

# Unit 1



## The human body in motion

### OUTCOME 1

Collect and analyse information from, and participate in, a variety of practical activities to explain how the musculoskeletal system functions, and its limiting conditions, and evaluate the ethical and performance implications of the use of practices and substances that enhance human movement.

### OUTCOME 2

Collect and analyse information from, and participate in, a variety of practical activities to explain how the cardiovascular and respiratory systems function, and the limiting conditions of each system, and discuss the ethical and performance implications of the use of practices and substances to enhance the performance of these two systems.

**INQUIRY QUESTION**

Is this physical activity, sport or exercise?



# Introduction to the concepts of physical activity, sport and exercise



VCE Physical Education is the study of movement. Some topics relate to sports performance and others focus on factors that influence the participation in and outcomes of movement.

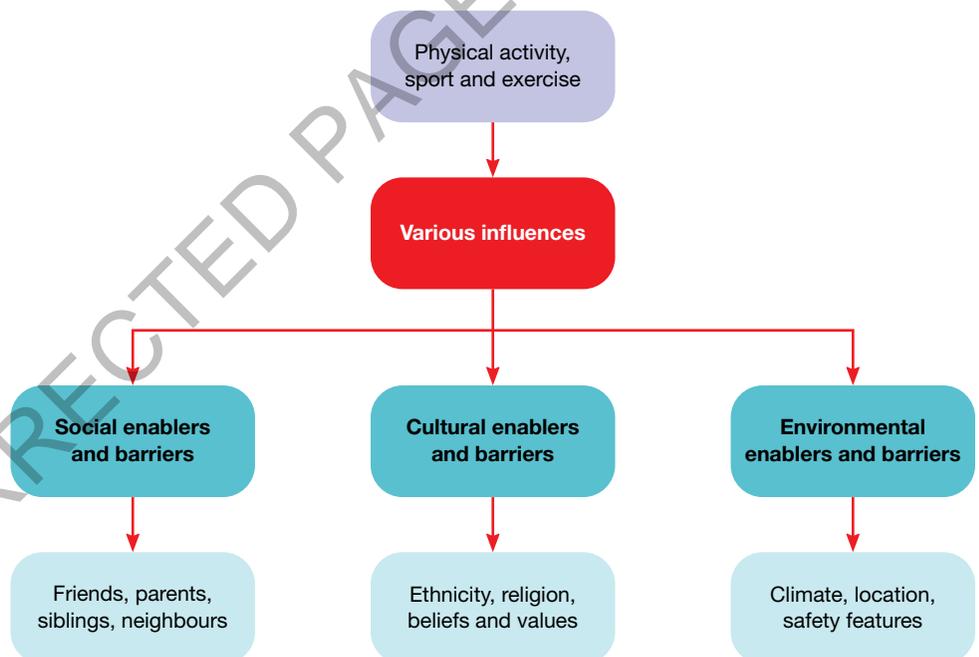
## KEY KNOWLEDGE

- ▶ The concepts of physical activity, sport and exercise
- ▶ Social, cultural and environmental enablers and barriers to movement such as family, peers, socioeconomic status, level of education, cultural values, geographic location and access to facilities

## KEY SKILLS

- ▶ Define and participate in a range of physical activities, sports and exercise
- ▶ Describe the social, cultural and environmental influences on movement

## CHAPTER PREVIEW



**KEY CONCEPT** Physical activity, sport and exercise refer to different types of movement. It's important to identify the influences that either enable people to exercise or prevent them from doing so.

### study on

Unit 1

**Physical activity, sport and exercise**

AOS 1

Concept summary and practice questions

Topic 1

Concept 1

Physical Education is the study of human movement. There are different reasons for studying this. We study the relationship between movement and health, and movement and performance. Some movements are performed to maintain good health and others are performed to gain a competitive advantage in sports. The emphasis of studying movement for health is different from the emphasis of studying movement for sports performance. For this reason, it is helpful to be able to categorise the types of movement. For example, physical activity is not the focus for an athlete; they are focused on sporting performance. A person training for a fun run is more focused on regular and planned exercise rather than increasing their general amount of physical activity.

The terms physical activity, sport and exercise are often used interchangeably. While they all involve movement, they are different in their application. Sport is organised and competitive, exercise is often associated with activities people participate in to increase their fitness, and physical activity is a broad term relating to various forms of movement.

VCE Physical Education covers a range of topics related to maximising sports performance, the effects of exercise on the body and physical activity participation. Many of the content areas in VCE Physical Education will relate to all three: physical activity, sport and exercise. At times, the content will relate to only one of these areas.

**Physical activity** is any activity that involves or requires some form of physical exertion. It includes sport, play, active transport, chores, games, fitness activities, recreation and some forms of work. Some examples of physical activity include children playing in the playground, adults walking to work or a family bike ride.

**Physical activity** is any movement of the body produced by skeletal muscles, resulting in energy expenditure.



**FIGURE 1.1** Bike riding is a form of physical activity.

**Sport** comprises a range of activities that are highly organised and involve rules, complex skills and tactics, physical exertion and competition between participants. Examples of sport include playing on a basketball or hockey team.



**Sport** is a range of activities that are highly organised and involve rules, complex skills and tactics, physical exertion and competition between participants.

**FIGURE 1.2** Competitive sports such as basketball involve rules and skills that require training to master.

**Exercise** is physical activity that is planned or structured. It involves repetitive body movement done to improve or maintain one or more components of fitness. Participation in a Zumba class, going for a run or doing weight training are examples of exercise.



**Exercise** is defined as physical activity that is planned or structured, involving repetitive body movement done to improve or maintain one or more components of fitness.

**FIGURE 1.3** A Zumba class is an example of exercise.

**TABLE 1.1** Comparison of physical activity, exercise and sport

All	Physical activity	Sport	Exercise
Involve movement	Any body movement that results in energy expenditure	Highly organised Involves rules, complex skills, tactics and competition	Planned, structured, repetitive body movements Often aimed to improve fitness



### TEST your understanding

- 1 Take a brief look at the other chapters in Unit 1 of this textbook. Create a table with three columns and two rows. Label the columns 'physical activity', 'sport' and 'exercise'. In each column, list a chapter number and outline how a topic from that chapter may relate to each of these headings.
- 2 Use a Venn diagram to show the similarities and differences between physical activity, sport and exercise.
- 3 For each of the following, indicate whether it is an example of physical activity, sport or exercise.

Activity	Physical activity	Sport	Exercise
Gardening			
Walking to the shops			
Playing badminton			
Running laps of an oval			
Going for a ride along a bike path			
Using the stairs rather than the escalator			
Playing four-square			
Using the treadmill at the gym			
Swimming laps			
Digging holes			
Doing pushups			
Playing for a soccer club			
Climbing a tree			
Doing sprints			
Riding a horse			
Body-boarding			

**eBookplus**

**Interactivity**

Sport, exercise, activity?

**Searchlight ID: int-6615**

# 1.2 Social, cultural and environmental enablers and barriers to movement



**KEY CONCEPT** The factors that affect movement are complex. For example, a person's physical activity behaviour is the result of a complex interaction between their personal beliefs, the influence of those around them and their environment. The determinants of movement in sports are also complex: the game score, position of other players, weather, and the player's confidence, genetics and training history are some of the factors that combine to produce movement.

There are many factors that influence a person's participation and success in physical activity, sport and exercise. These factors include two categories: 1) sociocultural factors and 2) environmental factors. Some of these factors are listed in table 1.2 below. **Sociocultural influences** are a combination of social and cultural factors. Social influences refers to power structures within society and social interactions and relationships, as well as political and economic factors. The cultural component relates to shared ways of thinking and acting (ideas, values, beliefs and behaviours) which differ from one culture to another or within cultures.

**Environmental influences** relate to the characteristics of the environment where people live and spend their time. Environmental influences could relate to policy or the built/natural environment. Examples of policy-related factors may be school policies about physical activity and active play. Policies related to road safety such as car speeds in built up areas could also influence physical activity. The built environment relates to human-made facilities such as recreation centres, bike paths, gyms and ovals. The natural environment includes factors such as the weather, oceans, rivers and proximity to outdoors.

Sociocultural and environmental influences can have a positive or negative effect on a person's movement. These are referred to as enablers and barriers.

An **enabler** is something or someone who makes it possible for a particular thing to be done. It has a positive effect on one's physical activity behaviour or outcome of movement.

A **barrier** is something that prevents progress or makes it difficult for someone to achieve something. It has a negative effect on one's physical activity behaviour or outcome of movement.

**Sociocultural influences** are the combination of social and cultural influences on an individual. Social influences include the interactions an individual has with family, peers and teachers. The cultural component relates to shared ways of thinking and acting (ideas, values, beliefs and behaviours).

**Environmental influences** are characteristics of the environment in which people live and spend their time that either enable exercise or create a barrier which can prevent people from exercising.

An **enabler** is something or someone that has a positive effect on one's physical activity behaviour.

A **barrier** is something or someone that has a negative effect on one's physical activity behaviour.

**TABLE 1.2** Sociocultural and environmental factors that influence movement

Sociocultural factors	Environmental factors
<b>Social</b> Income Level of education Ethnicity/race Gender Socioeconomic status	Access to facilities Geographical location Distance to recreational facilities Safety Weather
<b>Cultural</b> Cultural norms Ethnicity National traditions	

## study on

Unit 1

AOS 1

Topic 1

Concept 2

**Social and cultural enablers and barriers (physical activity)**  
Concept summary and practice questions

There are factors that are unique to each individual such as their physiology, genetics, maturation rates and physical ability/disability. These factors are not covered in detail in this chapter but are referred to in other chapters of books 1 and 2. For the purpose of this chapter, they are also classified as sociocultural influences.

# 1.2 Social, cultural and environmental enablers and barriers to movement

## study on

Unit 1

AOS 1

Topic 1

Concept 3

**Environmental enablers and barriers (physical activity)**  
 Concept summary and practice questions



**FIGURE 1.4** A skate park is a human-made facility that encourages physical activity.

Table 1.3 provides some examples of how sociocultural and environmental factors can be enablers or barriers to movement.

**TABLE 1.3** Examples of sociocultural and environmental enablers and barriers

Barrier example		Enabler example
<b>Social</b>		
<b>Income</b>	Low family income may prevent a child from participating in swimming lessons. This will reduce the likelihood of the child swimming for exercise or activity.	High family income could enable a child to have regular coaching with expert coaches, providing an opportunity for the child to develop into an elite tennis player.
<b>Education</b>	A child who attends a school without a PE teacher may not learn the fundamental movement skills needed to play sport. This may reduce their participation because they don't have the skills or confidence to play sport.	Knowledge that weight-bearing exercise influences bone density may result in an older adult being more likely to be active.
<b>Gender</b>	Girls may be less likely to develop skills in a particular sport because boys are given more opportunities and receive better coaching in that sport; for example, Australian Rules football.	Males are more likely to develop skills in sports such as rugby because they have more opportunities and male role models in that sport.
<b>Family</b>	Children whose parents don't value the importance of physical activity may have fewer opportunities to be active.	Children who play a lot of sport with their siblings may be more likely to develop the skills needed to be active.
<b>Peers</b>	A lack of interest in sports and activity within a friendship group would provide fewer opportunities for an adolescent to be active.	Using a Fitbit to compare the number of steps with friends may encourage an individual to be active.
<b>Cultural</b>		
<b>Ethnicity</b>	Some ethnic groups may value participating in sport, or particular sports, more than others. This may prevent them from developing skills in other sports or, if the sports that they are familiar with are not accessible, they may be inactive.	People of a particular ethnicity may be genetically suited to particular sports. Therefore, they may find it easy to participate in that sport. For example, people from Kenya are typically good at endurance sports, so excel at long-distance running.
<b>Cultural norms</b>	Girls may be placed at psychological and social risk in some sections of society if they choose to participate in certain sports, due to cultural norms.	Australia's pride in sporting achievement means that the government provides funding to programs that encourage physical activity, providing Australians with more opportunities to be active.
<b>Environmental</b>		
<b>Access to facilities</b>	Living in a high-rise apartment could reduce opportunities to be active within the local environment.	A workplace with an onsite gym provides employees with more opportunities to be active.
<b>Safety</b>	Absence of street lights would discourage some from being active when it is dark.	Bike lanes on the road would make riding safer and increase the number of people cycling to work.
<b>Weather</b>	Rain will reduce the likelihood of people exercising, due to discomfort and increased inconvenience.	Mild sunny days can encourage activity because there is less risk of sunburn and people tend to be more motivated.



## TEST your understanding

- 1 Explain the phrase 'sociocultural influences on movement'.
- 2 Identify two sociocultural factors that are not listed in table 1.2.
- 3 Describe how these two factors can influence movement.
- 4 Define the terms 'enablers' and 'barriers'.
- 5 Identify two possible subcategories that may exist under the heading of 'environmental influences on movement'. Provide an example of each.

## APPLY your understanding

- 6 (a) As a class or in groups, brainstorm a separate list of sports, physical activities and exercises that you could do at school.  
(b) Form groups of six or eight students.  
(c) From the list that you established during the brainstorm, choose at least one physical activity, one form of exercise and one sport in which your group will participate.  
(d) Split your group into pairs. Each pair will then run a 15-minute group personal training session for the rest of the group. In preparation for your session, you will write up a lesson plan that includes key points of communication, details and timing of activities and considerations for safety. Please remember to stay true to your form of activity.  
*In your planning, please remember that your priority is to show an example of physical activity, sport or exercise so that the members of the group can discover the similarities and differences between these.*  
(e) After all groups have had their turn, head back to the classroom and make some notes about the similarities and differences between physical activity, sport and exercise.  
(f) Following this task, an extension activity could be for the teacher to choose a group for each category (physical activity, sport and exercise) to run their session with the whole class. This will provide students with participation in a wider range of activities.
- 7 Draw up three tables, each with six rows and two columns.
  - (a) Label the three tables 'Physical activity', 'Sport' and 'Exercise'.
  - (b) Label the columns 'Equipment' and 'How it could be used'.
  - (c) Make a visit to the PE store room at your school. Identify equipment that could be used for physical activity, sport and exercise, and outline how it could be used. An example is provided below.

PHYSICAL ACTIVITY	
Equipment	How it could be used
Skipping ropes	Skipping ropes available for use at lunchtime

- 8 (a) Make a list of the physical activity, exercise and sport in which you have participated over the last three to five days.  
(b) Put these activities into three categories — physical activity, exercise and sport.  
(c) Create a table with three columns (an example is provided for you below). Think of the enablers and barriers to participation that influenced your activity over this period. Identify each factor, indicate whether it is sociocultural or environmental and explain how this factor influenced your behaviour.

Factor	Sociocultural or environmental	Explanation

# 1.3 Sociocultural influences throughout Units 1–4

 **KEY CONCEPT** Understanding how to use the term ‘sociocultural influences’ is important in VCE Physical Education.



**FIGURE 1.5** Sociocultural influences were one of the factors that led to the drug scandals in cycling in the 1990s.

Throughout VCE Units 1–4 Physical Education you will be required to apply the term ‘sociocultural influences’ in various ways. Listed below are some examples of how you may be required to apply this terminology during your VCE studies.

## Unit 1 The human body in motion

- ▶ *Social, cultural and environmental enablers and barriers to movement*  
Refer to table 1.3 for examples.
- ▶ *Sociocultural influence on the use of legal and illegal practices*  
Example — consider the cyclists in the 1990s who were pressured to use illegal methods of performance enhancement because their peers were participating in these practices.

## Unit 2 Physical activity, sport and society

- ▶ *Sociocultural influences on participation in physical activity across the lifespan*  
Example — teenagers may be more active than adults because more of their friends are active and the elderly may be active to increase social connections.
- ▶ *Identify contemporary issues associated with participation in physical activity and sport*  
Example — active transport and cultural diversity are examples of these contemporary issues. Active transport is a term used to describe when people use exercise as a form of transport. This is an issue in Australia because government and non-government organisations work together to make changes that encourage active transport. In relation to cultural diversity, what changes need to be made to better engage our culturally diverse community in physical activity?

## Unit 3 Movement skills and energy for physical activity

- ▶ *Sociocultural factors that impact on skill development*  
Example — a child who grows up in some Australian communities may have access to only Australian Rules football and cricket, limiting his or her opportunities to develop skills in other sports. Children from some families or cultures may have fewer opportunities to develop skills because sport and fitness are regarded as being less important than academic success.

## Unit 4 Training to improve performance

- ▶ *The purpose of fitness testing from a sociocultural perspective*  
Example — athletes will participate in fitness testing for different reasons compared to individuals who are starting an exercise program at the local gym. Athletes will be measuring their fitness to improve their sporting performance, whereas the gym attendee may want to find out how their fitness compares to that of the population. A coach may use fitness testing to compare players whereas a personal trainer may use fitness testing to provide feedback to his/her clients about improvements to their fitness. For these and other reasons, the tests used and accuracy of methodology will vary.
- ▶ *Strategies to record and monitor sociological training data*  
Training data is collected to evaluate many aspects of training. Devices such as Fitbits provide people with an opportunity to compare physical activity and exercise participation. This can provide the users with performance comparisons, social benefits and motivation.



**FIGURE 1.6** Today, there are many devices that trainers can use to help their clients achieve fitness goals.

# CHAPTER 1 REVISION

## KEY SKILLS

- ▶ Define and participate in a range of physical activities, sports and exercise
- ▶ Describe the social, cultural and environmental influences on movement

## UNDERSTANDING THE KEY SKILLS

To address these key skills, it is important to remember the following:

- ▶ social influences relate to relationships, role models and the influence of some policies and economic factors
- ▶ cultural influences relate to shared ways of thinking and acting
- ▶ environmental influences relate to the built and natural environment and policies related to the use of these environments
- ▶ physical activity, sport and exercise all refer to different types of movement.

## PRACTICE QUESTION

**Identify** and **outline** one example for each of the following influences on movement: social, cultural and environmental. (6 marks)

### Sample response

**Social factor (peers)** – A person is more likely to be active if their friends are active. The positive influence of a person's friends and the fact that they are also active will provide a person with greater opportunities to be active.

**Cultural factor (cultural norms)** – Generally, Australians value physical activity and sport. Therefore, if a person wants to be active they are encouraged to do so and will have more opportunities because there are fewer barriers to participation.

**Environmental factor (weather)** – A person may be less active in winter. The increased rainfall makes it more difficult to go for a bike ride or a run because of discomfort, inconvenience of changing clothes and lack of motivation. This will reduce the person's opportunities to be active and as a result the amount of physical activity that they participate in.

## PRACTISE THE KEY SKILLS

- 1 Outline a social, cultural and environmental factor (one of each) that influences your participation in physical activity, sport and exercise.
- 2 Harry is 13 years of age and his family has moved from Melbourne to a rural Victorian town that has a population of 3000 people. The sports that are available in the town include squash, tennis, football, cricket, netball and basketball. When he lived in the city, Harry used to enjoy skateboarding and swimming. He used to catch public transport to school but he may be able to walk to school now because he lives only one kilometre from the school.

Use your knowledge of the sociocultural and environmental influences on physical activity to explain how the move to the country may affect Harry's physical activity.

## CHAPTER REVIEW

### CHAPTER SUMMARY

- ▶ There is a difference between physical activity, exercise and sport.
- ▶ There are numerous influences on movement. These influences can be classified as sociocultural or environmental.
- ▶ Sociocultural influences can be further separated into social and cultural influences.
- ▶ Environmental influences include the built and natural environment and the policies that can affect the use of the environment where people live or spend their time.
- ▶ Each influence is called a factor. These factors can be enablers or barriers to movement.
- ▶ Enablers are factors that encourage movement or enhance movement quality.
- ▶ Barriers are factors that reduce the likelihood or efficiency of movement.

- ▶ **yellow** identify the action word
- ▶ **pink** key terminology
- ▶ **blue** key concepts
- ▶ **light grey** marks/markings scheme

## STRATEGIES TO DECODE THE QUESTION

- ▶ **Identify the action word:**
  - Identify** – determine the key characteristics or features
  - Outline** – general description but not in detail
- ▶ **Key terminology: influences** – factors that affect movement
- ▶ **Key concept: there are multiple factors that affect movement, many of which are interrelated.** These factors can be categorised into sociocultural and environmental factors.
- ▶ **Marking scheme: 6 marks** – always check marking scheme for the depth of response required, linking to key information highlighted in the question.

## HOW THE MARKS ARE AWARDED

- ▶ 2 marks for each (social, cultural and environmental)
- ▶ **1 mark:** identify a correct example of each of the influences on movement
- ▶ **1 mark:** outline how it affects physical activity behaviour