowls, tennis, golf, swimming, Tai Chi and fitness classes.

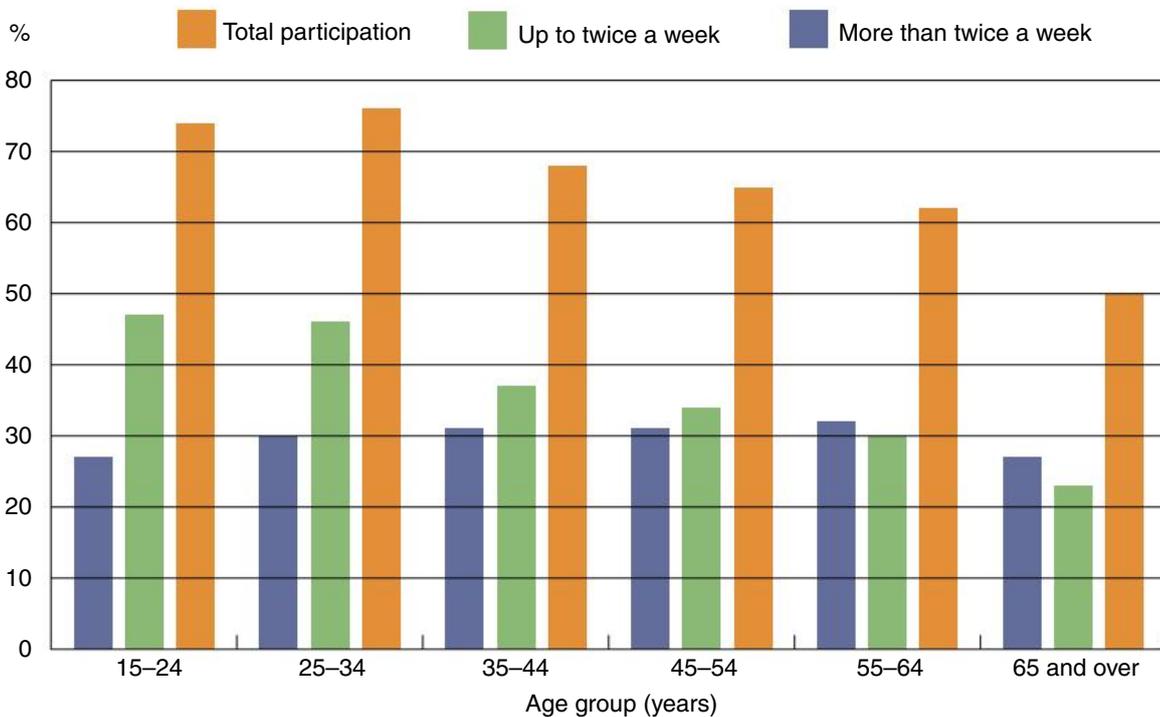
Figure 8.3

Physical recreation and older people



Table 8.1

Regularity of participation by age, 2005–06



As well as participating in physical recreation, the older population uses their leisure time to attend cultural activities such as art galleries, museums, zoological parks, theatres, libraries and cinemas. These leisure pursuits may provide a range of different outcomes for their participants.

Table 8.2 Persons attending cultural venues and events, by age

	15-17	18-24	25-34	35-44	45-54	55-64	65-74	75+	Total (%)
Art galleries	23.1	17.6	22.5	23.4	26.6	25.8	21.5	15.6	22.7
Museums	25.2	15.7	23.6	27.2	25.1	24.9	19.2	11.0	22.6
Zoo/Aquarium	42.0	35.4	46.5	46.0	32.0	31.0	22.7	11.0	35.6
Botanic gardens	21.0	28.7	37.6	35.9	35.2	37.4	34.9	23.5	33.7
Library	45.8	33.9	32.7	37.3	33.6	30.3	33.6	29.9	34.1
Classical music concert	6.4	6.0	7.0	8.3	12.4	12.8	11.8	9.6	9.4
Popular music concert	31.2	40.0	30.9	25.1	26.5	18.7	12.9	6.5	25.2

Source: ABS 2005–06 Attendance at Selected Cultural Events and Venues 4114.0

Physical activity for older adults

One of the best ways to live a long and healthy life is through regular exercise.

There are many health and lifestyle benefits of physical activity for older adults. People with an active lifestyle feel healthier and have an improved sense of wellbeing. Beside feeling better, physical activity reduces the risk of heart disease, stroke, colon cancer and diabetes.

Why should you be active?

Research shows that older adults with active lifestyles are often as healthy as less active people aged 15 years younger.

One of the best ways of living a long and healthy life is through regular exercise. It might seem like a chore, or you may think you don't have time. However, physical activity comes in many ways and forms, including gardening, housework and walking to the shops to buy the milk or newspaper.

Regular physical activity helps reduce the effects of ageing such as limited mobility, balance, flexibility and muscle strength. It also decreases the risk of heart problems and osteoporosis, as well as keeping you in a happy and healthy frame of mind.

One way older adults are beating the stereotyped 'old' image is through remaining physically and socially active. From golf, bowls, swimming, tennis,

bushwalking, dancing or simply gardening or walking the dog, all these activities play a vital role in ensuring you look and feel younger and healthier, and have a better quality of life.

It's never too late to start exercising

Forget thinking you're too old to do physical activity—once you become more active you'll find you have more energy, sleep better, and will feel more self confident.

There are no rules or age limits to physical activity. Irrespective of how old you are or how often you have exercised in the past, there's no time like the present to begin doing regular physical activity. You'll begin to feel healthier and have more energy almost immediately.

The secret is to start off slowly with activities you enjoy, and gradually build on these. It won't seem like a chore if you choose activities you like.

The important thing about taking regular exercise is to start today. Just 30 minutes every day can keep you feeling younger, healthier and more energetic. You can break that 30 minutes down into 10 minute blocks, making the daily amount of physical activity recommended much easier to achieve.

How to get started

Focus on getting started, establishing a routine and enjoying the benefits of physical activity.

Getting started can be as simple as walking to the shops, taking the stairs instead of the escalator, or getting off the bus one stop earlier. Once you've started these simple things, it's then time to build on this exercise with some other pleasurable physical activities.

Choose activities that you enjoy—you'll be surprised at how quickly time goes by. If you enjoy gardening, then make a point of doing it for a little longer. Or take the dog for a longer walk.

Try a few different activities until you find one that suits you. You'll find it's then easier to establish a routine, and you could also make new friends.

It's also important to exercise at times that suit you, otherwise it will feel like a chore. Your aim should be to fit physical activity into your everyday schedule.

Activity ideas for older adults

There are hundreds of enjoyable physical activities you can do.

The trick is to find ones that appeal to you. As a starting point, here are some of the most popular and readily available forms of exercise for older adults.

- Walking is the most natural exercise of all and fits in with almost everyone's lifestyle.
- Gentle exercise classes provide great opportunities for social interaction and support.
- Swimming is a good all round exercise and a great way to get fit.
- Aqua aerobics is a group exercise class done in water and is very popular with older adults.
- Golf is very good for stamina and leg strength if played regularly.
- Weight training helps to keep bones and muscles strong.
- Tai Chi is a martial arts form of exercise combining a physical workout, relaxation and skilled learning.
- Gardening provides hours of enjoyment while improving your strength, flexibility and suppleness.



Learning experience

- 1 Analyse the data presented in Table 8.1 (on page 126) and suggest explanations for the trends in participation.
- 2 In pairs, examine Table 8.2 (on page 127) and re-organise the data for the 65–74 age group in descending order. Suggest reasons for the trend in data by age.
- 3 Interview your grandparents, elderly neighbours or residents from a nursing home or retirement village to determine their leisure and recreation pursuits, and the factors that influence their participation. As a class, compile a list of questions that could be used in the interviews. Include a few questions that require the interviewees to consider how their leisure pursuits have changed throughout their lifetime.

Record your interview and, with your interviewee's permission, re-play the interview to the class. In groups of four, compare the leisure pursuits of the people you interviewed and suggest any trends in participation.

As a class, prepare a newsletter that showcases the results of this research and circulate the research to participants and their carers. Alternatively, a range of elderly guest speakers could visit the class to speak about their leisure and recreation pursuits.

- 4 Read the article 'Physical activity for older adults' on pages 127 and 128. Use the information included in the article and other sources of information you can find to prepare a talk to present to a senior citizens group on the benefits of being active.

Leisure and recreation needs of prisoners

The role of leisure in a prison raises a philosophical contradiction. Prisons are correctional institutions governed by imposed organising principles. However, by definition leisure is characterised by freedom, creativity and personal expression. So can prisoners experience leisure and recreation?

Leisure and recreation have several functions within prisons:

- education—activities are designed to provide inmates with new interests and social skills
- adjustment strategy—activities assist inmates in the transition to limited freedoms
- diversionary—activities provide a break from the harsh routine of prison life
- institutional privilege—activities are used as a reward for those who cooperate
- rehabilitation—activities are a possible strategy to change antisocial behaviours and attitudes.

In prisons, physical activity is essential to alleviate the monotony of prison life and it assists prisoners to ‘let off steam’ in positive, active and social pursuits.



Using de Bono's Six Thinking Hats (detailed below), answer the following questions.

- 1 White Hat—gather the information
What facts do stakeholders need to know about the prisoners and the outcomes of their participation in leisure activities?
- 2 Red Hat—emotions
How would each of the stakeholders feel if prisoners were/weren't permitted to participate in leisure activities?
- 3 Black Hat—risks, negative
What are the negative consequences of prisoners participating in leisure activities?
- 4 Yellow Hat—pluses, positives
What skills and actions might the prisoners learn as a result of participating in leisure activities?
- 5 Blue Hat—thinking about thinking
What might all stakeholders need to consider about prisoners participating in leisure activities? How might they plan for their safety?
- 6 Green Hat—alternatives
In what other ways can prisoners be occupied?

In groups of six, assign each member of the group to a 'hat' and respond to the question: Do you think prisoners should participate in leisure activities?

Influences on participation

A variety of factors influence Australians' participation in leisure and physical recreation. These factors include gender, age, cultural background, socioeconomic status, social support networks, geographic location, ability, health status, confidence and level of social freedom (which includes prisoners, people with a chronic illness or injury, wards of the State). Some of these factors are described below.

- **Geographic location** can affect access to different leisure and recreation options. For example, living in close proximity to water provides individuals with opportunities to participate in aquatic activities, such as surf lifesaving, water skiing, fishing, sailing, picnicking, scuba diving, exploring rock pools and catching yabbies.

- **Health status** has the potential to limit or constrain the type and level of participation in physical recreation. For those with chronic health conditions, such as arthritis or asthma, the selection of physical recreation activities may be limited or be specifically related to improving health status. For example, many people suffering from asthma participate in swimming to regulate their breathing patterns.
- **Socioeconomic status** can influence the nature of participation in leisure and recreation. Buying theatre tickets, club membership fees, and purchasing sporting equipment and uniforms can result in high costs for individuals and families. People from a low socioeconomic background are less likely to participate in regular physical activity or attend cultural events or venues. The unemployed and homeless people are most significantly affected by lack of finances to fund leisure and recreation activities. Ironically, these groups may have considerable available time in which to participate in such activities.

Figure 8.4

Where you live, your age and socioeconomic status, all influence your options for recreation



- **Age** has the potential to influence a person's ability to participate in physical recreation. Conditions related to lifestyle are often associated with Australia's ageing population. As the body ages, its ability to perform specific physical activities may diminish. Age can also influence people's interest in leisure and recreation activities. Young people may enjoy participating in team sports, challenge activities or attending popular music concerts. The elderly population's interests might include gardening, walking, attending theatre performances and swimming.
- **Gender** can also influence levels of participation in leisure and recreation. As women generally take on the role of carer for children, time available for participation in leisure and recreation may be limited. Research suggests that the most popular physical activities women participate in are walking (48.5%), aerobics/fitness (20.0%), netball (6.9%), yoga (5.5%) and dancing (3.4%) (Participation in Sport and Physical Activities by Gender, Australia, 2003).

Barriers to leisure and recreation

Barriers to participation can be classified as physical, environmental or **sociocultural**.

- **Physical barriers** include factors such as lack of access to transport, travelling time, working hours and remoteness of location. The range of facilities available in a regional or remote location may limit the options available to community members.
- **Sociocultural barriers** include feelings of isolation, lack of confidence, lack of support networks, English proficiency level, living alone, domestic duties, socioeconomic status and feeling unsafe in recreation spaces. Elderly people with few social contacts may feel unsupported in participating in leisure and recreation activities. People with a low level of English proficiency may find it difficult to access culturally appropriate recreation activities or lack a sense of community belonging.
- **Environmental barriers** include lack of aesthetic spaces in which to participate in physical recreation. Open spaces, parklands, fitness circuits, walking pathways and cycling tracks provide pleasing and inviting opportunities for physical recreation. Adequate lighting, even surfaces and well-signposted recreation areas promote active participation in leisure and recreation activities.
- **Other factors** that act as barriers to participation in physical recreation include participation in competing recreational activities, such as socialising with friends, hobbies, television and other electronic entertainment. Further barriers are suggested in the Australian Bureau of Statistic's 'Sport and Related Recreational Physical Activity—The Social Correlates of Participation and Non-Participation by Adults' report (2005).

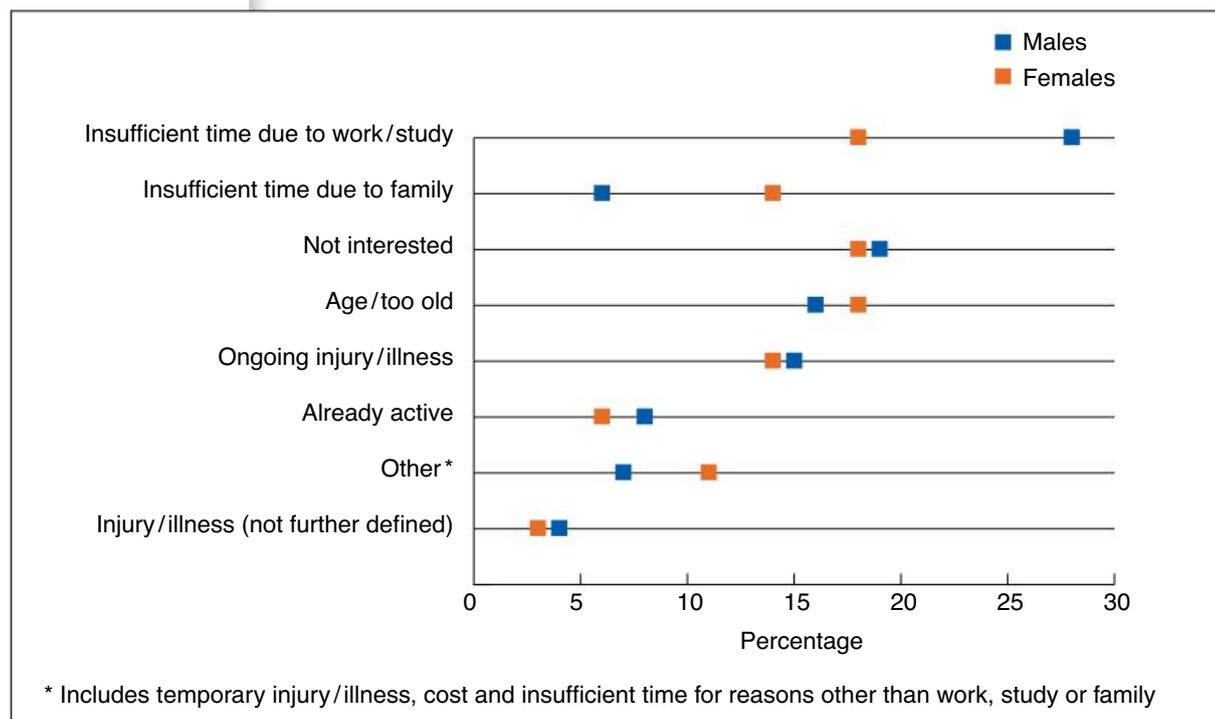
Beat those exercise excuses

Many of us have reasons or excuses to avoid exercise or physical activity.

- **It's too late! I'm too old!** Many older people think they are too unfit to begin a fitness program or do any physical activity. They may feel intimidated by the idea of doing activities where they might be compared with younger, fitter people. To overcome this, many community gyms and recreational centres have special programs for older people, and use trainers who themselves are older. Inactivity increases the risk of developing many diseases, and beginning exercise at an older age can lead to regaining fitness and mobility.
- **I'm too young! I'm fit enough!** By contrast, some people think that because they are *not* old they do not need to exercise. Many people under the age of 40 believe they do not need regular physical activity because they are 'healthy enough'. In fact, after the age of 30, inactive people start to lose muscle fibre that provides strength and power, and an early life of inactivity can lead to more health problems later in life.

- **I'm too busy!** When people work long hours and combine work with multiple commitments with family and community, it is often difficult to fit in any time for exercise. To overcome this, they could try to integrate exercise into the day; for example, taking a break to go for a walk or going to a gym or pool on the way to or from work. Getting up half an hour earlier can also be an option, and it is suggested such activity at this time will improve the quality of sleep so the 'lost' half hour of sleep won't be noticed.
- **I had an injury! I have a disability!** This is another common reason people avoid exercise. But many forms of exercise can be designed to account for an injury or disability. Physiotherapists and gym staff are always keen to encourage anyone with an injury or disability to remain active, and can design exercise programs appropriate to their needs.

Table 8.3 Main constraint for non or occasional participants, 2005-06





Learning experience

- 1 Visit the following website and read the article 'Choose health—be active!' at www.dva.gov.au/health/menshealth/05_choose.htm.

In groups, design a promotional brochure that identifies ways to be active and how to overcome barriers to participation in physical activity.

- 2 Read the article 'Beat those exercise excuses' (on page 132) and prepare

a list of appropriate strategies to overcome each of the barriers to participation in exercise. The following retrieval chart will assist in preparing this task.

- 3 In small groups, prepare a list of 'excuses' for non-participation in physical recreation. Compare your ideas with those presented in Table 8.3 on page 132.

Excuses/Barriers to participation	Strategies to overcome barriers to participation
I'm old—lack of knowledge of available physical activities, few friends with whom to participate, lack of access to transport	

Outcomes of participation in leisure and recreation

Participation in leisure and recreation is beneficial for individuals of all ages. Being with other people with similar interests, participating in fitness activities, relaxing with books, music or crafts and learning new skills provide individuals with a range of physical, social, mental, cognitive and **spiritual** benefits.

Social, mental, physical, cognitive and spiritual benefits

As frequently promoted in the media, participation in leisure and recreation has positive outcomes. These outcomes can be classified as social, mental, cognitive, physical and spiritual. Participation in some leisure or recreation pursuits can have detrimental effects. For example, gambling, spectating, watching excessive amounts of television or over-participating in other forms of electronic entertainment can result in negative effects on all aspects of health.

- **Social benefits** of participation in leisure and recreation activities include the opportunity for individuals to connect with community members, share skills and interests, decrease feelings of isolation, develop or enhance social skills, enhance their ability to relate to others, develop greater tolerance and understanding. Other social benefits include an improved



Figure 8.5
Participation in leisure
and recreation activities
has social benefits

ability to be a member of a team, a reduction of harmful and anti-social behaviour in young people, enhanced relationships, improved leadership skills, and an improved quality of life.

- **Psychological benefits** of participating in leisure and recreation activities can include an improvement in mental health by relieving stress, anxiety and depression; building feelings of self-worth; enhancing mood and assisting in relaxation; improving adaptability and resilience; and developing autonomy, confidence and self-determination.
- **Cognitive benefits** associated with participation in leisure and recreation activities include new skill and knowledge acquisition; opportunities for experiential learning through exploring; increased cognitive efficiency, including better problem-solving abilities; an improvement in concentration levels; and increased learning about history, culture, nature and cities.
- **Physical benefits** of participating in regular physical recreation include contributing toward preventing chronic diseases like cardiovascular disease. Physical recreation:
 - lowers blood pressure
 - decreases the chance of type 2 diabetes
 - raises high-density lipoprotein (HDL), or good cholesterol levels
 - decreases the likelihood of developing osteoporosis if weight-bearing activity is undertaken
 - reduces body weight
 - reduces the likelihood of developing bowel and breast cancer
 - reduces the incidence of falls and injuries in the elderly, as it strengthens muscles, improves bone density and balance.
- **Spiritual benefits** of participation in leisure and recreation activities include expressions of and reflection on personal spiritual values and orientation.

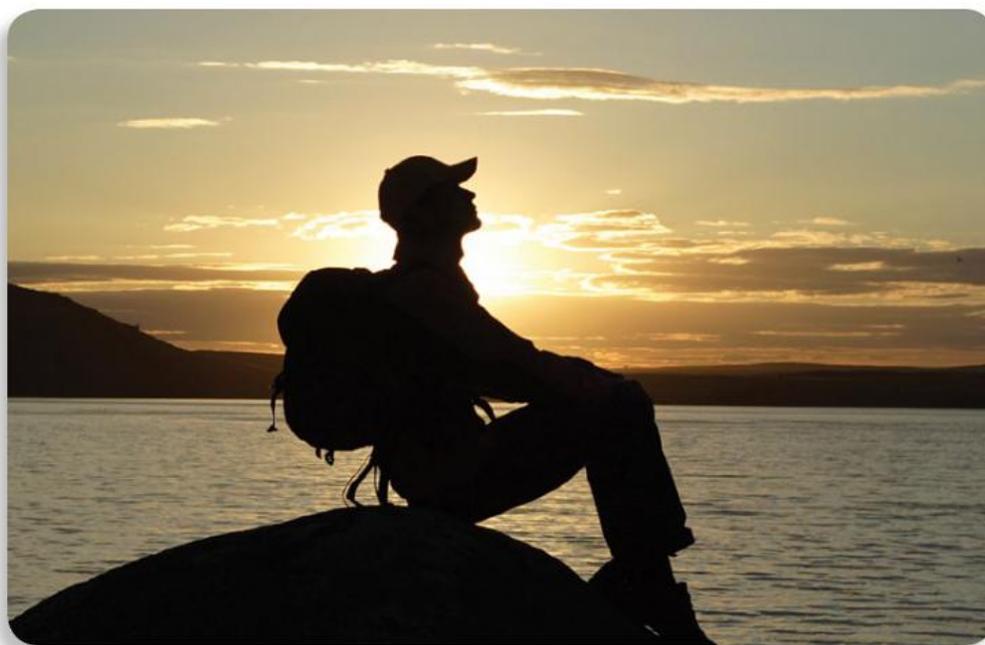


Figure 8.6
Leisure and recreation activities can have spiritual benefits

Learning experience

In small groups, create a database of leisure and recreation activities in your local area. Using this database as a resource, participate as a class in a broad range of leisure and recreation activities. Design a retrieval chart like the one on page 133 to gather students' perceived benefits of each activity.



Lifelong leisure and recreation—looking to the future

Increasingly, the Australian population has a greater recognition of the value of leisure in improving quality of life. Specifically, there is a developing awareness that an active lifestyle has health benefits and implications for participation in a range of leisure activities.

People need to participate in leisure and recreational activities to maintain their health and sense of wellbeing. Predicting the needs and interests of the future Australian population is a difficult task for leisure providers. However, the easiest way to foresee these future needs is to assume that current trends will continue.

Current leisure and recreation trends

In recent years recreation and leisure facilities have moved indoors to assist in providing all-weather opportunities that are pleasant and temperature-controlled. There has been a rise in individual or informal and unstructured activities rather than participating in team sports or clubs. There has also been

a broadening of the range of leisure and recreation opportunities available to all demographic groups within the population. Australians are becoming more aware of the value of their natural and historical heritage, and now participate in increasing numbers in physical recreation activities like bushwalking, abseiling, BASE-jumping, camping, fishing, kayaking and canoeing. Clubs and groups are having difficulty in recruiting volunteers for coaches, administrators and referees, with greater reliance on paid staff becoming a trend. Government funding continues to support elite athletes and sporting facilities rather than community-based facilities, and this has implications for the cost of participating in community sports and activities.

The impact of increasing technology

Technology such as MP3 players, personal computers, mobile phones, the internet, pay TV and hand-held video games has changed the nature of leisure in recent times. In the last decade electronic entertainment has increasingly formed part of Australian's leisure and recreation activities, particularly for young people.

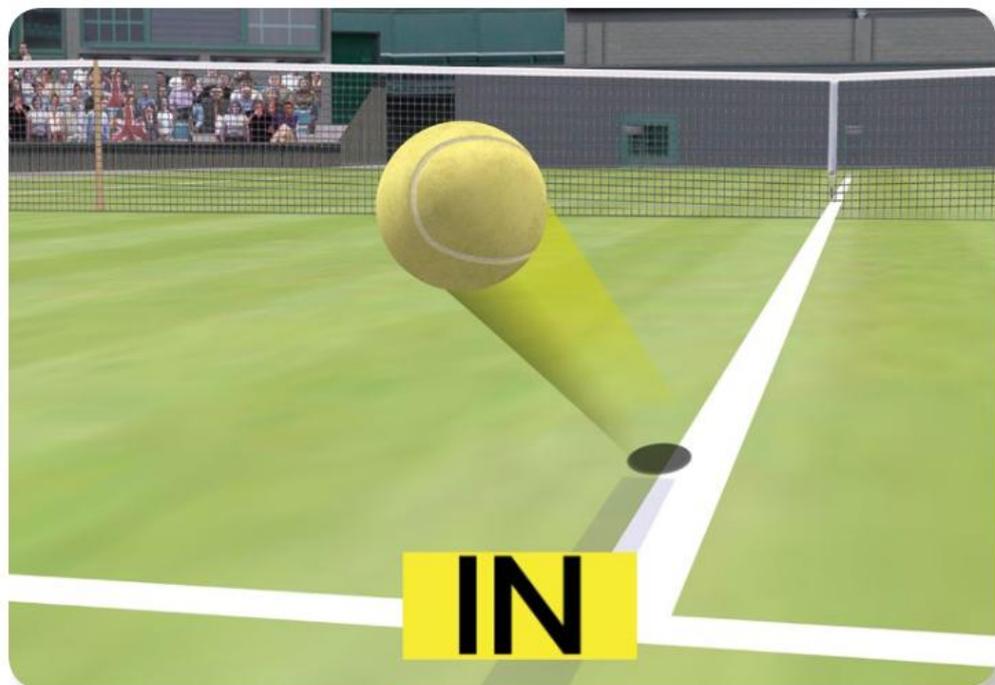
The internet allows for online gambling, event ticket sales, sponsorship and merchandising of leisure and recreation products. Technology for downloading music has changed the way people access this leisure product. Local libraries now offer collections of CDs and DVDs for loan, and provide computers and internet access for use in the library.

Amusements in theme parks and leisure parks have changed due to advancements in technology. For someone seeking a challenge or adrenaline rush from their leisure and recreation experiences, amusement rides are now faster and higher, and provide a greater sense of risk and thrill for their users.

Technology has also impacted on the spectator appeal of televised events. With the use of interactive viewing, video referees such as Hawk-Eye—used during the Australian Open tennis tournament—and advancements in camera angles and positioning, spectators can now feel part of the game.

Figure 8.8

With video referees such as Hawk-Eye, spectators now can feel part of the game



Other technological devices—such as heart-rate monitors, pedometers and synthetic playing surfaces—have implications for the type and nature of participation.

Future directions in leisure and recreation

Factors that impacted significantly on leisure and recreation participation during the second half of the 20th century were changes in transport with private ownership of cars, and the availability of cheap airfares. The introduction of the television brought another significant change in leisure participation trends. In the future, it is anticipated that several factors will influence leisure patterns:

- technology, work and leisure—low unemployment means less time but more finances will be available for participation in leisure
- women in the workforce—greater income equates with an increase in finances available for leisure activity or leisure products, such as home swimming pools
- transport—increases the range of leisure options that are accessible and out-of-home activity participation
- electronic communications—increased effects of media advertising on leisure products and services, and electronic entertainment consumption
- demographic change—increased population, diversity of cultures and an ageing population
- environment—increasing population places demands on the natural and built environments.

Learning experience

- 1 After reading the text on current leisure and recreation trends, suggest implications for future participation in leisure and recreation.
- 2 As a class, prepare a time capsule that includes items that typify the leisure and recreation pursuits in which you currently participate. Include artefacts such as sport

or concert ticket stubs, old sporting equipment, team or family photos of leisure and recreation activities, or copies of awards or certificates.

Prepare a letter to include in the time capsule that outlines the nature of leisure and recreation in this decade.



Chapter cloze

_____ is derived from the Latin word *licere*, which means 'to be permitted' or 'to be free'. There are a variety of benefits gained from participating in leisure and recreation activities, including physical, social, cognitive and _____ benefits. An example of a _____ benefit is improved self-worth. Activities that are unplanned or _____ also contribute to the health benefits of an individual. _____ is defined as activities that freshen the mind and body.

Barriers to participation include socioeconomic status, level of education, employment status and cultural background. These factors could be classified as _____ barriers.

incidental
leisure
mental
recreation
sociocultural
spiritual

Review questions

- 1 Analyse the benefits of participation in leisure and recreation.
- 2 Propose strategies for enhancing participation in leisure and recreation in the school or local community.
- 3 Identify some possible future directions in leisure and recreation pursuits.
- 4 Discuss some of the barriers to participation in leisure and recreation activities.
- 5 Explain how personal needs and interests can influence participation in leisure and recreation.



Physical activity and sport for specific groups

OUTCOMES

In this chapter a student:

- 2.2** analyses physical activity and sport from personal, social and cultural perspectives
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance
- 4.4** analyses and appraises information, opinions and observations to inform physical activity and sport decisions.



STARTING POINT

Individuals participate in physical activity for a variety of reasons. It is important to consider that different groups or populations have different interests and needs in regard to participation in physical activity.

Many factors influence individuals' and groups' access to physical activity, including their skill level, culture, self-esteem, geographic location and cost of the activity.

Perceptions of lifestyle, leisure and recreation

The history of an activity or sport impacts on the way it is played or participated in during modern times. Factors such as gender, class and accessibility have influenced the sports traditionally played in Australia and the groups who participate.

Physical activity and sports associated with chosen groups

There are many factors that influence the lifestyle and **leisure** choices of individuals and groups. We know that leisure is activity in which people choose to participate but there are limits that may constrain the selection of a type of activity or levels of participation. Different physical activities may be available to and appropriate for specific groups within Australian society. There are a variety of factors that influence participation, including geographical location, socioeconomic status, age, skill level, body shape, education and access.

Specific population groups to be examined could include:

- Aboriginal and Torres Strait Islander people
- people with a disability
- young people
- the elderly
- ethnic groups
- prisoners
- people living with HIV/AIDS.

For a young child, for example, participating in physical activity may involve playing in a sandpit, being pushed on a swing, skipping or riding their bike in the local park. Their age will affect the types of physical activities they can be a part of. Similarly, depending on geographical location and influenced by age, body surfing may not be an accessible physical activity for an Indigenous elder in a remote Australian community.

Evolution of physical activities over time

In the last two centuries, the types of physical activities in which individuals participate in Australia have changed. Today, with the influence of media, the focus on health and fitness, and consideration of the natural environment, physical activity has come to include pilates, rock climbing, triathlon, ultimate frisbee, circus skills, orienteering, snowboarding, bushwalking, Tai Chi and hip-hop dance. These activities have developed to meet the diversity of needs of individuals, such as the need for a challenge, adventure, a sense of community, competition, an adrenaline rush, fitness and **social** relations.

Figure 9.1

Indoor rock climbing and circus skills are examples of the wide range of physical activities that has developed in Australia



Technology has contributed to the growth of particular types of physical activity opportunities, such as urban whitewater rafting centres, indoor climbing walls, sensory trails and automatic swings for people in wheelchairs.

Evolution of physical activities for people with a disability

People with **disabilities** should be viewed as individuals and the focus of their participation in physical activity based on their abilities. As defined by the Australian Bureau of Statistics, a disability is ‘any restriction or lack of ability (resulting from impairment) to perform an activity in the manner, or within the range, considered normal for a human being’ (ABS, 1993, p. 6).

Individuals with a disability often face barriers to participation in physical activity; conditions therefore need to be created to enhance their ability to be included in mainstream physical activity. Examples of these conditions may be improving physical access to playing spaces; adaptations to equipment, rules and clothing; or buddying individuals with able partners.

People with a disability participate in physical activity for a variety of reasons, including improving endurance, strength and motor abilities; increasing **self-esteem** and the quality of life; and gaining the opportunity to interact with friends, family and siblings.

Evolution of physical activities for children

Children are defined as those between 5 and 14 years. Children participate in a diverse range of physical activities that meet their personal needs, interests and motivations. Participation in physical activity is essential for children. The benefits from being physically active for 5–14 year olds include physical benefits like promoting health growth, building strong bones and muscles, improving health- and skill-related fitness, and maintaining a healthy weight. Social and emotional benefits of participation in physical activity include providing opportunities to meet friends and improving self-esteem. In 2005–06 approximately 63% of children participated in at least one organised sport outside of school hours.



Figure 9.2
Disability is no barrier to participation in physical activity

In 2006 a survey called Children's Participation in Cultural and Leisure Activities was conducted by the Australian Bureau of Statistics. The following information resulted.

- **Swimming** was found to be the most popular sport for children, with a participation rate of 17%, followed by outdoor soccer with 13%.
- For boys, the most popular sports were outdoor soccer (20%), swimming (17%) and Australian Rules football (14%).
- For girls, the most popular sports were swimming (18%) and netball (17%).
- On average, nearly half (49%) of children surveyed played or trained more than 52 times per year.
- An average of 6 hours per school fortnight was spent participating in organised sport.
- Only 27% of children did not participate in any organised cultural activities or organised sport outside of school hours. The level of non-participation was similar for boys and girls.



Learning experience

- 1 Prepare a table like the one below that identifies the physical activities in which your family, neighbours and friends participate. Survey each of these groups to investigate the factors that influence their participation in specific activities. (An example has been provided for you.)

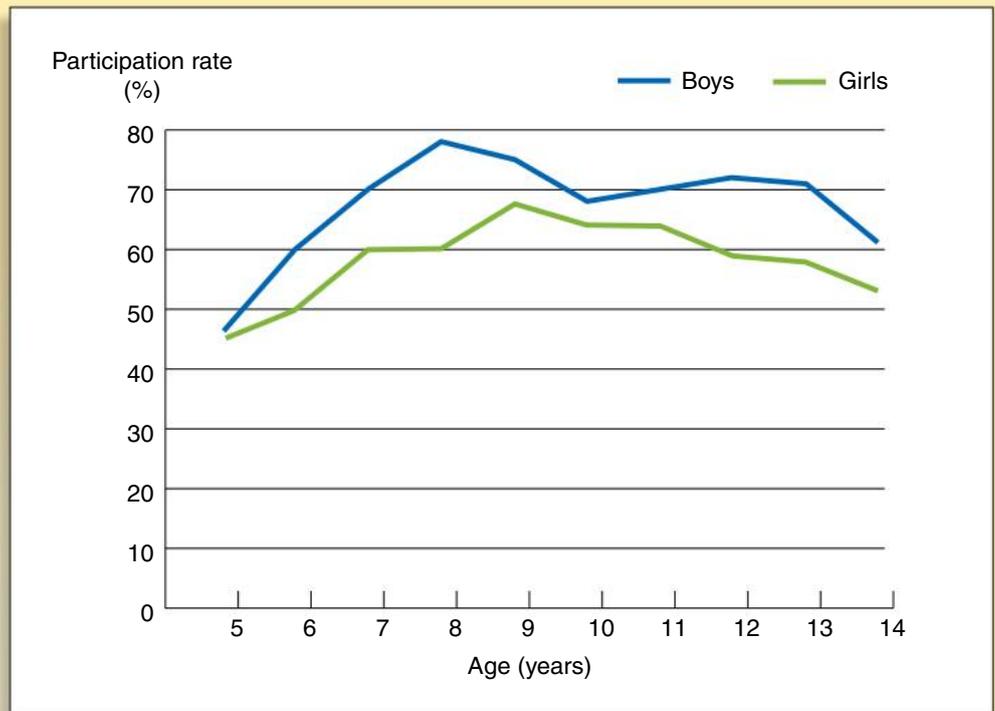
As a class, compile the data collected and propose explanations for the findings. For example, are there any similarities for age, gender or location?

- 2 Participate in a series of modified games, such as goalball, wheelchair basketball or ambulatory tennis. Prepare a table that compares and contrasts these physical activities with physical activities in which you regularly participate. When participating in these physical activities, discuss the modifications made to support people with disabilities.

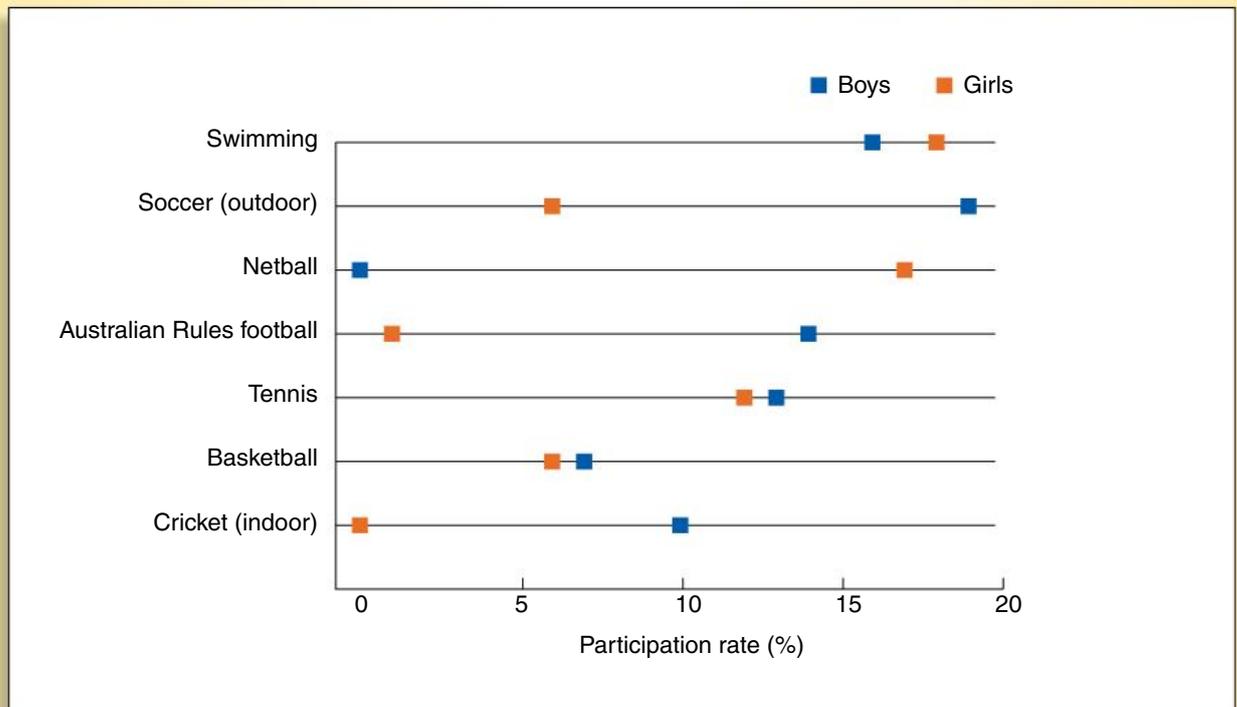
Groups/Individuals	Physical activities	Factors influencing participation
Mum	Tennis	Can walk to the court—access Low cost

- 3 You have read an editorial in the local newspaper stating that children are lazy and no longer play sport or participate in physical activity. Examine the following figures and prepare an informed response to the editorial.



Table 9.1 Participation in organised sport by age

ABS 2006 Children's Participation in Cultural and Leisure Activities, Australia, April, 2006

Table 9.2 Participation in most popular sports

ABS 2006 Children's Participation in Cultural and Leisure Activities, Australia, April, 2006

Nature of physical activities

The nature of physical activity is influenced by a range of historical, environmental, social and cultural issues. Australia's landscape has historically determined the types of physical activity in which we participate. Physical activities such as fishing, bushwalking and swimming make use of the natural environment, while our nation's British heritage has influenced the games we play; cricket, tennis and rugby are traditional games that have been inherited from our British ancestors. Increasingly, our nation has become multicultural and the nature of traditional Australian physical activity may not meet the interests and needs of all.

The role of culture in the choice of physical activity

Culture can be defined as a way of living that is associated with a group of humans and is passed on from one generation to another. In regard to physical activity, culture can be a factor that influences the type and level of participation in specific physical activities. A family or school culture of regular participation in physical activity or sport can increase children's participation rates in these activities. Culture can also be considered as customs, values or beliefs adopted by specific groups. For some ethnic groups, participation in specific physical activities is restricted due to religious or modesty issues.

Surf Life Saving unveils official 'Burqini'

After some of the most physically gruelling three months of their lives, Australia's newest Muslim surf lifesavers have passed their exams and are now ready to begin patrolling Cronulla's beaches.

The surf lifesavers, made up of 17 Muslim and non-Muslim members of the Lakemba Sports Club, were officially presented with their Bronze Medallions and other awards at a gala ceremony attended by the NSW Premier, Morris Iemma MP, senior Surf Life Saving officials and members of Sydney's south-western communities on Saturday night.

A highlight was the unveiling of what is claimed to be the world's first official lifesaving 'Burqini'—a head-to-toe garment in the iconic red and yellow colours, which will allow female Muslims to fulfil their religious obligations while patrolling the beach, on the sand and in the water.

Mecca Laa Laa, who will wear the Burqini when patrolling side-by-side with other surf lifesavers wearing regular uniforms, said it was a revolutionary piece of clothing which had changed her life.



‘The Burqini has allowed me to participate in activities at a level I had never previously expected—for example it has allowed me to join Surf Life Saving and pass my Bronze Medallion,’ she said.

According to SLSA’s CEO, Brett Williamson OAM, this graduation is yet further demonstration that surf lifesaving is open to everyone, irrespective of age, gender or cultural background.

‘With the assistance of the Australian Government, through the Department of Immigration and Citizenship (DIAC), and a number of other stakeholders, including the local surf clubs and Sutherland Shire Council, we have been very busy over the past months engaging a broad range of stakeholders from culturally and linguistically diverse (CALD) communities,’ he said.

‘These 17 new surf lifesavers and the others still in training will all be the best advocates for surf safety and beach harmony in their communities, and I’m very happy to be able to welcome them into the surf lifesaving family, in this, our centenary and the Year of the Surf Lifesaver.’

Since last October, the ‘On The Same Wave’ program has visited schools, run surf safety awareness courses and offered courses in cultural awareness to more than 1400 people throughout Sydney. It is intended the program will be rolled out nationally during the course of 2007.

The new recruits from the Lakemba Sports Club will be assigned across the Cronulla surf clubs and are expected to begin regular patrolling duties shortly, which will entail a half-day patrol every three or four weeks from the end of September to the end of April each year.

President of the Lakemba Sports Club, Dr Jamal Rifi, said such activities not only provide opportunities for the development of excellence in athleticism, but also provide a field that nurtures fair play, rule following, team-work, inclusion and achievement.

‘We see our club in broader terms, as playing its role in training better citizenship,’ he said.

Supplied courtesy of Surf Life Saving Australia

The role of culture in the choice of physical activity for children

Research suggests that children who have positive role models in their lives, such as active parents or siblings, are more likely to participate in physical activity and do so more frequently than those without such role models. Children learn by example and inactive or sedentary parents can model negative participation behaviours to their children.

Several sociocultural factors have been identified as contributing toward low levels of participation or non-participation in physical activity in children. Of children born overseas in non-English speaking countries, 44% did not participate in regular physical activity (ABS, 2006). Approximately 36% of children in one-parent families did not participate in physical activity and children whose parents were not employed were less likely to be involved in sporting events (ABS, 2006). Developing a culture of participation in regular physical activity at home and school can assist in positive attitudes toward physical activity and increased participation.

In order to develop a culture of regular participation in physical activity parents and teachers need to:

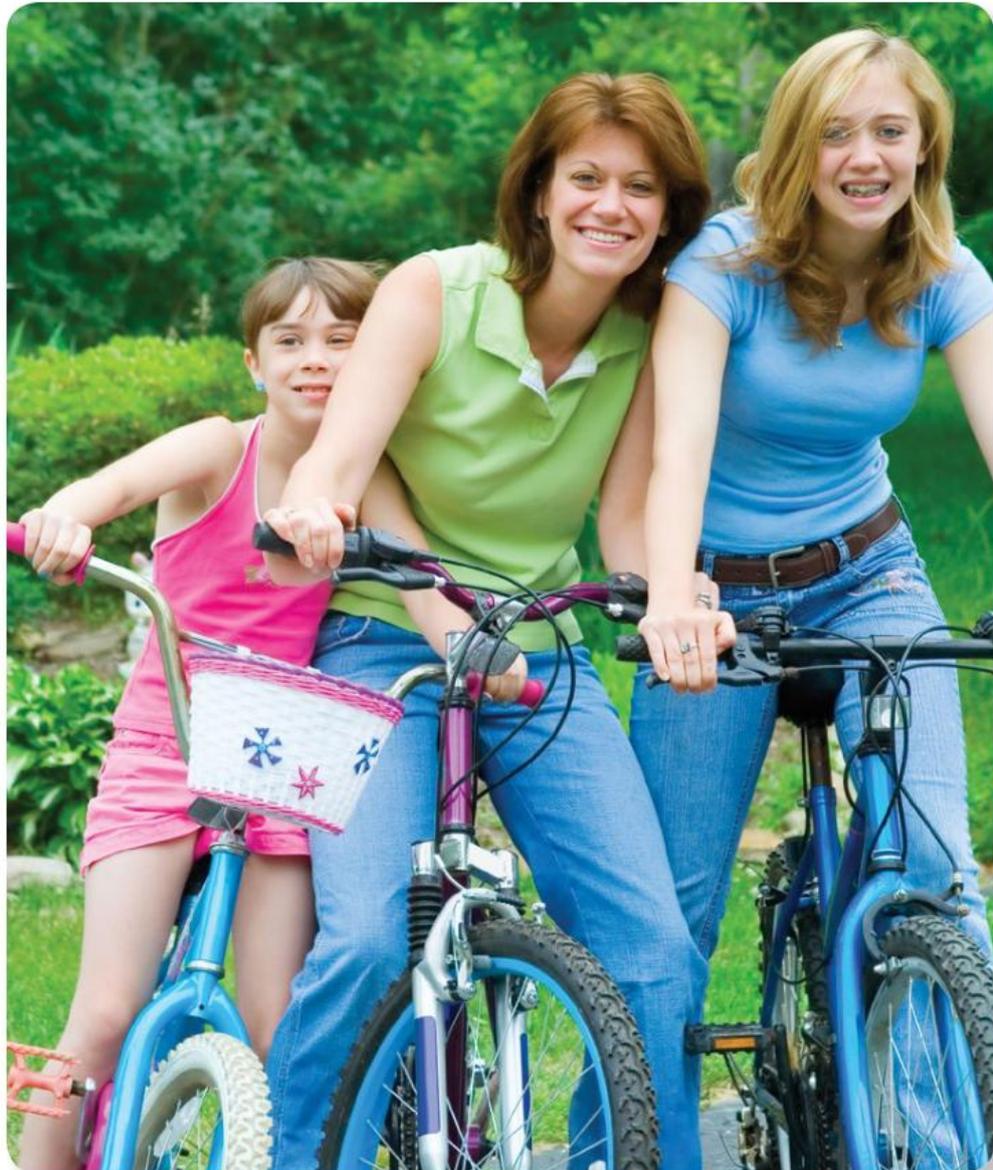
- allow children to select the type of physical activity in which they are interested and want to participate
- model regular participation
- reinforce the social and emotional benefits of physical activity
- promote acceptance of body shapes and ability levels
- assist in skill development
- restrict screen time (television, videos, computers)

- involve children in everyday activities (incidental exercise), such as walking the dog, cleaning the house or mowing the lawn
- go for walks around the neighbourhood.

Positive and negative outcomes of participation

Participation in physical activity can have a range of physical, social, spiritual and emotional benefits. For people with disabilities, participation in physical activity can contribute toward their feelings of social inclusion and self-esteem. For some people with a disability, participation in physical activity may heighten their sense of difference and 'dis' ability. The benefits of participation in physical activity, however, are similar for everyone regardless of the population to which they belong. As well as reducing the major health concerns of cardiovascular disease, diabetes, cancer and arthritis, physical activity can enhance mood, relieve stress, reduce depression, build self-esteem, develop social skills, reduce harmful or anti-social behaviour, and generally improve quality of life.

Figure 9.3
Improved family relationships may be a positive outcome of participation in physical activity



Positive and negative outcomes for children

The health benefits of participation in physical activity are promoted avidly by the media; however, for some children the outcomes of participation in physical activity are negative. Being left on the bench, failing to connect with a bowled ball or missing a catch, or being the last chosen for a team can be significant learning experiences for young children. Negative experiences of physical activity during childhood can result in lifelong non-participation. In order to provide positive experiences in physical activity, providers need to:

- set realistic developmental goals and targets
- emphasise enjoyment and participation
- offer a diversity of competitive and non-competitive activities
- develop skill and confidence using modified, safe equipment, space and rules.

Learning experience (ICT)

Visit the following website and read the article 'Physical activity—a superpill for better health': <www.disability.qld.gov.au/news-events/news/connect/issue6/activity.html>.

In groups, prepare a brochure for people with a disability that outlines the physical, mental and social benefits of participating in physical activity. Use a desktop publishing program to prepare the text and illustrate it with relevant graphics. Display the brochures in the school library.



Webconnect

- 1 Visit the following website and follow the links to the athlete profiles: <www.paralympic.com.au>
Prepare a hero fax for an athlete featured on the website. Your hero fax needs to include a set of questions to find out what participation in this sport means to the athlete, their family and local community.
- 2 Log on to the following websites and, in pairs, prepare a multimedia presentation that communicates the nature and value of participation in these physical activities for people with a disability.
 - <www.amputeegolfaustralia.asn.au>
(Amputee Golf Australia)
 - <www.auselectricwheelchairhockey.com>
(Australian Electric Wheelchair Hockey Association)
 - <www.blindcricket.com>
(NSW Blind Cricket Association)
 - <www.deafsports.org.au>
(Deaf Sports Australia)
 - <www.disabledsurfers.org>
(Disabled Surfers Association of Australia).



Factors influencing physical activity choices

Factors that influence participation in physical activity can be categorised into four groups:

- physiological—body size and type, age, previous injury, ability and skill level
- psychological—confidence, motivation, and support from family, friends, coaches and trainers
- sociocultural—religion, cultural traditions, socioeconomic status, **geographic location**, ethnicity and gender
- ecological—commitment to sustainability, aesthetic design of facilities and access to outdoor environment.

Factors influencing participation

Participation in physical activity is influenced by a range of factors, including access to facilities, education, financial cost, self-esteem, culture, geographic location, body shape and skill level. The 1999 Active Australia survey indicated that the following groups are less likely to participate in physical activity:

- Aboriginal Australians
- non-English speaking groups
- people from low socioeconomic groups
- middle-aged adults
- parents of young children
- women
- women who do not work and have major childcare responsibilities.

These groups of people have limited access to physical activity due to time and family commitments, and limited money available to spend on sport and physical activity fees, clothing, equipment. Other reasons for non-participation may include lack of motivation, lack of social support from friends and family or lack of confidence due to language barriers or cultural rules.

Factors influencing children's participation

For children, physiological factors that can influence their participation in physical activity can include age, developmental maturity, sex, motor competence and fitness. Because children grow at different rates they differ in weight, height, proportion of body segments (arm and leg length), and distribution of fat and muscle tissue. These physical characteristics influence how children move and interact with their physical environment.

Psychological factors that influence children's participation in physical activity can include perceived ability to perform motor activity, motivations to be active, knowledge of the importance of physical activity, attitudes toward participating in physical activity, and personal interests and strengths. For children with poorly developed motor abilities, participation in a range of physical activities is less likely, as their perception of their physical competence level is usually low.

Sociocultural influences, such as role modelling and family structure, can determine the level of physical activity in children. For example, if the parents of a child actively and regularly participate in physical activity then it is more likely that the child will participate in physical activity.

Ecological and environmental factors can also greatly influence the level of children's participation in physical activity. Children require safe, inviting and challenging playground equipment and spaces, which encourage active movement. The availability of computer games, television and videos often reduces levels of physical activity in children.



Learning experience

- 1 Copy the following table into your workbooks and complete it by brainstorming reasons for non-participation in physical activity by population group.

Population group	Possible barriers to participation	Proposed strategies to overcome barriers
Aboriginal Australians		
Non-English speaking groups		
People from low socioeconomic groups		
Middle-aged adults		
Parents of young children		
Women		
Women who do not work and have major child care responsibilities		

- 2 Visit a local primary school or park. Make a sketch of the physical environment and equipment that is available to encourage children to participate in physical activity.
Interview three young children from your neighbourhood or family to determine what types of physical spaces they need and like to use for physical activity. Drawing on this data, design a 'playground' for young children in your local area.
- 3 Access a local primary school or work with Year 7 students and observe children participating in several physical activity settings, such as:
 - lunchtime playground activity
 - a formal Physical Education class
 - a sport session.

Conduct observations of two students: one who is actively engaged in physical activity and one who is disengaged with physical activity. Interview each child and investigate the reasons why they like or dislike to participate in physical activity or organised sport. Identify what activities they enjoy and who or what they think influenced their decision to participate in particular physical activities/sports.

As a class, collate the data and draw conclusions as to the reasons for each interviewee's participation or non-participation.

Support networks

For most people, having a support network assists them to commence and continue participating in physical activity. Support networks provide motivation for joining a club or team, or being introduced to a new physical activity. Support networks can assist people to adhere to a health and fitness routine, as well as provide encouragement and reward positive efforts.

Ways to support participation

Participation in physical activity can be supported in a number of ways. Playing or participating as a group or team provides individuals with social motivation to 'keep going' or to 'try harder' or just to 'turn up'. The social aspect of participation in physical activity is the most important motivator for some individuals. Offering to drive team members to venues or supervise their children while they participate can greatly assist increased levels of participation. For women with family commitments, time and childminding are often barriers to participation. Strategies to support participation may include the use of childminding facilities at a gymnasium or enrolling

Figure 9.4
Having an
'exercise-buddy'
can help motivation



children in swimming lessons while the parent participates in an aquarobics class. Participation rates can be increased by supporting access to facilities. Examples of supporting access include having low-cost transport or carpools to venues, modest entry fees for families, offering a uniform pool for new players, and social support from family, friends or neighbours.

Current strategies

For individuals and groups to maintain participation in physical activity, support strategies may need to be employed. Participating in physical activity with friends or family, setting goals, employing a personal trainer or keeping an activity diary are examples of strategies that assist in supporting participation. For people with a disability, the need for both physical and social support is important. With changing technology, people with disabilities are becoming increasingly independent and with raised awareness of individual's needs, sporting and recreation clubs are adapting physical spaces and installing resources to support and encourage their participation.

Future perspectives

Levels of participation in physical activity may change in the future for all age groups. As Australia's population ages and its young people become more overweight, participation in regular physical activity may become a political mandate. Recently, schools in New South Wales were required to schedule 2 hours of physical activity for students each day. For some students this may be the only time they participate in any physical activity.

As the nature of housing changes in cities from houses with the suburban backyard to townhouses and apartments, the need for more open spaces for recreation becomes necessary. Similarly, health and fitness products such as walking and weights machines become more popular as people can exercise indoors, at a time that suits them in their own home.

Governments need to recognise the need for improved access to physical activity opportunities and include open spaces, walking pathways, cycle ways and fitness stations in their local environmental planning.

Enhancing support networks

Support networks may come in the form of individuals, social groups, organised community groups and facilities, or government initiatives. Ensuring that individuals are supported to participate in physical activity is becoming increasingly important as our population ages. For the elderly, supplying transport to sporting events or clubs, and ensuring that facilities are accessible, increases the likelihood of sustained participation. Designing health and fitness programs that are age-appropriate and employing personnel who are sensitive to the needs of participants is vital. Regardless of age, individuals need to be motivated to participate in physical activity. The nature of support networks will change depending on the needs and interests of the individual or group.

Enhancing support networks for children

With increased media attention on childhood obesity, political measures are being introduced to support children and parents in increasing children's participation in regular physical activity. Support strategies such as Active After-School Communities and the Healthy Kids project are examples of government initiatives to encourage children to participate in physical activity.



Figure 9.5

After-school programs can be an opportunity for children to participate in physical activity

Imagine it is the year 2040 and you are a government minister with the Childhood Physical Activity portfolio. What strategies would you design to ensure that all children in New South Wales participate in a level of physical activity that resulted in health benefits? Present your strategies to the class in the form of a press release to the media.



HotSpot

Chapter cloze

_____ can be defined as activity in which people choose to participate. There are a range of factors that influence participation in physical activity, including education, _____ and cost. Approximately 59% of children participate in regular physical activity, with _____ being the most popular activity.

Benefits of participation in physical activity can be categorised as either physical, _____ or emotional. Benefits of participation include increased _____, improved quality of life and the development of social skills.

Specific population groups in Australia are less physically active. Examples of these groups include people with _____, women and children born overseas with parents from non-English speaking backgrounds. _____ is a major factor influencing participation in physical activity, particularly in children with inactive parents and siblings.

culture
disabilities
geographic location
leisure
self-esteem
social
swimming

Review questions

- 1 Define the term 'leisure'. Explain the factors that influence an individual's participation in physical activity.
- 2 Analyse the outcomes and opportunities provided by physical activity for a selected group.
- 3 Propose strategies to support the physical activity pursuits of a selected group.
- 4 Discuss the reasons for modifications made to a physical activity to support a selected group.
- 5 Describe the nature and value of participation in physical activity for a selected group.

10

Opportunities and pathways in physical activity and sport

OUTCOMES

In this chapter a student:

- 1.2** analyses the benefits of participation and performance in physical activity and sport
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance



STARTING POINT

As a result of changing safety and public liability requirements, suppliers of fitness, recreation, sport and physical activity options are increasingly employing professionals with registered qualifications. However, many community, fundraising, recreational and sporting events would not be possible without the assistance of volunteers. In Australia, one of the most significant events supported by the work of volunteers was the Sydney 2000 Olympics. Volunteers assisted in a range of roles throughout the 21 days of the event. At a local level, volunteers assist daily and weekly in local sporting clubs as coaches, first aid personnel, trainers, managers, canteen helpers, fundraisers, supporters and officials.

Voluntary and community opportunities in physical activity

The word '**volunteer**' comes from the Latin word *valo* or *velle*, meaning hope, determination or willingness. Volunteers are those who offer their time for free to help improve society and provide charity to others. There are numerous volunteer and community opportunities on offer that are related to and support physical activity.

Range of opportunities available

Examples of opportunities available in the voluntary, community or not-for-profit sector of the leisure industry include those at voluntary sports and hobby clubs, and organisations associated with ethnic, religious or military interests. Within the area of physical activity there are a variety of volunteering possibilities, including:

- coaches
- referees
- sports trainers
- sports medicine practitioners
- marketing
- **event management.**

Below is an article outlining the voluntary positions that are available in relation to a sporting event held by Bicycle NSW. Many community events offer opportunities like these.

City of Sydney Spring Cycle

Volunteer description

What positions are available? We need people for the following roles:

- **Route marshals:** These are the most visible Volunteers on the route, and play an important role in directing and encouraging cyclists throughout the course, as well as being the eyes and ears of the route. While relief is given whenever possible, marshals need to stand at their station for a considerable amount of time.

Skills & Abilities: Outgoing and encouraging person who can motivate the cyclists. Must be able to think clearly and act responsibly in a crisis. General knowledge of road safety is a definite must.

- **Rest Stop:** On the City of Sydney Spring Cycle our rest stops are manned by Volunteers, including food and drink, First Aid Officers, Bike Mechanics and Police. Rest stop volunteers are there to help cyclists replenish their fluids, gather information of distance from start, to finish, and help in managing the large crowd that gathers for a bit of R&R.

Skills & Abilities: Enthusiasm, cheerful and helpful manner, and willingness to work with people.

- **Equipment Set Up:** The Equipment Team has the important role of setting up the structures at the start and finish sites for the City of Sydney Spring Cycle. The majority of the work is carried out on the Saturday before the event, for example erecting the marquees and tents, setting up the water station

and signage around the site. The Sunday morning, which involves a very early start, involves placing equipment in the correct areas such as barricades, power cords, flags and signage. The afternoon is pack-down and restoration of sites for normal use. Each day will start with a crew meeting for orientation.

Skills & Abilities: Reasonable physical fitness is required. Ability to take direction and work within a team. A general knowledge of tools

- **Start Sites:** At the 1st start, St Leonards Park, North Sydney, the set-up takes place on the day before the ride (Saturday), with equipment crews and anyone else that can help out as well. On event day Volunteers have a very early start at approx 5.30am, ready for the thousands of cyclists that will soon be coming through. Jobs include rider registration, start marshals, information, equipment and refreshments. This job is short time-wise, but will be busy for the time there. The second start, Blacktown Olympic Park and the 3rd start, Hart Park (Warwick Farm) operate much the same way as the first start but with no on the day registration for the riders. This set up also takes place the day before by the equipment team and has a start time of 5.30am on the Sunday.

Skills & Abilities: Early morning riser, friendly, helpful, able to think quickly, able to take direction and manage a large crowd.

- **Finish Site:** The Finish site requires many volunteers from marshals to refreshment providers, all culminating in the festive finish that will be held at the Overflow Area of Sydney Olympic Park right next to the Olympic Torch and ANZ Stadium.

Skills & Abilities: Early morning riser, friendly, helpful, able to think quickly, able to take direction and manage a large crowd.

- **Ride Crew:** Know a little about fixing a bike and love to help others? This may be for you! We have ride crew (mobile support mechanics) that ride in pairs along the route helping participants with basic bike repairs, punctures, loose chains etc. and especially encouragement of riders who may be struggling! If you don't mind getting your hands grubby, this will be a lot of fun. Bicycle shops are at each rest site to help with the major repairs, so you won't be expected to perform miracles, unless you can!

Skills & Abilities: As above, basic bike maintenance, willingness to help others get through the ride, plus provide your own bike and basic bike tools. Spares supplied.

- **Massage:** To aid in the quick recovery of the cyclists, we require professionally certified masseurs on hand at our rest sites and finish site to offer a short and relaxing free massage. Small advertising of your business is acceptable.

Skills & Abilities: Graduates in a recognised course, preferably with experience in sports massage or remedial massage. A willingness to handle a quick turnover in less than ideal conditions. You will need to bring your own portable massage table, oils and towels and any other bits and bobs you think will be needed on the day.

- **Team Leaders:** The Team Leaders on the City of Sydney Spring Cycle provide direction and take care of their team of volunteers and their immediate needs, as well as managing situations that may arise whilst on the ride. We are always on the look out for potential Team Leaders. Would you like to be involved in a leadership role? The Team Leaders are required to contact their team members prior to the event, be available to make phone calls, and attend three team leader's meetings prior to the event outside of business hours. The team leader needs to coordinate the movements and placements of their team, with the teams ranging in size from 10 or more. All our sites and sectors on the event have a designated Team Leader. If you would like to know more or register your interest, let us know.

Skills & Abilities: Ability to delegate tasks and take responsibility for a team, relationship skills, ability to use a two way radio, calm attitude. Previous experience in this role will be a bonus.

Benefits of voluntary and community involvement

Individuals volunteer for a variety of reasons. Acting as a volunteer has both **extrinsic** and **intrinsic** benefits. The intrinsic benefits include a sense of giving and satisfaction, increased self-esteem and confidence, and feelings of performing a worthwhile social duty and contributing toward the success of an event or community project. Other benefits of volunteering include the opportunity to develop new skills and gain knowledge and understandings of how organisations, industries and events function. Volunteering also provides individuals with the chance to sample the leisure, recreation and physical activity industry to determine if it is a realistic and enjoyable career choice for them.

As a volunteer, ensure that you:

- volunteer for activities in which you have an interest, experience or expertise
- understand your roles and responsibilities as a volunteer
- know to whom you are responsible and for whom you are responsible
- take advantage of training opportunities provided by the host organisation wherever possible
- try your hand at new and different skills.



Figure 10.1
Volunteers contribute towards the success of events

Learning experience

- 1 Read the article titled 'City of Sydney Spring Cycle' on pages 155–6 and select a similar community event, such as a walkathon or fun run. In pairs, brainstorm a list of possible volunteers that would be needed and prepare a description of the volunteers' roles.
- 2 In small groups, conduct interviews with volunteers from a variety of physical activity areas, for example scout leaders, surf lifesavers, event organiser or a coach. As a class brainstorm a bank of questions that students could use in their interviews with the volunteers. Prepare a report to present to the class that clearly identifies the outcomes of voluntary work identified in the interviews.



Webconnect

Read the information on the following website and prepare a list of all the ways that you could volunteer in your local community: <www.sportrec.qld.gov.au/kids/schoolstuff/volunteering_and_sport_1.cfm>.



Opportunities in the physical activity and recreation industry

As media attention is directed at the declining health and fitness levels of the Australian population, the need for personnel in the physical activity and recreation industry increases. Opportunities for employment within the industry are diverse and require various levels of training and accreditation.

Range of opportunities available

There are a variety of opportunities that are available in the physical activity and recreation industry. Casual, part-time and full-time employment opportunities exist in the areas of adventure activities, extreme sports and outdoor education to name a few. These opportunities can include positions such as children's camp activity leaders, bungee jump masters, fishing instructors, guides for hunting or mountaineering, outdoor adventure instructors, fitness leaders or dance instructors.

Qualifications and training requirements

Careers in the physical activity and recreation industry often require formal qualifications. These qualifications may include study at TAFE or university and be supported by industry-based experiences. For example, to work in a gym as a fitness instructor you would require a Certificate III or Certificate IV in Fitness.

Table 10.1

TAFE qualifications available for careers in recreation

Recreation position	TAFE qualification required
Bungee jump master	Celestial Navigation Industrial Rope Access Leaders Wilderness First Aid Outdoor Recreation—Certificate IV (specialising in General Interpretive Activities) Outdoor Recreation—Certificate IV (specialising in Outdoor Recreation) Certificate II Certificate III Remote Area First Aid Outdoor Recreation—Diploma
Fitness instructor	Fitness Certificate III Fitness Certificate IV Fitness Diploma Fitness—Statement of Attainment Fitness Leader—Gym Instructor Fitness Leader—Personal Trainer Group Exercise to Music Plan and Instruct a Group Exercise Class

TAFE NSW 2008 <www.tafensw.edu.au>



Webconnect

Connect to <www.leisurejobs.com.au> and prepare a comprehensive list of jobs and careers available in the leisure industry. Devise a set of categories and classify each of these jobs (for example, facility management: seasonal).



Learning experience

- 1 As a class, invite a range of leisure industry workers as guest speakers. Devise a list of questions to ask each of the guests.
In pairs, prepare a poster or brochure that outlines the nature of the job of each guest, what qualifications they needed to work in this job, what they enjoy about the job and if they would recommend this job to others.
- 2 Investigate the range of careers available in fitness, outdoor recreation and sport. Prepare a leaflet that outlines the nature of the qualifications required to pursue a variety of careers in the physical activity and recreation industry.

Opportunities in the sports industry

As national and international sports continue to be promoted by corporate sponsors and the media, the sport industry will continue to grow. Careers in the sports industry are many and varied, and can offer opportunities for a range of levels of involvement, including casual, part-time and permanent positions.

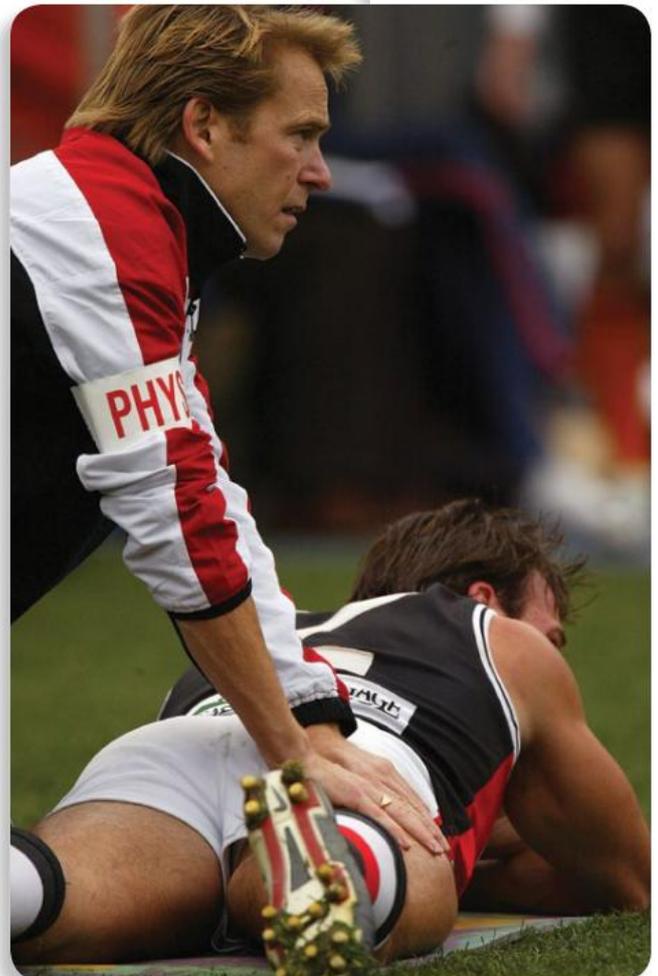
Figure 10.2
Some physiotherapists work exclusively with athletes

Range of opportunities available

Various opportunities are available in the sports industry, including in the areas of administration, management, tourism, sales, reception, health care and marketing. These careers may require formal qualifications or experience in the industry, or a combination of both. Work experience and casual or part-time work may be an entry point to gaining a career in these areas of the sport industry.

Personal attributes and skills

Careers in the sports industry require a diverse variety of personal qualities or attributes, knowledge and skills. For example, a physiotherapist needs knowledge of the anatomy, physiology and biomechanics of the body, as well as interpersonal skills to interact with players, coaches and trainers regarding treatment and rehabilitation regimes. An events manager needs the ability to seek out the appropriate resources and personnel to effectively and efficiently host a tournament or carnival. A career in events management would be suitable for a person with confidence, who enjoyed organisation and was a clear communicator.



Qualifications and training requirements

Careers in the sports industry may require formal qualifications, such as a university degree. In New South Wales, many universities offer courses or degrees in exercise science, rehabilitation, physiotherapy, clinical practice, sports science, human movement, health and physical education, health services, sports tourism, sports marketing, and event management. These courses require students to complete either a three- or four-year degree, often with opportunities for work-integrated learning in the sports industry during practical placements. Pursuing a career as an elite coach in a selected sport may require a range of professional qualifications. In Australia, the National Coaching Accreditation Scheme (NCAS) provides a range of professional accreditation courses for coaches at all levels.

Learning experience

- 1 As a class, visit a professional sporting club or sporting company and investigate the numerous roles that need to be undertaken within that club or company. In small groups, select one role—for example, marketing officer—and research the tasks involved in undertaking this role. Present this information to the class in a brief oral presentation. Your presentation will assist members of your class to gain a broader understanding of the range of career opportunities available in the sports industry, and the role and responsibilities of different personnel.
- 2 In a small group, examine the positions vacant section in a weekend newspaper and prepare a list of possible work experience placements in the sports industry.

Carefully read the advertisements and select one position. Make note of the qualifications and personal attributes and skills that are listed as essential and desirable in the advertisement.

Prepare a checklist of your personal attributes and skills.

Compare the two lists and consider how your current attributes and skills compare with those listed in the advertisement.

- a What actions could you take to improve and build on your current skills?
- b How could these attributes and skills be used in other areas outside the sports industry?

HotSpot



As a class, participate in a carousel debate. A carousel debate requires students to face each other in two concentric circles. The inner circle assumes the role of the negative, while the outer circle assumes the role of the positive. Students speak for 30 seconds to the student opposite them, and then the students in the outer circle move around the circle three places to face a new partner. Students then assume the opposite viewpoint. The debate resumes. Repeat this process several times.

Debate topic: Coaches need professional qualifications.

Webconnect

- 1 Visit the Australian Sports Commission's website: <www.ausport.gov.au/coach/ncas.asp>. Navigate through the website and explore the 'Beginning coaching general principles' online course. To whom would you recommend this type of course?
- 2 Explore the websites of any New South Wales universities; some examples are listed below:
 - <www.csu.edu.au> (Charles Sturt University)
 - <www.uow.edu.au> (Wollongong University)
 - <www.uts.edu.au> (University of Technology, Sydney).

Search the undergraduate courses for degrees available in the sports industry. These degrees might include human movement, marketing and management, sports science, exercise science, health and tourism.

Select one course and examine the career opportunities listed as a result of graduating from the degree.



Leadership in physical activity and sport

Leadership positions in physical activity and sport can range from coaching the local under-six soccer team to being Chair of the International Olympic Committee. Despite the level of commitment and associated salary, personnel in positions of leadership require specific skills and personal qualities to successfully fulfil their role. Given the context and requirements of the leadership position, the leader will adopt a range of leadership styles.

Leadership styles

Whatever the situation—running a company, captaining a sports team or managing a group at work—adopting an effective leadership style is important. There is a range of leadership styles, including autocratic, bureaucratic, charismatic, democratic, *laissez-faire*, people-oriented, servant, task-oriented, transactional and transformational. Each of these styles is outlined below.

- **Autocratic** leadership is when a leader has absolute power or control over an individual or team, and members have little opportunity for input into decision-making. This style of leadership can be appropriate in situations when dealing with new or difficult team members.
- **Bureaucratic** leaders work 'by the book' and ensure that everyone follows the rules exactly. Adopting a bureaucratic leadership style is appropriate in situations where safety is essential or organisation and timing are crucial.
- **Charismatic** leadership is overtly enthusiastic toward the team and leadership role, and the sheer nature of this style of leadership creates motivation in others. Team members' drive for success can often become overly reliant on this style of leadership, thus charismatic leadership calls for great responsibility, and needs long-term commitment from the leader.
- **Democratic** leadership invites participation from team members and allows them input in decision-making. This leadership style assists in developing the skills of team members and instils a sense of responsibility in the team. Adopting this leadership style often results in decision-making taking longer, as all opinions need to be taken into account; however, all parties will feel that their input is valued, resulting in a sense of team cohesion.

- **Laissez-faire** leadership is based on the French phrase ‘leave it be’ and is used to describe a leader who leaves players to get on with the game. This leadership style can be used effectively if the leader monitors the team’s progress and the team or individual is self-sufficient. Adopting this leadership style when coaching an under-10 basketball team, for example, would not be appropriate, as the players would not have sufficient knowledge of the game or skills to adopt the most suitable court action.
- **People-oriented** leadership is totally focused on organising, supporting and developing the members in a team. A participative style, it tends to lead to good teamwork and creative collaboration.
- **Servant** leadership describes a leader who is often not formally recognised for their efforts or contribution. Volunteers often assume the role of servant leaders. Adopting a servant leadership style simply means meeting the needs of team members within an organisation or team. A captain or parent assistant might be a servant leader.
- **Task-oriented** leadership is a style that focuses on getting the job done in the most efficient manner. It usually involves making decisions regarding positions or roles and establishing the necessary rules and organisational structures so the group is focused on succeeding at their goal.
- **Transactional** leadership is based on the notion that team members agree to obey their leader. The ‘transaction’ is (usually) that the organisation pays the team members in return for their effort and compliance. You have a right to ‘punish’ the team members if their work doesn’t meet the pre-determined standard. Transactional leadership is appropriate for managing short-term tasks.
- **Transformational leadership** is the style of a true leader. This leader uses motivation and enthusiasm to inspire the group or team with a shared vision of the future. Transformational leaders are highly visible and spend a lot of time communicating. This style involves delegating responsibility among the team.

Figure 10.3

People in positions of leadership require specific skills and personal qualities



Good leaders use a combination of these styles, depending on the situation or context. For example, adopting an authoritarian leadership style involves being dominant, and demonstrating personal power and control. There are a variety of situational or contextual factors that you need to consider when adopting leadership styles, including the skill levels and experience of your team, the work or goal involved, the organisational environment (whether it is stable or radically changing, conservative or adventurous), and your own preferred or natural style.

A good leader will move between styles according to the individuals with whom they are working and the context in which they are working.

Leadership skills

Leadership is about the ability to inspire trust, loyalty, commitment and collegiality among team members. Credibility in leadership comes from competence (what you do), character (who you are) and connection (your relationship with members of the team). Leadership skills include having a vision or plan, having the ability to lead by example or model what is desired of team members, being honest and responsible, and being able to openly communicate ideas with others. Developing as an effective leader comes with experience and time. As a leader's skills and abilities develop, their confidence will also grow.



Learning experience

- 1 As a class, brainstorm a list of leaders from a variety of life fields, such as sport, the arts, politics, religion and education. In small groups select one leader and, using a range of sources, research the achievements of this leader. If possible, determine their leadership style. Explain why you think their leadership style was appropriate for the situation in which they worked or played.
- 2 View an excerpt from a DVD or popular television show that highlights various leadership styles. Examples of suitable leaders may include teachers, coaches, politicians, parents and community members.
 - a As a class, identify and discuss the styles of leadership evident in each of the excerpts.
 - b Argue whether the leadership style was appropriate for the particular situation or context.
- 3 Prepare an advertisement that 'sells' you as an effective leader. What qualities, attributes and skills do you have that are required in a leader?
- 4 Prepare a checklist of ways to demonstrate leadership skills within the class, school and the local community. Note the particular skills and leadership styles that would be needed for each role. For example, coaching the under-six soccer team at the local primary school or volunteering to assist in the training of community first aid at a church hall. The style of leadership would be determined by the needs and aspirations of the team and their ability level.
- 5 As a class, plan and implement an event that provides a range of opportunities for students in the class to demonstrate leadership styles and skills. For example, organise a lunchtime round robin for a Year 7 class or volunteer to coach a small group of students who experience difficulty in developing their skills in Physical Education classes.

Career planning in physical activity and sport

In order to gain access to a chosen career, it is necessary to set goals and plan strategies. To be employed in the physical activity or sport industry may require specific educational or sporting prerequisites. Studying particular subjects in school, or participating or refereeing at a specific level of sport may be necessary to be considered for a career in the sports industry. Career advisers will be a useful initial source of information regarding a career in the sports industry.

Figure 10.4

A career in the physical activity industry may require specific educational prerequisites



Professional and community responsibilities

Undertaking a career in physical activity or the sports industry brings with it considerable responsibilities. As professionals, players have responsibilities such as attending training, meeting curfews, representing their team or sport in media sessions and abiding by a player code of conduct. Other careers in the sports industry also involve legal and ethical responsibilities, such as ensuring the safety of players, selecting players and teams using a non-biased decision-making processes, treating clients with respect and honouring commitments.

Time management and lifestyle balance

For professional athletes, managing their personal and sporting commitments requires careful planning, good time-management skills and lifestyle balance. In many cases athletes are required to travel around Australia and internationally to compete in sporting tournaments and matches. Leaving family and home can affect players' motivation and performance. Arduous practice and playing schedules can impact on the quality of family relationships. It is necessary that a balance be established between work, rest and relaxation in order for those with a career in the sports industry to perform at their best.

Dealing with the media

The opportunities for athletes to promote themselves and their sports through dealing with media are enormous. Being part of a media session can assist in building a personal profile, the profile of the sport and the sponsor, if applicable.

Whether in a broadcast or the print media, representing yourself, your sport and your sponsor in a professional manner are of utmost importance.

The written media includes local and regional papers through to national papers and magazines. The written media includes:

- news reporters who are generally looking for a story, often linked to scandal
- sports reporters who are generally supportive to athletes and sport
- columnists who are looking for an overview and an opinion
- feature writers who cover sports and particular athletes' profiles in depth.

Depending on the type of reporter, athletes, coaches, managers and other staff employed in the sports industry will deal with the media in different ways. The media can present players, trainers, coaches and sports in a positive or negative light depending on their news agenda.

Those personnel who are likely to be interviewed by the media need to develop specific skills to respond positively and tactfully to the media's questions.



Sport personnel

Sport personnel are important to enable the smooth running of sporting events and to assist athletes to reach their full physical and psychological potential. Examples of sport personnel include coaches, trainers, managers, grounds staff, administrators, physiotherapists, players and sponsors. Each of these personnel has a specific role to play in preparing the athlete and promoting their performance. For example, trainers prepare athletes to reach their peak in physical fitness just before participation in a major event. Personnel such as managers and administrators contribute toward the efficient operation of sporting clubs and teams.

Financial issues

Being a professional player in sport is associated with significant financial costs. Travel, accommodation, equipment, food, coach and trainer fees can place strain on player performance. Sponsorship of individuals and sports is necessary to cover these costs. High-profile sports like cricket, rugby and tennis gain the most sponsorship dollars in Australia. For local and community athletes and less visible sports, attracting sponsors is often a difficult task.

The career length of professional sportspeople can also be limited due to injury, age or performance. Planning for an alternative career beyond being a professional athlete is essential. As careers in the sports industry are often dependent on physical activity trends, ensuring a constant financial input from such careers involves strategic planning.

Figure 10.5

Professional athletes need to develop skills to respond positively to the media

Giant-killer Casey Dellacqua

She shops at Target and her more celebrated rival had won \$6.6 million in prizemoney, but that didn't stop Casey Dellacqua knocking Patty Schnyder out of the Australian Open yesterday.

The 22-year-old West Australian lived a lifelong dream, beating the Swiss veteran 4-6 7-5 8-6 in a huge upset on Vodafone Arena.

But her moment of joy was in stark contrast to the feeling experienced by compatriots Alicia Molik and Jessica Moore, who became the latest locals to be eliminated.

Molik was thrashed in straight-sets by Czech 12th seed Nicole Pietrangeli, while Moore suffered the same fate at the hands of Israel's Shahar Peer.

Dellacqua's box burst into tears after she did the impossible in a match lasting more than two hours.

'I'm over the moon and absolutely excited,' Dellacqua said. 'It was so amazing, the crowd was great. As the match went on you could feel they were getting into it a lot more. It was an amazing feeling.'

This time last year Dellacqua was buying her on-court outfit from Target. She recycled an outfit from last year's US Open for her Monday match before Nike stepped in to give her a makeover yesterday.

'My favourite shop has always been Target ... I like their tank tops and they're comfy to practice in,' she said.

Dellacqua had claimed only \$314,259 in prize-money before yesterday's career-altering match. Even

if she loses her third round match tomorrow she will pocket \$50,000.

'It just takes the weight off your shoulders in terms of knowing you have some money to pay for a hotel,' she said. 'You can go and eat dinner at a nice restaurant and not go to the supermarket and cook some pasta up.'

In 2006, Dellacqua was called overweight after getting thrashed by American Lindsay Davenport and was used as an example of the woeful state of Aussie women's tennis.

'It's hard when you're a young girl, even so much in tennis, but in general,' Dellacqua said this week.

'For a lot of girls, comments about weight can be very sensitive. I took it as positive criticism and I used it as motivation to show people that I could be a top 100 player and I don't think that's a bad thing.'

The past year has been a revelation for Dellacqua, who has risen nearly 100 places in the rankings after starting the year playing in country Victoria earning \$100 a match.

A new worth ethic and mental toughness is paying off.

'It can be really, really difficult, but if you don't go through that you don't appreciate how good you have it at tournaments like this,' she said. 'Little things like airport pick ups and having fresh towels when you shower.'

'I've struggled financially over the years but it makes you stronger.'



Webconnect

Connect to

www.ausport.gov.au/asc/teoas/index.asp.

- Read the four principles of 'The Essence of Australian Sport'.
- Select a sport and list examples of how these principles would be enacted or applied at a local level in your club or team.

Learning experience

Read the newspaper article 'Giant killer Casey Dellacqua' and answer the following questions.

- 1 What impact has sponsorship had on Casey's financial situation?
- 2 Devise a plan for young players like Casey Dellacqua to attract sponsorship dollars from multinational companies.
- 3 Given her newly found fame, what strategies would Casey need to learn to deal with the media attention she received?
- 4 How might Casey manage the balance between her family life and her training and playing commitments?



Chapter cloze

A _____ is a person who offers their time, skills and knowledge for free. Being a volunteer has both _____ and _____ benefits, such as increased self-confidence, a sense of satisfaction, and free uniforms or equipment. A broad range of career opportunities exist for in the sports industry. Examples of these careers include sports coaches, health services, _____, reception, sales and professional players. Pursuing a career in the sports industry often requires _____ skills.

Leaders in the sports industry adopt a range of leadership styles depending on the situation and people involved. Examples of these leadership styles include democratic, transformational and _____.

event management
extrinsic
intrinsic
laissez-faire
leadership
volunteer

Review questions

- 1 Analyse the outcomes of volunteering to assist in the organisation of a fun run for a local charity.
- 2 Discuss how different leadership styles are effective in different contexts.
- 3 Identify the positive characteristics of leaders.
- 4 Describe the personal and community benefits of voluntary participation in physical activity.
- 5 Justify the importance of planning for career opportunities in the physical activity and leisure industry.

11

Issues in physical activity and sport: Commercialisation

OUTCOMES

In this chapter a student:

- 1.2** analyses the benefits of participation and performance in physical activity and sport
- 2.1** discusses the nature and impact of historical and contemporary issues in physical activity and sport
- 2.2** analyses physical activity and sport from personal, social and cultural perspectives
- 4.4** analyses and appraises information, opinions and observations to inform physical activity and sport decisions.



STARTING POINT

The **commercialisation** of sport has emerged from the interplay of basic **market forces** including large-scale spectacles, **media rights** and advertising. Commercialisation has provided unprecedented financial rewards for some groups, especially male athletes involved in high-profile sports. This has raised **equity** issues for other groups participating outside commercially **broadcast** sports. Additionally, particular challenges exist for high-profile athletes, especially young men, who are inadequately prepared for the pressure associated with media attention and intense competition.

Historic beginnings

To understand the underlying cause of the commercialisation of sport we need to go all the way back to Rome in AD 80, when the building of the **Colosseum** was completed. It held 50 000 people. Here we see the ingredients for what was to follow in popular sports up to the present day. These are:

- a large-scale event delivered to a mass audience
- money changing hands between the event's organisers, participants and spectators
- public promotion and subsequent **sponsorship** of participants, together with shared publicity by wealthy individuals and promoters
- a training school involving coaching staff to prepare participants professionally for events.

In AD 80, the Colosseum was the home of spectacles in which gladiators pitted their skills in barbaric fights to the death with fellow gladiators or with



wild animals. These ghoulish encounters were relished by an audience for whom death was a form of entertainment. The gladiators were a mixture of slaves, and free men and women. A slave gladiator could earn their freedom if they pleased the Colosseum crowd or the Emperor. Once freed, they then had the right to fight professionally. The Emperor Tiberius paid 1000 gold pieces to each gladiator for one performance at the Colosseum. This was the beginning of professionalism and commercialisation.

What occurred at the Colosseum had all the basic ingredients of professional sport today, though in differing contexts! While Russell Crowe played his famous role of Maximus in the film *Gladiator*, now he is a co-owner of the South Sydney Rabbitohs Rugby League franchise, with businessman Peter Holmes à Court. This is an interesting connection, because it underlines that while modern professional sport is more organised, and on a larger scale, the basic market drivers are the same as in AD 80.

Figure 11.1
The Colosseum in Rome—the beginnings of commercialised sport

Learning experience

- 1 Watch the film *Gladiator* starring Russell Crowe.
- 2 Discuss some of the scenes from *Gladiator* that portray the:
 - commercial aspects of the gladiatorial sports
 - relationship between the ‘athletes’ (gladiators) and the ‘administrators’ (event organisers)
 - role of politics in sport
 - similarities and differences to modern sport.





Figure 11.2
Russell Crowe in two
roles related to the
commercialisation
of sport

Sport and the British Empire

While Roman society quickly cottoned on to commercial sport as a natural combination of market forces, it was in later centuries that the British Empire developed sports that are still popular all over the world. Modern forms of golf, tennis, cricket, football and rugby all began in Britain, some of which were promoted by the interest of early monarchs like Henry VIII, the 16th-century King of England. **Leisure time** was very important in the court of Henry VIII, as it was expected that the king be entertained when not attending to matters of state. An early form of tennis was popular with Henry VIII, as was hunting and other equestrian sports. At this point in history it was only the privileged classes who had leisure time in any quantity, as other classes were exploited and poorly paid. For this reason, the cultural idea that sport was only an amateur interest for men of wealth replaced the idea of professionalism.

Similarly, the present-day 'world sports' of football, rugby and cricket had their beginnings in the British public school system of the 18th and 19th centuries. A 'public school' was actually a private school. Schooling was not universally available, and British society still ran on a two-tiered system made up of the ruling classes, and the lower working-class poor. The predominance of the upper class in sports strengthened the concept of **amateurism**. Culturally this was very significant, because it would take a great shift in thinking for those in power to support the commercialisation of sport. Indeed, in the case of world cricket, this kind of commercialisation came from the last place the British establishment could stomach, their former colony, Australia!

The rising profile of commercialised sport

Key to the development of professional sport was the new mass audience that emerged with the advent of television in the 1950s. By the 1970s, broadcast rights to sports meant large **revenue** from advertising. In turn, advertising and sponsorship created increasing salary opportunities for professional athletes.

Webconnect

Visit <www.shark.com> List the businesses that Greg Norman features on his website. Describe how Greg Norman has been successful in extending his 'shark' brand beyond golf.



Figure 11.3
Timeline for the commercialisation of sport

1884	British Football Association allows match payments and transfer fees for players.
1885	Rugby bans player payments and forms Rugby Union. Rugby League is formed to allow players to receive compensation for lost work hours.
1902	British Professional Golf Association founded.
1926	US Professional Golf Association founded.
1926	Promoter CC Pyle established professional tennis tour for US and French players. (These 'pro' players are banned from 'amateur' tournaments.)
1933	Hershey Chocolate sponsors Hershey Gold Open in USA.
1968	Open era of tennis established allowing professional players to compete in all tournaments.
1976	Channel 9 Network owner, Kerry Packer, launches first professional competition based on commercial broadcast rights (World Series Cricket).
1993	Kerry Packer acquires rights to all forms of television broadcast of Rugby League until 2000 for \$80 million. News Limited approaches Australian Rugby League (ARL) to acquire rights to broadcast pay television. Legal battle over rights follows.
1995	Super League (SL) competition formed for News Limited sponsored 'rebel' Rugby League competition.
1995	Rugby Union allows complete commercialisation.
1997	After financial losses from both ARL and SL, National Rugby League (NRL) is formed.
2005	Hyundai-sponsored A League formed as Australian National Soccer Competition
2006	Football Federation Australia signs \$120 million A-League broadcasting deal with Fox Sports
2008	Indian Premier League formed based on 20-20 cricket. Australian players auctioned for up to \$1.47 million.

Social influences

Historically, Australia's British heritage meant inheriting Britain's social values. The class system was deeply embedded in early colonial Australia, with the upper class—those with financial and social power—creating rules to restrict the working class from sharing their leisure pursuits. The idea of amateurism excluded the working class from the clubs and sports of the upper classes, and ensured sport remained free of the 'commercial stain'. However, horseracing, like chariot racing at the Colosseum, was a key part of colonial society, and it was allowed to operate as the centre of betting and winning purses (cash prizes). Events like the Melbourne Cup drew together both privileged and working classes around a sporting spectacle that was too powerful for amateurism to contain.

It has one specialty; this must not be jumbled in with those other things. It is the mitred Metropolitan of the Horse Racing Cult. Its raceground is the Mecca of Australasia. On the great annual day of sacrifice, business is suspended over a stretch of land and sea as wide as from New York to San Francisco, and deeper than from the northern lakes to the Gulf of Mexico; and every man and woman, of high degree or low, who can afford the expense, put away their other duties and come. They begin to swarm in by ship and rail a fortnight before the day, and they swarm thicker

and thicker day after day, until all the vehicles of transportation are taxed to their uttermost to meet the demands of the occasion, and all hotels and lodgings are bulging outward because of the pressure from within. They come a hundred thousand strong, as all the best authorities say, and they pack the spacious grounds and grand-stands and make a spectacle such as is never to be seen in Australasia elsewhere.

It is the 'Melbourne Cup' that brings this multitude together.

From Following the equator by Mark Twain (1897)



Learning experience

- 1 List the commercial elements that are evident in Mark Twain's account.
- 2 Comment on the effect the Melbourne Cup and other horseracing events may have had on Australian attitudes to other commercial sports.
- 3 Discuss the role of betting in commercial sport.

Australian media and sports administrators

Media companies, in particular the Packer family's Australian Consolidated Press (ACP), were key to the development of commercial sport in Australia. Under Sir Frank Packer from 1933, ACP traded successfully in magazines, as well as creating the TCN 9 Network television station in 1956. In 1974, when Sir Frank died, his younger son, Kerry Packer, took control of the network. Kerry, a keen follower and player of sport, was ambitious to make a success of his young network.

The introduction of colour television to Australia in 1975 was very popular, especially with Channel 9, whose profit rose considerably. Significantly, colour television changed the marketability of sport, which was brought to life on screen. Channel 9 dramatically increased its sports coverage, broadcasting golf, tennis and rugby in colour, and spending millions on improving outside broadcasting, raising prize money and marketing events.

World Series Cricket

Channel 9 decided to bid for the rights to the cricket in 1976. These rights had been held by the ABC since television began in 1956. The Australian Cricket Board (at that time led by Don Bradman, the most successful amateur athlete in Australian history) headed off the bid, and signed the ABC on for another three-year contract. Kerry Packer was affronted, and after unsuccessfully offering several times the amount of money and still being knocked back, he started to plan an alternative cricket competition. After offering professional-level money to key players, including the then Australian and England captains, Ian Chappell and Tony Greig, Packer signed up 13 of Australia's top cricketers. The ABC's hand was forced. The two competitions merged, and Channel 9 has had the television rights ever since.

This situation in which a key media player forced a change from amateurism to commercialisation created the pathway for commercialisation of all mass-market sports in Australia. Kerry Packer, a sports lover, horseman, business baron and keen punter, came to embody the new ethos of sport in Australia.

Channel 9, and its competing networks, now feed hundreds of millions of dollars into televised sports. This money has led to unprecedented salaries and endorsement earnings for athletes who now operate as both players, employees and open-market commodities.

The advent of pay TV

Free-to-air television dominated the commercial broadcasting of sport until the advent of pay television in the mid 1990s. At this time, Kerry Packer owned all rights to broadcasting cricket and rugby league but then pay TV provider News Corporation approached the Australian Rugby League (ARL), the sports administrator of the code, to split the rights between free-to-air and pay TV. News Corporation was a multi-billion dollar business owned by Rupert Murdoch, Kerry Packer's rival in media assets, so naturally Packer objected to News Corporation's proposal.

However, News Corporation was used to breaking competitive deadlocks. They approached the ARL clubs to lure them away with the promise of funding deals in order to form a new rugby league competition to rival the

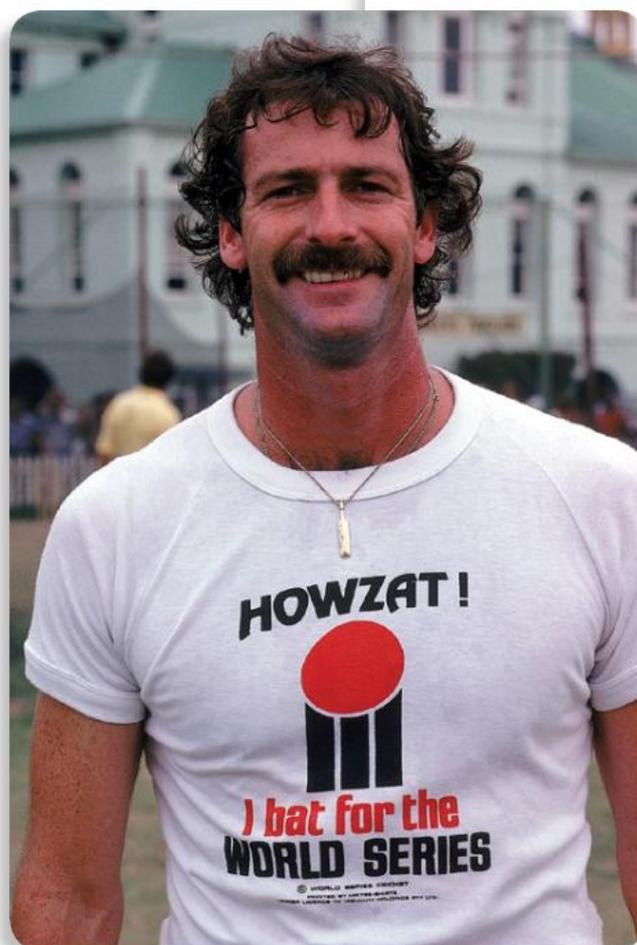


Figure 11.4
Dennis Lillee was recruited to World Series Cricket

Figure 11.5

Kerry Packer embodied the new ethos of sport in Australia



ARL. In 1995, about half the ARL clubs accepted News Corporation's offer and formed the Super League. The clubs that remained in the ARL continued to compete with each other. But the game was terminally damaged by the split in revenue, and with millions of dollars in losses on both sides, the National Rugby League (NRL) was formed in 1997.

Soccer Australia becomes Football Federation Australia

Soccer (football) has been played at a high level of competition in Australia since 1921. However, with only one World Cup appearance in 1974, and no clear strategy from the administration to develop its popularity as a mass spectator sport, Soccer Australia was nearly bankrupt in 1993. At that time an ABC report suggested mismanagement was rife in the Soccer Australia board, and this prompted the Australian Government to commission the Crawford Report. This report was conducted by a committee of business and financial leaders. It made a series of recommendations to save Soccer Australia, but when the changes were resisted, the Australian Sports Commission (the government agency responsible for the financial support of national sports organisations) withdrew its support. The subsequent collapse of Soccer Australia led to the appointment of one of Australia's richest business leaders, Frank Lowy, as a caretaker of the newly formed Australian Soccer Association. In 2006, when Australia qualified for the World Cup, a new mass audience was established, and Football Federation Australia (FFA) was formed under Lowy. The FFA secured commercial sponsorship for soccer with Foxtel and Hyundai to finally ensure the commercial future of soccer.

Taken together, the stories of World Series Cricket, the NRL and the FFA demonstrate some key aspects of the development of commercial sport in Australia. These include:

- Broadcast rights provide the revenue base for commercial sport, by selling advertising on free-to-air TV and subscriptions (and advertising) through pay TV.
- The values and traditions of a sport are not considered of primary relevance when making commercial decisions. If the sport is popular, it can be sold to a mass audience.

- Financial losses are not tolerated, and any trend leading to financial losses will soon be corrected, or avoided.
- Even popular world sports (for example, soccer) will not achieve full commercialisation if sports administrators fail to attract a mass audience.

WebConnect

Visit <www.footballaustralia.com.au> and identify the sponsors profiled on the website. List the merchandise available.

Comment on whether commercial aspects of the site detract from or enhance the focus on football.



Positive and negative impacts

Commercialisation offers unprecedented earning power for male athletes in most popular sports and for female athletes in a more limited number of sports. It also creates a raft of employment opportunities in media, coaching, sport and event management, as well as stimulating businesses related to sport, and benefiting the economy overall. However, the direct benefits tend to be restricted to the western world, where infrastructure exists to support the commercial sport industry. Some questions exist about the impact of commercial sport on:

- psychological pressure on high-profile athletes through excessive media attention
- the emphasis of 'win at all costs' which can lead to drug abuse
- equal opportunity for women and athletes with disabilities.

The price of big money

Today, professional athletes earn higher salaries and have access to endorsement opportunities that amateur athletes never did in the past. This is a positive for the individual athlete who may necessarily have a short career. In cricket, the Indian Premier League (IPL) has recently provided unprecedented commercial opportunities for Australian athletes.

Andrew Symonds to earn \$1.4 million with IPL

By Ben Dorries

February 21, 2008 12:00am

ANDREW Symonds has been rated the second most valuable cricketer in the world – with more than a million reasons not to tour Pakistan – as he scooped a \$1.47 million Indian Premier League payday.

Symonds yesterday refused to tour Pakistan with the Test side – for security reasons – a decision that inflated his IPL price tag as he will be available to play in more of the lucrative 20-over tournament in April.

Symonds, who was signed by Hyderabad, was the big Australian winner from the auction and will link with retired teammate Adam Gilchrist, whose decision to retire netted him a cool \$765 000 IPL contract.

The big IPL bidders held no grudges against Symonds for his racial spat with Harbhajan Singh, who last night picked up \$927 000 from Mumbai.

Symonds was second only to Indian posterboy M. S. Dhoni in the bidding.

Dhoni netted \$1.65 million from the Chennai franchise.

Fast bowler Brett Lee was snaffled for \$981 000 by Mohali but other Aussies were out of favour, which could put some noses out of joint.

Skipper Ricky Ponting was sold for \$436 000 and Matthew Hayden went for \$408 000.

Retired greats Shane Warne and Glenn McGrath fared poorly, with no bidding war for their services.

Warne went to Jaipur for his reserve price of \$492 000, ensuring he will avoid former coach John Buchanan at Kolkata. There were no takers for McGrath in the first round of bidding and he went into the reserve pool along with batsman Mike Hussey.

Veteran Sri Lankan batsman Sanath Jayasuriya was another million-dollar man, going to Mumbai for \$1.06 million.

That meant 'icon' player Sachin Tendulkar also cashed in, picking up \$1.22 million because 'icons'

must be paid 15 per cent more than the next most valuable player in the franchise.

The signs from the frantic early bidding were that subcontinent players were in demand.

Dhoni went for more than double the money that Gilchrist fetched, with the popular wicketkeeper-batsman accounting for 30 per cent of Chennai's \$5 million salary cap.

The big-ticket Kolkata franchise, owned by Bollywood actor Shah Rukh Khan and to be captained by Sourav Ganguly, added another big personality through controversial Pakistani quick Shoab Akhtar for \$464 000.

In other signings, Sri Lankan spin whiz Muttiah Muralidaran was sold for \$655 000 and will link with Dhoni at the big-spending Chennai franchise, Sri Lankan skipper Mahela Jayawardene went for \$518 000 and Kumar Sangakkara picked up \$764 000.

Source: www.news.com.au/couriermail/story

But is there is a price attached to the media spotlight that comes with being a highly paid athlete? Andrew Symonds, for example, was subjected to 'monkey' taunts by Indian crowds in the 2007 tour of India. This kind of theatrical crowd involvement seems closer to the style of the Colosseum in Rome in AD 80, where athletes lived or died to some degree by the

Figure 11.6

Andrew Symonds was subjected to 'monkey' taunts by Indian crowds during the 2007 cricket tour



crowd's wishes. Is \$1.47 million enough to compensate for perceived racism? Perhaps it is. But the cultural shift back towards treating athletes as objects of fun does seem to suggest that commercialisation results in the loss of the basic values of mutual respect and fair play. In the 2008 Indian tour of Australia, fair play and the value of respect in sport came under discussion as both Indian and Australian teams were criticised for verbally abusing ('sledging') each other.



Learning experience

- 1 Explain what you understand by the phrase 'the price of big money'.
- 2 Comment on whether you think the IPL cricketers are overpaid.
- 3 Write a paragraph discussing arguments for and against the following:
 - player-to-player sledging is an acceptable part of high-pressure sport
 - spectators pay for tickets to attend games so they should be able to shout whatever they want at players.
- 4 Debate the issues in question 3 as a class.
- 5 Give your views as to whether athletes should earn high salaries to compensate for the short duration of their careers.

With increasing salaries and endorsements for athletes comes increasing psychological pressure. Managing pressure and life in the media spotlight can be challenging in commercial sport. The following article looks at some of the implications for mental health in the 'tough man' sport of rugby league.

Andrew Johns supports Smith's bipolar confession

By Barry Toohey, James Phelps and Dean Ritchie | April 15, 2008 12:00am

ANDREW Johns yesterday lauded the courage of troubled Parramatta halfback Tim Smith for going public about his bipolar disorder, declaring: 'It took me 10 years to do what Tim Smith did.'

On the day Smith announced he was taking leave of absence from the game to seek further help for his illness, Johns pleaded with the public to 'give him some space' to sort out his problems.

A bipolar sufferer himself, Johns said he understood what Smith was going through.

'When I first heard about his decision, I felt sick for him,' John writes in his exclusive column in today's *Daily Telegraph Online*.

'Tim is a fantastic bloke and a young player with a lot of potential. But I knew he was struggling and it has really hit home how hard a time he has been facing.'

Smith flew home to the Gold Coast after revealing he was diagnosed with bipolar disorder 18 months ago and is taking prescription medication, with his distraught mum making an emotional plea for her son to be left alone so he can attempt to get his life back on track.

'She just told me to get him home,' Smith's manager David Riolo told *The Daily Telegraph*.

'She was in tears ... Tim spoke to me on Friday night after the game and said: 'I can't do this any more'.

'And that was it.'

A rugby league tragedy just three years in the making.

The Daily Telegraph can reveal Smith will see counsellors at the same rehabilitation centre he checked into late last year, amid serious fears of self-harm.

It was first revealed in December that Smith suffered from depression and yesterday he bravely confessed to his bipolar diagnosis.

Choking back tears, a clearly devastated Smith fronted the media to read a prepared statement.

'I was diagnosed with bipolar disorder 18 months ago and in this time have been seeking professional advice and taking prescribed medication to try and help me deal with the day-to-day life of someone with bipolar.

'I am not using bipolar disorder as an excuse for anything that has happened in the past or my decision today.

'However I am not coping with the constant media pressure and public scrutiny.

'The hardest thing about this has been telling my teammates, who have been extremely supportive and understanding, as well as the Parramatta club, and my family and close friends.'

And as for his days of playing rugby league again, well, right now it remains a long way off.

Manager Riolo revealed Smith had broken down in tears after the announcement.

'It's the best he has been for ages when he went into the club and said, 'Hey, I have got bipolar ... I'm out of here', Riolo said.

'It was like a weight had been lifted off his shoulders. He broke down in tears at one stage but he even managed a smile late this arvo.

'He just hasn't been himself.'

An emotional Michael Hagan described Smith's shock decision to stand down indefinitely as 'brave yet sad'.

Hagan spoke passionately about Smith's announcement – while revealing his former halfback's fragile mental state.

'I think it's sad but Tim has made a very brave decision,' Hagan said.

'He isn't coping with the demands of our game because of what he is suffering from.

'Tim has had on-going pressure and has felt down for a long time.

'The pressure and criticism has been the culmination of things. We have to deal with it and what it means to Tim and the team.'

Hagan stressed Smith had made the right decision for himself – and for the Parramatta club.

Asked did media scrutiny affect Smith's decision, Hagan said: 'I think the pressure and criticism placed on him has been totally unfair. Now that Tim has spoken about his bipolar, it may allow people to understand that he needs on-going help. We're not looking to blame anyone.'

Extract from: www.news.com.au/heraldsun/sport/nrl/story/



Webconnect

Go to <www.beyondblue.org.au>. Make a list of five symptoms associated with bipolar disorder.

Learning experience

- 1 In the article 'Andrew Johns supports Smith's bipolar confession' on pages 177–8, who did Smith have to 'front' to read his statement. How is this significant?
- 2 Identify what Smith 'had trouble coping with'.
- 3 Explain what was the 'hardest thing' for Smith. Why would this be the case?
- 4 Identify the three people mentioned who supported Smith. Explain the importance of their roles in his life.



Drug abuse

Pressure to perform, not only for your country but also for an employer or sponsors, is not easy to handle. When large sums of money are involved, pressure to perform, either legal or otherwise, usually follows. Performance-enhancing drugs have been a feature of amateur athletics, particularly among athletes from nations that were desperate to prove their 'superiority' (such as East Germany in the 1970s). The increased financial power of highly paid professional athletics has also led to systemic drug abuse.

Jones' jailing 'a message to drug cheats'

Mark Russell and Mario Xuereb
January 13, 2008

THE Australian Olympic Committee has applauded the jailing of disgraced American sprinter Marion Jones, saying it sends a clear message to drug cheats in the lead-up to this year's Beijing Olympics.

AOC spokesman Mike Tancred said Jones had brought dishonour to herself, her family and her sport and did not deserve sympathy.

'She will not be remembered as the star of the 2000 Sydney Olympics. She will just be remembered as a drug cheat,' Tancred said.

'We feel sorry for the drug-free athletes who raced against Marion Jones. They raced in the true Olympic spirit and she has deceived them. She's the new Ben Johnson.'

Jones, 32, was jailed for six months on two charges of lying to US Federal investigators. She was also given two years' probation and ordered to complete 400 hours of community service.

Jones, a mother of two, will begin her prison term on March 11. When leaving the Federal Court in New York, she said: 'I respect the judge's order and I truly hope that people will learn from my mistakes.'

Victorian athlete Lauren Hewitt, who hopes to compete in the 200 metres at the Beijing Olympics, said she did not feel sorry for Jones because she did the wrong thing. 'Her jailing certainly sends a loud message to drug cheats and hopefully they're listening,' Hewitt said.

Former triple Olympic silver medallist Raelene Boyle said Jones was lucky to get only six months' jail.

'You've got to look at the number of people in the sport that Marion has let down,' she said. 'I think it's a good reason for those entering the sport not to take something.'

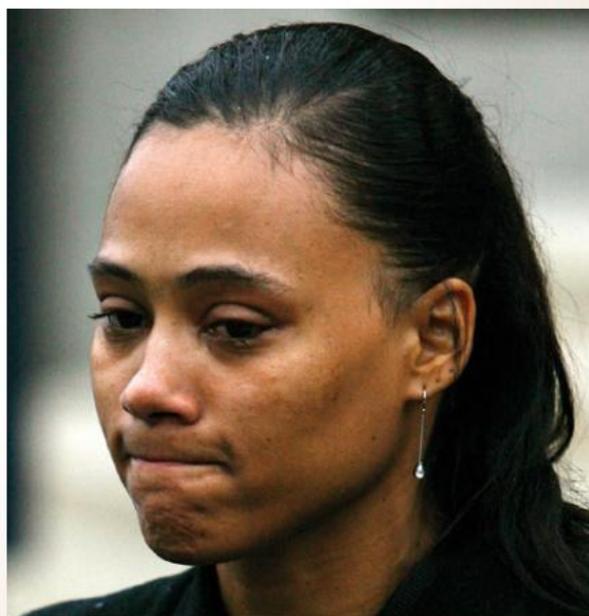
Boyle said it was sad Jones did what she did purely because she wanted to run faster and jump further. 'And I hope it shows the rest of the world and

particularly others that are playing sport that drugs and sport don't mix and honesty is a virtue.'

Jones was jailed after pleading guilty in October to lying about using performance-enhancing drugs, and for lying to federal agents about her knowledge of a cheque-fraud scheme run by Montgomery, father of their son, Tim jnr.

She had been taking a drug known as 'the clear' or THG – a synthetic, undetectable steroid-like derivative, tetrahydrogestrinone – from early 1999. She says she was given it by former coach Trevor Graham, who told her it was flaxseed oil. THG was developed by Balco, the Illinois-based drug firm run by Victor Conte, who came to the Sydney Games as Jones' 'nutritionist'.

(continued next page)



Marion Jones leaves the Federal Court in New York.
Photo: Reuters

By 2004, Conte faced drug charges and told how he had shown Jones how to inject steroids and that she was a drug cheat.

World Anti-Doping Agency president John Fahey said Jones' jailing should act as a deterrent to doping in sport. 'I think we need to be clear that she was sent to jail for a breach of the US criminal code,' Fahey said. 'But it is an example of how the work of WADA

is making it more likely than ever that those who cheat in sport will be caught.'

Jones, the first woman to win five athletics medals, three of them gold, at a single Olympics, has been stripped of her Sydney 2000 medals. All her results since September 2000 were wiped from the record books after her admission to steroid use after years of denial.

With AGENCIES

The Age 13 January, 2008



Learning experience

- 1 Read again the opening paragraph of the article 'Jones' jailing "a message to drug cheats". It is stated that the AOC 'applauded' the jailing of Marion Jones. How does this set the tone of the article?
- 2 Name two athletes quoted in the article. What were their responses to the news of Jones' jailing.
- 3 What is 'the clear'?
- 4 What do you think should be done with the medals of athletes who test positive to performance-enhancing drugs?
- 5 As a class, discuss whether the jailing of Marion Jones helps the cause of drug-free athletics.

Equity issues in sport

The broadcasting of sport has been dominated by men's competitions, which means that other groups do not receive the same, if any, level of financial reward. The commercial world, however, operates for the most part on an economic basis rather than a values basis. If, for example, a major media organisation tips \$100 million into a sport, as Foxtel did for the Australian Football Federation in 2007, the return on the investment is expected through pay TV subscriptions and advertising revenue. If women's or disabled sports do not bring the key commercial ingredient of a mass audience, it is clear that revenue opportunities are limited, and so investment is limited. This seems unfair, and perhaps it is, but that is the nature of the commercial world.



HotSpot



In small groups develop a PowerPoint presentation to pitch a disabled sports segment to a television network. The segment is to be 15-minutes long and would be broadcast as part of an existing TV sports program. Your PowerPoint presentation should include:

- the name and purpose of the segment
- a list of possible sponsors
- suggested presenters
- the format of the segment (number of minutes for any sections).

Pay day for the women's game



Day in the sun ... Cheryl Salisbury takes time out at Merewether Beach. After years of living on the breadline, the most-capped Matilda has finally landed a full-time job.

Photo: Fairfax Photos/Kitty Hill

But it's come a little late for the Matildas captain, writes Michael Cockerill.

When a sportswear company rang Cheryl Salisbury late last year and offered the Matildas captain her first full-time job, she responded: 'When do I start?'

When her first pay packet arrived a few weeks later, she went on a shopping spree. Salisbury has been giving herself plenty of retail therapy ever since. She even goes out to lunch, instead of packing her own. 'I have to keep reminding myself I've got a bit more money these days,' she says.

These are all understandable reactions to the novelty of being paid for a living. Most of us experience it. But there's a difference. Most of us experience it fresh out of school or university. Salisbury experienced it a few months ago. She's just turned 34.

That's the sacrifice she's made for playing football, her labour of love. She's had a lifetime of odd jobs, so many she can't count. 'I'm in that many super funds it's not funny,' she says.

Salisbury has twice been included in FIFA's World XI, has played in four World Cups and two Olympics, and is the most capped Matilda (142).

Fourteen years after her Matildas debut, she's still going strong, described this week by coach Tom Sermanni as 'the heart and soul' of the team. By any standard, it's been an illustrious career. But, aside from a couple of stints in Japan and the US, it's never been a paying one. Will that ever change?

As women's football in Australia reaches another threshold, there are plenty of encouraging signs. This year, player registrations will nudge 100 000. At the 2000 Olympics, they were less than 40 000. Australia now has the fifth-highest number of female footballers in the world.

At the pointy end, the Matildas' gutsy display in last year's World Cup in China – where they posted their first ever victory in the tournament and earned a place in the quarter-finals, going out with dignity against eventual finalists Brazil – reignited interest in the team and the sport. A behind-the-scenes documentary, 'Never Say Die Matildas', will be broadcast on SBS in June.

On the back of that performance, the Federal Government has earmarked funds to re-establish a national league, to kick off in spring, and five players – Collette McCallum, Caitlin Munoz, Sarah Walsh, Lisa de Vanna and Heather Garriock – are either playing, or are about to play, for money overseas.

And, of course, all the excitement of the World Cup led to Salisbury's getting her first offer of a 'proper' job.

Boom times, it seems, and there's no doubt the foundations are in place. But will the goodwill translate into something more tangible, like a genuine career path for our best players? Salisbury reserves judgment.

'There's no doubt everything in the sport has gradually changed for the better, but there are still a lot of things that make it seem like you're banging your head against a brick wall,' she says. 'You still think, Is it ever going to change? Where I come from, in Newcastle, there's players in the local first division who are earning \$500 or \$600 a week, and they're only part-time. Sometimes that's a bit hard to take.'

'We're trying to become the best players in the world, but we've got so many struggles to contend with.'

'The goal has got to be for our best players to become fully professional so they don't have to work, so they can put the time into their game that they need to.'

'The World Cup did open a lot of eyes, and it did create some opportunities, but we've still got a long way to go ... to be honest I don't hold my breath any more, I don't believe anything until it actually happens. I've been promised a lot over the years.'

(continued next page)

Football Federation Australia chief executive Ben Buckley isn't promising the world, but he is committing the governing body to the ideal that women's football deserves better.

Last month, FFA management held a think tank in the Hunter Valley, and one of the strongest views to emerge was the need for women's football to have its own staff and budget within the organisation. Proposals will be taken to the board, which these days includes ex-Matilda Moya Dodd. Maybe things are moving in the right direction.

'There's no doubt women's football has been elevated in its importance, it's definitely moved up the list,' says Buckley.

'We are one of the few sports that can offer young girls and women the opportunity to progress to a professional career. If the new pro league grows here, and other leagues continue to grow around the world, then there is a potential career path there. Of course there is a long way to go to have an income level which will allow our players to go full-time. But over the next five to 10 years, that's got to be our goal.'

As it stands, the FFA has Australia's best 22 players under contract, paying them retainers of between \$11 000 to \$22 000 per year. When you consider that

the new, high-profile trans-Tasman netball league – which starts this weekend – offers a pay scale of between \$12 000 to \$50 000, then football isn't that far behind.

The new national league, which is expected to be a six-team competition initially, offers the scope to start bridging the gap. While the teams will be partly funded by the various state academies and federations, they will bear the names and colours of A-League clubs to capitalise on that brand. Buckley says corporate interest has been 'positive', while SBS is keen to televise the league. It could be the start of something big.

Salisbury, for her part, accepts she has missed the boat but is consoled by the belief that when she does hang up her boots, the sport will be in better shape than when she started.

'At the [2000] Olympics, when we had all that publicity, when we did the [nude] calendar, nothing really came of it, so I probably knew then it [full-time professionalism] wouldn't happen in my career,' she says. 'It's still a little while off, but hopefully we'll get there. The main thing is we have to have a go.'

Sydney Morning Herald 5 April 2008



Learning experience

- 1 Investigate the prize money awarded in different national and international sporting tournaments.
- 2 Are the financial rewards offered to males and females the same? Do athletes with disabilities receive financial rewards?
- 3 What arguments could you pose as chairperson of the national sporting body to support differences in prize money between men, women and athletes with disabilities?
- 4 Write a list of ten ideas to help promote television coverage of women's sport.
- 5 In small groups, write a script for an advertisement promoting the Paralympics. Your advertisement should be around 30 seconds long.

Addressing the negatives

Psychological pressure on athletes can be alleviated by education and self-management techniques. Most professional sporting teams employ sports psychologists, but their role is mainly centred on improving performance, rather than coping with personal pressure. Some professional sports clubs

employ minders to accompany athletes on nights out, as well as alcohol counsellors for athletes who develop problems in this area. However, many high-profile athletes, including Andrew Johns, Wendell Sailor, Ben Cousins and Wayne Carey, were reported in the media for (recreational) drug and alcohol problems. Both Sailor and Cousins lost their contracts as professional athletes as a result of their association with illegal drugs, and bringing their employers into disrepute. Essentially, while athletes sign codes of conduct within their contracts, as adults they make their own decisions independently.

As far as detecting drug use, either performance-based or otherwise, most commercialised sports run their own routine tests on their employees, the athletes. At a government level, the Australian Sports Anti-Doping Agency (ASADA) operates with police and custom agencies to eliminate drug use. However, the value of 'win at all costs' seems intrinsic within the culture of commercialised sport. Similarly, equity in terms of financial reward for athletes other than males in high-profile sports continues to be a fundamental facet of commercialised sport. Equity has never been the concern of commercial sport and until groups other than men in high-profile sports attract a mass audience, this inequity seems likely to continue.

Learning experience

- 1 Visit <www.asada.gov.au>. Summarise the mission of ASADA and two key practices currently used to reduce drug abuse.
- 2 In class, discuss the basic ethics of competitive sport. Make a list on the board, and if necessary reduce your list to five key values.
- 3 Research any Australian laws related to protecting these key values (for example, laws about drug use).
- 4 Design a code of conduct that uses the five key values of sport to create ten rules about behaviour in sport.
- 5 Identify a commercial sponsor of a popular sport. Research both the sport and the sponsoring company values on the internet. Write a 200-word report that compares the company's values with the values of the sport.



Commercial sport in the future

Currently commercial sport supports four strong football codes: soccer (football), AFL, rugby league, and rugby union. There is also a range of other team and individual sports in Australia that include men's and women's tennis and golf. However, women's sport and sport for other groups have not attracted significant commercial investment. This raises ethical questions about the role that the commercial sector should play in promoting national sport more equitably (alongside the Australian Sports Commission). While the national broadcaster, the ABC, televises some women's team sport such as netball, commercial broadcasting, which depends on advertising for revenue, has not backed women's sport, or that of any groups other than elite male athletes. Until a mass audience is established for women's teams sports and for other groups, it seems that this pattern will remain in the future.

Chapter cloze

The _____ of sport has emerged from the interplay of _____ to _____ sport in either free to air or pay TV are key to this process. While more sophisticated than the kind of situation seen around AD 80 at the _____, the basics are much the same.

In recent history, sport was dominated by the British idea of _____ as a way for the privileged to spend _____. Commercial sport now is a major way of raising _____ through advertising and _____.

Sponsors seek sports with large audiences to maximise the value of their investment. This works against the idea of _____ where all sports are treated equally, regardless of gender or social status of the players.

sponsorship
media rights
broadcast
Colosseum
commercialisation
amateurism
equity
revenue
market forces
leisure time

Review questions

- 1 Explain why the competitions held at the Colosseum can be seen as an early form of commercialised sport.
- 2 Suggest two measures being undertaken to combat drug use in sport.
- 3 Outline the role of one media organisation in the development of commercial sport in Australia.
- 4 List the positive impacts of commercialisation on soccer (football) in Australia.
- 5 Evaluate the negative impact of commercialisation on some groups in the sporting community.



PART

3

Enhancing
participation
and
performance

12

Promoting active lifestyles

OUTCOMES

In this chapter a student:

- 3.1** demonstrates actions and strategies that contribute to enjoyable participation and skilful performance
- 3.2** evaluates the characteristics of enjoyable participation and quality performance in physical activity and sport
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance



STARTING POINT

It has long been known that the presence of physical activity in a person's lifestyle significantly contributes to positive health outcomes. Increasingly, there is recognition that it is not sufficient to simply expect people to be physically active, but rather that people need to be encouraged and supported to be suitably active. To this end it is important that three features are evident: that appealing and appropriate environments in which physical activity can be undertaken are accessible to all people; that people are supported in developing the necessary skills to participate effectively and safely; and that products, information and organisations that promote physical activity are reputable and conduct their work safely.

Settings and opportunities for physical activity

It is an important role of governments and organisations to develop spaces, programs, facilities and opportunities for physical activity. It is equally important for individuals to actively seek out opportunities to be active in their natural environment. This can include taking advantage of **recreational** settings that are provided specifically for physical activity, such as national parks and beaches, as well as incorporating incidental activity into their lifestyle through actions such as using stairs instead of the lift.

Structured settings for physical activity

Structured settings are places where organised programs for physical activity are commonly held. Schools, junior sports clubs and programs such as the Duke of Edinburgh Award Scheme are all examples of structured settings for physical activity, some of which are competitive in nature and some of which are primarily about participation or personal growth.

Structured settings for physical activity can offer benefits such as:

- organisational and administrative processes that are already in place so individuals are able to just turn up and participate if they want that to be the extent of their involvement
- risk assessments and safety measures should already be in place
- rules are often in place to maximise participation, enjoyment and safety
- programs such as award schemes and representative selection are often available and these can be motivating features for some participants.

Recreational settings for physical activity

Recreational settings can offer individuals opportunities to participate in physical activity in environments that are quite flexible and often without the rules and expectations that structured settings may have.

Beaches, national parks and playgrounds offer people of all ages the opportunity to be active in ways that they choose and at the level they choose. While recreational settings have a higher degree of flexibility, there is still an expectation that individuals be considerate of others participating in that environment. For example, surfers have an unwritten rule about sharing the waves by not 'dropping in' on someone who is already on the wave. Wave priority is given to the surfer who takes off first in the area closest to the break of the wave.

Figure 12.1
Surfers have an unwritten rule about sharing the waves





Learning experience

- 1 In groups of four, discuss your preferred settings for physical activity participation. What are the reasons for your preferences?
- 2 Do you participate in sport and physical activity mostly through your school or within settings outside of school? What are your reasons for this?
- 3 Most sporting teams have specific colours and logos for their playing uniform and many are increasingly electing to have casual wear, such as polo shirts and tracksuits, that players must wear before and after games, at training and to team functions. Why has this trend occurred and what are some of the positive and negative impacts of it?

Incidental physical activity

Research strongly supports the notion that the benefits of physical activity can be accumulated throughout the day and do not necessarily need to be undertaken as one continuous physical activity session. For example, a 10 minute walk to the bus stop in the morning, using the stairs instead of the lift, playing handball at lunchtime and a 10 minute walk back home from the bus stop all add up to a day comprising a reasonable amount of physical activity.

Other **incidental** physical activity might include walking the dog, working in the garden or helping to carry the groceries into the house and unpacking them.

Vigorous physical activity undertaken as part of structured PDHPE and PASS lessons or a sports training session add to the health benefits obtained from incidental physical activity accumulated during the day.

Pedometers are an excellent way to measure how much incidental activity is accumulated during the day by walking. Pedometers are small items, similar to a pager, that are worn throughout the day and count the number of steps taken. A popular program is the 10000 steps per day program that encourages people to use their pedometers to motivate them to maintain a goal of taking 10000 steps per day. (10000 steps per day is estimated to be approximately 8 kilometres.)

For more information on this program, visit <www.thewalkingsite.com/10000steps.html> or the Heart Foundation website <www.heartfoundation.org.au>.

Figure 12.2

Pedometers can provide useful data about how much daily physical activity takes place



Individual and group roles and responsibilities for promoting physical activity

Promoting physical activity is a responsibility of all members of the community, from individuals to schools, commercial organisations and governments. It is important that when policy, commercial and personal decisions are being made, the impacts on health and physical activity are given significant consideration.

Policy makers, legislators and urban planners

The key policies developed by the Australian Government in relation to physical activity are the National Physical Activity **Guidelines**. These documents can be accessed at <www.healthyactive.gov.au> and include:

- Australia's Physical Activity Recommendations for 5–12 year olds
- Australia's Physical Activity Recommendations for 12–18 year olds
- National Physical Activity Guidelines for Adults.

The primary purpose of these documents is to provide Australians with clear, simple and key messages that can inform them about the importance of physical activity and how to engage in it in ways that are health-enhancing.

When promoting physical activity through guidelines, it is essential to provide people with the necessary support to enable them to adopt the messages contained in the guidelines. This includes allocating funding support and ensuring access to physical activity resources is available.

Total funding for sport and recreation activities by the three levels of government in Australia is over \$2 billion. This equates to over \$100 for every Australian citizen. Local governments were the greatest contributor of the three government sectors, allocating approximately half of the funding.

Level of government	Funding allocation for sport and recreation
Local	49%
State and territory	41%
Federal	9%

Australian Bureau of Statistics

The major items that receive funding are:

- venues, grounds and facilities (61%)
- participation and special events (25%)
- administration and regulation (10%)
- miscellaneous (4%).

The private sector also contributes to physical activity, often through sponsorship or supporting participation by their employees. Private companies often use sponsorship as a method of advertising. At the elite level, this occurs through sponsoring sporting teams, individual athletes and/or events for the purpose of mass exposure. At amateur, junior and social levels, sponsorship is usually seen as a means of getting targeted exposure within a local community or as a favour to family and friends who are involved in the activity.

Corporate organisations are increasingly promoting physical activity among their employees because it has been identified as a factor that can contribute to improved productivity, reduced absenteeism and greater retention of valued staff. These organisations are often involved in lunchtime sporting competitions, running clubs and team-building days. Some organisations subsidise gym memberships for employees at commercial gymnasiums near to the workplace or, in the case of very large organisations, provide access to gyms developed specifically for employees.

Many corporate and government organisations involved in property development build physical activity spaces into their urban planning, partly due to council requirements but also because it represents good practice in

Table 12.1

Funding for sport and recreation activities by government level

urban design and social organisation. Similarly, the inclusion of parks, tennis courts and bicycle paths in new housing developments can be a strong selling point for families with children.

Figure 12.3

Dedicated cycle paths on major new roads are an important step in developing the bike network in New South Wales



image courtesy of Roads and Traffic Authority NSW

Cycling in New South Wales

On its website, the Roads and Traffic Authority (RTA) acknowledges its commitment to making comprehensive provision for bicycles in all new major road infrastructure and maintenance works. For example, when the RTA negotiates contracts to build new major roads such as freeways, a key part of the contract is often a requirement that a dedicated cycle path be included.

According to Austroads, the association of Australian and New Zealand road traffic authorities, governments in Australia spend approximately \$100 million a year on cycling infrastructure, facilities, promotion and education.

While cycling is an environmentally friendly mode of transport, and offers benefits such as improved health and fitness and reduced traffic levels, not all people and groups are satisfied with the commitment.

The NRMA, whose key function is to represent the needs of motorists, argued in the media that the cycle paths being built on new major roads are being largely unused and that the money and space they require

could be better used by making the roads wider, with more lanes available for motorists.

The ensuing debate played out in the media identified a range of significant issues. For example, many cyclists were pleased that the RTA was demonstrating a commitment to cycling by developing the bike network but they expressed concern that currently the network does not link up sufficiently to provide a lengthy and safe network. Moving between sections of the network that are safe and set aside specifically for cyclists can require riding for periods of time on roads that have no dedicated cycle path. As such, they argue that it is an incomplete network with sections that pose danger to cyclists.

It is clear that the ongoing development of an effective bike network will require an **intersectoral** approach in which collaboration between groups such as federal, state and local governments, bicycle and motorist lobby groups, and the corporate sector will be needed.



Learning experience

- 1 What have been your experiences in using the bike network in your local area?
- 2 View the page on the RTA website devoted to improving the New South Wales bike network <www.rta.nsw.gov.au/roadsafety/bicycles/improvingthebikenetwork.html>. What developments are occurring in your area?
- 3 Research the current public debate about cycling by reviewing online articles from major local, statewide and interstate newspaper websites.
- 4 Explore a dedicated cycle path in your local area. Rate it according to the following criteria:
 - safety
 - aesthetic appeal
 - suitability for different levels of ability
 - suitability for different levels of fitness.

Individuals and families

The development of big-picture policies, programs and guidelines help influence the philosophy of the community towards physical activity, and promote and enable participation but ultimately it is what happens at the grassroots level that impacts on the quality of the physical activity experience for the individual.

At the grassroots level it is the individual, families and volunteers that have the responsibility for implementing policies, programs and guidelines. The ways in which they do this can significantly influence the extent to which physical activity participation becomes a positive experience.

When people have positive experiences in physical activity they are more likely to continue and/or increase their participation. Alternatively, negative experiences can put people off participation in physical activity for life.



Figure 12.4

Children and young people who have positive physical activity experiences are more likely to lead active lifestyles throughout their lives

Positive actions	Negative actions
Supportive environment	Verbal, physical or sexual abuse
Access to well-maintained equipment and facilities	Inadequate equipment or facilities
Access to effective coaching	Low skill level
Challenging and realistic goals being set	Limited 'success' in completing the activity
Balance of focus placed on winning and participation is appropriate for the level of participation	'Win at all costs' attitude
Fair play	Cheating
Matching skill level of participants	Feeling unsafe

Table 12.2

Actions likely to impact positively or negatively on the quality of the physical activity experience

Schools

Schools throughout Australia promote participation in physical activity by students and generally seek to ensure that participation occurs in ways that are safe and reflect community values and the ethics of sportsmanship.

In fact, to be eligible for Australian Government funding, schools must provide students in primary and junior secondary school with a minimum of 2 hours per week of physical activity. This requirement is typically met through practical PDHPE and PASS lessons, sport, co-curricular programs and other organised activities.

Schools allocate a significant amount of their own resources in order to provide sufficiently diverse and challenging physical activity opportunities for students. For example, schools often employ staff such as a head of sport, whose primary responsibility is to develop and manage a range of sport and physical activity programs. Most other staff also have some responsibility for coaching teams or supervising physical activities.

Figure 12.5

Schools play a major role in promoting active lifestyles



Organising the safe travel of students to and from venues, paying external coaches and officials, and buying and maintaining sports equipment and facilities are other significant costs borne by schools in promoting physical activity.

Schools do not have all the necessary facilities on their premises and in many cases need to access community and commercial resources, such as ovals, tennis courts, pools and athletics tracks. When schools negotiate with local councils or commercial organisations to access these resources it is an example of a collaborative or intersectoral approach to promoting physical activity.

Promoting participation in physical activity is a clear goal of schools and ensuring the safety of all participants, officials and spectators in school sport and physical activity is also rightly a priority for all schools. To help this to occur, the New South Wales Department of Education and Training developed a set of guidelines that provide support and consistency in helping to clarify safe practices.

Guidelines for the Safe Conduct of Sport and Physical Activity in Schools is a document that schools and other junior sporting organisations have found helpful in establishing consistent protocols for safely administering their sports and activities, as well as in responding appropriately to incidents where injuries occur.

Junior football strike to keep parents in line

By Tom Kington

ROME: Fist fights among spectators, pitch invasions, insults hurled at the referee: Italian football is no stranger to hooliganism – even when the players on the pitch are only eight years old.

The pitchside behaviour of parents has become so bad, however, that teams at a club near Empoli have registered their disapproval by refusing to play. A one-day strike on Sunday gave the rival sets of parents something to think about.

“We have had terrible language used against refs in front of the kids for penalties not awarded. We have had

pitch invasions, and even a punch-up between a father and a referee after a game,” said a club director, Michele Mango.

So scared had the boys become before kick-off they demanded action, and Mango announced the strike at last week’s Christmas dinner for parents. In the stunned silence that followed, the boys filed onto a stage, holding banners bearing messages such as “No to bad language. Yes to kids having fun” and “Parents: don’t argue. Let us play”.

The Guardian, 17 December, 2007



Learning experience

- 1 Read the article titled 'Junior football strike to keep parents in line' on page 193, and in groups of three or four complete the following tasks.
 - a Discuss the extent to which the behaviour of parents outlined in the article is mirrored in Australian junior sport.
 - b Identify actions that have been put in place in Australia to address this type of parental behaviour.
 - c Using the template at left, develop codes of conduct for junior sports players, officials and spectators that clearly identify behaviours that are encouraged and those that are not acceptable.
- 2 Individually, write three questions that you would put to the Head of Sport in your school to obtain a clear understanding about the roles and responsibilities that this job entails.

As a class, discuss the questions each student has written and compile an agreed list of six questions that will be put to the Head of Sport.

Have either the PASS teacher or some members of the class pose the six questions to the Head of Sport and report back to the class on their response.

As a class, discuss the importance and the extent of the responsibilities held by people who lead sport and physical activity in schools.

- 3 Review the *Guidelines for the Safe Conduct of Sport and Physical Activity in Schools* document at www.sports.det.nsw.edu.au/spguide/index.htm.

Click on the link titled 'Guidelines for specific activities'. Select an activity that you have participated in and evaluate the extent to which these guidelines were adopted.

What do you think safety levels were like in sport and physical activity before the development of guidelines such as these?

Codes of conduct

Players		
Dos		Don'ts
_____		_____
_____		_____
_____		_____

Officials		
Dos		Don'ts
_____		_____
_____		_____
_____		_____

Spectators		
Dos		Don'ts
_____		_____
_____		_____
_____		_____

HotSpot



The following debate relates to the Australian Government funding requirement for schools to timetable at least 2 hours per week of physical activity for primary and junior secondary students. Use a retrieval chart like the one below to prepare your arguments and construct a statement of value or worth.

Debate topic: It is not as important to have 2 hours per week of physical activity organised for senior secondary students as it is for younger students.

Reasons for	Reasons against

Health professionals

Historically, health professionals have been pigeonholed as people who provide treatment once a health problem has occurred. Increasingly they are adopting the role of ‘preventers’ as well as ‘treaters’.

Doctors are now far more likely to offer advice about increasing levels of physical activity to patients who come seeking treatment for an unrelated ailment, but who are overweight or lead sedentary lifestyles.

Similarly, physiotherapists may be treating someone with a back problem and part of their rehabilitation plan will include an ongoing program of physical activity to help prevent a recurrence of the injury. Being overweight, and having poor core muscle strength and bad posture are all contributing factors to many back injuries, and participating in regular appropriate activities can help improve these areas and reduce the likelihood of back pain.

Service organisations

Service organisations are those groups that provide important services to the community, usually at low or no cost. They are typically **not-for-profit** organisations and rely heavily on volunteers.

In the field of physical activity, perhaps the best known service organisation is Surf Lifesaving Australia (SLSA) and its state affiliates. SLSA was established in the early 1900s and now has approximately 37 000 surf lifesavers actively patrolling beaches. These lifesavers have rescued over 530 000 people since the SLSA began. Surf lifesavers patrol beaches on a voluntary basis to help keep swimmers safe. This includes identifying safe parts of the beach in which to swim, performing rescues and treating injuries that occur on the beach.

SLSA also provide an important educative function through school programs conducted by trained surf lifesavers and programs such as Nippers, which teaches basic surf awareness to children.

People who volunteer to be surf lifesavers have the opportunity to participate in inter-club competitions that include surf disciplines like swimming, boat rowing, board paddling, ski paddling, flag races and the Ironman and Ironwoman events. For more information about SLSA, go to <www.slsa.com.au>.



Figure 12.6

Surf lifesavers have active lifestyles and make significant contributions to the community

Media

The media represents both a threat to physical activity and an opportunity to promote it. Use of the media can include watching television, reading the newspaper, playing video games, downloading music and using the internet. Accessing media in these ways is essentially a sedentary activity that can last several hours. When use of the media becomes the main way people spend their leisure time, then it is clear that time spent being physically active will be limited. This poses potential health problems.

Alternatively, the media is used heavily to promote key health messages around being physically active. Examples include:

- television advertising campaigns
- websites devoted to informing people about how to be physically active and where to access activity options
- role models promoting the value and benefits of physical activity
- promotions using pamphlets, T-shirt slogans and bumper stickers.

Figure 12.7

The talking chair campaign, which encouraged young people to get up and be active, was a successful promotion



used by permission of the Department of Health and Ageing

Fitness industry

The fitness industry is a multimillion-dollar industry in Australia. It comprises major corporate organisations, such as Fitness First, through to sole traders who work for themselves, providing services such as personal training. Fitness organisations and professionals have a commercial interest in promoting participation in physical activity. The more people who choose to be active using their facilities and services, the more money they will make!

Making money should not be the only goal of fitness industry organisations and professions. It is also their responsibility to ensure that the knowledge, equipment, techniques and activities that they use represent current best practice. This means that they need to keep up to date with research in the physical activity field and modify their equipment and practices accordingly.

Fitness Australia, the peak body for the fitness industry, has a key role to play in supporting and encouraging fitness organisations and professionals to remain at the cutting edge.

Products, information and organisations

Products, information and organisations related to physical activity are in abundance. People are increasingly recognising the contribution physical activity makes to longevity and quality of life, and as such, organisations develop that can service needs associated with this. It is important that we learn to be discerning consumers who research and critically evaluate physical-activity-based products, information and organisations that we are considering accessing.

Fitness industry

The proliferation of individuals and organisations offering fitness services indicates that the fitness industry is continuing to grow. Historically, the fitness industry has had its fair share of disreputable practitioners and ‘fly-by-night’ businesses; however, in recent years the industry has become increasingly reliable. A key factor in this has been the focus placed on practitioners obtaining suitable qualifications, continuing their professional learning and being accredited by the recognised peak body.



Figure 12.8

Many people achieve active lifestyles through accessing facilities and services offered at commercial gyms

Fitness industry professionals and businesses play a significant role in promoting physical activity and it is important that consumers access those that are qualified and reputable.

Fitness Australia

Fitness Australia is the national peak body for the fitness industry that links the fitness associations of each of the eight states and territories, and represents over 600 business members and 17000 registered fitness professionals. Their motto is 'By the industry for the industry'.

Business members include the owners and managers of fitness centres. Registered fitness professionals are individuals who work in the fitness industry and have successfully attained the recognised qualifications. Being registered with Fitness Australia is seen as the benchmark for fitness industry standards

in Australia and enables holders to demonstrate their credibility to potential clients or employers.

As a part of being registered by Fitness Australia, it is an expectation that professionals will continue to update their professional learning in the fitness area and maintain current first aid qualifications. Registered Fitness Australia professionals are supported in accessing suitable insurance protection and are encouraged to act professionally at all times in accordance with the Fitness Australia Code of Ethics.



Learning experience

- 1 Identify your personal fitness goals.
- 2 Take a group fitness class conducted by an accredited fitness leader. Evaluate the quality of the class according to how it can help you meet your personal fitness goals.
- 3 Review the registration process for fitness professionals at the Fitness Australia website <www.fitness.org.au>. How comprehensive is the process?
- 4 What do you think is the meaning behind the Fitness Australia motto of 'By the industry for the industry'?

Promotion and marketing strategies

Companies that sell products that are counterproductive to good health but are extremely profitable—such as soft drink, confectionery and fast food—typically have large budgets to spend on marketing and advertising. Their approaches can often be sophisticated and overwhelming.

Promoting positive health messages has usually been done with much smaller budgets, but as evidence mounts about the costs to the community generated by ill health related to obesity, governments are increasingly allocating more funding for health promotion, including promoting participation in physical activity.

An example of this is the range of initiatives and promotions associated with the Healthy Active program. Initiatives designed to promote physical activity participation have included media advertising, contracting high-profile people to act as Healthy Active ambassadors, offering funding grants to schools and developing specific programs such as the National Physical Activity Guidelines.

One emerging strategy for promoting physical activity and other positive health messages is to approach producers of popular television shows and ask them to develop storylines within their shows that showcase physical activity in a positive light and communicate key messages.

Another emerging strategy that particularly targets young people involves building positive health messages into new or existing computer games. The intent of this strategy is to covertly and overtly target the key messages directly to the specific audience in ways that they will respond to positively.

Current trends

As mentioned at the beginning of this chapter, the current physical activity recommendations developed by the Australian Government are the National Physical Activity Guidelines. These documents represent current trends towards promoting active lifestyles and reduced time doing sedentary activities. The guidelines also contain some age-specific recommendations, such as physical activity experiences for 5–12 year olds that include a focus on skill learning, and for 12–18 year olds, who are encouraged to combine physical activity with healthy eating.

For people looking at ways to structure physical activity programs for themselves, particularly if they have movement performance goals in mind, the FITT principle remains an easy and effective way of doing so. FITT stands for:

F	Frequency	How often should I be active?
I	Intensity	How hard should the activity be?
T	Time	How long should the activity go for?
T	Type	What type of activities should I do?

Recommendations for 5–12 year olds and for 12–18 year olds were developed by the Department of Health and Ageing when the Liberal-National coalition was in office. In November 2007, there was a change of government, as the Labor Party won the federal election and came to power.

Research how this change in government has impacted on physical activity guidelines and recommendations.



HotSpot

Chapter cloze

A series of National Physical Activity Recommendations and _____ have been developed by the Australian Government to help Australians be more physically active. This physical activity may be planned or _____ and can take place in _____ or _____ settings.

An _____ approach to promoting physical activity has been adopted and input is encouraged from a range of groups including governments, the fitness industry, schools and _____ organisations.

guidelines
incidental
intersectoral
not-for-profit
recreational
structured

Review questions

- 1 Clarify the difference between structured settings and recreational settings for physical activity.
- 2 Define incidental physical activity.
- 3 Evaluate the contribution made by the fitness industry to promoting physical activity.
- 4 Justify the place of physical activity and sport in schools.
- 5 Demonstrate how the FITT principle can be applied in practice.

13

Coaching

OUTCOMES

In this chapter a student:

- 3.1** demonstrates actions and strategies that contribute to enjoyable participation and skilful performance
- 3.2** evaluates the characteristics of enjoyable participation and quality performance in physical activity and sport
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance
- 4.2** displays management and planning skills to achieve personal and group goals
- 4.4** analyses and appraises information, opinions and observations to inform physical activity and sport decisions



STARTING POINT

Coaching is both an art and a science. It involves providing support and instruction to individuals or groups of individuals to help them improve and develop in their chosen sport or activity. While the traditional definition of coaching is focused on performance and improvement, coaching is also about initiating and maintaining participation. Coaches need to possess a variety of skills as they have many roles and responsibilities, both on and off the field.

The qualities of effective coaching

Coaches are guided by their philosophical principles and what they consider to be important. A coach's philosophy will be reflected in their coaching style and how they interact with athletes. Regardless of coaching style, effective coaches have a number of attributes that make them successful in their chosen sport. Effective coaches have good organisational and communication skills, a good knowledge of their chosen sport and the respect of their athletes.

Coaching styles

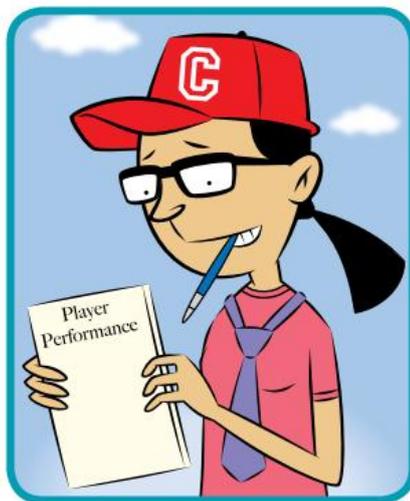
Most coaches will have an identifiable coaching style, which will influence the way they carry out their coaching roles and responsibilities. It will also determine how they organise practice and competition, what methods they use

to discipline players, the level of decision-making that they allow their athletes and how much emphasis they place on having fun, winning and player development. Different coaching styles are outlined below.

- **Authoritarian**—this style of coaching is strict and demands a high level of discipline from players. The coach is the decision-maker and the sole provider of information. The authoritarian coach believes that they possess the necessary knowledge and experience and it is the responsibility of the athletes to listen and learn.
- **Business-like**—this style of coaching is characterised by attention to detail and a high level of organisation. Business-like coaches are less focused on individuals and more focused on achieving outcomes and results.
- **Democratic**—also known as cooperative coaching, this style of coaching adopts a flexible approach and players are involved in the decision-making process.
- **Intense**—this style of coaching places high expectations on the players, and the coach is often highly anxious. The intense coach has high expectations and they are generally focused on performance and results, and less focused on player welfare.



Authoritarian



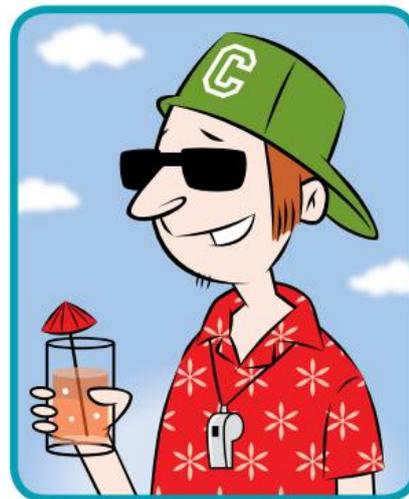
Business-like



Democratic



Intense



Laissez-faire

Figure 13.1
Coaching styles

- **Laissez-faire**—also known as ‘easygoing’ or ‘casual’, coaches using this style of coaching may often not appear serious and seem relaxed about winning and losing. Laissez-faire coaches are generally disorganised and can appear uncommitted.

Although coaches generally have one distinct coaching style, most coaches will demonstrate characteristics of the various styles. A good coach will adapt their coaching style to their players and the most successful coaches are the ones that combine the various approaches.



Learning experience (ICT)

Using the internet and PowerPoint, develop a presentation on a well-known coach (for example, Wayne Bennett or John Buchanan). Your presentation should include:

- a coaching history (and playing history if relevant)
- a summary of their greatest coaching achievements
- a description of their coaching style
- pictures and videos of the coach in action.

Students will present their information to the class. Presentations should be 5 minutes long and include 8–10 slides.

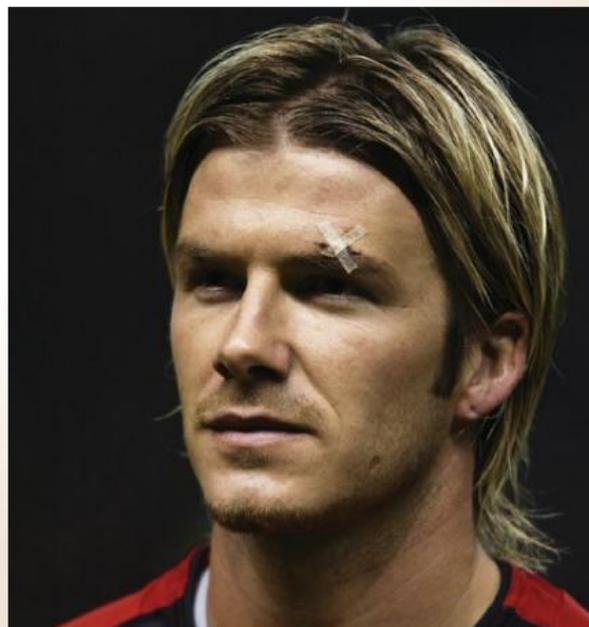
Ferguson plays down Beckham row

Manchester United boss Sir Alex Ferguson has played down the seriousness of David Beckham’s eye injury. The Old Trafford boss denied that the England captain needed stitches and insisted the cut above his eye was just a nick or graze. Beckham was hurt after an angry Ferguson kicked a boot in the dressing-room which hit Beckham in the face. The incident happened after Ferguson’s side lost 2–0 to arch rivals Arsenal on Saturday in the fifth round of the FA Cup. ‘I have spent 29 years as a coach and what happens in the dressing-room is sacrosanct,’ said Ferguson.

‘Contrary to reports, David Beckham did not have two stitches—it was a graze which was dealt with by the doctor.’

‘There is no problem and we move on. That is all there is to say.’ Ferguson had previously described Beckham’s injury as a ‘freak incident’. Ferguson made the statement ahead of the club’s Champions League tie against Juventus. ‘Things like that happen in the dressing room,’ Ferguson insisted on Monday. ‘It was one of those freak accidents of nature that happens and then it’s over. What a freak, it will never happen again.’ The England captain had been substituted during the game at Old Trafford after injuring his right leg.

He was sitting in the dressing room when Ferguson vented his frustration by kicking the boot. There is no suggestion that the United manager intended to injure the England captain.





Learning experience

Read the article 'Ferguson plays down Beckham row' on page 203. Does the story give an indication of Alex Ferguson's coaching style? What style of coaching do you think is the most effective with professional athletes? Explain your answer.

Describe how a coach may use a different coaching style when coaching:

- a a beginner versus an elite performer
- b an outgoing versus a shy personality
- c a child versus an adult.

Coaching skills

To be successful, a coach needs to possess a variety of skills. In addition to having a good knowledge of the sport, a coach must also be able to organise, observe, analyse, adapt, communicate and improve performance.

- **Organising**—A coach should have a good knowledge of the sport, well-established time-management skills and the ability to organise and plan relevant coaching sessions. An understanding of the principles of training and an ability to plan effective training sessions are essential skills for coaches.
- **Observing**—Observation skills allow coaches to identify strengths and weaknesses, which provide them with information on how to improve performance. Experienced coaches develop an understanding of when to watch and observe, and when to talk and interact with players.
- **Analysing**—Coaches will observe and analyse performances at both training and in competition. Performance analysis using videos and computers is now an important aspect of coaching.
- **Adapting**—Coaches will work with athletes of different ages, ability levels, genders, ethnic backgrounds. Coaching is a dynamic process and coaches will be required to adapt during training and competition when plans go astray. Coaches will rarely be provided with the 'ideal situation'; it is more than likely that they will have to modify their strategies and techniques to accommodate the players, conditions and equipment they have.
- **Communicating**—Communication is a two-way process that requires the coach to transmit and receive information. Immediate and accurate feedback is essential to improving performance. Coaches should communicate feedback that is both positive and instructive. A good coach will utilise effective verbal and non-verbal communication skills. Non-verbal communication skills, such as smiling, shrugging, pointing and nodding are important in everyday coaching situations, but can be especially useful in loud, outdoor situations where verbal communication is not always possible.
- **Improving performance**—One of the primary objectives of coaching is to improve performance. Using instruction, demonstration, encouragement and feedback, coaches help athletes to improve their skill level, fitness and understanding of the game. A good coach will provide their athletes with appropriate information and opportunities to improve performance.



Figure 13.3

A coach using video analysis for coaching

Learning experience

- 1 You are the coach of the 1st XV school rugby union team. Although the team has been committed, they have been performing poorly and parents have expressed concern over some of your selections. The father of a player in the 2nd XV approaches you after training and suggests that his son should be selected in the 1st XV. You watch a video of the 2nd XV every week and believe that the child in question is not as good as the players you have selected.

Working with a partner, decide who will be the coach and who will be the parent, and act out the scenario described above. Debrief using the following questions.

- How did father react when the coach told him that he would not select his son? Was this reaction realistic?
 - Describe the language used by the coach to explain his/her selection.
 - What skills does a good coach demonstrate when dealing with parents in this type of situation?
 - Do you believe this situation occurs very often?
- 2 Describe the coaching style of your favourite coach. What is it about their coaching style that makes them your favourite?

Using the list of coaching skills identified in this section to describe your coach's coaching skills.

- 3 Select one skill from your favourite sport or physical activity and develop a skill checklist. The checklist should include the key components of the skill needed to demonstrate the skill effectively. For example, if you chose the basketball free throw, you might include shoulders square to the basket and eyes focused on the basket.

Working in groups of four or five, demonstrate the skill to your group and instruct them on how to perform the skill correctly. After each coaching performance, students should evaluate the coach's performance and provide constructive feedback, using the following questions as a guide.

- Did the coach appear to know the key points of the skill?
- Did they speak clearly and explain the skill effectively?
- Did they work with everyone in the group?
- What style of coaching did they adopt?
- Which of the coaching skills identified in this section did they demonstrate?



Coaching roles and responsibilities

The roles and responsibilities of coaches are extensive and go beyond improving athletic performance. At different times a coach needs to be a teacher, trainer, motivator, disciplinarian, organiser, public relations officer, counsellor and much more.

Figure 13.4
The roles of a coach can vary



Individual and group needs

Teams are comprised of individuals with different abilities, learning styles, interests and **motivations**. The coach should be sensitive to the needs of individuals and adopt an inclusive approach by adapting and modifying coaching practices to accommodate all participants. While coaches have a responsibility to give all their players an opportunity to participate and improve, they may be required to balance the needs of the individuals against the needs of the group.

Delegating roles and responsibilities

Delegation is the process of appointing roles and responsibilities. Different coaches will give their players different levels of responsibility. Laissez-faire coaches may allow players to determine the nature and content of training sessions and competition strategies. Authoritarian coaches will have set ideas regarding how things should be done and will rarely involve players in the decision-making process. Successful coaches recognise the need to delegate roles and responsibilities to their players to provide them with leadership opportunities. Traditionally the captain, who was selected by the coach, was regarded as the team leader; however, it is now common for teams to have leadership groups that include senior members of the team. In some cases leadership roles will be designated by the coach; however, they may also be elected by members of the team.

Motivating and supporting others

Coaches need to understand that different strategies and techniques motivate different players at different times. While elite athletes are often motivated by success and achievement, young athletes are generally motivated by fun and the need to feel competent and successful. Extrinsic rewards like trophies and recognition from others are motivating in the short-term, but their effect wears off over time. Intrinsic rewards are internally satisfying and encourage long-term motivation. Enjoyment and feelings of success and achievement are intrinsic motivations. Good coaches aim to create an environment in which players learn to motivate themselves, rather than depending on external factors for motivation.



Figure 13.5

Coaches need to use different strategies and techniques to motivate different athletes

Instructing and training

Regardless of coaching style, a coach should be able to recognise the ability and interests of their athletes and provide experiences that are both motivating and constructive. The nature of training sessions will depend upon a number of factors, including the age, ability and experience of athletes. Coaches spend the majority of their time with athletes during training, which is where most learning takes place. Players move through a series of stages as they learn new skills and coaches should provide athletes with opportunities that reflect the skill level of their players. Coaches need to observe and correct skills, improve the fitness of athletes, and provide technical and tactical advice before, during and after competition.

Safety

Coaches are responsible for the safety of their players and they should take the necessary precautions to minimise the incidence of injuries. Although some injuries are unavoidable, the coach has a duty of care to identify possible risks and take the necessary action. Coaches should provide a safe environment,

plan sessions according to the needs and capabilities of the athletes, check medical suitability, avoid athlete mismatches (such as pairing two players of unequal size in a contest that involves physical strength), instruct about inherent dangers, provide appropriate supervision, have access to medical care and know first aid, develop clear rules for training and general conduct, and record training accidents and injuries.

10 great sporting comebacks

- 1 In the 2005 Champions League final, Liverpool overcame a three-goal half-time deficit to beat AC Milan.
- 2 In the 1981 Headingley Ashes Test Match, England was forced to follow-on and was 135 for 5 wickets, nearly 100 behind, when Ian Botham went into bat. Botham made 149 and England set Australia 130 to win. Bob Willis took 8 wickets as England bowled Australia out for 118 to win the test.
- 3 In 2004, the Boston Red Sox became the first team in baseball history to come back from a 3–0 deficit to win a best-of-seven series in the 2004 American League Championship Series against the New York Yankees.
- 4 In the 5th one-day international between Australia and South Africa in 2006, Australia scored 434 for 5 off their 50 overs. In reply, South Africa scored 438–9, winning by 1 wicket with one ball to spare.
- 5 In the 1993 NFL Playoffs, the Buffalo Bills trailed the Pittsburgh Oilers 35–3 in the third quarter. However, the Bulls fought back to win the game 41–38.
- 6 In the 1999 Rugby World Cup semifinal, France overcame a 14-point deficit to beat the All Blacks, who were the favourites to win the World Cup. The score was 43–31.
- 7 In the 2001 AFL season, Essendon (171) defeated The Kangaroos (159), after trailing by 69 points 10 minutes into the second quarter.
- 8 In the Wimbledon 2005 women's final, Lindsay Davenport was serving for the championship against Venus Williams (5 sets to 4, 40–30). But Williams survived the point and fought back to win the match 4–6, 7–6 (6–4), 9–7.
- 9 In the 1999 Champions League final, Bayern Munich were leading Manchester United 1–0 after 90 minutes of play. United scored twice in 2 minutes of injury time to win the game.
- 10 In the 1996 Golf Masters, Nick Faldo trailed Greg Norman by six shots going into the back nine at Augusta. However, Faldo fought back to win the tournament.



Learning experience

- 1 Read the '10 great sporting comebacks' above and, with a partner, rank the comebacks from 1 (most impressive) to 10 (least impressive). Choose one of the comebacks listed and consider the coach's role in inspiring the performance. Provide a half-time or pre-game speech for the example you selected.
- 2 Organise an interview with a coach to determine the strategies they have found effective in instructing, supporting and motivating others. Before organising the interview, develop a set of interview questions to ask.



Learning experience (ICT)

Using the internet, research the incidence of sports injuries in Australia and determine the following.

- What is the most common type of sports injury reported in Australia?
- Which sport is responsible for the most injuries in Australia?
- Which sport has the highest rate of injuries in relation to number of participants?

The following websites may help you with your research:

- <www.ausport.gov.au>
- <www.injuryupdate.com.au>
- <www.nisu.flinders.edu.au/pubs/reports/2006/injcat79.php>.



HotSpot

It is often suggested that 'players receive the rewards for victories, while coaches get blamed for defeat'. Critically evaluate the statement and provide an explanation why this happens.

Ethical coaching

Coaches are placed in a unique and powerful position, and they are increasingly required to manage complex ethical issues such as sportsmanship, cheating, bullying, abuse of power and discrimination. For these reasons, sports coaches are expected to conform to high ethical standards. Coaches are required to demonstrate honesty and integrity by addressing inequalities and providing all athletes with equal opportunities.

Recognising individual reasons for participation

As discussed previously, different things motivate individuals at different times. Similarly, athletes choose to participate in sport for different reasons. A coach should recognise that athletes are participating for different reasons and provide positive experiences for all participants. Reasons for participation can be organised into three groups. Physical reasons include the desire to improve fitness and skills, and weight maintenance. Psychological reasons for participation include sense of achievement, success, excitement, recognition and enjoyment. Other individuals are motivated by social factors, such as friendship and social interaction.

Figure 13.6

Vince Lombardi was an American Football coach who focused on winning as a 'habit'



HotSpot



Vince Lombardi is regarded as one of the most successful and well-respected coaches in American Football history. Read about Vince's approach to coaching at www.vincelombardi.com (follow the links to Number One Speech). Write a one-page discussion of the reasons he gives for participation.

Being a positive role model

The coach should be a positive **role model** and demonstrate the behaviour they expect from their players. The coach should be punctual and prepared for training and competition. They should also be positive and avoid sarcasm that belittles players. Players learn as much from what coaches do as what they say. If a coach does not demonstrate ideal behaviour, this will have a negative impact on the players. For example, a coach should stay calm on the sideline and never abuse a referee. Such behaviour may give players the belief that it is acceptable behaviour.

Fairness, honesty, respect

Coaches are expected to conform to accepted professional standards of behaviour that are based on a set of moral principles or values. 'The coach's code of behaviour' has been produced by the Australian Sports Commission and provides coaches with a guide on the behaviour that is expected of them.

Coach's code of behaviour

- Operate within the rules and spirit of your sport, promoting fair play over winning at all cost.
- Encourage and support opportunities for people to learn appropriate behaviours and skills.
- Support opportunities for participation in all aspects of the sport.
- Treat each person as an individual.
- Display control and courtesy to all involved with the sport.
- Respect the rights and worth of every person regardless of their gender, ability, cultural background or religion.
- Respect the decisions of officials, coaches and administrators in the conduct of the sport.
- Wherever practical, avoid unaccompanied and unobserved one-on-one activity (when in a supervisory capacity or where a power imbalance will exist) with people under the age of 18 years.
- Adopt appropriate and responsible behaviour in all interactions.
- Adopt responsible behaviour in relation to alcohol and other drugs.
- Act with integrity and objectivity, and accept responsibility for your decisions and actions.
- Ensure your decisions and actions contribute to a safe environment.
- Ensure your decisions and actions contribute to a harassment free environment.
- Do not tolerate harmful or abusive behaviours.
- Place the safety and welfare of the athletes above all else.
- Help each person (athlete, official etc.) reach their potential—respect the talent, developmental stage and goals of each person and compliment and encourage with positive and supportive feedback.
- Any physical contact with a person should be appropriate to the situation and necessary for the person's skill development.
- Be honest and do not allow your qualifications to be misrepresented.



Learning experience (ICT)

Using the internet, select one of the organisations below and provide a summary of the sport's **code of conduct** for coaches. Critique the code of conduct and explain how it compares to the code of conduct outlined by the Australian Sports Commission.

- Cricket Australia <<http://cricket.com.au>>
- Tennis Australia <www.tennis.com.au>
- Football Australia <www.footballaustralia.com.au>

Equal opportunity

Teams will consist of individuals from a variety of social, cultural, ethnic and economic backgrounds. Teams may also include players with disabilities. An inclusive coach will provide equal opportunities to all athletes and modify their coaching practices to the individual needs of their players.

Visit the following sites to learn more about some of the sporting achievements of people with disabilities:

- <www.sports.org.au>
- <www.paralympic.org>
- <www.michaelmilton.com>.

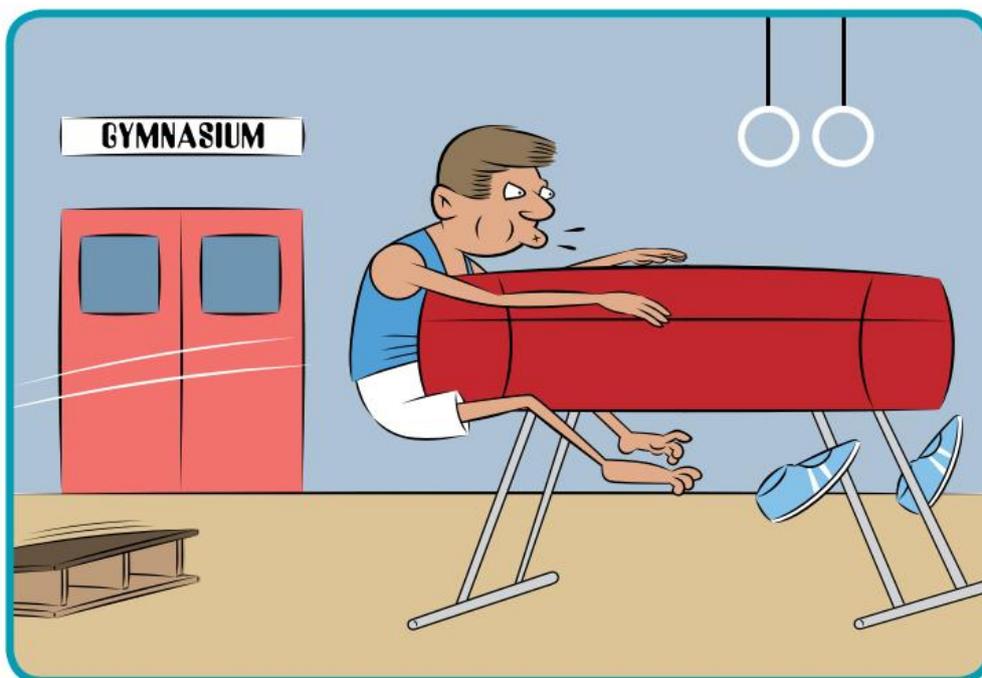


Figure 13.7
Accidents occur in sport

Legal implications

Coaches have a legal responsibility to exercise reasonable care to avoid injuring or causing damage to their players and others involved. This is known as 'duty of care' and failure to provide this care is called '**negligence**'. Negligence is when injury or harm occurs because of something a coach has

done or because they have failed to provide the proper care. To reduce the incidence of injuries and prevent the likelihood of litigation, a coach should understand and apply the following list of duties. A coach must:

- provide a safe environment
- adequately plan activities
- evaluate participants for injury and incapacity
- not mismatch young participants in activities (unless the coach adapts and modifies the activity to safely include all participants)
- warn participants of the risks of activities
- closely supervise activities
- develop clear rules for activity sessions and general conduct
- keep accurate records.

HotSpot



You are the coach of a junior cricket team. You have noticed that one of your most talented players has been taunting one of your less confident players. Although you have not witnessed any teasing you suspect that it has reached the point where the player is considering quitting the team. Describe the strategies that you would use to overcome this problem.

Coaching opportunities and qualifications

Coaching opportunities range from the volunteers who coach weekend junior sport to full-time professional coaches who work with elite athletes. Regardless of coaching level, it is important that all coaches have the appropriate qualifications and experience. For safety reasons, some sports (such as rugby union) require coaches to complete a minimum coaching qualification before they are legally permitted to coach a team. For most sports, a coaching qualification will provide coaches with basic knowledge and skills to coach safely.

Volunteer and community opportunities

The majority of coaching positions will be unpaid and voluntary. According to the Australian Sports Commission, the community sport and recreation sector relies on 1.5 million volunteers who contribute 165 million hours to run sporting and recreation teams and organisations. A large proportion of this time includes the hours dedicated by unpaid coaches.

Formal qualifications

The National Coaching Accreditation Scheme (NCAS) is an initiative of the Australian Sports Commission. The NCAS is a progressive coach education program offering courses at various levels and provides coaches with nationally recognised **accreditation**. It is recommended that all coaches become accredited through the NCAS, and over 70 sports participate in the accreditation scheme. According to the Australian Sports Commission, the NCAS benefits coaches in the following ways:

- it increases confidence and competence in coaching ability
- it promotes an ongoing progressive improvement of knowledge and expertise
- it incorporates an involvement with, and an understanding of, sports science enabling a more in-depth approach to coaching
- it promotes the use of safe and correct techniques
- it improves communication skills
- it encourages the development of innovative coaching techniques
- it aims to increase the enjoyment of sport for both coaches and athletes.



Figure 13.8

Coaching accreditation helps improve the quality of Australian sport

Learning experience (ICT)

Using the internet, select one of the sports listed below and research the process followed to acquire a Level 1 accreditation in Australia. Provide a summary of the costs involved, time required and necessary contact information.

- Netball
- Rugby union
- Rugby league
- Basketball
- Soccer
- Australian Rules football



Structuring the session

Planning is an important part of the coaching process. Organised sessions run more smoothly and sessions are more enjoyable for participants, who spend less time standing around waiting for something to happen. Injuries are less likely to occur when coaches plan their activities carefully.

Safety considerations

It is the coach's responsibility to take reasonable care to minimise the incidence of unnecessary injuries. Activities should be planned, explained carefully and closely supervised. Clear rules should be developed for activities and general conduct. Athletes should be matched with individuals of similar size, ability and strength. Warm-ups and cool-downs including different types of stretching should be incorporated into all sessions.

Warm-ups and cool-downs

The warm-up should include vigorous physical activity designed to increase the heart rate, as well as skill-specific activities that reinforce the skills taught in previous sessions. Sport-specific movements, also known as dynamic stretches (for example, leg swings and arm rotations), should be incorporated into the warm-up.

The conclusion of the session should be combined with a cool-down, involving light activity, such as walking, and static stretching—stretches that are held at the point of mild discomfort for 10–20 seconds.

Introduction and demonstration

During the introduction component of the session, the coach should explain the goals of the session and provide an overview of the activities to be completed. The coach may also use this time to demonstrate new movement skills and activities. Another aim of the introduction is to prepare the athletes psychologically for the training session.

Skill development and practice

The body of the session should focus on developing skills and applying them in game situations. New skills may be taught using a traditional skill-drill approach or a game-sense approach, where skills are learnt through games and activities. Activities designed to improve the physical fitness of participants may also be included in this section, generally after the skill development sessions. However, including fitness sessions before skill development may help athletes to improve their skills while fatigued. At the completion of the session, the coach should review the key points and reinforce the objectives of the session.

A reflection on the coaching process is known as evaluation. A session evaluation will inform the coach whether or not the session objectives were achieved. The evaluation may involve feedback from athletes, coach observations, video analysis or a combination of techniques. For example, at the completion of the session, a coach may ask their athletes to describe the purpose of the strategies they have just addressed. This will help the coach to determine if the coaching session was successful.



Learning experience

Observe a session conducted by an accredited coach. Using a table such as the one below, analyse and evaluate the session. Make sure you use the following subheadings:

- Introduction
- Warm-up
- Skill development and application
- Conclusion and cool-down.

Coaching session planner			
Date:		Equipment and resources required:	
Venue:			
Duration:			
Introduction (explanation of session overview and aims):			
Session component explained		Coaching key points	Equipment
Warm-up			
Skill development and application			
Conclusion and cool-down:		Evaluation comments:	

Long-term planning in coaching

Long-term planning is an important part of the coaching process, as it provides a framework for a training season and allows coaches and players to identify time-specific objectives, such as when athletes need to achieve peak fitness. A long-term plan will address principles of training, periodisation, important competition dates and opportunities for recovery.

Pre-season, in season and post-season

An annual training plan is divided into three broad training phases—pre-season, in season and post-season—each with a general focus. This framework provides the basis for progressive overload to improve fitness and achieve training goals. The changes in intensity also help to prevent injury, assist in recovery and improve competition performance.

The pre-season training phase is also known as the preparation phase and should focus on the development of the athlete's general physical capacities, basic skills and strategies. The in-season or competition phase should focus on optimal performance. Physical capabilities should be maintained, but greater focus will be placed on performance, skill and tactics. The post-season or transition phase follows the completion of the competitive season. The aim of this phase is to provide a period of active rest and recovery, while maintaining the physical gains achieved over the competitive season.

Macro and micro cycles

The training sub-phases are subdivisions of the phase described above, which have specific objectives. **Macro cycles** are training blocks, usually between 2 and 6 weeks long, which have a common theme to training or competition; for example, basic conditioning during the preparation phase. **Micro cycles** are short training cycles of about 7 days. The sequence of training—the intensity, volume and type of training—is modified to achieve the specific outcomes of the macro cycle.



Learning experience

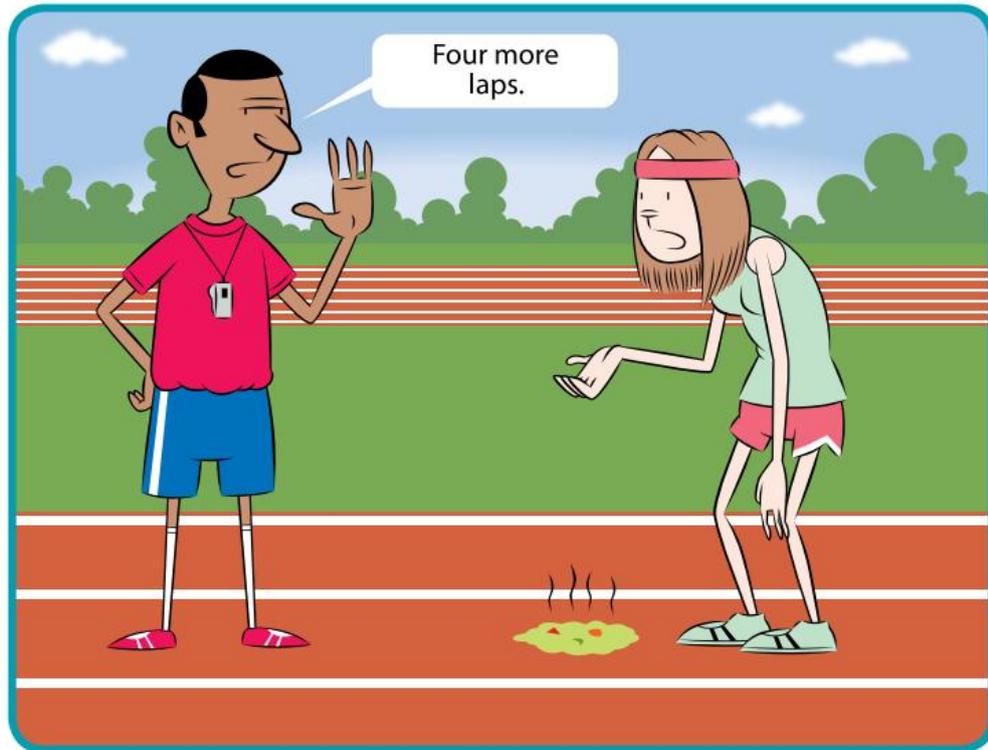
Referring to figure 13.9, answer the following questions.

- How many months does the general preparatory training phase last?
- According to this training plan, the Mountain Districts Open is one of the least important competitions. How is this reflected in the training volume and intensity?
- The New South Wales Open is regarded as one of the most important. How is this reflected in the training volume and intensity?
- Describe the changes in the strength-training component of the program. How might they benefit a squash player?

Recovery

Organised annual planning will help to improve performance and prevent the incidence of injuries from overtraining. When the amount of activity required is progressively increased, the body adapts and fitness improves. This is known as progressive overload and it is closely linked to the amount of recovery needed between training sessions and cycles. Training that involves high intensity and large amounts of volume will require sufficient recovery to prevent injury and promote training adaptations.

Figure 13.10
Athletes need time to recover



HotSpot



You are the coach of a talented junior athlete who is a national 800-metre champion. However, her performances and training times have deteriorated in recent months. You suspect that she has been doing training in addition to the sessions that you have organised for her. What strategies would you use to outline to her the dangers of overtraining and the need for recovery?

Chapter cloze

There are many different coaching styles. The _____ coach is often very strict and rarely involved players in the decision-making process. The _____ coach has a relaxed approach to coaching and may appear disorganised.

_____ is not the same for everyone; some players participate in sport to achieve success, while others participate for social reasons. A good coach recognises the importance of _____ and will provide players with responsibilities and involve them in the decision-making process.

_____ occurs when a coach contributes to a player being injured by failing to do something that a reasonable person would do to avoid injury. The coach's _____ outlines the accepted standards of behaviour that guide coaches in their interactions with players, spectators, officials and parents. A coach that verbally abuses players and officials is a poor _____. It is recommended that all coaches participate in coaching programs to gain official _____.

Training plans are organised into a number of cycles. _____ are training blocks that have a common theme to training or competition (for example, basic conditioning during preparation phase). _____ are short training cycles of about 7 days.

accreditation
authoritarian
code of conduct
delegation
laissez-faire
macro cycles
micro cycles
motivation
negligence
role model

Review questions

- 1 List and describe the five coaching styles identified in this chapter. Explain why it is important that coaches combine aspects of the various styles.
- 2 'Coaches need to have a good understanding of their sport and the players they coach.'
Analyse this statement. In your answer, discuss the importance of verbal and non-verbal communication.
- 3 Critically analyse the different skills that a good coach should have.
- 4 Explain the importance of planning individual training sessions and providing an overall annual plan. In your answer you should discuss the safety considerations.
- 5 Explain why a coach should be a positive role model and demonstrate ethical behaviour at all times.

14 Enhancing performance

OUTCOMES

In this chapter a student:

- 3.1** demonstrates actions and strategies that contribute to enjoyable participation and skilful performance
- 3.2** evaluates the characteristics of enjoyable participation and quality performance in physical activity and sport
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance
- 4.2** displays management and planning skills to achieve personal and group goals
- 4.3** performs movement skills with increasing proficiency
- 4.4** analyses and appraises information, opinions and observations to inform physical activity and sport decisions.



STARTING POINT

When playing sport or engaging in physical activity, people consistently aim to improve and to get better. This could be to win in a backyard game, to set a personal best, to represent your school, area or country, or just to master a new trick or move. Participants learn how they can change, try new things, practise, or give and take advice to enable them to be better at that activity or sport. This chapter outlines the importance of understanding rules, specialised movement skills, tactics and strategies, and evaluating performance in order to improve.

Rules and etiquette

Rules and etiquette are used in sport to govern how it should be played. 'Fore!', 'The ball was out!', 'Goal!', 'Go back to your corners' and 'Please remove all jewellery' are examples of what officials and participants say during physical activity, denoting rules and etiquette that participants are expected to follow.

Rules

Rules are the consistent guidelines about how a sport should be played or activity conducted. They are developed over time and become better known and applied once an organisation is formed. For example, football in England

was established as a sport when the English Football Association was formed in 1875. Knowing and using rules allows sport and physical activity to be carried out within common and consistent boundaries, as well as ensuring safety for participants and allowing people to improve within the legal limits. There are three main types of rules: official rules, local rules and modified rules.

- Official rules** that are developed and sanctioned by the game's official organisation are published, and all participants must follow these rules. These rules are followed in competitions and events, such as the Olympic Games, the National Rugby League, dance sport championships and state championships.
- Local rules** are those rules particular to an area. They are changes or alterations that have been made to official rules because of local conditions, needs and wants. They can be less professional than official organisational rules, but still follow the main rules and understandings. Backyard, house, community or school games also have local rules. Most local rules can cater for age, playing area, time, equipment, intensity or level of competitiveness. Local rules may be small changes to the official rules (such as allowing four quarters instead of two halves because of hot weather), medium changes (such as playing only until it gets dark) or large changes (such as there being no uniforms, time limits, penalties or area restrictions).

Figure 14.1

Backyard cricket rule changes



- Modified rules** are those that have been changed to suit factors such as age, disability, gender or fitness level. These rules follow the official rules closely and are used in most competitions at junior levels. The modified rules allow for improved safety, more participation, a developing awareness

of the main points of the game and the development of bodies adjusting to the sport or activity. Examples of junior sports with modified rules include Minki Hockey, Kanga Cricket, Mod League, Auskick and Netta Netball. Examples for athletes with a disability include the Paralympics and wheelchair basketball.

Codes of behaviour

When rules are established by official organisations, a code of behaviour is also created by the organisation. The code is the accepted checklist of how players, coaches, officials and spectators should behave when involved in the sport or activity. It is how they are supposed to behave to maintain the good image of the sport and to keep all safe, healthy and happy.

People who do not follow the code of behaviour can face consequences that restrict their involvement in the sport or activity. People who do follow the code of behaviour are rewarded with continuing involvement in the sport or may be officially recognised by the organisation.



Learning experience

What would be an adequate consequence for each of behaviours listed in the table below? Match up the behaviour with an appropriate consequence (there may be more than one).

Behaviour	Consequence
Being a fair player throughout the game	Money fine
A coach yelling at referee's decision	Suspension from games
Drug taking	Best and fairest award
Fighting with team-mate	Ban from attending event
Tampering with game equipment	Lose the respect of the team
An athlete visiting sick children in hospital	Good job after sport career finishes
Bribing an official	Not being well-liked by people
Betting on own match	Receive media criticism

Accepted etiquette

Etiquette is much like manners and is seen in sport as the 'right' or 'nice' thing to do, keeping sport as an honourable and fair event. Sometimes there are no rules to govern how players, coaches, officials and spectators should behave, so they are expected to follow the unwritten rules of fair play. Etiquette comes from past years, before there were rules and codes of behaviour. It is a reminder to future generations of sportspeople to act in a way that is fair and will mean the sport is well-regarded. Etiquette can be found at all levels of sport, from international competitions, (a footballer helps a player they tripped) to local competitions (a golfer calls 'Fore!' when teeing off).



HotSpot

In groups of three or four, develop a game that combines the rules, codes of behaviour and etiquette from games. As a class, play each group's game. The game creators should try to take on coaching, officiating and captaining roles.

After playing all of the games, use a table like the one below to evaluate them, and then answer the following questions.

Game name:
Rules:
Code of behaviour:
Etiquette:
Equipment:
Area:

- 1 Did everyone follow the rules and etiquette? Why or why not?
- 2 What were the main skills needed to play the games?
- 3 Which players played successfully across a number of games? Why? (Consider their skill levels and experience in different sports.)
- 4 Evaluate how the rules, behaviour and etiquette enhanced performance.

Movement skills and performance

All sports and activities require a repertoire of movement skills for the participant to take part and perform. Movement skills are seen in sports and activities when participants are running, tackling, shooting, serving, hitting, catching, landing or throwing. Movement skill development progresses from simple, unorganised and unskilled movements to the achievement of highly organised, complex movement skills.

As children grow and develop, they improve their fundamental movement skills. These skills form the basis of more advanced, **specialised** movement skills. They can also combine to form movement sequences. These skills are outlined below.

- **Fundamental movement skills** are the building blocks for movement. They are the skills that children need in order to participate successfully in all types of games, physical activities and sports; for example, skipping, catching, kicking or dodging.
- **Specialised movement skills** are specific skills used in a particular sport or activity. Examples include a mark in Australian Rules football, a spike in volleyball, a keeper's save in ice hockey and a fast break in basketball.
- **Specialised movement sequences** are a combination of specialised movement skills to form a sequence. Specialised movement sequences are used in:
 - dance routines, which might include leaping, falling, rising, stepping, holding and lifting

- Formula One racing, which includes accelerating, steering, evading, braking, manoeuvring, changing gears
- skateboarding, which can involve pushing, ollieing, jumping, gliding, turning, catching and falling.

Specialised movement skills

Specialised movement skills are developed through a combination of age, maturity, experience and interest. As participants develop, their bodies can handle more movements and actions, so they can perform some skills better. As they mature their brain can handle complex tasks and they are able to take more risks. They can also practice, play, trial new ideas, compete and gain experience so they learn new skills.

Movement skills can be specific to one sport (for example, hand and foot movement in rock climbing) or they can be general skills that are applied to a number of sports, such as throwing in softball, baseball, cricket, javelin or basketball. The better a participant is at a number of specialised movement skills in a sport or activity, the higher the likelihood of a successful performance. Some sports and activities may require a participant to be very highly proficient at just one or two skills. Consider the pitcher in softball, the goalkeeper in hockey or an archer.

Activities that develop movement skills

Movement skills can be developed for a variety of sports and activities, and they can be learnt from a variety of people, sources and places. Participants can develop movement skills from many media sources such as television, DVDs, the internet and computer games. For example, a snowboarder might develop their skill on a board in their own lounge room, playing a game on their computer. Developing movement skills can also take place on the street, in parks, in backyards and at school. Often these skills are transferable to other activities—snowboarders are also often good at skateboarding and surfing.

Figure 14.2

Movement skills are often transferable between activities



Developing movement skills occurs through practice and learning. The more specialised the movement skill, the more specialised the activity and training has to be to develop that skill.

Evaluating the transfer of movement skills

Transfer of movement skills is the process of using the knowledge and ability you have to perform one skill when learning to perform another similar skill. Evaluating means to assess, estimate or predict something from given information. So to **evaluate** the transfer of movement skills is to assess or predict how knowledge and success at one skill can be used to learn and perform a second skill. Some skills are similar in actions, which may lead you to predict that there is a high chance of a transfer of skill. For example, proficiency at jumping to block a shot in volleyball may help someone learning to jump and grab a basketball rebound.

Table 14.1

The breakdown of a tennis serve into skill parts, and activities that could help improve each of those skills

Tennis serve—breakdown of skill parts				
Ball toss	Racquet back scratch	Hit ball	Follow through	Ready for return
				
Activities that could help				
Aiming at target on roof	Triceps extension with weights	Throwing a tennis ball as fast as possible	Lunges	Side stepping over a line, back and forth as many times as possible in 15 seconds



Learning experience

- 1 Developing movement skills can occur by improving the whole skill or by improving each part of the skill.
 - a What activities could help develop the skill necessary to perform each of the actions listed below?
 - Football free kick
 - Skateboarding ollie
 - 110 metre hurdles
 - b Who could help you develop that movement skill?
- 2 Look at the table below and evaluate whether the skills required for each activity in the left-hand column would best transfer to option 1, 2 or 3.

Activity/Action	Option 1	Option 2	Option 3
Casting a fishing line	Basketball free-throw	Baseball hit	Rugby line out throw
BMX jumping	Road cycling	Leap frogging	Gymnastics handstand
Frisbee throw	Tennis backhand	Discuss throw	Badminton serve
Archery	Boxing jab	Surfing stand	Quarter back pass

Technique and form

There a number of things your body has to do to successfully execute a skill. These are the main **techniques** that make the skill occur and increase the chance of success in executing that skill. The main techniques have to do with your body's form and positioning, the manipulation of any objects (for example, a racket, ball or bat) and your location in the activity area.

Correct techniques for effective skill execution

When executing a skill, each body part needs to be in a particular position, as this increases the chance of success in performing the skill. The more body positions that are in the correct position, the higher the chance of success. It also decreases the risk of injury to the person. For example, an incorrect throwing technique could lead to shoulder and elbow problems.

Each athlete is different and has different techniques, capabilities and body dimensions that result in slight changes in skill techniques. Consider how cricket bowlers have different techniques to deliver a ball on a pitch to a batter, either using speed, swing or spin—similar techniques, but with slight variations.

When using equipment, such as a hockey stick or a paddle when kayaking, you need to use the correct technique to control and manoeuvre that object in a particular skill, as well as to increase your chance of success and decrease your chance of being injured. Athletes and coaches spend a high percentage of their training time mastering an activity's skill techniques.

Consider coaches who watch athletes perform and then provide **feedback** about their technique and how to improve it. The value of many coaches is in their ability to teach correct technique to an athlete, to identify errors and to teach a modified action to improve skill performance. In addition to coaches, many magazines, websites, coaching clinics, CD-ROMs and books are available that demonstrate and teach correct techniques for all sports and physical activities for people wanting to improve.



Figure 14.3

When using equipment you need to use the correct technique to control and manoeuvre

Varying technique for special effect

Techniques in skill are often adapted or changed to produce a different result. The technique can change by changing the body position or how the object is controlled and manipulated. Examples of such adaptations include:

- a softball pitcher wanting to deliver a slower pitch splits their fingers, gripping the ball differently, and resulting in a slower pitch to try and fool the batter
- a golfer moves their grip to open up the club face slightly to allow the ball to slice or fade—this variation could be used to place the ball away from a hazard or to stay on the fairway around a corner
- a beach volleyballer hits the ball on the side to produce a spin and curve on the ball to try and make it harder to return.



Learning experience

- 1 Copy the table below into your workbook. Fill in the missing words and the correct techniques for the skills listed. List other skills below them. Draw or cut and paste pictures of your chosen skills, and identify the correct techniques for each.

Skill	Correct techniques
Surf swimming	<ul style="list-style-type: none"> • Eyes and head forward • Elbows bent 45 degrees • Breathing _____ •
Sidestep	<ul style="list-style-type: none"> • Lean change into new direction • Hard push off • Arms _____ •
Ice hockey shot	<ul style="list-style-type: none"> • Wide feet for support • Low body position • Hands _____ •
Dart throw	<ul style="list-style-type: none"> • Elbow at 45 degrees • Dart and hand in line with eyes • Fingers _____ •

- 2 Complete this 'pass the paper' activity working in groups of three.
- Each group member writes the name of a sport at the top of a piece of paper and then passes the paper to the person on their left.
 - Now write a change in technique for a skill from that sport. The change could be about the body position or how an object is controlled and used. Write about what the athlete would do to change the technique (minimum 30 words).
 - Pass the paper to the person on your left. Addressing the sport written on the paper, predict the result and consequence this varied technique might have on the

skill. Discuss what will happen when the technique is varied, what the chance of success and injury may be or when the variation might occur during the sport or activity (minimum 40 words).

- Pass the paper back to the person who originally selected the sport. That person reads it and judges whether the variation is useful, if it could be done and if it is well-considered. They allocate up to 5 marks to each person, based on their ideas.
- Now go outside and see if you can complete the varied technique.

5 points

- Excellent change in technique. Understands the technique and how it could be changed. Includes all body parts and/or object use.
- Excellent discussion of predicted results and consequences. Predictions are accurate and realistic. Discusses details of what may happen, when it would happen and the consequences of it happening.

3 points

- Good change in technique. Could understand the technique and how it could be changed. Includes some body parts and/or object use.
- Good discussion of predicted results and consequences or lists some expected results. Predictions may be realistic. Includes some details and discussion of what could happen.

1 point

- Change in technique listed or could be a very small change with no details or thought. May list body parts that change.
- Some consequences listed. Predictions may be inaccurate.

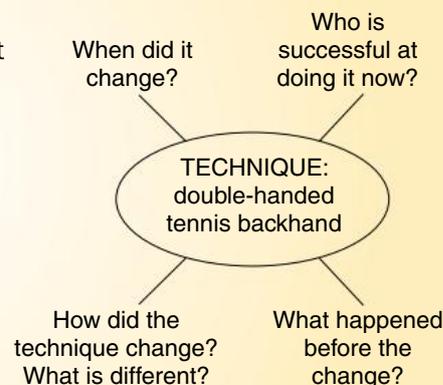
The dynamic nature of technique

Techniques are dynamic, ever-changing and constantly being updated. Techniques used for skills evolve and change over time due to different sporting equipment, safety concerns, greater media awareness and advancements in **technology**. What are now thought to be the correct techniques to use for certain skills may change with new research, equipment and ideas.



Learning experience (ICT)

- 1 Research the double-handed tennis backhand shot and learn about how the technique has changed. Copy the figure at right into your workbook, completing it with the information you have researched.
- 2 Now choose another technique to research. Complete another diagram on this technique, noting how it has changed and why. Some examples you might like to use include:
 - reverse-swing bowling in cricket
 - Fosbury flop in high jump
 - side-on goal kicking in rugby league
 - skateboarding on modern boards
 - big wave surfing with tow-in lines and wave riders



Strategies and tactics

Strategies are the overall plans with which a participant goes into an activity or competition. **Tactics** are the decisions they make during the activity or competition that are related to their overall plan.

These game plans and decisions can greatly affect the chance of success in a performance. Using strategies and tactics won't mean that you will win or perform successfully; they just mean you can enhance your performance.



Figure 14.4

The use of game plans and tactics can greatly affect the chance of success

Existing strategies and tactics

When coaches and participants plan their strategies and tactics, they do so considering what other people have done in the past to gain success. Most players and teams use existing strategies and tactics, rather than creating their own. They can match what people have done in previous activities and apply the strategies and tactics they are capable of. Examples include the serve and volley or base liner in tennis, and in football, keeping possession of ball and isolating defenders by creating space between attackers.

Designing strategies and tactics to enhance performance

Strategies and tactics are meant to improve your ability to succeed in a performance and to decrease your opposition's chances of winning. Designing strategies and tactics means that you plan to maximise your own strengths and minimise your weaknesses. At the same time, you can be planning to exploit the opposition's weaknesses and cope with their strengths.

Your strategy is your main game plan, the main aim of the decisions you are making. Your tactics will be the decisions you make during the competition to help you continue with the strategy or cope with a move from the opposition.

Strategy stories

Boxing—Muhammad Ali versus George Foreman

In the 'Rumble in the Jungle', Ali used the strategy of trying to knock out Foreman early, with right-handed crosses. When that didn't work, Ali lured Foreman into punching into him against the ropes. Ali withstood the punches, moving with each punch, tiring Foreman out. In the sixth round, with Foreman exhausted, Ali sprung to life, knocking Foreman out and winning the World Championship belt again.

200 metre freestyle swimming—Duncan Armstrong

In the 1984 Olympics, Armstrong made the final in a good time to be placed in the lane next to the world record holder and expectant winner, Matt Biondi. Armstrong and his coach Laurie Lawrence used the strategy to swim as close as he could to the lane rope of Biondi, to ride Biondi's wave and save his own energy. In the last lap, Armstrong was able to utilise his saved energy to win gold.

Cricket—Sachin Tendulkar

Tendulkar, from India, is a great batsman and is especially good at batting against spin bowling. His overall strategy is to try to dominate the spin bowler by getting many runs off them, hitting fours and sixes. During his innings, his tactics change to suit each delivery bowled to him. Whether it is to try to cause the bowler to change his line and length or to cause many fielding changes, Tendulkar can score many runs because of his excellent technique and ability to fulfil strategic and tactical plans.



Learning experience

- 1 Read the articles below and on pages 232 and 233, then answer the following questions.
 - a What words are used for strategies and tactics in the articles?
 - b Which people are mentioned in planning and executing the strategies and tactics? What happened with the match-ups?
 - c Discuss how successful Carlton's strategies were. What tactics were used during the competition?
 - d Predict why Carlton made their strategies and tactics like they did for that game.
 - e Explain if you think Carlton's strategies and tactics will change for the next game and why.
- 2 Read the following scenarios and make decisions about what strategies and tactics you would employ to enhance your performance and chance for success. Copy the picture of the tennis court into your workbook and use it to illustrate your answers.

Tennis

Your opposition has a strong forehand and good lateral movement across court.

- a Where would you aim to hit most balls in their end of the court?
- b What tactic would you use if you saw they did not move forward or back well?
- c How would you use your strength of volleying?



Coach's box: Carlton versus Collingwood

Assistant coach Gavin Croisica runs his eye over Saturday's clash against Collingwood at the MCG.

Last week

The boys picked up the change of game style very well. Denis's style involved long kicking and quick ball movement. Last week, Brett instructed the players to kick the footy a bit more and use each other and play more of a possession style of game.

This week

Consistency of effort is something we have been trying to achieve all year. While it has been good here and there for most of the year, the last four weeks before Denis was asked to leave was disappointing. Hopefully last week's effort against St Kilda was not a fake turnout in that regard and they will continue on against Collingwood.

Pies versus Blues

Carlton and Collingwood games always draw big crowds, so, the game is going to be exciting from that point of view. Unfortunately, for us, Collingwood received a hiding last week, so the Magpies are not going to be happy about things and will come out firing. It is going to be a good test for the group, especially considering the injuries we have got.

Collingwood's kids

Collingwood has been doing a fantastic job with their younger players. The way their first and second-year players have been able to come into the side and play the way they have is a credit to the organisation's development program.

However, in saying that, the first couple of years are always tough for the younger players and a long pre-season and season may be starting to wear them down. Although if they can get a few of their experienced players, like Simon Prestigiacomo and James Clement, back into the side at the right time, they should be okay.

Michael Jamison

Over the last month he has put the foot down and has been playing pretty good footy. He is a tall defender but is still a little bit light. However, he has done a good job this year and has been very consistent. I had Michael Jamison last year at North Ballarat, so I am going to take full credit for his recruiting.

This week's tactics

We will be playing a more one-on-one style this week, but we will still be looking to use the ball a lot more than we have in the past. Consequently, this week, with a bit more pressure and one-on-one situations, is going to test our kicking and skills more than it did last week, where a lot of opportunities were created by having a loose man in defence.

Who gets Rocca and Cloke?

Saddington is likely to take Anthony Rocca on the weekend and Bret Thornton, who has played his best footy on the bigger players this season, is a chance to line up on Travis Cloke. Jordan Bannister is another option as a tall defender; he has played that role in the VFL a fair bit. Of course, Jarrad Waite can also play on the tall forwards if necessary, so there are plenty of options. It's just a matter of finding the right one.



Match preview: Carlton versus Collingwood

Carlton team

B: Jordan Russell, Bret Thornton, Michael Jamison

HB: Ryan Jackson, Paul Bower, Heath Scotland

C: Andrew Carrazzo, Kade Simpson, Shaun Grigg

HF: Ryan Houlihan, Jarrad Waite, Bryce Gibbs

F: Marc Murphy, Brendan Fevola, Brad Fisher

FOLL: Cain Ackland, Adam Bentick, Eddie Betts

I/C: Jordan Bannister, Luke Blackwell, Setanta O'hAilpin, Jason Saddington

EMG: Mark Austin, Dylan McLaren, Ross Young

In: Bentick, Grigg, Jamison

Out: Lappin (hamstring), Wiggins (hamstring), Koutoufides (retired)

New: Michael Jamison (Newlyn/North Ballarat)

When last we met: Carlton v Collingwood at the MCG, round seven, 2007: Collingwood 17.17 (119) def Carlton 14.11 (95)

More than 77000 fans flocked to the MCG to watch an entertaining contest between the sworn rivals. Blues supporters were eagerly anticipating Setanta O'hAilpin's foray into the ruck and hoped Lance Whitnall would be able to contain Anthony Rocca.

However, the real interest came at the end of the first quarter when Brendan Fevola charged at Alan Didak after the siren, the incident sparked by Dale Thomas's late hit on Marc Murphy a few minutes earlier. 'Fev' eventually emerged from the pack with blood streaming down his face. Fired up, Carlton, unlike the Pies, made the most of their second-quarter opportunities and went into the long break 19 points ahead.

A less wasteful Collingwood side appeared after half-time and wiped out the deficit in just seven minutes. As a result, just one point separated the two sides heading into the final stanza. But the Pies continued their second-half rampage, slamming through six goals to Carlton's two in the fourth to claim the contest by 24 points.

Best afield for Carlton were Andrew Carrazzo (34 disposals), Heath Scotland (33 touches, eight marks) and Brendan Fevola (four goals).

For the Pies, Scott Pendlebury (24 disposals, five tackles), Brett Kirk (24 possessions, eight marks) and Alan Didak (four goals) were best.

Stats Centre

Carlton win percentage: against Collingwood, 52.14 per cent; at the MCG, 49.39 per cent; against Collingwood at the MCG, 61.22 per cent.

Ave. Disposals—Top Three:

Carlton: Andrew Carrazzo (25), Heath Scotland (24), Ryan Houlihan (20).

Collingwood: Dane Swan (23), Tarkyn Lockyer (23), Shane O'Bree (21)

Goals—Top Three:

Carlton: Brendan Fevola (49), Brad Fisher (30), Jarrad Waite (21)

Collingwood: Anthony Rocca (31), Travis Cloke (27), Leon Davis (24)

Tackles—Top Two:

Carlton: Adam Bentick (101), Andrew Carrazzo (76)

Collingwood: Scott Burns (72), Leon Davis (66)

Improvisation

Improvisation is an unrehearsed action, which might be a new skill, technique or invention. It is when a participant in a sport or activity tries something new or different because they think it will help them succeed. Like a stand-up comic who has to think off the top of their head for a funny line, an athlete must be able to think quickly, know their strengths and weaknesses, and be able to make on-the-spot decisions that may sometimes go against their initial game plan.

When discussing improvisation strategies and tactics, we can link them to how likely this approach is to succeed. Rugby League commentator Phil Gould talks about a lot about improvising plays being 'low-percentage plays', which means that the play does not have a high chance of being successful. However, sometimes it is the improvisation play that results in defenders not being able to handle an unexpected play and the improvisation being a success.

Improvisation in the movies

Improvisation in strategies and tactics are often used in sport movies to create tension and a dramatic ending. Consider Mick Malloy's character Jack Simpson in the Australian lawn-bowls film *Crackerjack*. To win the game, Simpson delivers a 'flipper'—an unheard-of move, like a cricket spin bowl—improvising to make his bowl miss the opposition's bowls and land next to the jack.

Adam Sandler's character in *Happy Gilmore* improvises in the last shot of a major golf game. The final hole turns into a putt-putt golf type course, and Happy has to **improvise** his normal putting shot to sink the ball and win.



Learning experience

I Copy the table below into your workbook and place each of the following scenarios under the chance term that best fits the possibility of success for the improvisation strategy or tactic.

Make sure you justify your position, discussing why it is likely to be successful or not. Also consider the players' experience, skill level, age and energy level, in addition to the game's score, time and history.

- a** A swimmer in an Olympic trial race wears new swimsuit never tested before
- b** An ice skater coming last into the final lap hoping others fall over
- c** A basketball team shooting three-pointers every time they attack
- d** A professional baseballer trying to catch and throw in one motion for a double play
- e** A novice rock climber trying to race an experienced climber
- f** A netballer in a local competition trying to shoot for a goal when falling behind the post
- g** A professional footballer trying a scissors kick for a goal
- h** A dancer dumping their old partner and using a new partner in a competition
- i** A triathlete trying to win from the front and lead throughout the race.

Chance terms

Certain	Likely	50/50	Possible	Unlikely	Impossible

Analysis and evaluation of performance

To analyse and evaluate a performance is to give a judgment about it. This judgment can be as simple as 'it was good' or it might take 10 pages in a sport section to dissect and describe every event. Ultimately, to make a judgment we need to use a variety of methods to describe the performance, understand what was good and bad about it, and to learn from it and enhance performance next time.

This is one area of sport and physical activity that has increased in importance in recent years due to factors such as greater use of coaches and coaching staff to provide feedback and preparation, increased media coverage of an array of sports, improved technology to gather information about performances, and better awareness of performances by the viewing public.

Feedback

Feedback can come in many forms from different people and it can be useful, specific, positive or even negative. Feedback can be internal (intrinsic), or external (extrinsic). Internal feedback is feedback that comes from the individual's thoughts and feelings, while external feedback comes from others; for example, a pat on the back from a coach and awards or medals.

- **Internal, or intrinsic, feedback** comes from the individual's thoughts and feelings about their performance. It can include what they take in from spectators, the playing surface, the opposition or team-mates. Intrinsic feedback also encompasses kinaesthetic elements, which include the internal feeling and sense of the body when performing. For example, an athlete may ask themselves 'Did the performance feel right or correct?' or 'Did the ball contact the bat correctly?'
- **External, or extrinsic, feedback** comes from others. This feedback includes goods or services that can be offered or taken as a result of the performance—such as awards, medals, prize money or a newspaper report—as well as social feedback. Social feedback are the words and actions from others as a result of a performance, and can include a pat on the back from a coach or team-mates, or support from family and the crowd.

Feedback can also come from the knowledge of a result or performance. This can include how successfully the technique, movement or routine was executed—for example, when kicking a ball, using a technique and putting it into the required area—or knowing how successful the result of the technique, movement or routine was; for example, kicking a ball that goes between the goalposts to score, and the scoreboard showing the result.



Figure 14.5

An example of social feedback

Statistics

Statistics are numbers compiled as data to provide feedback and evaluation of a performance. Statistics can be collected about all sporting and training performances, and can be very useful for sporting participants and coaches in enhancing performance. Statistics can be gathered about a range of sporting information.



Learning experience (ICT)

Using statistics only tells some of the whole story of a performance. To get the whole picture, it is useful to use other sources as well and to compare them.

1 Choose a sporting event to research—events that have lots of media coverage would be best. Examples include:

- the Tour de France
- the Netball World Cup
- surfing championships
- V8 motor racing.

Collect three sources of information about the event you have chosen. One of the sources must be a report with statistics (for example, a match report, scorecard or player ratings). Choose two of the following for your remaining sources:

- a newspaper report
- a team or athlete's blog

- a magazine article
- an internet report
- a team's or athlete's website
- betting odds.

2 Put all three reports in a folder (electronic or hard copy) and answer the following questions.

- a** Do all of your sources agree on the best player/s?
- b** Why might they be different?
- c** What about the statistics is different to the other sources?
- d** Explain which source seems to be the most reliable for judging who the best players were.
- e** Evaluate which source is the most useful for providing feedback. Provide five reasons for your response.

Use of technology

Performance can be analysed and evaluated more quickly and accurately, and in a more sophisticated manner than ever before. Technological equipment that helps identify errors and provide feedback is readily accessible to athletes, teams, coaches, spectators and media commentators. Analysis and evaluation technology for athletes can come in many forms and can be categorised into two groups: preparation and performance.

- **Preparation technology** assists athletes to prepare for an event or activity by monitoring health, fitness levels and fatigue. It can include image recording technology to watch the athlete performing skills and their decision-making in a situation, thus allowing the athlete to identify errors and make corrections before an event.
- **Performance technology** can come from athlete's own technology or from the media broadcast of an event. This type of technology provides opportunities for many spectators to view a performance and provide an evaluation and judgment about the performance.



Learning experience

You have been allocated a budget of \$5000 to purchase the equipment you need to help you evaluate your training and enhance your performance. Read the table below, which outlines the equipment and its uses, and judge which will help you the most in analysing and

evaluating your performance. Select the item/s you want to buy and explain why you need this technology. (You may want to research the products further on the internet.)

Sport: _____

Equipment	Details	Cost
Heart rate monitor and equipment	Monitors heart rate during training and performance, downloadable to computer	\$500
Performance analysis package	Monitors fitness levels, sleep patterns, sport errors, digital pictures of skill technique	\$4500
Clothing	The latest clothing inventions, designed to reduce injury, assist recovery and help performance	\$1000
Digital camera and software for viewing and downloading	Captures images of performance at split-second intervals	\$800
Mobile phone with camera and email	A regular mobile phone with a camera that can capture and send images to other phones, and that has email capacity	\$250
Television station footage	Purchasing copies of your performance from the televising network	\$600
Motion analysis software	Calculates distance travelled on a field, indicates percentage of maximal heart rate	\$2500
Performance pictures	Collects video and still footage of athlete performing skills and compares pictures to current world champions	\$2000
Statistician	A computer programmer watches training and performances, compiling statistics	\$1500
Friend with camera	Your friend to follow you during training and performances, videoing and providing feedback	\$1000

Note: These prices are estimates only

Techniques to analyse and evaluate performance

When evaluating a performance, most people have their own opinions and experiences to base their judgment upon. When two or more people are evaluating the same performance, it is useful to have a common language or idea of what makes a good performance.

There are three common techniques that are used to analyse and evaluate a performance: criteria, subjective evaluation and objective evaluation.

- **Criteria** are the standard norms or measures. They are the exact measures we can look for to judge a performance and can be in a checklist form that is used to assess whether the performance reaches certain standards.
- **Subjective evaluation** is based on the thoughts, ideas and beliefs of an individual who makes judgments based on their own personal experiences and ideas. The more experienced and knowledgeable about a performance the person is, the less likely their judgment is to be biased or inaccurate. The evaluation is based upon a personal judgment, such as how a dance makes them feel or their favourite moves by surfers.
- **Objective evaluation** is the ability to judge a performance based on the actual performance and not on a feeling or an allegiance to a team or athlete. It is generally a fair and neutral judgment. The evaluation is based upon certain facts, such as the player stepped on a sideline or the punch knocked out the boxer.

Learning experience

In groups of three or four, create criteria for judging the best in the group at a certain skill. The criteria should include four to six points that enable the group to rank all of the performers without relying on personal judgments or bias.

Demonstrate your chosen skill to the rest of the class, outline your checklist and invite other members of the class to participate in the skill and judgment.

As a class, discuss the range of criteria, which were easily used and which had subjective or personal judgments.



Learning experience (ICT)

Research the evaluation score sheets for two of the following sports and then answer the questions that follow. The score sheets may be criteria-based, objective, subjective or a combination of the three.

- Aerial skiing
- Australian Rules football 'best on ground' evaluation by commentators or umpires
- Basketball all-stars weekend
- Equestrian selection trials for the Olympic Games
- Gymnastics floor routine
- Karate championships

- Long jump
- Parachuting
- 20 kilometre walk at the athletics championships

- 1 What are the evaluation technique/s used?
- 2 Is this a fair technique?
- 3 Why are combinations of techniques sometimes used?
- 4 How would you ensure consistency and reliability in the judge's scores?



Chapter cloze

Enhancing performance is about doing your best and using a variety of methods to improve. Understanding _____ and etiquette is important to make competition fair for all. Being able to develop _____ movement skills, correct _____ and the ability to _____ are important capabilities to have as an athlete. Being able to vary technique for special effect and to _____ movement skills across different sports and situations can also assist an athlete's learning and performance. Not only is the physical side to sport and physical activity important, but also the ability to adopt _____ and accept _____ can also greatly enhance performance. The greater use of _____ to analyse and _____ a performance will also be an area of growth in sport in the years to come.

evaluate
feedback
improvise
rules
specialised
strategies
technique
technology
transfer

Review questions

- 1 List three rules and accepted etiquette that have enhanced performance in sport and physical activity.
- 2 Explain the difference between subjective and objective evaluation.
- 3 Create a checklist of ten items to identify correct technique of a movement skill of your choice.
- 4 Describe what you have to consider when designing strategies and tactics in a team sport.
- 5 Create a form to collect statistics about a performance and justify why it would provide accurate details to judge a 'most valuable player' award.

15

Technology, participation and performance

OUTCOMES

In this chapter a student:

- 3.1** demonstrates actions and strategies that contribute to enjoyable participation and skilful performance
- 3.2** evaluates the characteristics of enjoyable participation and quality performance in physical activity and sport
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance
- 4.2** displays management and planning skills to achieve personal and group goals
- 4.3** performs movement skills with increasing proficiency
- 4.4** analyses and appraises information, opinions and observations to inform physical activity and sport decisions.



STARTING POINT

Technology is used to increase the number of people involved in physical activity and sport, as well as to enhance the performance of those people. It is ever-changing and dynamic, using new equipment, resources, tools, objects and gear to make sport better than before. At the same time that the use of technology increases, so do the questions we ask about its use.

- Is technology making physical activity and sport better?
- What impact will technology have on physical activity and sport?
- Is technology getting more people active?
- Who decides what technology should be allowed?
- What happens if you can't afford the new technology?

This chapter explores the issues of using technology and evaluating its impact, and how to manage technology use in physical activity and sport.

The contribution of technology to participation and performance

Technology has **widespread** applications in physical activity and sport. Technology has contributed since ancient Olympic times, when changes in the track or javelins may have resulted in improved performances.

When fruit and rubber from trees were used to make kicking balls in many different cultures, people played football-type games. Improvements in technology and **equipment** have made footballs longer lasting and have contributed to a decrease in injuries and an increase in performance.

The fields of sports science and technology are growing each year. The links between health and physical activity are well known, so the contribution of technology in improving our health and ability to be physically active is important. Consider the growing trend of medical professionals and scientists joining sporting teams to keep athletes primed for competition, to evaluate techniques and fitness levels, and to aid quick recovery from injury and illness.

The entertainment industry has closely intertwined physical activity and sport with technology. Mobile phones can now be used to watch sporting games, and how events advertise and cater for spectators is rapidly changing.

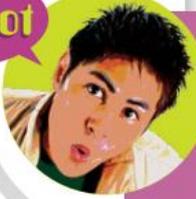
Figure 15.1 Improvements in technology have made longer-lasting footballs



Figure 15.2 Applications of technology in sport and physical activity



HotSpot



What specific technology changes and equipment do you see in modern physical activity and sport? Write a technology change or equipment for each letter of the alphabet.

A	J	S
B	K	T
Computer games	L	U
D	M	V
E	N	W
F	O	X
G	P	Y
H	Q	Z
I	R	

Preparation

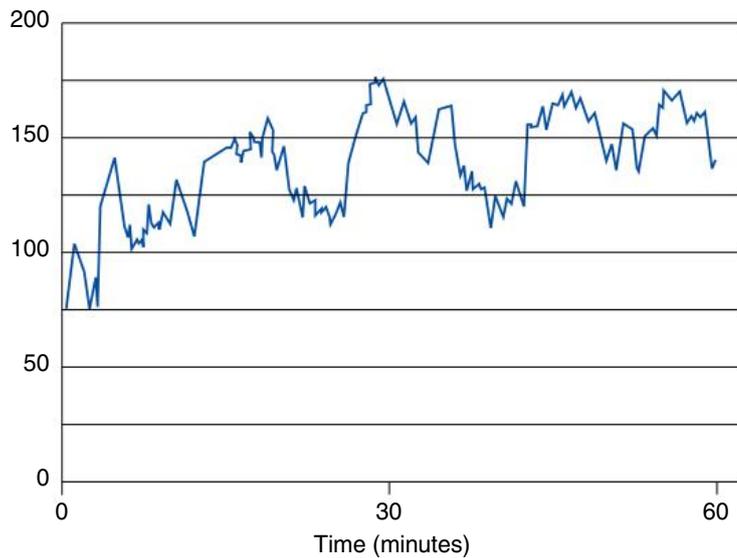
The need for preparation in physical activity and sport is not confined to the elite athlete. All people can use professional equipment and knowledge to enhance performance. To prepare for performance, a participant can use a variety of technology applications. This could mean drinking a sports drink, mentally preparing by listening to an MP3, recording their technique and modifying their action to improve skill, seeing a physiotherapist to assist healing of an injury or even using a treadmill to exercise.

Heart rate monitoring equipment can also help an athlete to prepare for an activity or sport. This equipment comprises a recorder and a receiver to collect data, helping a participant exercise at the required exertion level for best results and safety. The data collected includes the heart rate of the participant when training, time, distance covered, and average and peak speeds. It can also **compare** this information to that of other performances and participants. The data can be graphed visually for an athlete to analyse and monitor their performances, which assists with preparation by allowing an athlete to train with the required intensity, and evaluate what improvements they have made by comparing their other performances.

Technique analysis is another method frequently used for preparation. Using cameras and computers, an athlete is recorded when performing a movement or skill. The aim of technique analysis is to capture exact pictures of the athlete moving and to analyse them to make improvements. Coaches can identify weaknesses or incorrect technique and prepare a program to correct them.

Preparing for the performance is important in giving the participant every possible chance to succeed. Utilising good preparation will go a long way to ensure a good performance.

Heart rate
(beats per minute)



The maximum was 193 bpm, and the average was 134 bpm.

Figure 15.3
Results of a heart rate
monitor

Learning experience

- 1 What information does a heart rate monitor give an athlete? Look at figure 15.3 and answer the following questions.
 - a What does 'bpm' stand for?
 - b How long did the exercise session go for?
 - c What is the starting heart rate? Compare this to yours.
 - d What was their peak heart rate?
 - e How long did it take their heart rate to rise above 125 bpm?
 - f How long did they stay above 150 bpm?
 - g Evaluate whether or not this exercise session and data would be beneficial to the athlete.
- 2 Some technique analysis software utilises markers on a body to track what the body is doing, and then transforms this information into digital stick figures for analysis.

Where would you place 16 markers on these athletes (the golfer on the right and the dancer on page 244) to obtain enough information about their technique? (The dots would be about the size of a 10-cent piece in real life.)





- 3 Imagine you are the coach of an elite team of junior athletes. They are interested in using technique analysis software.
- Explain five benefits of using the technology to the athletes.
 - Describe three negative aspects or difficulties in using the technology.
 - Write a plan of how each of the 10 athletes could use the software over a two-week cycle.

Performance

Technology can be used to assist a participant during their performance. It can include changes and improvements in their clothing, equipment, hydration techniques and safety. New types of playing surfaces have also contributed to advances in performance standards.

Improvements in clothing have been made to increase the safety of athletes, to improve the ability of an athlete to move and to expand the marketability of clothing to the sporting public. Some improvements that have been made to clothing are outlined below.

- Advances in shoe technology have allowed for more comfort, and greater cushioning, stability, grip and style. Better shoes have led to fewer injuries, more **participation** and greater performance.
- Playing jerseys made out of lycra or other materials that draw out sweat from the body help keep an athlete's heat levels lower than previous jerseys did. Modern fabrics are also tougher and therefore last longer. However, this isn't always the case—the jerseys of the Australian Wallabies are believed to be 'one wear only'. They start to disintegrate after around 100 minutes of use, but are promoted as improving athlete performance by 5–10%.
- Compression clothing aims to enhance performance as the material provides support and muscle alignment. Improvements in removing lactic acid build-up and recovery from fatigue are promoted, with key athletes advertising these products.

Technological advancements have also seen many changes made to sporting equipment. Sporting equipment to enhance performance can range from medical, safety or actual playing equipment. For example, vast sums of money are spent on designing, trialling and using new sporting equipment to enhance performance. Athletes and sports have access to billions of dollars worth of scientific ideas, testing laboratories, scientists and materials to design and create equipment that is stronger, lighter, more easily controlled, faster and more resilient than ever. Athletes with a disability can also now be more active and involved in sports with enhanced medical equipment, such as wheelchairs, transport options and prosthetics for amputees.

Improvements in where sporting events are held and the surfaces on which they are played are also responsible for advances in the standard of play and a decrease in injuries to athletes. There have been improvements in the grass and level of surfaces, upgrading of hoops and posts, and greater use of watering and cleaning systems to ensure that surfaces last longer. People are happier to be spectators and to participate in clean and safe facilities, making technology useful in increasing participation.

Figure 15.4
Improvements in equipment and clothing can improve performance

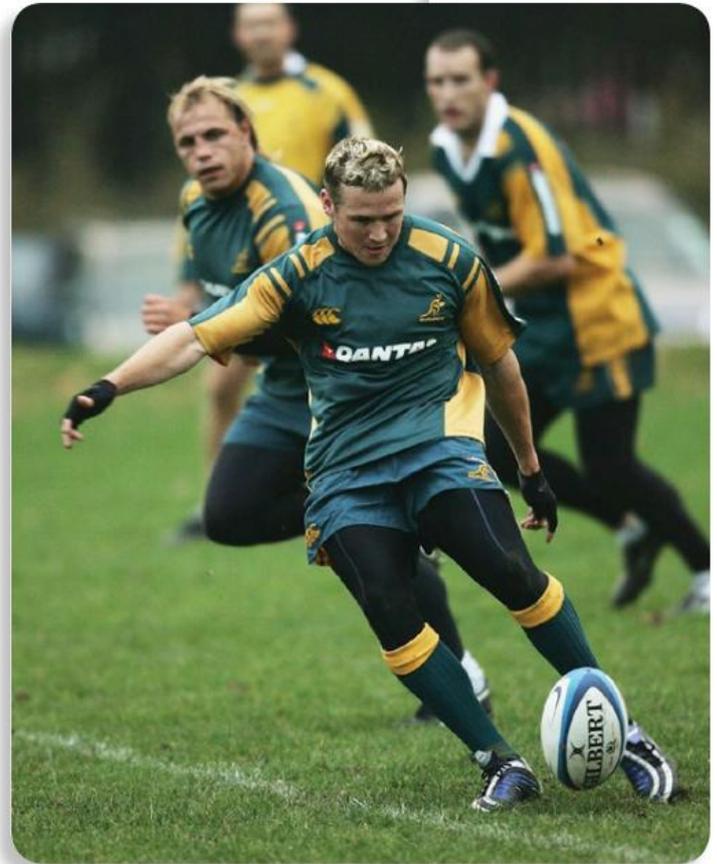


Figure 15.5
TigerTurf synthetic surfaces can be used for many different sports

Judging and officiating

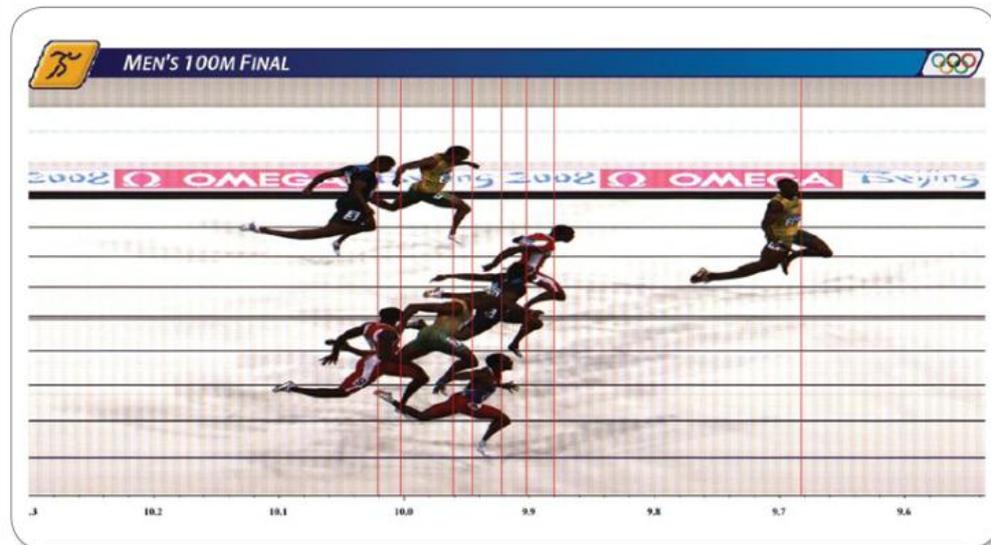
As physical activity and sport become more widespread, the pressure to use officials to make decisions is heightened. The invention of cameras, television, replays and the internet have transformed what tools are available to judges and officials. The Olympic Games first used electronic timekeeping and photo-finish cameras in Tokyo in 1964. Now they are used in every horse and dog race, and state, national and international racing events and can record down to 1/1000th of a second.

With the invention of television and recording devices, judges and officials are now able to replay situations in an event and to make a decision. These replays are also screened on large screens at the ground to keep spectators involved in the watching and decision-making. Tennis players can now challenge a call and ask for a replay of the result using video replay and computer digital technology. Video footage can also be used by officials at discipline meetings and judiciaries.

Sensor touch pads are now also used at the start or finish of many events, such as athletics and swimming. These touch pads give accurate timing to races and enable judges to record exact times to 1/1000th of a second. They can also catch an athlete who ‘breaks’ or starts before the gun.

Figure 15.6

Electronic devices record exact finish times



Wrong call

US 100m athlete Jon Drummond, was the second person to ‘break’ in a world championship final, thus being disqualified. He refused to acknowledge that it was him, despite the electronic touch pad indicating it was him. He laid on the track, causing disruptions in his race and many other events at the athletics meet. He finally relented and walked off in tears, still protesting his innocence.

‘It’s a wrong call. When the machine makes a wrong call, it’s all over—100 000 pairs of eyes could see, obviously, it was a wrong call.’ Ato Boldon, a friend and training partner of Drummond’s.

<http://espn.go.com/oly/news/2003/0824/1602022.html>

There are many aspects to wireless **communication** that have also assisted judges and officials to assess participation and performance, and to monitor the safety of people at an event. Officials can now communicate with each other and with athletes wherever they are. This allows them to send messages requesting athletes for drug tests or discussing details with officials about athlete performances or to issue statements about suspensions and bans. Other equipment, such as global positioning systems, radio transmitters, walkie-talkies and mobiles phones, also allow for greater communication between officials, coaches and athletes.

From: officials.world@sport.com

Subject: Suspension

Attention all officials.

The following athletes have been banned from competition due to admitted cheating and betting scandals. Please do not let them train in your facilities or mix with other athletes under your care.

Thank you.

Yours in sport,

Tommy Diamond

Judiciary Chairman

Figure 15.7

An example of a message that could be sent to officials around the world using internet technology

If the technology is available to assist the umpires, judges and referees to make a decision, should it be used? What are the positive and negative aspects of using technology to make decisions?



Learning experience

- 1 Form a group of two to four students. Select a physical activity or sport on which to write a report. Groups are to write about how much and which types of technology are used in that physical activity or sport. Use the heading 'The widespread use of technology in ...'

Make sure your report includes the following:

- an introductory paragraph that provides a definition and description of your topic
- a body that provides factual information about the topic
- a conclusion that summarises your main points
- technical terms (such as 'preparation', 'heart rate monitoring' and 'wireless communication')
- descriptive words (such as '*strong* and *resilient* protective helmet to provide safety').



The impact of technology

When assessing technology in physical activity and sport, both the positive and negative impacts need to be considered. Participants, officials, coaches and spectators will weigh up both these aspects and judge whether or not the technology would help improve the physical activity or sport. Understanding the short- and long-term impact of technology use can be difficult when it is first introduced.

Participation in physical activity

When looking at the impact of technology on participation in physical activity and sport, a number of questions need to be considered. Has technology impacted on the number of people involved in physical activity and sport? Has technology impacted on the amount of time people are involved in physical activity and sport?

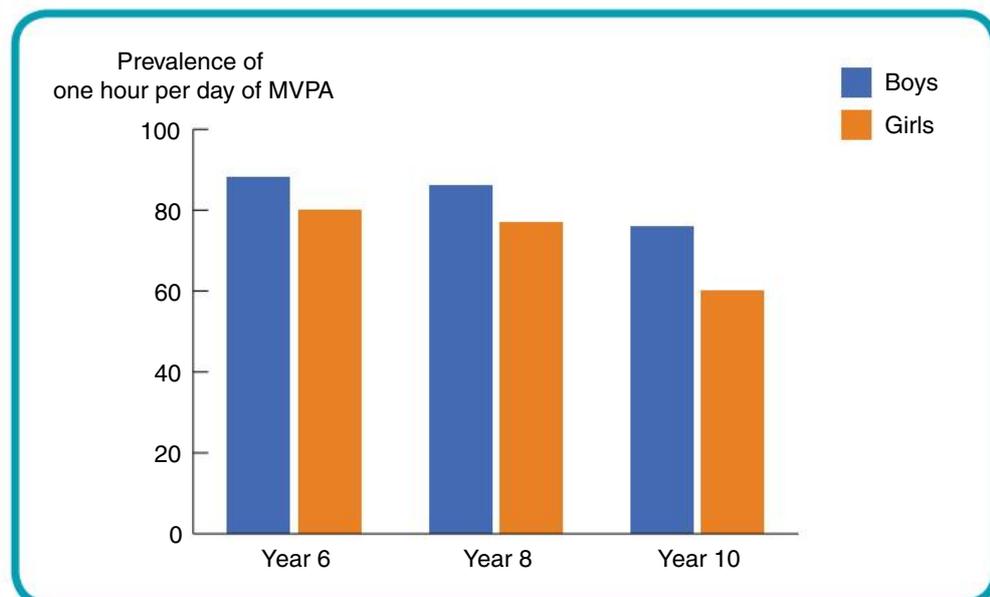
A positive impact of technology on participation has been increased access to and use of exercise equipment through gyms, schools and home use. Affordable treadmills, exercise balls, home gyms, weight machines and fitness monitoring equipment have allowed more people to access equipment and be active. Expansion of safety equipment and standards has also increased participation rates due to a decreased risk of injury, and a reduction in the severity and recovery time of injuries. Parents and guardians are more likely to allow their children to participate when safety equipment is used.

A negative impact of technology on participation has been the increased use of technology for recreation. Small-screen technology—which includes computers and the internet, game stations, television and mobile phones—has a particularly strong influence on decreasing participation rates in physical activity.

Up to 25% of Australia's young people are overweight or obese. What impact do you think technology may have had on these rates?

Figure 15.8

Prevalence of one hour per day of moderate to vigorous physical activity (MVPA) during summer school terms among boys and girls, in Years 6, 8 and 10 (%)



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	Boys			Girls		
	Year 6	Year 8	Year 10	Year 6	Year 8	Year 10
Small screen recreation	17.5	20.8	22.0	12.5	17.5	17.5
Education	2.5	5.1	6.0	3.0	5.8	7.0
Travel	1.0	2.3	3.0	1.3	2.8	3.0
Social	1.0	2.3	4.1	2.0	4.1	6.0
Cultural	3.7	3.8	2.7	5.3	3.8	3.3
Total	30.3	40.5	45.0	11.6	34.0	36.8

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Figure 15.9
Median hours per week spent in small screen recreation, educational, travel, cultural and social sedentary behaviours among boys and girls in years 6, 8 and 10 (%)

Learning experience

- Write down how many hours a week you spend doing the following activities.
 - Moderate to vigorous physical activity (MVPA)
 - Small-screen recreation
 - Education
 - Travel
 - Social activities
 - Cultural activities
- Compare your information to the figures 15.8 and 15.9. What is similar or different?
- Predict whether you think your results would be similar to your friends, people in other towns and cities in Australia, and people of different ages.
- Explain what some physical health and social consequences would be if these habits continue.



Improved standards

When discussing standards of performance, we consider items such as records, personal bests, averages, winning streaks, prize money, and biggest, longest, highest or deepest. In some sports and events, technology has greatly influenced results. World records for swimming and athletics are consistently being broken due to improved training and performance techniques, such as technique analysis programs, weight training with state-of-the-art equipment, and optimal nutritional guidelines.

Not everyone agrees that technology has been good for improving standards. New technological equipment has resulted in an expansion of negative incidences of illegal drug use and masking, in an effort to improve performance. There is often also an unequal distribution of equipment and resources between athletes, leading to inequity of results and performances. There is also a common belief that previous athletes were better natural athletes because they did not need new technology to assist them.

Enjoyment

Has technology heightened the enjoyment of participants in physical activity and sport? Has it motivated people and made their experience better? Enjoyment as a result of using technology can be assessed in three main areas of why people are involved in physical activity and sport: fun, friends and fitness.

Spectator appeal

Spectators are the people viewing a physical activity or sport, either live at the venue or in another place, such as at a home or club. Spectator appeal is about how the people viewing the physical activity or sport enjoy it. Spectator appeal can be enhanced through technology by delivering better facilities or media, and someone viewing a sport from home can often see more than if they were actually there. However, not all changes have been accepted happily. The media organisation filming the National Hockey League overlaid an image of a red arc when a player was shooting for goal to indicate how the puck would move in an ideal shot. This upset many fans who saw the arc as a disruption and annoyance. Flashing lights at an Australian Rules game indicate when the television broadcast has gone to a commercial, usually after a goal has been scored, impacting on the play continuing.

Learning experience

- 1 Unjumble the words in the table below to reveal technological changes of facilities at a **venue**.

When you have all of the words, write a sentence about each, describing either what you think of the change or an interesting story you have about it.

- 2 Read the following list of technology that is used by the **media**.

- Microphones
- Entertainment links
- Safety messages
- Commentators in a commentary box
- Reporters
- Websites and sports reports on television, the internet and in print media
- Camera positions and angles
- Internet live scoring
- Interactive viewing
- Video referees and umpires

Jumbled word	Unjumbled word	Sentence or story
kettic prachingus	ticket purchasing	I heard tickets being advertised on the radio for a basketball game; I checked on the internet what time tip-off was and rang on the phone to order tickets.
gnitae		
roesc obard		
sttoile		
doof and krinds		
sportart		
feasty and curityes		
moshathere		
mercedishan		



Now copy the table below into your workbook and write each item from the list under the heading that best describes how you think that technology has been used to enhance spectator appeal.

- 3** Write a response about how the media have used technology to enhance spectator appeal. Complete this by using a 'pass the paper' strategy in groups of three.

The first person writes an opening paragraph about the media's use of technology and passes it to the person on their left. Each person reads the first paragraph from the person on their right. They write a comment

on what is written, building on how they think the media has used technology to enhance spectator appeal. Again they pass the piece of paper to the person on their left. Addressing what has already been written, they note down their views.

Pass the work back to the original owner who will edit the work, read all comments and provide a final analysis judgment about the media's use of technology. If it has made it better, what positives and negatives for the spectators have there been and should it continue?

Analysis table

Has made spectators a lot happier	Has made spectators only a little bit happier	Has not had much impact on spectators at all	Has made spectators unhappy

Injury rehabilitation

The ability to recover from injury and spend more time involved in physical activity and sport is a key goal of injury rehabilitation. Technology has impacted significantly by assisting athletes to recover and be rehabilitated. Technology can either identify an injury through testing, or help to manage and heal the injury. Some equipment can even monitor an athlete's lactate levels and heart rate, and indicate stress, fatigue or overtraining, which can lead to injury or illness.

The benefits of rehabilitation for participants are:

- decreased time out of physical activity and sport
- decreased risk of re-injury
- decreased severity of injury
- increased health levels.



Webconnect

Research how the following technology is used to assist in injury rehabilitation.

- MRI
- Hyperbaric chamber
- Arthroscopic surgery
- Interferential
- Strapping
- Ultrasound
- X-ray

Briefly describe what each is and how it is used for injury rehabilitation. Name someone who either operates this technology or has used it to assist them to recover from an injury.

Figure 15.10

X-ray is an example of a technology used to assist in injury rehabilitation



Safety

When participating in physical activity or sport, no-one wants to be injured or hurt. Technology has the capacity to minimise the risk to people through providing barriers to risk. These barriers could be safety barricades between a racing car and crowds, clothing barriers like sunscreen and thermal jackets, or protective equipment between a very fast ball and very private parts in cricket.

Weather predications, made using sophisticated satellite imagery technology, that are broadcast in weather reports on the internet, television, newspaper and radio can also have a positive impact on safety. This information can assist athletes and officials in deciding whether events or training will go ahead, and what barriers they may have to put in place or what changes they have to make.

Clothing that improves safety when participating in a physical activity or sport is extremely important and is an area that sees continual technological advancements. For example, thermal clothing has the ability to protect the body from weather extremes. It includes equipment for all parts of the body and for different phases of the activity or journey (walking, sleeping and water activities). It is used in a range of physical activities, predominantly outdoor adventure and water or snow activities. Technology has improved thermal clothing, making it lighter, fire resistant, more resilient, stronger, highly visible and easier to carry or store.

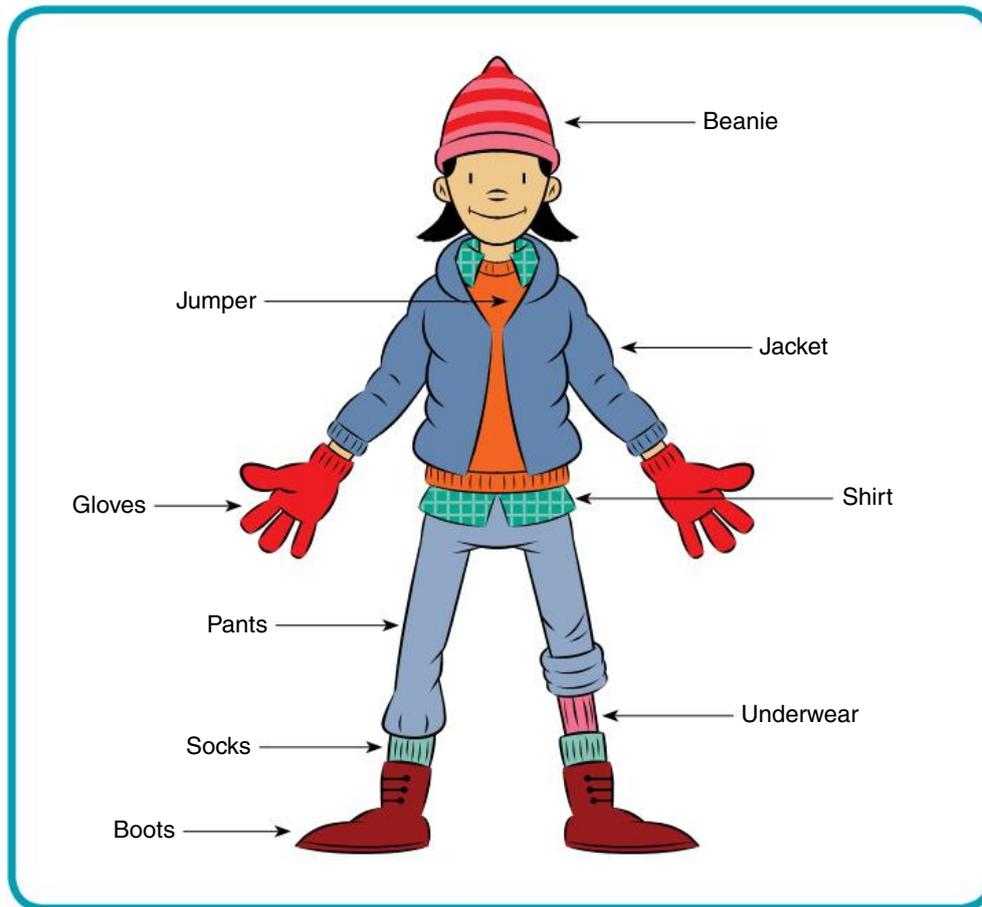


Figure 15.11

Thermal clothing provides protection against the environment

In order to participate safely in physical activity or sport, it is sometimes required that protective equipment be worn or be used by a venue. Protective equipment includes items such as mouthguards, helmets, gloves and knee or leg pads. Protective equipment at a venue can include padding on posts, poles or fences, netting or mats under jumping equipment, barricades and sand traps at motor racing events.

Learning experience

- 1 You are the busy organiser of physical activity and sporting events in your extremely active local area. Consider the following events and the weather forecast that accompanies each.
 - a Decide whether each event will still go ahead.
 - b If it will go ahead, write five things you will do to minimise the risk to athletes and spectators.
 - c If it will not go ahead, write five things you will do to postpone the event to another time.

Event 1: 10 kilometre fundraising run

Forecast: hot

Temperature: 35 degrees

Wind: no wind

Rain: no chance

Humidity: high

Special notes: hottest day predicted in two years, 1000 people expected at the event, \$10 000 expected to be raised



Event 2: school swimming carnival

Forecast: hot and sunny with a late change

Temperature: 30 degrees

Wind: light breeze, easterly

Rain: chance of a thunderstorm around 2 pm

Humidity: high

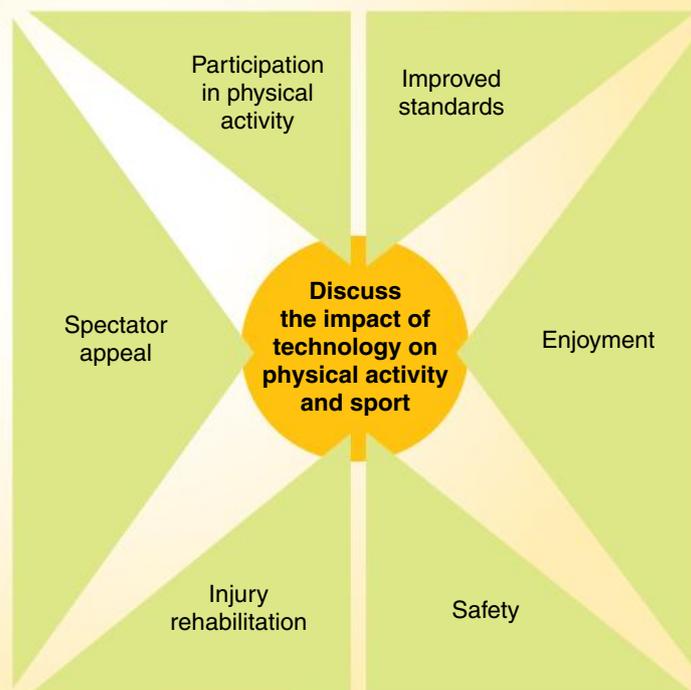
Special notes: adults and children aged 12–18 in attendance, 800 people expected at the event

- 2** Which physical activities and sports would use the following protective equipment? Aim to identify at least five activities for each type of equipment.

- Helmet
- Headgear
- Glasses
- Goggles
- Mouthguard
- Shoulder pads
- Tackle suits
- Fire retardant suits
- Arm guard
- Elbow pads
- Gloves
- Chest guard
- Groin protector
- Kneepads
- Shin pads
- Boots or shoes
- Strapping tape

- 3** In groups of three or four, discuss the impact of technology on physical activity and sport. Make sure you address all of the areas outlined in the figure below.

Write down examples of positive and negative impacts technology has had on physical activity and sport in relation to each of the areas identified in the figure. Now write your final conclusion about whether the impact of technology on sport physical activity has been largely positive or negative.



Final conclusion:

The impact of technology on physical activity and sport has made them _____ because:

The ethical implications of technology

Ethics is the study of people's beliefs, values and principles. It can be what they see as right, **fair** or decent. The core question around ethics and technology in sport is whether technology has changed basic sporting values of competing fairly for honourable achievement into competing for personal advantage and commercial gain. More specifically, key ethical implications of technology use include:

- whether it is fair to compare athletes who use technology (such as special swimsuits) with others (past and present) who do not, whether or not this is by choice

- whether the cost of technological applications in sport can ever be fairly accessed, especially by those from poorer nations
- whether the power of technology in extracting improved performance has led to illegal activities, such as use of performance-enhancing drugs
- whether advertising revenues through media coverage have adversely impacted on the nature of sporting experiences.

Comparability of performance

Comparability discusses how we can match different players and teams from different years, countries or sports. A balanced approach means looking at the standard of opposition participants competed against and the impact they had on the time and future of their game, in conjunction with the records they may have set.

With modern technology, being able to compare players and teams has become easier. More statistics and images are kept of modern players. This enables two players to be put side by side and compared. This can be done by viewing two players in comparison next to each other on one screen, and viewing their statistics, their best moves, their best games or watching the opposition they played against.

Technological advances in transport have also impacted on sport and physical activity, with positives and negative **consequences**. Air travel allows participants to travel vast distances to compete against equal opposition regularly; however, more travel can also fatigue athletes.

A participant in modern day sports might not have succeeded in the past, but by using modern technology in relation to nutrition, weight training, skill analysis and coaching feedback, they have significantly improved and record outstanding performances.

Figure 15.12

Technological advances in clothing and equipment have significantly improved performances





Learning experience

When comparing players and teams of two different times and eras, a wide range of statistics, stories and records, and understanding of their impact needs to be recognised.

- 1 Create a set of criteria to gather information about two players or teams. The criteria should assist you in looking at their similarities and differences, evaluating how good they were and weighing up who had the biggest impact on their sport.
- 2 Choose two athletes or teams from the one sport. Try to select examples that are separated by at least 20 years.
- 3 Assess both teams or individuals against your criteria. Judge what strengths each brought to their sport, who had the biggest impact on the sport and who you think is ultimately better.

Examples of individuals you might choose include:

- Lance Armstrong and Eddy Merckx (cycling)
 - Peter Brock and Mark Webber (motor racing)
 - Catherine Cox and Anne Sergeant (netball)
 - Layne Beachley at age 18 and Sally Fitzgibbon at age 17 (surfing)
 - Dawn Fraser and Eamonn Sullivan (swimming).
- 4 Discuss the following questions in small groups.

Considering the ethics of comparing across time and space, is it right to compare? Should we be satisfied that there were great athletes in different eras knowing they were the best for that time?

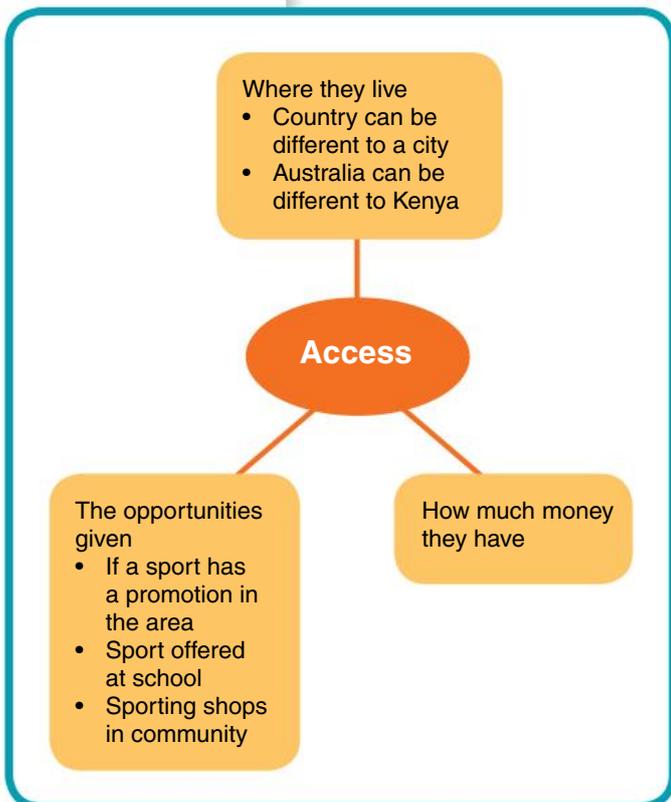


Figure 15.13
Technology access

Access and equity

Access to technology is about being able to use and take advantage of the resources that are available. Resources include all of the technological equipment mentioned in this chapter, in addition to the funding, support and science of governments and sporting organisations. Equity is about fairness and the spreading of resources to all people and communities who need it. Equity is not about making sure everyone has an equal amount, but a fair amount.

Limited access to technology resources can limit opportunities and lead to inequity of results. Sometimes participants have better access to technology resources because of where they live, how much money they have and the opportunities they are given.

Technology now has the capacity to assist referees and umpires with their decision-making. Video referees, slow motion replays, wireless communications and photo finishes can all help an official make a decision. Has this improved physical activity and sport,

or made it fair for all participants at different levels of competition? It costs a lot of money to purchase, install and maintain this technology, and to train people in using and evaluating the results. This results in the technology only being used in events for which it is financially viable to do so. For example, the National Rugby League allows the use of video referees for its first-grade premiership, finals and representative games, but not for any other levels. This is because not all grounds have the access or resources to use the technology and because the costs of implementing it at all grounds are too high.

Access to technological resources can impact on which physical activity or sport is available or offered. It can determine which sport you have equipment for, how much coaching is available and the chance to compete at state, national or international levels.

- 1 In small groups, debate the following comments.
 - More money is being spent on creating performance-enhancing drugs and the masking agents to cover their use than on catching the drug users themselves.
 - Performance-enhancing drugs should be allowed for all athletes—then the competition would be fair.
 - People caught using performance-enhancing drugs should have to name their supplier.
 - Drug testing authorities should have access to an athlete any time and anywhere.
- 2 Have advances in technology meant that the standard of refereeing and umpiring has dropped? Use three physical activities or sports and describe what technology is used and the impact it has on results and spectators, and make a final judgment about the standards of refereeing and umpiring.



HotSpot

Illegal use of technology

When technology is used outside of the **rules** or behaviour codes that govern its use, it can be classed as illegal. This is because the illegal use of technology is not fair and equal to all participants and can result in unfair results.

Technology that can be used illegally includes:

- performance-enhancing drugs and their masking agents
- video spying technology used to monitor other teams or athletes
- genetic modifications, which may include altering the genetic make-up of an embryo to supplying an athlete with hormones or substances to change their body.

The use of illegal performance-enhancing drugs has contributed to participants making unfair gains in performance and personal bests. This is due to the drugs' ability to help the athlete recover faster between exhaustive training sessions or to boost the body's ability to handle performance. Extensive amounts of money are spent by organisations such as the International Anti-Doping Authority and the Australian Sports Anti-Doping Authority to keep current with the illegal substances and masking agents that are being used by athletes. In Australia, most registered sports have established guidelines for drug use, testing schedules and consequences for athletes who are caught.

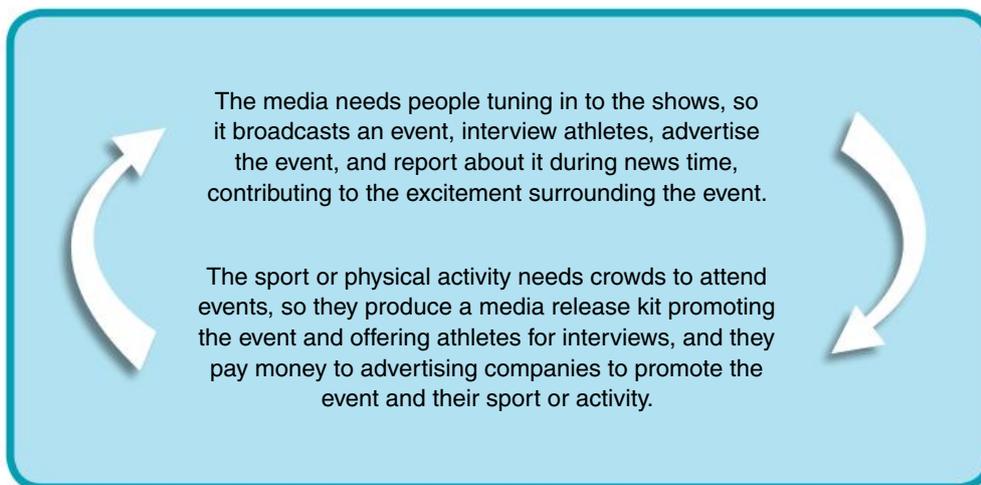
Media, marketing and profit

If the role of the media is to inform and entertain all within a budget, then opportunities to make a profit from physical activities and sports exist. The media relies upon physical activities and sports to generate audiences for its programs in the same way those activities and sports have come to rely on the media to generate greater interest and support.

It is often the physical activities and sports with access to money, supporters in the media, and a large spectatorship that have the greatest chance to profit; for example, sports such as cricket, football, basketball, swimming and motor racing events. Profit for the athletes and competitors can be generated from a number of sources, including sponsorship; promoting books, DVDs and CD-ROMs; the development of computer games; interviews in papers, magazines and television shows; merchandise; and guest appearances.

Figure 15.14

Sport needs the media and the media needs sport



Learning experience

- 1** List all the computer games you can think of that involve a physical activity or sport.
- 2** Categorise the games into groups that are similar; for example, sport-specific (cricket and football), racing, tactical, uses one hand-held controller that is same for the majority of games or uses a game-specific controller.
- 3** Choose your favourite three games (they should all come from different categories that you listed in question 2) and answer the following questions.
 - a** Why are they the best?
 - b** Who makes a profit from the purchase of this game?
 - c** How did you find out about the game?
 - d** Can it be linked to other players online?
 - e** Does this game make the player more or less physically active? Why?
- 4** Evaluate the role marketing has in promoting this game. Where it is marketed, to whom is it marketed and how (for example, celebrity endorsement)?
- 5** Evaluate benefits and the negative points that come from playing these games.



The evaluation and management of technology

With each new piece of technology that becomes available, decisions need to be made about its usefulness and usability. Understanding the impact of the technology on the physical activity's or sport's rules and etiquette, strategies and tactics, techniques and equipment, spectator appeal and media marketing needs to be considered before the technology is allowed into use. It is important to know who decides what can and can't be used, when it could be used and if it is beneficial for the activity.

Groups responsible for monitoring technological advances

There are many groups that take **responsibility** for deciding if new technological advances can be used, and ensuring that the impact of these technological advances are beneficial. These decisions are made with an awareness of the possible consequences of the change.

Each physical activity and sport has a peak organisation that is responsible for managing and coordinating the sport. These organisations usually include players, coaches, clubs, sponsors and an administration group. They are often the first to see new changes, and may request that new technology be developed by sporting and science companies. In Australia, the Commonwealth Government has funded organisations to monitor and manage technological advances. Importantly, the Australian Sports Commission was established to oversee the administration of all sports, coaching, sporting competitions, ethical issues and technological changes, and the progression of athletes from junior and local levels to advanced representative and professional levels.

Rule modifications to reduce the impact of technology

Physical activities and sports have changed significantly with advances in technology. To make physical activities and sports equal and fair for all people, administrators have created or modified rules to try and ensure a level playing field. Modifications to rules are also often made in an attempt to limit the possible impact of technology on a sport, and to keep the sport as a test of human sporting skill and ability, and not a test of available technology.

Modified rules can relate to playing equipment and safety. Equipment must conform to standard requirements of height, width, depth, length, weight, material and speed. For example, in cricket the overall length of the bat must not be more than 96.5 cm. The blade of the bat must be made solely of wood and cannot exceed 10.8 cm at the widest part. Rules around safety are modified to reduce risk of injury due to technological changes. Rule changes may address engine size in motors, the size of a playing area or the distance between opponents. For example, in horse riding, all jockeys must wear a protective vest and helmet when riding.

From codeine to a dose of code two

A Sydneysider who fears tennis has brought itself to breaking point is lobbying for a revolutionary version of the sport to end the pain, writes Philip Derriman.

During his long career as a broadcaster, Alan McGilvray often called on cricket authorities to do away with the leg bye, arguing it was plainly nonsensical since, by definition, it rewarded the batting side for a batsman's error—trying to hit the ball and missing.

McGilvray was an influential figure in cricket, yet his crusade against the leg bye got nowhere, showing how hard it is for an individual to persuade a sport to change its rules.

Gary Simmonds of Sydney, a student of tennis and former coach, is aware of this, yet he has begun a similar crusade of his own: trying to persuade tennis authorities to introduce new rules—or, rather, revert to old rules—to reduce injuries. His submission is about to be forwarded to the International Tennis Federation.

He says injuries in elite tennis are occurring at an alarming rate. In the past three years, Gustavo Kuerten, Guillermo Coria, Tommy Haas, Mark Philippoussis, Pat Rafter, Goran Ivanisevic, Thomas Johansson, Lindsay Davenport, Kim Clijsters, Serena Williams, Alicia Molik and Martina Hingis have all had surgery to repair various injuries.

Numerous others have been sidelined by injury for certain periods, among them Juan Carlos Ferrero, Andre Agassi, Carlos Moya, Marat Safin, Venus Williams and Jennifer Capriati.

While nobody doubts the nature of the modern game is responsible for the injuries, few people seem to understand why and how. Even fewer have come up with a remedy.

Having spent three years researching the subject, Simmonds is not only convinced he has identified the causes of the injuries, but believes he knows how the problem can be fixed.

He argues the bulk of the injuries stem from five features of modern tennis—the airborne serve; double-handed groundstrokes; the extreme groundstroke grips, both forehand and backhand, that are encouraged by big-headed racquets; the obsession with fitness, which leads to overtraining; and unsuitable court surfaces.

He has produced a detailed analysis to show how each of the five factors puts the body under extra stress. The airborne serve means a player lands on the same foot over and over, jarring the leg and hip; double-handed shots force players to take an extra

half-step to get to the ball, resulting in stretching and straining; and extreme grips cause players to contort themselves while dealing with low balls, thereby harming spines and various joints.

Because all these factors are the product of rule changes in past decades, his solution is to change the rules back. Thus, Simmonds would like to see players keep one foot on the ground while serving (obligatory until 1958), double-handed ground strokes prohibited and racquet heads reduced in size.

In other words, tennis would be played much as it was until the 1950s, when, significantly, injuries were not nearly as common.

According to Simmonds, although the ITF might see the logic, it would be reluctant to act for fear of being sued by racquet manufacturers, which have invested heavily in big-headed racquets, and by players, who might claim loss of livelihood.

He therefore proposes that the ITF should introduce a second version of tennis incorporating the safer rules, which he calls 'code two' tennis. There would be no risk of litigation, he says, since everyone could choose to keep playing under current rules with modern racquets, but he believes players would gradually switch of their own accord to code two tennis to avoid injury.

As a bonus, he says, the game would regain much of its old style, variety and subtlety and so have more appeal for spectators.

'Tennis players are great imitators,' Simmonds says. 'If they see a successful player doing something, they'll incorporate it without knowing whether it's beneficial or harmful.'

The worst example of this, in his view, is John McEnroe's serving stance. McEnroe stood facing the side of the court, then hopped front-on to get into a follow-through position. 'Players with the McEnroe stance—they've got troubles, all of them,' Simmonds says. 'It upsets the shoulders and the front leg.'

Simmonds says large-headed racquets have much to answer for. By making top-spin strokes with extreme grips easier, they have encouraged a baseline running game, which has required players to be super fit—leading to injuries from overtraining.

'There's now a huge emphasis on running. It's constant-movement tennis. All Lleyton Hewitt does is run, run, run. When you run and run, back and forwards, people in the gallery start to feel tired, too. Players are not only wearing themselves out, they're wearing spectators out. The game is speeded up and every shot looks the same.'

A return to old rules would revive obsolete shots such as the underspin lob, which could usually be retrieved, allowing the rally to continue. Instead, today's big-headed racquets enable moderately skilled players to hit top-spin lobs for winners, deterring players from coming to the net.

'There's no incentive to come in and volley, which is why there are only a few serve-volleyers left,' says Simmonds. 'Once you get down to baseline tennis only, the game is reduced because you're not using the whole court.'

Learning experience

Read the article 'From codeine to a dose of code two' and answer the following questions.

- 1 What are the main injuries occurring to tennis players in modern times?
- 2 What impact has technology had on the game of tennis?
- 3 What are some possible solutions to reduce the impact technology has on rules?
- 4 How would these changes affect tennis equipment companies?
- 5 What consequences might the rule changes suggested by Simmonds have on tennis?



Future perspectives

So what does the future hold for physical activities and sports? How will technology change what people participate in and the level of performance? What technology changes will make our activities better and what changes will make the activities very different to what we now have? Considering the immense changes that science and the media have had on modern-day physical activities and sports to date, and the rapid growth of both of these areas, it is difficult to predict what further changes will occur and what their consequences will be.

Consider what we are currently seeing in the world, as well as in physical activities and sports, and try to imagine what the next evolutions and changes may be:

- increased use of personal technology, such as mobile phones, MP3 players, the internet and computer games
- increased involvement in world issues, leading to blogging, volunteering, demonstrating or participating in events
- interactive viewing of television, which includes the ability to skip advertisements, select a variety of shows to watch at once, view statistics on screen, and help decide winners and losers (in reality-based shows)
- scientific changes in genetics and medicines, including debates over cloning and stem-cell research. The research and treatments available for disease are also improving, meaning the average life expectancy could increase to around 100 years—balance this with the fact that approximately one-quarter of Australians under 25 are overweight and obese
- computer-generated imaging, which can create images and virtual people. This technology allows an athlete's movement to be created on computer, analysed and improved, or to have virtual reality sports and activities.

Chapter cloze

Technology has the capacity to increase _____ and enhance performance. There are widespread uses of _____ that have changed the way we play and watch physical activity and sport. With developments in clothing and _____, medical breakthroughs, and advances in _____ and judging tools, everyone is impacted on by technology.

The impact of technology has both positive and negative _____. Great improvements in record breaking and personal bests have been confirmed, but how would our heroes of the past have _____ if they were able to utilise recent technological advances?

Understanding the right and _____ use of technology is important to ensure that physical activity and sport remain just and open for all people. The future of technology in physical activities and sports is important for all people involved to take some _____ for. _____ and limits need to be set so that physical activity and sport results represent the athlete's skill, athleticism, training and effort, and not the science or unfair technologies they have access to.

communication
compared
consequences
equipment
fair
participation
responsibility
rules
technology

Review questions

- 1 List six technological changes that have improved a physical activity or sport.
- 2 Explain strategies to limit the impact of technology.
- 3 Describe how judging and officiating has improved through the use of technology.
- 4 Discuss how technology has impacted on the Olympic Games.
- 5 Evaluate the degree to which technology has created equity for participants in physical activity and sport.

18

Event management

OUTCOMES

In this chapter a student:

- 1.2** analyses the benefits of participation and performance in physical activity and sport
- 3.2** evaluates the characteristics of enjoyable participation and quality performance in physical activity and sport
- 4.1** works collaboratively with others to enhance participation, enjoyment and performance
- 4.2** displays management and planning skills to achieve personal and group goals
- 4.4** analyses and appraises information, opinions and observations to inform physical activity and sport decisions



STARTING POINT

Event management is a growing industry in many areas of organisation. The success of an event depends on a lot of factors. This chapter outlines the processes that may be used to effectively manage an event.

One of the most memorable events for New South Wales was the organisation and management of the Sydney 2000 Olympic Games. This event took several years to organise, with the management team relying on a large group of volunteers to assist in the successful running of all events.

Structures and formats

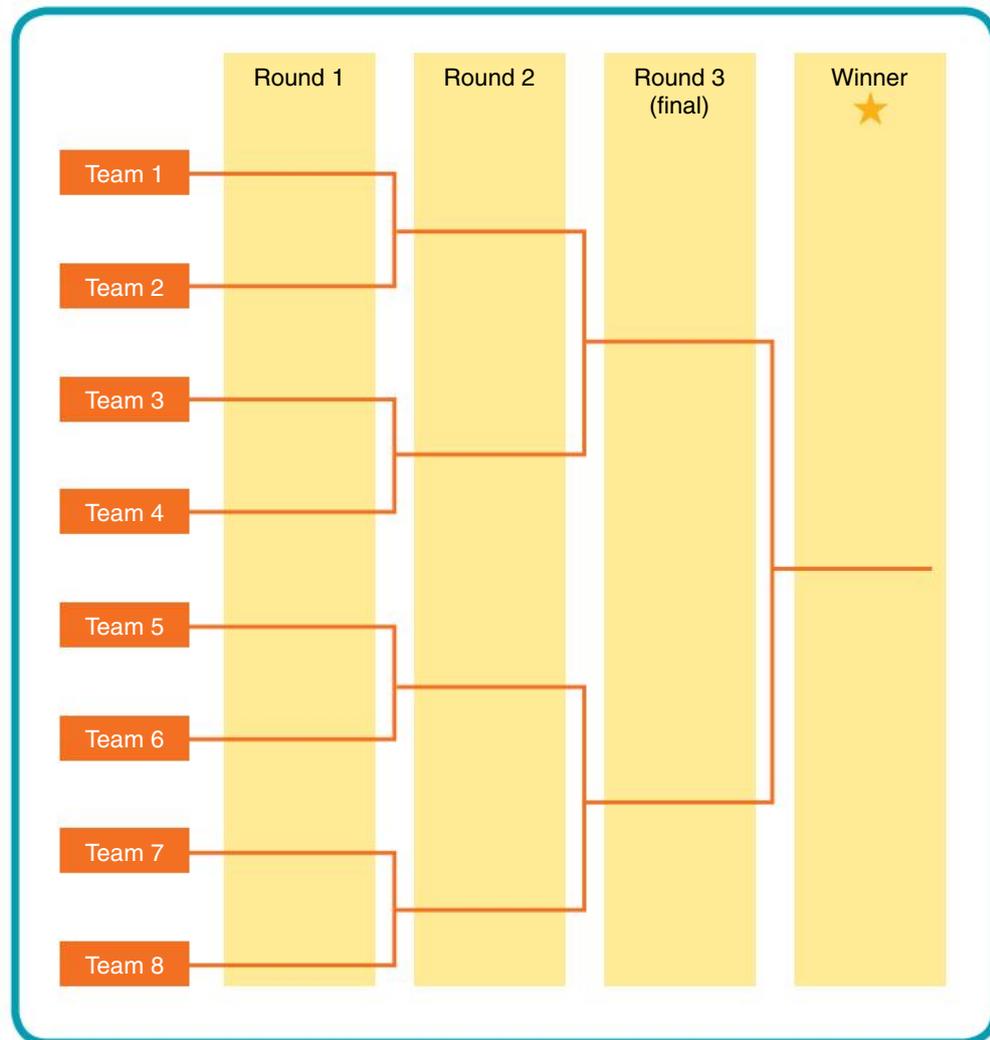
There are many ways to run an event, and the structure or way that it is organised will determine the success of the event and the management of the people attending. A successful event will have certain structures and formats in place to ensure that everything runs smoothly. Every sport uses a particular format to enable the smooth running of an event—for example, interschool sports are run using a round-robin or knockout format—and it is up to the organiser to apply the correct format for the designated sporting event or activity.

Knockout, round robins and pools

If the event to be managed involves a team or individual sport of a competitive nature, it is likely that a fair system of play whereby each team or individual will play all other teams or individuals in the competition one or more times will be planned.

A knockout competition involves several rounds of competition. Teams or individuals are placed in a draw to determine the order of play. If a team or individual is successful and they win their round, they advance to the next round. If they lose, they no longer continue in the competition. This form of competition is relatively easy to organise when a large number of teams or individual competitors are involved. Figure 16.1 is an example of a knockout competition draw for eight teams.

Figure 16.1
Example of a knockout
draw



A round robin competition involves all teams or individuals in a competition playing each other for points. Each team or individual usually plays each other more than once. This type of event is often held and is the basis for Saturday sport in Australian sporting competitions. For example, netball, rugby league and soccer competitions all run round robin events. Figure 16.2 is an example of a round robin competition draw.

Each team is given a number and team 1 remains stationary while the other teams rotate in a clockwise direction for each round. No team plays each other more than once in a round and when all rounds are complete, each team has played each other once.

The following example illustrates a round robin with an even number of teams.

Round 1	Round 2	Round 3	
team 1 plays team 2	team 1 plays team 3	team 1 plays team 5	
team 3 plays team 4	team 5 plays team 2	team 7 plays team 3	
team 5 plays team 6	team 7 plays team 4	team 8 plays team 2	
team 7 plays team 8	team 8 plays team 6	team 6 plays team 4	
Round 4	Round 5	Round 6	Round 7
team 1 plays team 7	team 1 plays team 8	team 1 plays team 6	team 1 plays team 4
team 8 plays team 5	team 6 plays team 7	team 4 plays team 8	team 2 plays team 6
team 6 plays team 3	team 4 plays team 5	team 2 plays team 7	team 3 plays team 8
team 4 plays team 2	team 2 plays team 3	team 3 plays team 5	team 5 plays team 7

When there are an odd number of teams competing, a bye is included in each round (where one team doesn't participate in the round). When all rounds are complete, each team will have had one bye. The following example illustrates a round robin with an odd number of teams.

Round 1	Round 2	Round 3	
team 1 plays team 2	team 1 plays team 3	team 1 plays team 5	
team 3 plays team 4	team 5 plays team 2	team 7 plays team 3	
team 5 plays team 6	team 7 plays team 4	team 2 has a bye	
team 7 has a bye	team 6 has a bye	team 6 plays team 4	
Round 4	Round 5	Round 6	Round 7
team 1 plays team 7	team 6 plays team 7	team 1 plays team 6	team 1 plays team 4
team 6 plays team 3	team 4 plays team 5	team 2 plays team 7	team 2 plays team 6
team 4 plays team 2	team 2 plays team 3	team 3 plays team 5	team 5 plays team 7
team 5 has a bye	team 1 has a bye	team 4 has a bye	team 3 has a bye

In competitions in which there are a lot of teams entered, a pool system of organisation is used to ensure all teams play in the shortest time possible. This could occur in a single day or over several days, depending on the number of teams and the facilities available for the sport. Pools are used when there are more than seven teams in a competition. The most common structure is a two-pool carnival or, in the case of a lot of teams (more than 12), a four-pool carnival. For example, in a two-pool structure, teams are ranked in order, or randomly allocated to a pool if the standard is similar, and two groups will be formed. They will be Pool A and Pool B. Each team in Pool A will play each other and each team in Pool B will play each other. The teams will be awarded a place in their respective pool and the finals will take place as follows:

- semifinal—the winner of Pool A plays the runner-up of Pool B
- semifinal—the winner of Pool B plays the runner-up of Pool A
- final—the winning team of each game will play each other in the final
- play-off for a place—unplaced participants of the other games play off for a place.

Figure 16.2

Example of a round robin draw

Carnival of events

A carnival of sporting events is usually held for one or more sports over a period of one or more days, and consists of heats and finals in some events. School carnivals are held every year to enable competitors a chance to advance and to achieve further experience in their chosen sport. For example, swimming, cross-country running and track and field (athletics) carnivals are often held annually. Other carnivals that involve a variety of team sports are also held, often in the form of a gala day carnival.

There are some basic steps to organising a carnival. For example, a swimming carnival will have an organiser or manager who will oversee the management of the carnival. This person will book the venue well in advance (usually a year ahead) and communicate with the pool staff on matters of first aid, grounds and pool regulations. The organiser will then set the order of events and arrange for a program to be printed, arrange for the collection of any equipment to be used on the day, and delegate the duties of all staff and **volunteers** for the carnival, such as an announcer, a starter, time keepers, judges, marshals and recorders. Planning and communication of these roles, with instructions of the duties, is crucial to the smooth running of the events on the day. The organiser will oversee the running of the carnival on the day and deal with any issues that may arise, such as staff rotation and disputes or appeals for any events.

HotSpot



In small groups, organize a knockout draw competition (see page 264) for one of the following sports:

- touch
- netball
- doubles tennis
- indoor soccer.

Write a proposal for running this competition at your school, including an explanation of:

- how costs would be covered
- sponsorship ideas
- how you'd promote the event
- plan of venues and dates.

Submit your proposal for consideration by your teacher.

Learning experience (ICT)

Using Excel, create a document to record a bank of results for events at one of the following carnivals:

- athletics
- swimming
- cross country
- surf lifesaving.

Include details such as the name of the event, the event number, results for heats and finals, places and points gained (for example, 1st to 4th), and the sex and age of the competitors. You could also include the house points or any other relevant information you want to add to your program.

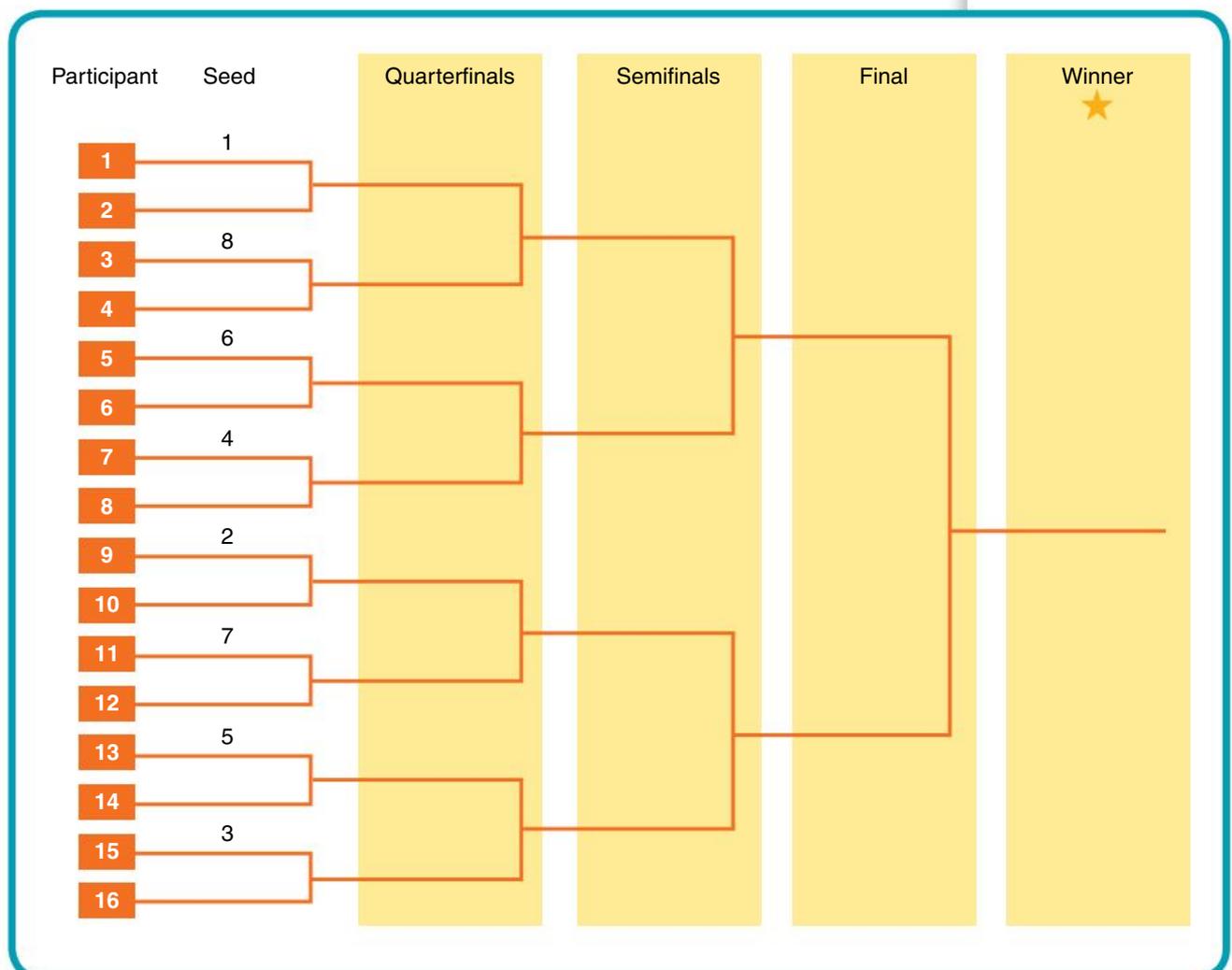
Handicapping and seeding

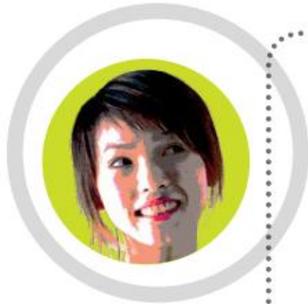
A very rare but effective way to run a race and have a close finish is to seed, or rank, the competitors according to previous performances and to then set a handicap in distance or time. This can help create an exciting and challenging race. Quite often, cross-country running clubs will grade or allocate a handicap time for a staggered start and an exciting finish. One of the most famous races that is handicapped or **seeded** in Australia is the Stawell Gift sprint race held in Victoria every year. Another example of a sport that uses handicapping is golf. Golf clubs oversee and administer a handicap to their players, and a set formula is used to determine a player's handicap. Players need to play a round of golf and gain a certain number of strokes or shots to reduce or increase their handicap. The handicap is used to calculate a score. A net score is determined from the gross score (number of strokes or hits taken) by subtracting the player's handicap from the gross score. The player with the lowest net score is the winner.

A seeded knockout competition is used often for a tennis tournament. This is where the highest ranked players entered in a competition are seeded (placed in order of best to worst) so that they do not play each other before the final rounds of the competition. An example of a seeded knockout is shown in figure 16.3.

Figure 16.3

Example of a seeded knockout draw with sixteen participants





Webconnect

Using the following website, research the Stawell Gift foot race and answer the questions below: <www.stawellgift.com>.

- 1 When did the Stawell Gift begin?
- 2 What is the distance covered in the Stawell Gift?
- 3 Name the winner of the most recent race.
- 4 What time of year is the Gift run?
- 5 If a runner has a handicap off scratch, where do they start?
- 6 What major change was made to the distance in 1973?
- 7 When was electronic timing introduced?
- 8 Calculate the average handicap distance of the winners from the past decade.

Expeditions

One of the most challenging events that can be organised is an outdoor **expedition**. An expedition involves many skills, and the concept of an expedition can be as simple or complex as you want it to be. It can be as simple as a planned bushwalk or as complicated as completing a challenging set program of achievements. There are many companies that specialise in the management of expeditions for team-building and cohesion purposes, and other set programs can be followed to achieve personal goals, such as the Duke of Edinburgh's Award.

The Duke of Edinburgh's Award has four key areas—Skills, Volunteering, Adventurous Journey and Physical Recreation—and requires participants to complete self-development activities that address each of these areas. The section that involves an expedition is the Adventurous Journey section. (For more information, go to <www.dukeofed.org.au>.)

Learning experience

Study the following journal entries on page 269, 'Jane's great journey', and answer the questions that follow.

- 1 What were Jane's priorities when packing her backpack?
- 2 What changes in preparation could Jane have considered before arriving at her departure point?
- 3 What essential items should Jane have considered taking on her expedition?
- 4 Why do you think the expedition was technology-free?
- 5 What is Jane's perception of the expedition and how did it change from day one to day four?
- 6 Complete this journal by writing a short entry for the remainder of day one, day two and day three.



Jane's great journey

The day before leaving

I am so excited I know I will not be able to sleep tonight. Today I meticulously packed everything I'm going to need in my backpack. I couldn't find the preparation list our leader gave us, so I used my initiative and improvised. My essentials are my trusty mobile phone, a change of clothes for each day (four days in total), hairspray, hair accessories for each day, a light make-up bag, muesli bars, my favourite tinned pasta and two bottles of Coke, as I figure I'll be really thirsty when we stop to rest by the peaceful flowing creek. So now I'm all set and ready to explore the Australian bush. I can't wait to go. This is going to be a fully sick expedition.

Day 1

I woke up so tired today that I could hardly raise my head from the pillow. After a wonderful hot shower I put on my cargo shorts and T-shirt, and slipped on my favourite shoes. I tried to lug my backpack into the boot of the car but it was so heavy I had to get Dad to put it in for me. I guess it will be lighter when I eat and drink some of my supplies along the way. When I arrived at our departure point our group leader did a bag inspection and promptly tossed out my Coke, make-up and hair accessories, and I was also told to give my phone to my Dad, as it's going to be an electronic-free expedition! What am I going to do for four days? This is going to be the worst four days of my life ...

Day 4

Thank goodness I made it home. I can hardly write. I'm starving, I'm so exhausted and I have dreadful blisters all around my heels. My hair looks terrible and I can't wait to get in a warm shower and scrub the dirt off my dry skin. It was a journey I will remember for the rest of my life!

Tabloid sports

A **tabloid sport** event or tabloid game is a range of activities set up in the form of stations. The stations can be used by a large group of participants who move around the stations in a set period of time, carrying out the physical activity that is set at each station. See figure 16.4 on the next page for an example of a tabloid circuit. Sometimes a scorecard can be kept to determine a winner.

Enterprise and organisational skills

For every organised sporting or physical activity event there is a leader with a management team or committee. A leader who has **enterprise** skills will show initiative and drive their team to achieve. They will have good organisational and communication skills, and will have the ability to motivate and enthuse their team or committee to achieve success.

The management team or committee will organise, prepare and implement the event. Depending on the status or seriousness of the event, the management team or committee may be a formal documented one, or it may be an informal group of friends who get together to organise an activity. Whether the event is formal or not, the organisers need effective personal skills and they must be able to organise and manage the event with confidence for it to be a success.

Learning experience

Write a list of the skills you believe are important for an effective leader or organiser of a sporting event to have. Give reasons why these skills are needed to effectively manage an event.



Communication and leadership

Communication is an essential part of effective event management. The way in which we communicate with each other includes more than just the words we speak. There are various forms of communication, including verbal, facial expressions, body language, and the use of hand signals and written words. All of these methods need special consideration when working as a group to plan and manage an event.

Teamwork

Teamwork is essential to the success of an event. To work as a team and successfully manage an event is very satisfying for all of the members in a team. If a team doesn't work well together, the outcome of the event can be affected. Individuals may feel anger or resentment toward others, and group cohesion may break down and cause unnecessary problems. This is where an effective group leader can make a difference, and equitable delegation of duties and communication are key factors to a successful team. To improve the rate of successful outcomes for some teams, many committees and corporate businesses send groups to team-building workshops to learn to work cooperatively and communicate effectively to achieve their goals. These workshops can be tools to success for many groups and group members can benefit greatly from the teamwork strategies in which they may participate.



Learning experience

Form groups and participate in the following team-building activities. It is important that everyone is sensible and cooperates throughout these activities to earn trust and enjoy the games.

Circle of trust

Form a group of four to six people and make a circle around one person, who stands up straight in the centre of the circle with their arms and fingers crossed in front of their chest with their eyes closed. They must hold their body straight and firm. The group then moves the centre person in a gentle rocking motion, taking their weight as they fall from side to side. As the person in the centre is rocked between each group member, the person who receives their weight on the outside of the circle should make a positive statement about them. After six positive statements, change positions so that everyone has a turn in the centre.

The human knot

Form a group of approximately six to eight people and form a tight circle standing shoulder to shoulder. Have the members of the group reach in with their right hands and grasp one of the right hands available. Repeat with left hands. Then ask the group to unravel the knot—the grip of the participants' hands can be adjusted as they move but they must not let go, and the circle of hands is to remain unbroken. The object of the challenge is to unravel the human knot. A variation is to stay silent during the entire activity.

The lava pit or quicksand challenge

You will need 20 paper plates, and start and finish lines to complete this activity.

Form groups of six to eight people. Make up a story that the group is being chased and they need to get across a field of hot lava. Give each group paper plates (approximately three per group) and explain that when they step on the plates they will not sink into the lava pit.

The group must figure out how to get the entire group from start to finish (from one side of the lava pit to the other). Only one person can be on a plate at a time, and the plates can be picked up and moved as many times as they choose. A timer can also be used to increase the competition.

Touch the object

You will need to create an obstacle course for this activity. Use markers set in a line and fixed fitness equipment in the playground to create a course that is challenging to manoeuvre from start to finish.

Form groups of six to eight people. Form a circle around a beach ball or similar large, light object. The group members must all have contact in some way with the object and they must not lose contact with it for the entire challenge. The ball or object should then be carried by the group through an obstacle course and timed. Variations are to have each person contact the object with a different body part and then complete the course. Compare times and group cooperation strategies.

Cross the river

Each group will need items like one short plank, one bucket of water, and eight hoops. The teacher or facilitator should create an imaginary creek or river to cross.

Form teams of four and gather together the equipment needed for each group. The teacher or facilitator sets out a course for each team in the form of an obstacle course that includes the creek or river. The facilitator gives no hints or instructions on how to complete the course. The object is to travel through every hoop once only, while carrying the bucket of water and the smallest person in the group from the start to the finish. The course must be completed without spilling water or allowing the person being carried to touch the ground. Everyone must travel from the start to the finish.



Figure 16.5

Teamwork is essential to the success of an event

Analyse a team-building television show (such as *Survivor* or *The Amazing Race*) and answer the following questions.

- 1 Who is the leader and are they an effective leader of their group or pair?
- 2 What skills make them an effective or ineffective leader?
- 3 Briefly describe two challenges that the group or pair have had to overcome.
- 4 Do the group or pair have good communications skills? Comment on their skills.
- 5 Estimate who will be the most successful person in the competition and give reasons why you think this.



HotSpot

Flexibility and innovation

During the management of an event there needs to be some flexibility and initiative to allow everything to run smoothly—it is unlikely that everything will run to plan. Flexibility allows a part of the event to be changed if necessary. A set rule is not something that can be changed and is therefore not flexible. However, if environmental conditions are foreseen that might affect the success of an event, then the organisers need to be flexible and apply a change in order for the event to be successful. For example, if a snowboarding competition is planned to run over three days but by the afternoon of the second day the snow is too slushy for the event to continue safely, the organisers may need to be flexible and reschedule the afternoon's events.

If an event is not attracting participants and is lacking in appeal, then it is a good idea to come up with new and innovative ideas to attract participants and spectators. For example, sponsors in recent times have supplied large blow-up balls to advertise their products at big spectator events or blow-up objects that are eye-catching and innovative. This advertising ploy allows the advertiser's name to be printed on the product and may attract media attention as well as the delight of the audience.

Time management

In order to be well organised and create an event that runs smoothly, a timeline of tasks is set by the management team or committee. This timeline of important steps needs to be set in order of priority to allow more time to be spent on the important tasks and less time on minor or insignificant tasks. Time management is crucial to the success of all events and needs to be set with some flexibility to cater for unforeseen setbacks.

Figure 16.6

Management of an event is crucial to its success



Managing others, delegating responsibilities and multi-skilling

An effective manager is a good leader and they need to have many skills and qualities. A good manager is:

- an effective communicator—the ability to communicate with all people is one of the most important skills a manager can possess
- a good planner—they will have the skills to select a plan with a long-term view of how to achieve set goals
- a provider—they will provide or seek the resources to achieve set goals
- inspirational and enthusiastic—they will inspire others and know where to go and how to get there, taking a positive and enthusiastic attitude to achieving set goals
- able to delegate—they will delegate responsibility to the right people
- competent and multi-skilled—they will be a competent leader and have some expertise in the area of event management, as well as knowledge of the event and the skills required to achieve set goals

- calm under pressure—they will stay calm and in control if setbacks or disappointments occur
- a team builder—they will hold the team together and encourage them to work to a common purpose, ensuring that all team members are involved and understand the big picture of shared goals.

Financial planning and budgeting

Financial planning is the management of money or funds for an event. It is wise to have a suitably qualified person with experience to manage money for an event. Management of an event will involve the organisation of a budget outlining such details as the income (money earned or gained through sponsorship or entry fees etc.) and expenditure (expenses needed to run the event). It is also wise to bank money and keep very accurate records of all financial transactions for an event. A small event will need a treasurer and larger events will need executive positions such as accountants and financial controllers to audit and keep track of all transactions.

Learning experience

- 1 Participate in and observe the team-building activities listed on page 274. Using the eight qualities identified as those of a good manager, write down the skills of an effective leader that you observed being used when completing these activities and give an example for each.
- 2 You have been appointed treasurer of the local cross-country running club and your committee is organising a fun run to raise money for the club. The fun run will be organised by the committee and will involve a barbeque to sell lunch and drinks, an entry fee to participate in the event and organisation of drink stations for the run. You have been given \$500 as a budget.

Copy the table below into your workbook and write down the items you will need and their cost. Stay within your budget.

Items	Cost (\$)	Balance
Club funds for the event		\$500



Promotion

The success of an event will be greatly enhanced if it is promoted well.

Promotion is a term that describes many ways of informing people about an upcoming event or advertising a product or service. There is big money in the promotion industry and ways in which events are promoted can vary considerably in cost, from free or low-cost advertisements in local newsletters or newspapers, to thousands of dollars spent on a television commercial.

Types of promotion initiatives include:

- broadcasting the event using radio, television or newspapers
- banners
- an email to members
- an internet advertisement
- placing the event on a sports-specific event calendar
- creating a website
- advertising on a large billboard or one on the side of a bus
- circulating flyers or notices
- making an announcement at a similar event.

All of the above strategies have varied success and will depend upon the profile of the event, the participants and the budget or sponsorship achieved.

At the conclusion of an event it is important that the results or another notice is communicated to finalise the event. This could take the form of an announcement and presentation at the venue or publication in the media.



Figure 16.7

Event success will be greatly enhanced if it is promoted well

Learning experience (ICT)

You have been elected as the promotions manager of a sporting event. Choose a sport and design a webpage to promote the event. Include all relevant information, including the date, the structure of the event and other relevant information the public would need to know.

Roles in event management

When organising an event certain roles and responsibilities are allocated for the smooth running of the activities involved. These roles may be as simple as carrying water onto the field or managing a drink station for a fun run, or as complex as an executive member coordinating a large gala day. Whether the job is big or small, all roles are important for the smooth running of an event.

Roles available

There are many roles available at sporting events, and depending on the type and size of the event many people are needed to help out in a variety of ways to ensure the success of the event. For example, an organised game such as basketball will require a coach to provide skills at training and to guide the team to play the game within the rules. The team will also need a manager to organise a uniform and assist the coach in the administration of the paperwork and duties required by the club or competition organisers. To run the game in a competition a referee or umpire needs to enforce the rules and promote fair play in the game. The role of a group leader (or captain) is also an important one, and leadership on and off the court is an important part of this role.

Similarly, in an event involving the performing arts, such as dance, the role of the choreographer to design and lead the structure and process of the dance crucial to the success of a performance. The dancer has an important role to learn and interpret the dance as required by the choreographer. Everyone involved in an event needs to know the role that they play and the expectations of their role.

Responsibilities and requirements

The responsibility of managing an event can be great and the success, and in some cases failure, of running an event well can be stressful. Therefore, it is very important for the management committee to plan well and make sure that all requirements of the event are met. These requirements include public liability insurance and knowledge of the rules and regulations of the event that they are managing. Every person involved in the process of event management need to be responsible for their role in the event. It is very important to ensure that the event manager makes sure every person knows their responsibilities and the expectations of them well before the event occurs.



Learning experience

- Copy the table below into your workbook and name a sporting event that has been held in your local area. Write down a list of people that are essential to the organisation of this event and state their role at the event. (An example has been provided for you.)

Name of the sporting event:	
Essential person's title (role)	Responsibilities and skills needed to fulfill this position:
Canteen or shop manager	Purchasing goods, allocating staff and managing money in the canteen

- 2 Look at the table below and match **the title** of the position with **the role** of the person at a tennis tournament.

Title of the position	Role
Player	To oversee the competition
Umpire	To collect stray balls
Ball person	To supply refreshments
Linesperson	To compete within the rules of the game
Caterer	To communicate when a ball is out
Hawk-eye	To manage the game by the rules and monitor the score
Manager	To detect a line fault

Planning, conducting and evaluating an event

To plan, conduct and evaluate an event is a long process that involves meetings, careful delegation of roles and responsibilities, effective implementation or running of the event, and a full evaluation at the conclusion, with a critical analysis of the positive and negative aspects of the activities that took place.

Requirements before the event

Well before an event takes place a committee of people should be set up, and meetings need to take place to set details for organisation, including a timeline of what needs to be done and when. Bookings should be made for the venue, parking needs to be considered and any traffic issues need to be resolved well ahead of the set date for the event. A committee of executives could be set up, and their duties defined and monitored at regular meetings. This can be done in a school setting, with staff as the organising body, or at a community or corporate level whereby a committee will be formed to organise the event.

An executive committee usually attends the general meetings (open to all interested people), along with any other members. Special executive or management meetings are also held. Common positions and roles of the management committee are outlined in table 16.1.

Table 16.1
Executive committee
positions

Title of the position	Summary of responsibility (duty)
President	The leader of the committee who runs the meetings
Secretary	Writes down the minutes (discussion notes) and deals with all of the correspondence (mail)
Treasurer	Manages the finance
Ordinary member	Members who make up the numbers and have voting rights
Public officer	Organises incorporation and public liability insurance for the members

It is important that a meeting is planned well for it to be effective and useful. All members who need to attend require approximately 21 days notice of the meeting and a set plan for the meeting should be adhered to. At times, special meetings will need to be called at short notice to keep the organisers on track and in order for planning to continue.

The set plan used for a meeting is called an agenda. An agenda helps a meeting to run smoothly and fairly, and it gives those attending the meeting a chance to plan what will be discussed. Meetings are usually run by a chairperson, who may be the president of the organisation. A sample of an agenda is set out below. Following a meeting, the secretary will give each member a copy of the minutes—this is a record of the discussion and decisions made at the meeting.

Other special smaller meetings with subcommittees might also be held when organising a large event. These subcommittees will have a more specific focus, such as finalising workers and fundraising, and a member of each subcommittee will usually report back to the executive committee.



Learning experience

As a class, hold a general meeting using the agenda format below. Add to the agenda an item titled 'Election of delegates'. Refer back to table 16.1 for information on some possible positions. You might like to add positions to this list, such as vice president, assistant secretary or assistant treasurer.

During your meeting you should elect your executive members and then organise an event. This event can be large or small, depending on the time and facilities available in the school.

You might consider organising an event for your year group to raise money or awareness of a particular concern. An example of an easily organised event is the National Heart Foundation's Jump Rope for Heart jump-off day. This is a good way to put into practice the organisation of an event and raise money for your school, as well as help a good cause.

Agenda for the general meeting of Smith Sports Club

Held on 26 September 2008

- 1 Open 11 am. (The time of the start of the meeting is noted here.)
- 2 Attendance. (Everyone needs to sign an attendance sheet.)
- 3 Apologies. (If someone is not there and have notified the president or secretary this is an apology.)
- 4 Previous minutes of the meeting held on 26 August 2008. (This is the section of the meeting where the minutes from the previous meeting are discussed. The members who are present read the minutes and a motion is passed to say whether or not the minutes are a true record of the meeting. Items in the minutes that need attention are then discussed and any action is recorded—this is called 'business arising from the minutes'.)
- 5 President's report. (The president gives a report.)
- 6 Treasurer's report (This is the financial report.)
- 7 The upcoming athletics carnival. (This is an item to be discussed.)
- 8 Canteen duty. (This is another item to be discussed. As many items as are needed can be listed.)
- 9 General business. (This is where members at the meeting can raise a concern for discussion.)
- 10 Close. (The time the meeting ended is noted here.)

Requirements during the event

A team of people (usually the executive committee) needs to oversee the event and make sure that safety measures are put in place to avoid any accidents, that ambulance and police (or school staff) are accessible if needed, and that the event is monitored continuously to avoid any mishaps occurring. This team of people needs to be flexible and able to adapt to the demands of an event, as unforeseen things may occur that need to be dealt with. For example, overcrowding at food venues or toilets, or the possibility of rain or a change in the weather could affect the running and success of the event.

Figure 16.8

It takes a team of people to oversee a successful event



Requirements after the event

After an event, the duties of the management committee, volunteers and workers do not immediately finish. Concluding duties may involve a presentation to participants, and a closing announcement of results and a vote of thanks to the workers is usually given. All equipment is then cleaned and packed up. Notification of results will be organised by the publicity officer and a final meeting is usually held to evaluate the event.

Evaluation of the event is an important part of event management. Evaluation is a process that looks at the positive, negative and interesting occurrences that took place, and future plans to improve the activity or event are usually noted. Evaluation could be done in the form of a set written evaluation form, an anonymous written evaluation or a verbal discussion in a formal (meeting) or informal (social gathering) setting.

Event management is a complex task and it requires motivated people to successfully initiate, plan, implement and evaluate events so that participants can enjoy participating in the activities.

Chapter cloze

Event management can be a demanding, yet rewarding experience. An event like an _____, which is an event that is very challenging and demanding in an outdoor situation, can be very rewarding to organise. To plan an event a lot of thought and organisation needs to take place. _____ of sporting events will increase the success of the event and making use of the media is a good way to achieve this goal.

An _____ is a venture that is in some instances financially rewarding—this could be a _____ event, where players are ranked in number order to play for a reward. Another example of an event that involves games or activities is a set of activities in the form of stations that could resemble a circuit. This is known as _____.

For all events to be successful they require _____ who give their time and energy freely to make an event more successful. They are often the leaders of clubs and community organisations, and without them many events would not exist.

enterprise
expedition
promotion
seeded
tabloid sport
volunteers

Review questions

- 1 Select a major sporting event and briefly comment on the event management requirements for the following factors:
 - a the structure or format used for the event
 - b the leadership and management roles
 - c the role played by volunteers in the event
 - d the promotion of the event
 - e the major sponsors of the event
- 2 Name three positions on an executive committee and describe their role in organising an event.

 continued next page

- 3 Complete the table below by matching up a sport that would suit the format listed.

Format of the event	Sport that is suited to this format
Round-robin competition	
Knockout competition	
Handicap	
Seeded knockout competition	
Heats and finals	

- 4 You have been elected president of your touch football club and are planning a gala day to be held in six months. Write a list of duties that you will need to delegate to your members in order to successfully hold this gala day.
- 5 Outline the reasons why public liability insurance would be needed for a club when organising an event.

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U S A A

Move into PASS is a comprehensive text for students undertaking 100- or 200-hour courses in **Physical Activity and Sports Studies** in NSW. Every module of the syllabus is covered and the comprehensive, well-illustrated and practical approach will engage and appeal to students and teachers.

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