Health Sciences

GRADE 11

TERM 1

Authored and designed
by a specialised committee from the Ministry of Education

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"Extensive knowledge and modern science must be acquired. The educational process we see today is in an ongoing and escalating challenge which requires hard work.
We succeeded in entering the third millennium, while we are more confident in ourselves."

H.H. Sheikh Khalifa Bin Zayed Al Nahyan

President of the United Arab Emirates

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Health Sciences

Grade 11 – Term 1

11

HS-G11-T1-SB - GIRLS.indd 6 7/15/18 4:15 PM

Table of contents

1

Health and well-being 12

1.1 Health and illness 18

1.2 Dimensions of health 24

1.3 Health is a changing state 42

1.4 Healthcare professionals 46

End of unit quiz - Unit 1 52

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2

Introduction to first aid

54

2.1	The benefits of learning first aid	60
2.2	First aid kits	66
2.3	Attending the scene of an emergency	68
2.4	Head and spinal injuries	78
2.5	Arterial, venous and capillary bleeding	88
2.6	Open soft tissue injuries	94
2.7	Applying a dressing to a wound	100
2.8	Hygiene and infection control	104
	End of unit quiz - Unit 2	118

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Table of contents

3

Emotional health 120

3.1 Self-esteem and emotional health 126

3.2 Improving self-esteem 132

3.3 Feelings and emotional health 138

3.4 Managing feelings 144

3.5 Coping strategies 150

3.6 Resisting peer pressure 154

End of unit quiz - Unit 3 162

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4

Growth and development 166

4.1	Stages of the human life cycle	172
4.2	Physical traits of a foetus	176
4.3	Physical changes, behavioural traits and health of infants	180
4.4	Physical changes, behavioural traits and health of children aged 2-6	190
4.5	Physical changes, behavioural traits and health of children aged 7-11	198
4.6	Physical changes, behavioural traits and health of adolescents	202
4.7	Physical changes, behavioural traits and health of adults	212
4.8	Physical changes, behavioural traits and health of older adults	218
	End of unit quiz - Unit 4	226

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HEALTH
TRAINING
DIETING
RELAXATION
HAPPINESS
FIT
ATHLETE
ENVIRONMENT
RELAXED
ENJOYMENT
SPORT
RUNNING
MIND
FITNESS
EXERCISE
EVERYDAY
DIET
GYM
MAINTENANCE
MENTAL
HAPPINESS
HAPPY
SCIENCE
MOTION
LIFESTYLE
INFORMATION
CHEERFUL
FIT
ENERGY
ACTIVITY
SELF-CARE
ABSENCE
PHYSICAL
ENERGY
MEDICAL
SCIENCE
LIFESTYLE
HEALTHY
HAPPINESS
NUTRITION
HYGIENE
MEDICINE
CARE
HEALTHCARE
MENTAL
WELLNESS
WELLBEING
BODY

01

Health and well-being

Health is more than the absence of disease. The World Health Organization (WHO) defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."

Physical, social, mental and emotional health all contribute to overall health. When one of the dimensions of health are affected, it can have an impact on the other areas of health. Health and well-being are not just something to study and leave in the classroom. It is something that should form a positive habit in your day-to-day life. Health and well-being are essential elements for quality of life and are fundamental for learning and development.

In this unit, you will learn about four of the dimensions of health: physical, social, mental and emotional health and factors that may influence overall health and well-being. You will also learn about different healthcare professionals and their role.

Learning outcomes

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Learning outcome 1: Describe the concept and definition of health and illness.

Performance indicators:

11.1.1	Explain what is meant by the terms health and illness.
11.1.2	Describe how the dimensions of health (physical, social, mental and emotional) overlap and interconnect.
11.1.3	Discuss how and why health is a constantly changing state.
11.1.4	Describe the role of different healthcare professionals.

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Glossary of key words

Word	Form	Definition
absence	noun	being away from a person or thing
advice	noun	guidance or recommendations given to someone
barrier	noun	something that can prevent movement or access
chronic disease	noun	a disease that lasts three months or more
cognition	noun	the process of thinking and understanding through thoughts, experiences and the senses
communication	noun	exchanging information by speaking, writing or using body language
dimension	noun	an aspect or feature of a situation
disease	noun	a disorder of the structures or functions of the body that produces specific symptoms
emotional	adjective	relates to a person's emotions and feelings

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Word	Form	Definition
emotion	noun	a strong feeling that comes from certain circumstances, mood or relationships with others
health professional	noun	a person who is qualified to prevent, diagnose or treat health related illnesses
limit	noun	to restrict the size or the amount of something
mental	adjective	related to the mind
moderation	noun	not to have too much of or an excess amount of something
physical	adjective	relating to the body
relationship	noun	how two or more people or things are connected
social	adjective	relates to society, the community and other people
thoughts	noun	ideas or opinions

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1.1 Health and illness

What is health?

Activity 1: What is health?

What does health mean to you? Discuss with your class and make notes in the following space.

What is

HEALTH?

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Health

The World Health Organization (WHO) defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."

This means that there are lots of things that influence health. Based on the WHO definition, it is difficult for a person to be in a complete state of health at any time. This definition was created in 1948. Since the definition was created, people are living longer and have different illnesses.

Lots of people around the world are living with chronic disease (a disease that lasts three or more months). According to the definition, if a person has diabetes and are managing their condition, they are not healthy.

As explained in the WHO definition of health, there are many factors that can affect health. These include physical, mental and social well-being.

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1.1 Health and illness

Activity 2: Your definition of health

In pairs, create a new definition of what health is. Then share your answers with your class.

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What is illness?

Activity 3: What is illness?

In pairs, discuss what you understand by the term illness. Draw or write your answer in the following space. Share your answers with your class.

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1.1 Health and illness

There are many things that can lead to illness, and illness can come in many forms.

Illness can affect each of the dimensions of health. It can be in the form of physical, mental, social or emotional illness. It is not just the absence of disease.

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Activity 4: Definitions

Using your dictionary, find the definition for each of the following words. Write the definitions in the space provided. Then discuss with your class.

Disease	Health	Illness	Well-being

Disease:

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Health:

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Illness:

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Well-being:

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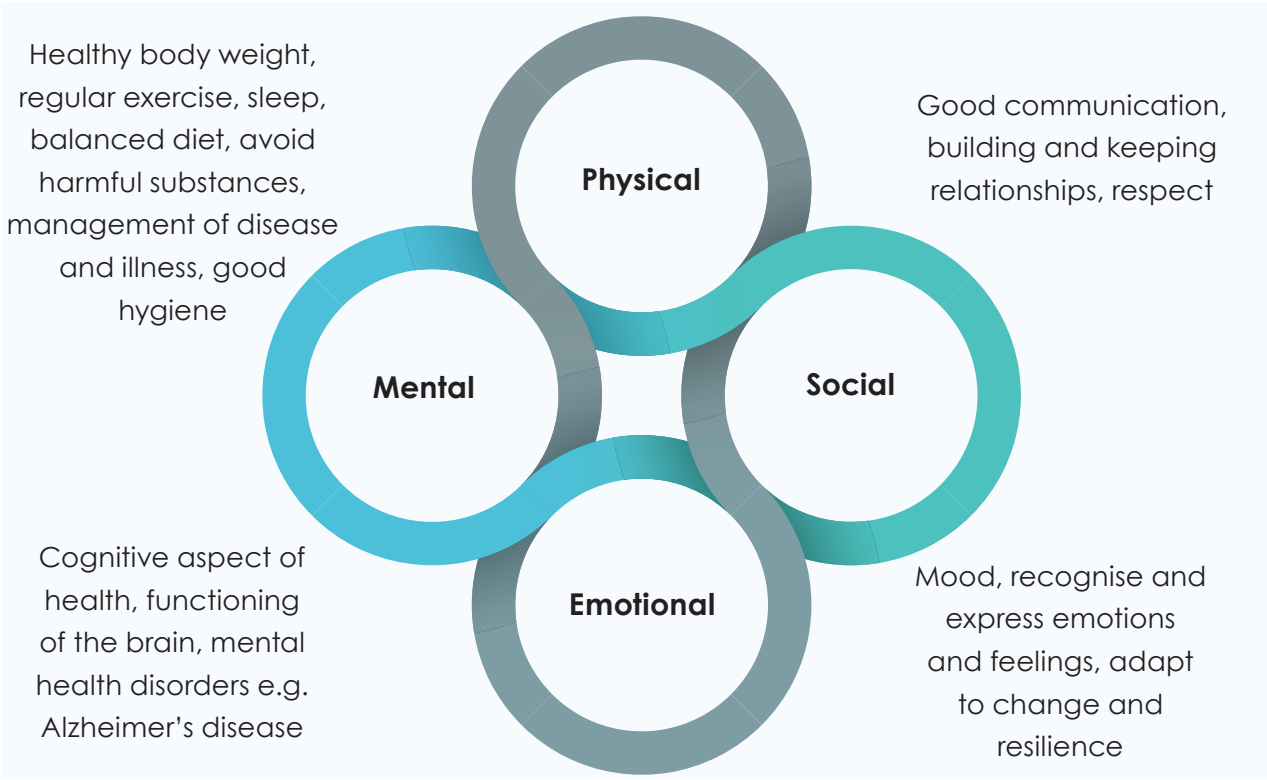
1.2 Dimensions of health

Dimensions of health

The dimensions of health include physical health, social health, mental health and emotional health. The dimensions of health show the different factors that can affect health. It also shows how each dimension can affect the others.



Activity

Activity 5: Dimensions of health

Look at the picture above that shows the dimensions of health. Which of the dimensions do you think can have an effect on physical, social, mental and emotional health?

Physical: .....

Social: .....

Mental: .....

Emotional: .....

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Activity 6: Balloon game

In groups of four, stand in a circle. Your teacher will give you the title of one of the dimensions of health. Your group will then get a balloon, you must stop the balloon from touching the ground. To start, you will all work together to keep the balloon from touching the ground. If the teacher calls your dimension of health, you must stop helping your group. The teacher can call one or more dimensions.

1. What happened when you lost the help from the other dimensions?

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2. How did this effect the other members of the group?

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3. How can your overall health be effected when one or more of the dmensions are not working properly?

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1.2 Dimensions of health

Physical health

Activity 7: What is physical health?

In pairs, discuss physical health. What does being physically healthy mean to you? Write your answers in the following space.

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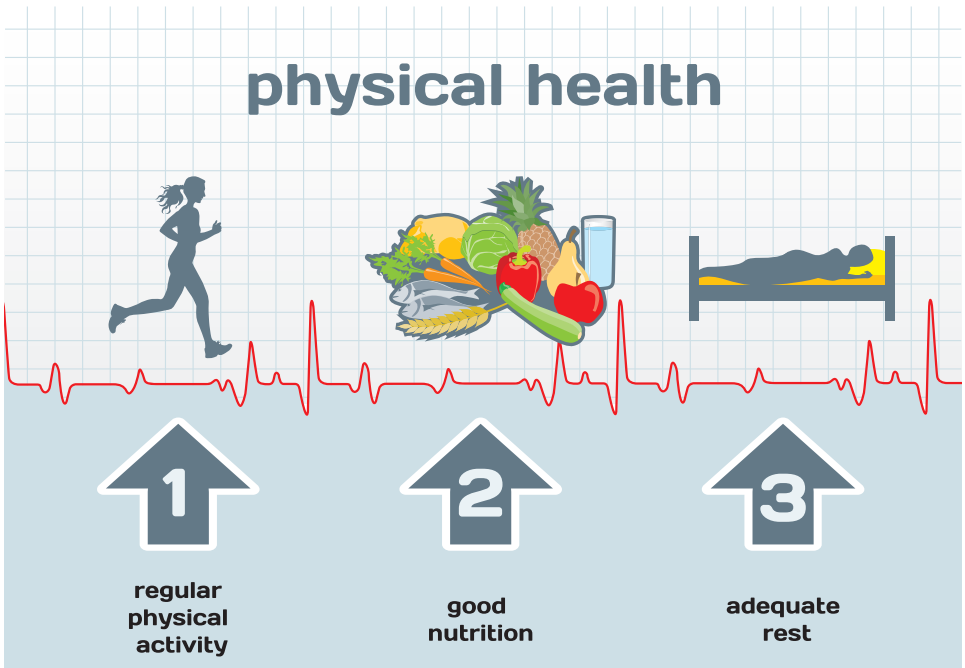

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Physical health refers to how the body works. When people are physically healthy, they have enough energy to carry out everyday tasks. To be physically healthy, people might avoid doing things that can hurt their body; for example, they might limit the amount of caffeine they drink or try to reduce their risk of developing a disease.

PHYSICAL HEALTH

Physical health is not just the absence of disease. There are many more factors that can contribute to physical health.

Physical health is important for overall health. It is the most visible dimension. Physical health can have an impact on social, mental and emotional health.

There are many ways to improve physical health. People can:

- eat a healthy balanced diet.
- get enough physical activity.
- avoid harmful substances.
- keep a healthy body weight.
- get enough sleep.
- manage chronic disease such as diabetes.
- try to avoid developing non-communicable diseases.
- keep good hygiene practices.

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1.2 Dimensions of health

Eat a healthy balanced diet

A balanced diet should contain carbohydrates, proteins, fats, vitamins and minerals. These nutrients should come from lots of different foods. It is also important to get enough water and to be properly hydrated.

Meals and snacks should be eaten throughout the day and portion sizes should not be too large.

Activity

Activity 8: Healthy diet

What foods do you think people should eat every day? What foods should people eat in moderation? Write your answers in the following space.

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Get enough physical activity

Doing regular physical activity has many health benefits; physical activity can help to reduce the risk of developing certain disease, it can help people manage illness and it can help mental and emotional health.

The World Health Organization (WHO) defines physical activity as "any bodily movement produced by skeletal muscles that requires energy expenditure."

Activity

Activity 9: Physical activity

In pairs, discuss the WHO definition of physical activity. Then think of five types of physical activity you would recommend to a person who wants to improve their physical health. Write your answers in the following space.

1. .....

2. .....

3. .....

4. .....

5. .....

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1.2 Dimensions of health

Avoid harmful substances

Substances that change mood or other bodily processes should not be used.

If caffeine is consumed, it should be in moderate amounts.

Keep a healthy body weight

It is important to keep a healthy body weight. There are lots of factors that affect body weight. These include:

- **Healthy eating –** eating a healthy balanced diet can help to control weight.
- **Physical activity –** doing regular physical activity can help to keep a healthy weight.
- **Family history –** this is something that the individual cannot control.
- **Health status –** some health conditions make it more difficult to manage weight.

Activity

Activity 10: Scenario

A 30-year-old female is doing regular physical activity and eats a healthy balanced diet. She has no health conditions. Why do you think she finds it hard to manage her weight?

.....

A 25-year-old female enjoys a healthy, balanced diet. She doesn't like physical activity. There is no history of overweight in her family and she has no health conditions. Why do you think she finds it hard to manage her weight?

.....

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Get enough sleep

People need to have good-quality rest and sleep to stay healthy.
It is important to spend time relaxing to help refresh the body.

Sleep should take place in a quiet and dark place.
Most people need to get 7-9 hours of sleep every night. Missing sleep or getting poor-quality sleep for a long period of time can have negative effects on health.

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1.2 Dimensions of health

Social health

Activity 11: Social health

What do you understand by the term 'social heath'? Discuss with your class and draw a picture to show your understanding of social health.

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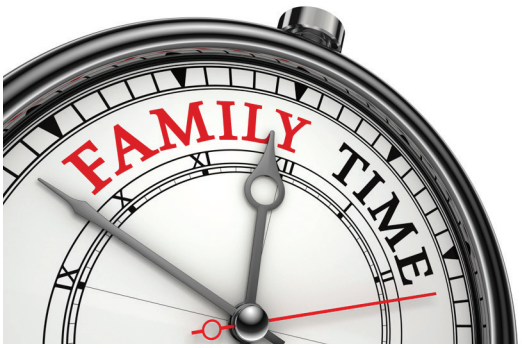
What is social health?

Social health is the part of health that refers to how well people get along with others. Social wellness focuses on creating and maintaining healthy and supportive relationships with family, friends and peers.

Having a social support network protects people against many physical health problems. Relationships should include strong communication, caring for others and a sense of responsibility.



Ways to improve social wellness includes planning time with friends and family, enjoying the time spent with others, keeping positive, rewarding relationships and ending negative relationships. There are many benefits that come from having strong relationships with others. Social health is just as important as physical health.

Activity

Activity 12: Improve social health

How else can you improve social health? Discuss in pairs and write your answers in the following space.

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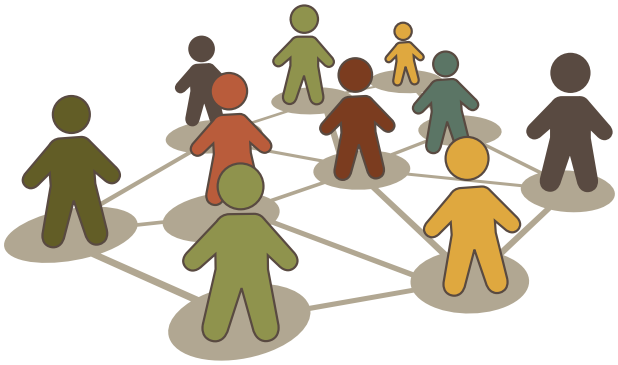
1.2 Dimensions of health

Building and keeping relationships



People have lots of relationships. They can be with family, friends and people within their community. Some of these relationships are ones that they choose; for example, friendships. Others are ones that people don't choose; for example, your classmates.

Good relationships can be good for your health, but they can take time and effort.

To develop relationships and keep good social health, you must be willing to:

1. **Give yourself:** This could include giving time, effort or energy.
2. **Have good levels of self-esteem:** Being mentally and emotionally secure can help with healthy relationships.
3. **Establish a sense of identity:** People should not change who they are or their characteristics, or their relationships may suffer. Keeping your identity will make for better relationships.

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Activity 13: Keeping relationships

What advice would you give to someone who wants to build a good relationship for their social health? Write your ideas in the following space. Discuss your answers with your class.

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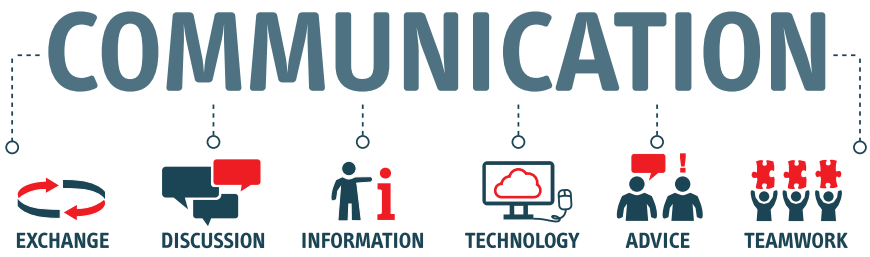
1.2 Dimensions of health

Good communication

Good communication is an important part of social health. It can help to build and strengthen relationships. When people communicate, they must get their message across clearly to the other person. The person receiving the message must understand the message for communication to work. There are two types of communication; verbal and non-verbal.



Activity

Activity 14: What's the message?

Your teacher will write a message on a piece of paper. Every student in the class must pass this message to the next person by saying it quietly. Make sure no one else hears what you say, only the person receiving the message. The last student to hear the message will write it on the board. Has the message changed? What has happened? Discuss with your class.

.....

.....

Verbal communication

Verbal communication can happen in lots of different ways. It is when people communicate through words and talking. The person who is speaking and the person who is listening are using verbal communication.

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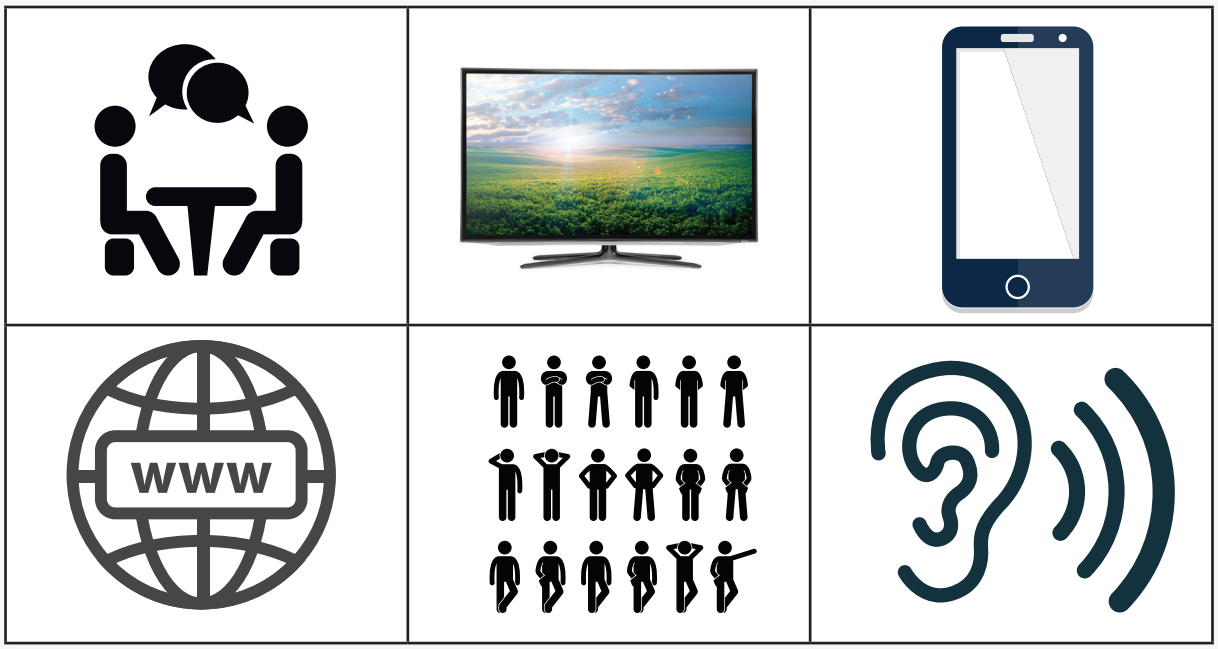
Activity 15: Verbal communication

Which of the following are examples of verbal communication? Circle the correct answer. Then share your answers with your class.



Which of the images show communication. Write your answers in the following space.

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1.2 Dimensions of health

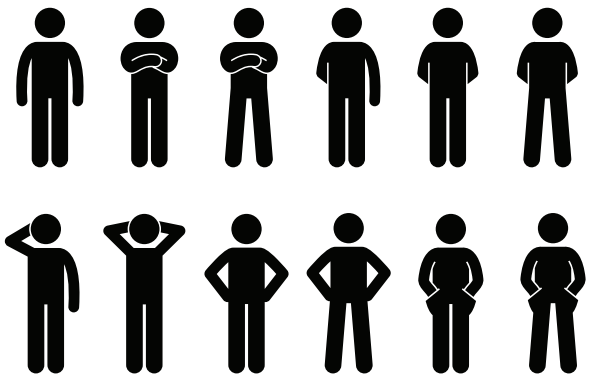
Non-verbal communication

Non-verbal communication refers to how you communicate when you don't use words. A person's body language gives a lot of information. This includes the pitch, speed, tone and the volume of your voice.

Activity

Activity 16: Non-verbal communication

Your teacher will give you a message to communicate to your partner. In turns, communicate your message in 30 seconds without using words. Did the receiver understand your message? Did you communicate properly? What did you do to communicate your message without words? Make notes in the following space.



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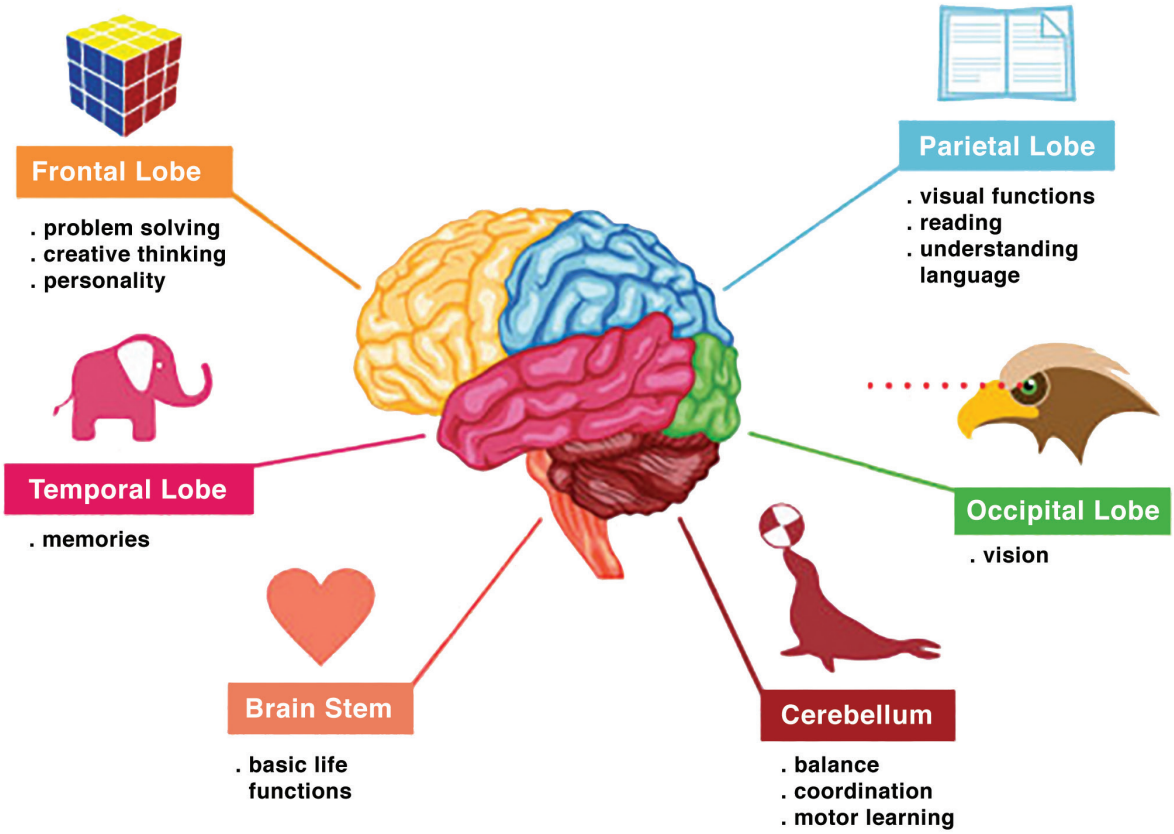
Mental health

As you have already learnt, health is defined as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" by the World Health Organization.

Mental health is different to emotional health. Good mental health refers to the cognitive aspect of health. This is about how the brain functions. The brain is responsible for many important functions of the body. It is responsible for breathing, balance, thinking, movement, learning and behaviour.

Just like physical health, sometimes people can develop mental health conditions; for example, Alzheimer's disease, dementia or eating disorders.



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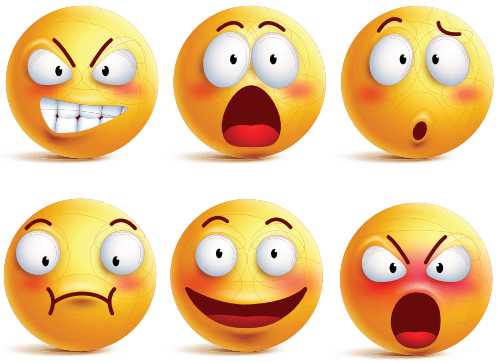
1.2 Dimensions of health

Emotional health

Emotional health is how people feel about themselves and their ability to manage their feelings as they deal with challenges in life. Emotional health can have a big effect on the other dimensions of health.

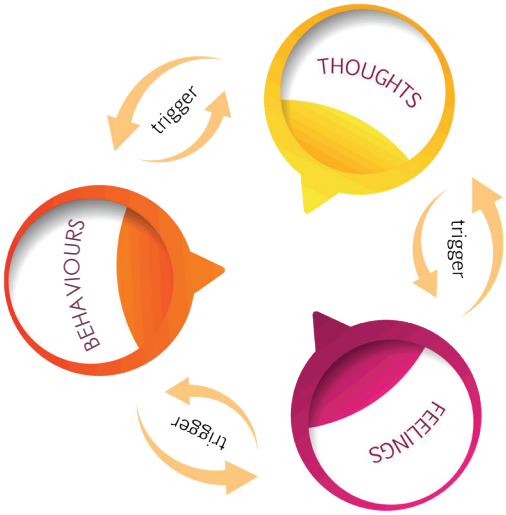


Emotions are different to thoughts. For example, a person might do something and say they feel silly. Silly is a thought and not an emotion. They might feel embarrassed or ashamed. These are emotions. The thought is that they are silly. This is what they are telling themselves.

It is important to be able to tell the difference between thoughts and emotions. Emotions refer to how people feel/their feelings.

Being emotionally healthy is more than being free from depression, anxiety, or other emotional illnesses. It also means having positive characteristics, such as:

- the ability to adapt to change.
- a sense of purpose.
- a feeling of completeness and contentment.
- the ability to create fulfilling relationships.
- a feeling of self-confidence and positive self-esteem.
- the ability to have fun and enjoy yourself.
- resilience in the face of difficulties.



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Activity 17: Thoughts and emotions

Look at the words in the box. Decide if they are emotions or thoughts. Put the words that are emotions in the emotions box. Put the words that are thoughts in the thoughts box. Then discuss your answers with your class.

angry	silly	worried
tired	sad	okay
excited	right	embarrassed

Emotions	Thoughts

Activity 18: Emotions

In the following space, write as many words to do with emotions that you can think of. Share them with your class and make note of any words you did not think of.

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.....

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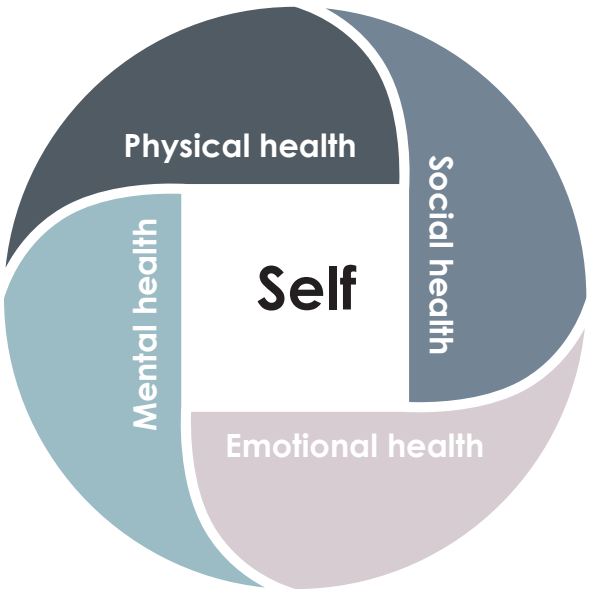
1.3 Health is a changing state

Health is a changing state

All of the dimensions of health are important; individually and all together. If one dimension of health is not working properly, it will have an impact on the other dimensions.

If someone is physically unhealthy, it might affect their social health. Similarly, if someone is socially unhealthy, it might affect their emotional health.

This is why it is very difficult to say if a person is 'healthy' or 'unhealthy' at any time. They might be healthy at one point in time, but this can change very fast.



Activity 19: Healthy or unhealthy

In pairs, discuss the scenarios. Decide if you think the person is healthy or unhealthy. Then discuss with your class.

1. A 23-year-old female is emotionally and mentally healthy. She has some good friends. She enjoys eating healthy food and she does regular physical activity. She doesn't sleep well. She is awake for many hours during the night.

   Healthy ☐ **Unhealthy** ☐

2. A 30-year-old female is physically and mentally healthy. She has no physical complaints and thinks she is very healthy. She is good at managing her emotions, but she finds it difficult to make friends. She thinks her communication skills are not very good.

   Healthy ☐ **Unhealthy** ☐

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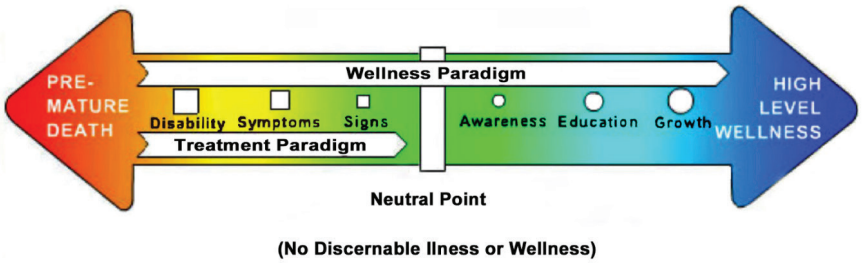
THE ILLNESS-WELLNESS CONTINUUM



Health is constantly changing because some of the things that affect health can change. Here are some of the things that affect health that the individual cannot control. These are called barriers to health.

- The weather – this might prevent people from exercising outdoors. This can change daily.
- The facilities in the community – this could stop people from being able to easily get to the doctor or other health professionals.
- Other people's behaviour – this could lead to emotional or social illness.
- Access to health services – if the facility is too far for people to get to, they may not go.
- The food that is available in their community – their choice of buying healthy food might be limited.

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1.3 Health is a changing state

Activity

Activity 20: Why is health a changing state?

In groups, think of one reason why health is a changing state. Remember to think about each of the dimensions of health that you have studied. Draw a picture to show your idea.

Then you will make one large picture with your class. Every group must include why they think health is a changing state.

Why is health a changing state?

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Notes

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1.4 Healthcare professionals

The roles of healthcare professionals

What are healthcare professionals?

Healthcare professionals are people who are specifically educated and trained in different areas of healthcare. There are lots of different areas of health and they can be involved in any of these areas including:

- the prevention of illness and disease.
- the promotion of health.
- health education.
- the detection of illness and disease.
- the treatment of illness and disease.

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Types of healthcare professionals

Activity 21: Healthcare professionals

Discuss with your class all of the different types of healthcare professionals you already know about. What is their role? Write your answers in the following space.

	Healthcare professional	Role
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

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1.4 Healthcare professionals

As you have seen from the last activity, there are lots of different healthcare professionals. They all have very different roles. Even though their roles might be very different, they must all have the patient's best interest as their priority. Here are some examples of healthcare professions. Did you manage to think of all of these in the last activity?

- **Dietician:** a dietician will identify nutrition deficiencies. They make meal plans for people who have a medical condition. They promote healthy eating and educate people.

- **Doctor:** a doctor can examine and diagnose a patient who is sick. They can recommend and provide treatment to the patient. Doctors can specialise in many different areas of health.

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- **Health promoter:** a health promoter is responsible for educating people about their health before they develop health problems. There are lots of ways to promote health.

- **Nurse:** a nurse can have a variety of roles in healthcare depending on their specialism. They can provide healthcare to individuals, families and communities.

- **Paramedic:** paramedics are the people who are first on the scene of an emergency and provide care to the patient.

- **Pharmacist:** a pharmacist works closely with medications and understands their dosage, usage and interactions in the body.

- **Physical therapist:** a physical therapist works closely with the patient who has an illness, injury or disability. They aim to encourage movement, reduce pain and prevent disability.

- **Psychologist:** a psychologist will assess, diagnose and treat psychological illnesses.

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HS-G11-T1-SB - GIRLS.indd 49 7/15/18 4:16 PM

1.4 Healthcare professionals

Activity

Activity 22: Role of a healthcare professional

Choose one healthcare profession and do some research about the role. Where do they work? Who do they provide healthcare to? What do they do every day? How do they become qualified? Write your answers in the following space. Share your findings with your class.

Healthcare profession: .....

They work in:

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They provide healthcare to:

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Every day they:

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To qualify they must:

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Notes

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End of unit quiz

Quiz – Unit 1

1. List five factors that can affect physical health.

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2. List four dimensions of health.

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3. Which of the following can help to build relationships? Circle your answers.

Only care about yourself	Do things your way	Do exercise
Always suit the other person	Have self-esteem	Have your own identity

4. List two differences between thoughts and emotions.

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5. Write the name of one healthcare profession and explain what their role is as a healthcare professional. Give two examples of what they do.

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Student's comments
Things to think about: Which part of the unit did you enjoy? What part of the unit were you good at? What do you need to improve? **Additional comments:**

Teacher's feedback
Things to think about: Did the student participate? What was the student's attitude towards activities? Did the student display safe and appropriate behaviour? **Additional comments:**

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02

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Introduction to first aid

Learning first aid is an important skill to develop. This skill will allow you to become a valuable member of your community. First aid can be used to help someone who has been in an accident or emergency until full medical treatment is available. This unit will provide you with skills that may make it possible for you to save lives. Remember, practise makes perfect. The more you practise, the more confident you will feel when giving first aid treatment. In an emergency, there is no time to read instructions, so you need to develop your skills and confidence to be effective in these situations.

You will learn about a wide range of basic first aid skills including what to do at the scene of an accident and how to apply a basic wound dressing. It is important to learn these skills so that you can deal with accidents and emergencies.

An accident or emergency can happen at any moment, often when you least expect it! The type of emergency can vary from minor and easy to deal with, to severe and even life-threatening. It is important that you have the skills and confidence to deal with emergency situations so that you can protect yourself and keep others safe within your community.

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Learning outcomes

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Learning outcome 2: Identify the purpose of first aid and highlight the initial steps to take for a medical incident.

Performance indicators:

11.2.1	Recognise the benefits of being able to respond in an emergency.
11.2.2	Demonstrate an understanding of what a first aid kit is, what the contents are and how it can be used in an emergency.
11.2.3	Display an understanding of the process of attending the scene of an emergency, first response steps and how to ask for help from the emergency services.
11.2.4	List the signs and symptoms and the emergency care for a head and spine injury.
11.2.5	Differentiate between bleeding from an artery, vein and capillary.
11.2.6	Identify the different types of open soft tissue injuries.
11.2.7	Perform simple wound dressings.
11.2.8	Understand the importance and apply the principles of hygiene and infection control.

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Glossary of key words

Word	Form	Definition
accident	noun	a sudden event (such as a crash) that causes damage or injury
assess	verb	to judge or understand something
airway	noun	area in the throat where air passes to and from the lungs to allow breathing
bandage	noun	a piece of material used to hold a dressing in place or support an injured area of the body
breathe	verb	to move air into and out of your lungs; inhale and exhale
blood	noun	red liquid that flows through the body
circulation	noun	the movement of blood around the body that is caused by the heart pumping
compression	noun	the act of pressing something
condition	noun	the way something is, or how it works
conscious	adjective	awake and able to understand what is happening around you
dressing	noun	a piece of material used to cover and protect a wound
emergency	noun	a serious, unexpected, and often dangerous situation requiring immediate action
hazard	adjective	potential risk or danger
immediate	adjective	happening or done without delay
incident	noun	a serious or violent event, such as an accident

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Word	Form	Definition
injury	noun	harm or damage to a person's body
laceration	noun	a deep cut or tear to the flesh or skin
medication	noun	a drug or other form of medicine that is used to treat or prevent disease
prevention	noun	the action of stopping something from happening
procedure	noun	a series of actions that are done in a certain way or certain order
protective	adjective	keeps someone or something safe from harm
recovery	noun	the time when someone is getting healthier after an illness or injury
response	noun	a spoken or written answer
resuscitation	noun	bringing someone or something back to life
scene	noun	a place where an event or action takes place
secure	adjective	describes somewhere or something that is safe and unthreatened
sterile	adjective	completely clean and free from bacteria
unconscious	adjective	a person who is not awake due to an illness or injury

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2.1 The benefits of learning first aid

Activity

Activity 1: What do you know about first aid?

Discuss as a class. What do you already know about first aid? What is it? When might it be needed? What does it involve? Why is it important?

First aid is the emergency help given to a sick or injured person until they can get full medical treatment. First aid is an important skill to have. It can help a casualty recover quickly and fully. Understanding what to do when someone is injured or unwell could save a person's life.

First Aid Aims To

Preserve life.

Prevent the condition from worsening.

and/or Promote recovery.

If you are trained in first aid, you can help and respond in an accident or an emergency. Most of the time you will give first aid for minor illnesses or injuries; however, you may also give first aid for a more serious illness or injury. A certified medical responder knows basic medical treatments and can help with a small amount of kit. If you give first aid, you must be certain that your actions will cause no further harm to the victim.

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The skills and knowledge you will learn in this unit will support you to successfully complete a certified first aid course.

Activity 2: Class discussion

Being ready for accidents and emergencies can make a big difference. It can help avoid illness and injury. Discuss the following questions as a class.

What is an emergency?

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What are the different types of emergencies you can think of?

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Have you ever experienced an emergency? What kind of emergency was it?

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2.1 The benefits of learning first aid

How did you deal with the emergency? Who helped (police, ambulance, fire fighters, etc.)?

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What can you do to be ready for an emergency?

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Examples of emergencies:

- Someone is badly injured or very unwell.
- Your life or somebody else's life is in danger.
- A serious accident/incident or crime is taking place.

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Activity 3: What is an emergency?

Is this an emergency? Circle the pictures that you think look like emergencies.

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2.1 The benefits of learning first aid

The benefits of learning first aid

Some of the benefits of learning first aid include:

Benefit to your community – The more people trained in first aid, the safer your local area will be. Your first aid skills could become a real help to your community, friends and family. If ever there was an incident or accident, you would be prepared and ready.

Lifelong skills – The skills and benefits that you will get in your first aid lessons will be useful for your whole life. First aid training will give you the skills to help if there is an accident or an emergency. These skills can be used at home and at work.

Save lives – The skills you learn could one day stop further injury or they could even help to save a person's life. The person could be a stranger or family member.

Improved confidence – First aid training can provide you with the skills to deal with accidents and emergencies. This will give you more confidence and you will be able to stay calm in the event of an emergency. This confidence will also transfer to other areas of your life.

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Activity 4: Benefits of first aid

Write down two more benefits of becoming certified in first aid and then discuss in groups.

1. .....

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2. .....

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Who can perform first aid?

To give first aid to other people, you must be certified. If the casualty is conscious, you should always ask if it's okay before providing first aid help. If the casualty is unconscious, you can ask their family member. Any time you are unsure of the casualty's wishes and communication isn't clear, it's important to help.

How to become certified

Dr Omar Al Sakaf, of the Dubai Centre for Ambulance Services, says that people certified by their emirate can practise first aid on a casualty.

He says that people should find out who gives certification in their emirate and try to get an accredited certificate through them. For example, in Dubai, the Dubai Centre for Ambulance Services (DCAS) certifies people.

Activity 5: Self-study

Where can you get an accredited first aid qualification in your emirate? Write down the company name, location and costs below.

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2.2 First aid kits

First aid kit contents

A first aid kit contains supplies you might need in an emergency.

A basic first aid kit should contain:

- plasters in different sizes
- gauze dressings in different sizes
- sterile eye pad
- sterile wound dressings
- triangular bandages
- crêpe, rolled bandages
- safety pins
- disposable gloves
- tweezers
- scissors
- cleansing wipes
- sticky tape
- thermometer
- clean water

It is important to check that any first aid kit is maintained and restocked as needed.

You should always:

- ensure the first aid kit is clearly labelled.
- know where the first aid kit is and have it in clear view.
- replace what you use so the kit will be ready for the next emergency.
- check the kit for supplies that are out of date to make sure these are replaced with fresh products.

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Activity 6: What is in a first aid kit?

In pairs, name six of the items that you can see in the first aid kit.

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2.3 Attending the scene of an emergency

First aid priorities

Assessing the scene

The first thing to do at the scene of an accident is check that is it safe. You need to check for any danger to you and the injured person/people. You must think about your own safety first, as you cannot help others if you get hurt yourself. Look out for danger to you and the injured person. Move the injured person only if they are in danger, or if you need to move them to provide first aid.

Things to consider	Action to take
Is there any **danger** for you and the casualty?	Only move the injured person if they are in danger where they are or need moving to be treated.
Are there other people around to **help**?	If there are others around, ask them to call an ambulance. If there is no one around, call an ambulance yourself.
Who is ill/injured?	Get an idea of how many people are hurt and try to work out what happened.
Where are you?	It is important that you are very clear about where you are.

A hazard is any situation with the potential to cause harm. Possible dangers include traffic, unstable electric lines, fire, smoke, violent behaviours, extreme weather, dangerous fumes, biochemical products and falling rocks.

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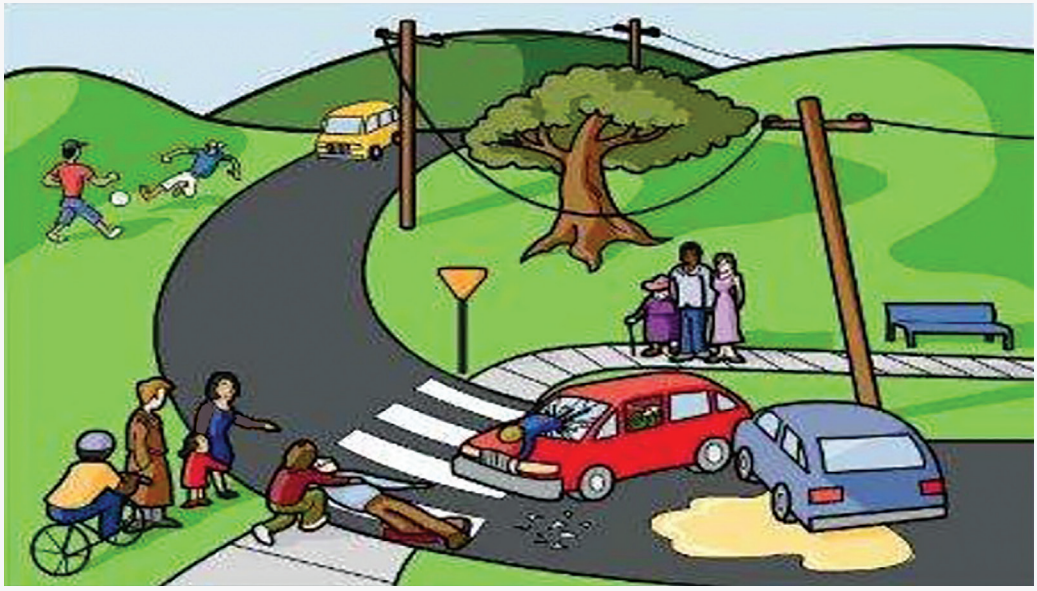
Activity 7: Hazards at the scene

What hazards can you see in the picture? Discuss with a partner and list your ideas in the space below.



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2.3 Attending the scene of an emergency

Activity

Activity 8: Is the scene safe?

Look at the pictures below. In groups, assess the scene. Decide if you think the scene would be safe to enter (yes or no). Explain the reason why you think it is or is not safe and list the hazards that are present.

Scene	Yes/No	Reasons

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2.3 Attending the scene of an emergency

Assess the casualty

Check to see if the person is responsive by tapping on their shoulder and shouting 'are you okay.'

If they do not respond check for breathing by putting your ear close to their nose and mouth to listen for breathing and look at their chest to see if it rises.

Check for any medical information jewellery as this can tell you if someone has an existing medical condition.

If the person is breathing and doesn't need immediate first aid, look for obvious signs of injury such as bleeding, broken bones, burns or bites. If they are talking, ask them what the problem is or what hurts.

If the person is unresponsive, call for an ambulance and get a first aid kit and AED if available. If there is someone else around, ask them to do this for you. If the person is breathing normally, stay with them until the ambulance arrives and check for any obvious injuries.

If they are not breathing, or only gasping, start CPR and use an AED until the ambulance arrives or they become responsive.

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Calling for emergency medical help

You should phone for an ambulance (998) and ask for help whenever:

- ► someone is seriously ill or injured.
- ► you are not sure what to do in an emergency.
- ► you are not qualified to give first aid.

Get as much information as possible about the incident. Be as exact and detailed as possible when speaking to the emergency response operator. This is so they can get help to you as quickly as possible.

Examples of someone who is seriously ill or injured include a person who:

- ► does not respond to sound or touch.
- ► has chest discomfort.
- ► has difficulty breathing.
- ► shows signs of a stroke.
- ► has a severe injury or burn.
- ► is bleeding heavily.
- ► has had a seizure.
- ► suddenly can't move or feel a part of their body.
- ► has received an electric shock.
- ► has been poisoned.

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2.3 Attending the scene of an emergency

Activity

Activity 9: Should you call an ambulance?

Read the following scenarios and decide if an ambulance should be called. Write your answer and the reason for your answer in the table:

Scenario	Should you call an ambulance? Why?
A girl has fallen out of a tree and cannot move.	
A young girl has fallen over and scraped her knee.	
A girl has been bitten by a snake.	
A girl has banged her toe on a footpath.	
A girl has tipped a pot of boiling water onto herself.	
A mother has run the bath too hot and it stung her child as she got in the bathtub.	
Your Grandmother has fallen down and we can't wake her up.	
A girl fell into a pool and she can't swim. Now she is lying on the ground and not breathing.	

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Your sister has drank some cleaning products from the cupboard.	
Your mother cut her finger while chopping vegetables and it's bleeding a little.	
Your father twisted his ankle playing tennis, but he can still walk.	
A car has crashed into a telephone pole and the driver is badly injured.	
A girl has been knocked off her bike by a car and we can't wake her up.	
Your father fell off the roof and he can't move.	

Comfort and reassure

Make casualties feel safe at all times. Talk to them and let them know what is happening and that help is on the way. If you are calm and confident the casualty will feel that they are safe.

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2.3 Attending the scene of an emergency

Activity

Activity 10: Case study

In groups, read the following scenario:

You are on your way to meet your friends to go shopping. As you walk towards the mall, you see a woman who has been hit by a car. She is sitting at the side of the road. She tells you that she is in a lot of pain. You think she may have broken her leg.

What do you think you should do to help the injured woman? List the steps that you should follow.

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Role play

- Your teacher will split you into groups of 5-7.
- You need to plan a role play about the scenario on the previous page.
- You should follow the steps that your group decided on. Make sure each step is clear for the rest of the class to see. The rest of the class will make notes about your role play.
- Later, as a class, you will discuss the steps that each group took.
- You will see which group came up with the correct steps and in the correct order. The teacher will write the correct order on the board.

Write the correct order, according to your teacher, in the space below.

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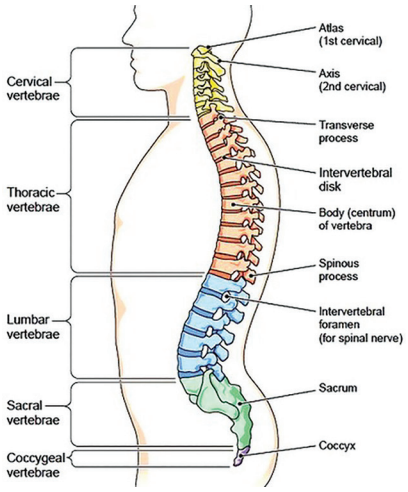
2.4 Head and spinal injuries

The spinal cord

The spinal cord is a long, thin, tube-like bundle of nerves, tissue and cells. It extends from the brainstem to the lumbar region (bottom of the vertebrae). The brain and spinal cord together make up the central nervous system (CNS). The main function of the spinal cord is to send nerve signals from the brain to the rest of the body.



Activity

Activity 11: Functions of the spinal cord

Name the functions of the spinal cord and where it is found in the body.

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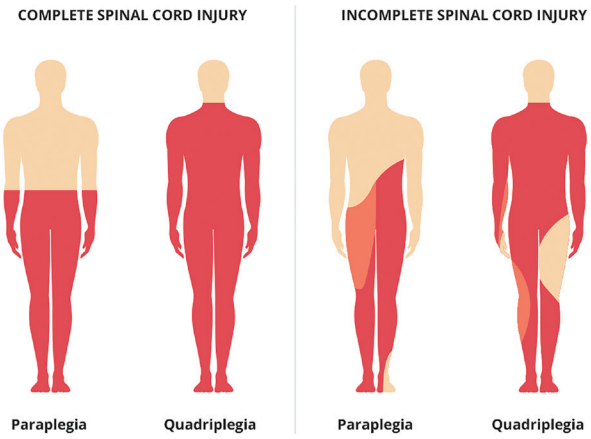
Spinal cord injuries

Spinal injuries can be very severe as they can result in paralysis (losing the ability to move or feel anything). A spinal cord injury occurs when there is any damage to the spinal cord that blocks communication between the brain and the body. Generally, the higher the injury occurs on the spinal cord, the more severe the effects. Injuries are referred to as complete or incomplete, based on whether any movement and sensation occurs at or below the level of injury.



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Common causes of spinal cord injury:

Traumatic injuries

- Car crash
- Sports injuries
- Falls from a height
- Gymnastics
- Violence
- Diving into shallow water

Non-traumatic injuries/illnesses

- Cancer
- Osteoporosis
- Multiple sclerosis
- Inflammation of the spinal cord
- Arthritis

Spinal cord injuries are more common in young adults between the ages of 16 and 30. This is because they take more risks.

The effects of spinal cord injury
The effects of a spinal cord injury can vary a lot depending on the severity of the injury and which part of the spinal cord is affected. They can have life altering effects.

Signs and symptoms of a potential spinal injury

Signs and symptoms of a spinal cord injury after an accident or incident may include:

- extreme back pain or pressure in the neck, head or back.
- weakness, lack of coordination or paralysis in any part of the body.
- numbness, tingling or loss of sensation in the hands, fingers, feet or toes.
- loss of bladder or bowel control.
- difficulty with balance and walking.
- impaired breathing after injury.
- an oddly positioned or twisted neck or back.

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2.4 Head and spinal injuries

First aid for potential spinal injuries

Anyone who experiences significant trauma to their head or neck needs immediate medical attention. This is because they may have a spinal injury. You should always assume that a trauma victim has a spinal injury. Only a doctor can decide whether it is or not.

- A serious spinal injury isn't always immediately obvious. If it is not recognised straight away, a more severe injury may occur.
- Numbness or paralysis may develop immediately or come on gradually. This is because bleeding or swelling in or around the spinal cord may not be obvious at first.
- The time between injury and treatment can be critical. This information can help determine how serious the complications are and the amount of recovery needed.

If you think someone has a back or neck injury, follow these steps:

- Call an ambulance.
- Keep the person still.
- Place heavy towels, cushions or clothes on both sides of the neck, or hold the head and neck still to prevent them from moving until emergency care arrives.
- Provide basic first aid; for example, you should try to stop any bleeding and make the person comfortable without moving the head or neck.

It is very important not to move a person who has a suspected spinal injury. Do not twist or turn the head or neck unless you need to do any of the following:

- Turn the person face-up to give CPR.
- Move the person out of further danger.
- Turn the person because of difficulty breathing, vomiting or fluid in the mouth.

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Activity 12: Practise

You are now going to practise what you would do if you came across someone with a potential spinal injury.

Get into pairs. One student should act as an injured person with a possible spinal injury. The other student is going to practise the correct technique of supporting the head and spine. Try to think about or find objects in the room that will help you support the neck and head. At the scene of an accident you will not necessarily have a splint or supports. This exercise will help you become more resourceful in situations where equipment is limited. Switch over so each partner performs the role of both the patient and the first aider.

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2.4 Head and spinal injuries

Head injuries

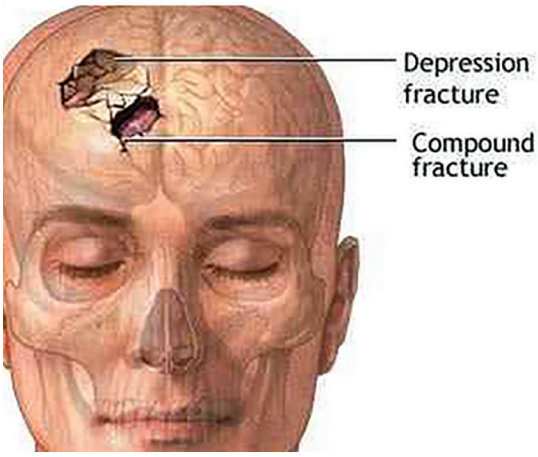
A head injury is any trauma to the scalp, skull, or brain. Head injuries can range from a minor bump on the skull to a serious brain injury. A head injury can be either closed or open (penetrating).

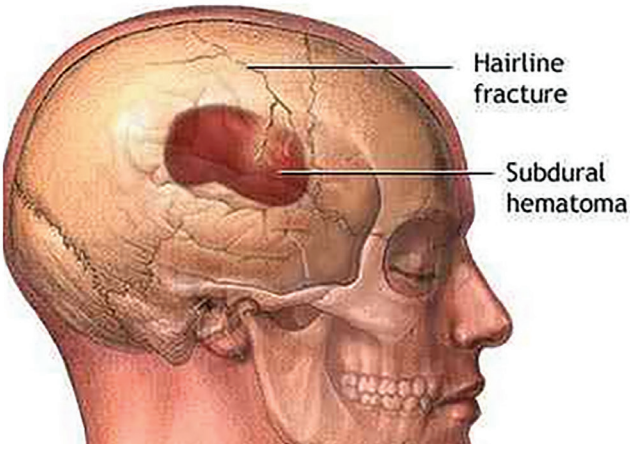
- A closed head injury is when there has been a hard blow to the head by an object which did not break the skull.

- An open or penetrating head injury means that an object broke the skull. This is more likely to happen when moving at high speed; for example, if someone is in a car accident and goes through the windscreen of the car.

Head injuries include:

- concussion (when the brain is shaken); the most common type of traumatic brain injury.
- scalp wounds.
- skull fractures.





Head injuries may cause bleeding:

- in the brain tissue.
- in the layers that surround the brain (subarachnoid haemorrhage, subdural hematoma, extradural hematoma).

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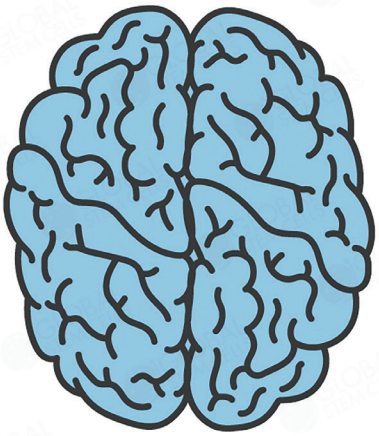
Traumatic Brain Injuries (TBI)



How does TBI occur?
The brain can be injured by a collision, rapid acceleration or rapid deceleration.

TBI can be mild, moderate or severe based on the extent of the damage to the victim's physical and cognitive capacity. Severe cases can put life-threatening pressure on the skull or reduce blood flow to the brain.

Most frequent causes
The leading causes of TBI vary greatly by age:
- Falls in those aged over 65
- Transportation accidents in those under 65 years old

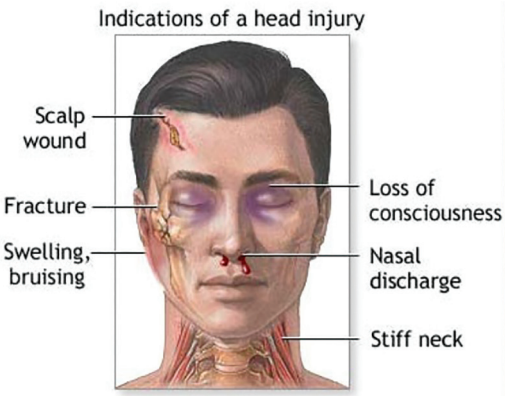
How common are TBIs?
- Brain injury is the leading cause of accident- related death and disability world wide.
- Traumatic brain injury is the leading cause of seizure disorders worldwide.

Symptoms of TBI
- Severe headaches
- Severe nausea
- Seizures

Severe head injuries require immediate medical attention because there is a risk of serious brain damage.

Symptoms of a head injury include:

- Unconsciousness
- Unresponsive, or only moans
- Acts sleepy or confused
- Fits or seizures
- Difficulty speaking or staying awake
- Problems with the senses – such as hearing loss or double vision
- Vomiting
- Blood or clear fluid coming from the ears or nose
- Memory loss (amnesia)
- Sudden swelling or bruising around both eyes or behind the ear
- Difficulty walking, or with coordination



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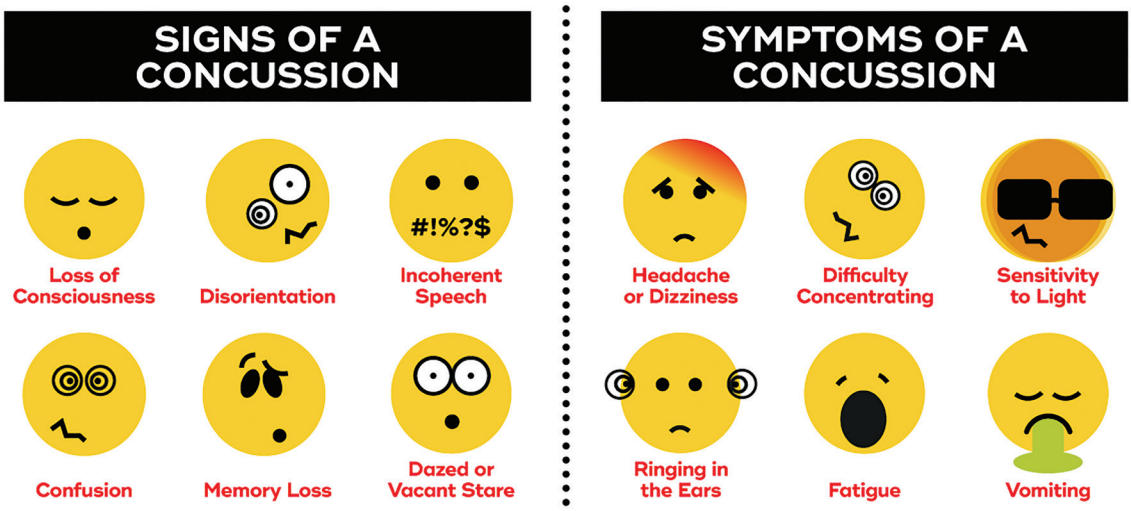
2.4 Head and spinal injuries

Concussion

Concussion is a type of head injury that usually happens as a result of falls, car accidents and sports injuries. It occurs when the head or body is hit so hard that the brain moves inside the skull.



Emergency medical care for head injuries

Learning to recognise a serious head injury and give basic first aid can save someone's life. For a moderate to severe head injury, call an ambulance straight away. Also get medical help straight away if the person:

- becomes very sleepy.
- behaves abnormally.
- develops a severe headache or stiff neck.
- has pupils (the dark central part of the eye) with unequal sizes.
- is unable to move an arm or leg.
- loses consciousness – even briefly.
- vomits more than once.

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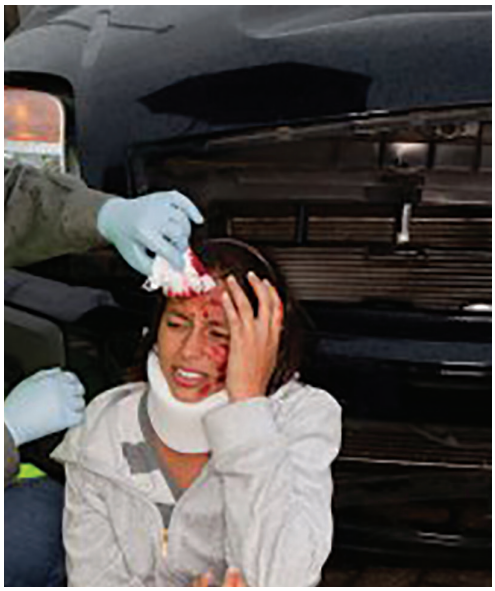
First aid for a head injury should be similar to a spinal injury, as it is important not to move the person.



- If there is bleeding from the head injury, you should stop any bleeding by pressing a clean dressing on the wound. Do not apply pressure to the wound if there is a suspected skull fracture.
- Ice can be applied to the swollen area of the head.
- If the person is vomiting, roll the person's head, neck and body, as one unit, onto her side to prevent choking. This still protects the spine, which you must always assume is injured in the case of a head injury. Children often vomit once after a head injury. This can be as a result of shock, rather than directly related to the head injury.

Activity 13: Practise

In groups of three, you are going to practise rolling someone onto their side. Two students should roll the other student on her side. Make sure to roll her head, neck and body as one unit, protecting the spine as you do it. Switch over so each of you practises performing the roll.

Make sure you **DO NOT** do any of the following:

- Do NOT wash a head wound that is deep or bleeding a lot.
- Do NOT remove any object sticking out of a wound.
- Do NOT move the person unless absolutely necessary.
- Do NOT shake the person if she seems dazed.
- Do NOT remove a helmet if you suspect a serious head injury.
- Do NOT pick up or move a fallen child with any sign of head injury.

A serious head injury that involves bleeding or brain damage must be treated in a hospital.

For a mild head injury, no treatment may be needed. However, monitor for symptoms of a head injury which may appear later.

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2.4 Head and spinal injuries

Activity 14: What should you do?

Look at the statements below and circle whether you 'should' or 'should NOT' do this if someone has a suspected head injury.

Call an ambulance.	should NOT	should
Wash a deep head wound that is bleeding heavily.	should NOT	should
Get the casualty to sit up.	should NOT	should
Perform CPR if unconscious and not breathing.	should NOT	should
Remove any objects from the wound.	should NOT	should
Put ice on the swollen area.	should NOT	should
If you suspect a skull fracture, you should cover the wound with a sterile gauze dressing instead of applying pressure.	should NOT	should
Shake the casualty to see if they respond.	should NOT	should

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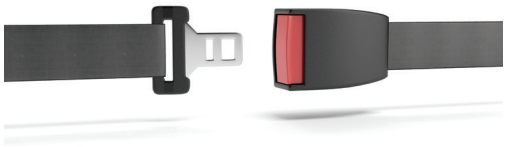
Prevention of head injuries

Not all head injuries can be prevented. However, using simple precautions, such as using safety equipment during certain activities, could reduce the chance of injury. This includes wearing a seat belt in the car, a helmet when riding a bicycle and a hard hat in areas where something could fall on your head.



When using safety equipment, it is extremely important to use it properly. Using safety equipment incorrectly can be as bad as not using it at all. Examples of not using safety equipment correctly include helmets that do not fit properly or are not tightened correctly and seat belts that have not been tightened properly, or worn in the correct way.

Activity 15: Correct use of safety equipment

Circle the correct use of safety equipment.

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2.5 Arterial, venous and capillary bleeding

Blood vessels

Activity

Activity 16: What are blood vessels?

Discuss as a class what you already know about blood vessels. What are they? What do they do? What are the different types? Make notes below.

What are blood vessels?

What is the function of blood vessels?

What are the different types of blood vessels?

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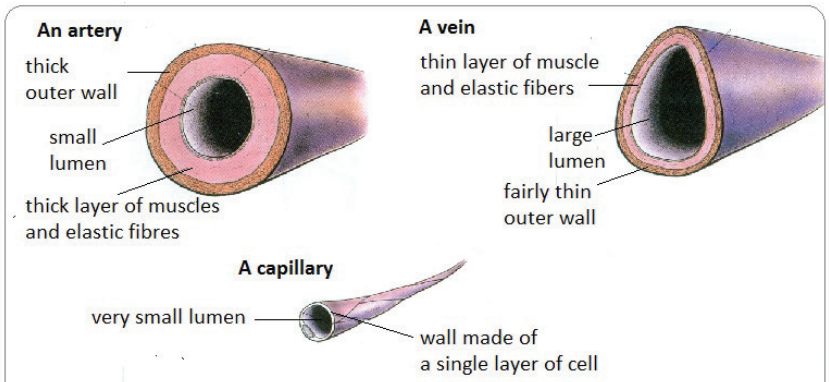
Blood flows through blood vessels, which form the closed system called the circulatory system.

There are three main types of blood vessels:

- **Arteries** take blood away from the heart to the body's organs and tissues. The artery wall is thick and muscular; this is so it can cope with the high pressure of the blood being pumped from the heart.
- **Capillaries** are very small, thin-walled blood vessels which form a network to take blood through the organs and tissues.
- **Veins** take blood from the capillaries and return the blood to the heart. The walls of the veins are thin as the blood is at a low pressure. To stop blood from flowing the wrong way, veins have valves.



Sections through the three types of blood vessels

Activity 17: Matching activity

Draw a line to match the blood vessel with the correct description.

Veins	Very small, thin blood vessels (a single cell thick). This is where gas and nutrients are passed onto the tissues of the body.
Arteries	Thin-walled blood vessels that carry blood under low pressure from the body's tissues to the heart. Valves are used to stop blood flowing the wrong way.
Capillaries	Thick-walled blood vessels that carry blood to the tissues of the body from the heart, under high pressure.

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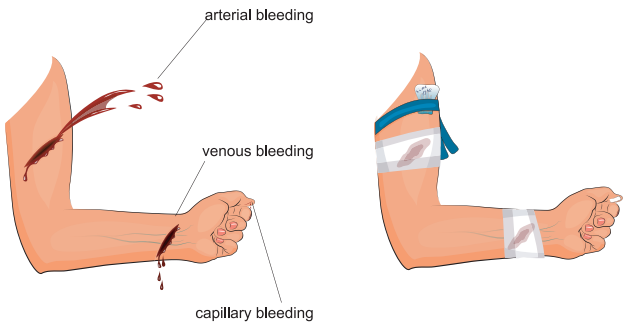
2.5 Arterial, venous and capillary bleeding

Bleeding from different blood vessels

When someone has a cut that is bleeding it is important to know what type of bleeding it is; is it due to a tear in the capillary, vein or artery?

Which blood vessel is cut?	How serious is it?
Capillary	If a person has cut through a capillary, the cut will usually clot and stop bleeding by itself after a short time.
Vein	If a person has cut through a vein, it is a slightly more serious injury. In rare situations, it could result in death if not treated. Generally, you will have a few hours to get medical attention. If needed, the person will need to get the wound stitched.
Artery	This is a very serious injury. A cut artery will bleed very fast. It will not clot and the person could lose consciousness within minutes. This is because the blood pressure becomes low. If untreated, the person could be dead within minutes.

THE TYPES OF BLEEDING



There are a few ways you can quickly assess what type of cut you are dealing with.
To do this, you should look at:

1. The way blood looks – vein blood is usually dark red. Artery blood is normally bright red. However, the difference is not always easy to see.
2. How the blood acts – blood from a vein will ooze from a wound. Blood from an artery will spurt from the wound.

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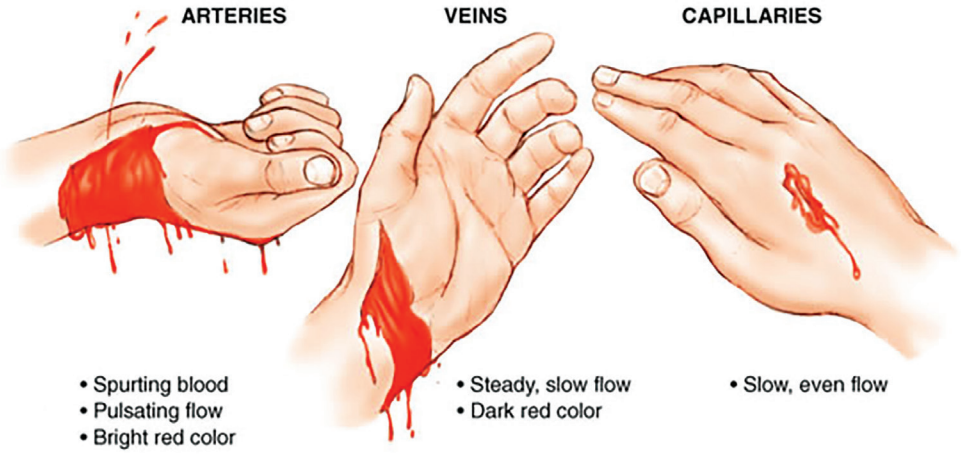
artery	blood spurting	blood will gush out in a sudden and forceful stream
vein	blood oozing	blood will slowly trickle or seep out



Activity

Activity 18: Different types of bleeding

In your own words, describe the difference between the three types of bleeding: arterial, venous and capillary bleeding.

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2.5 Arterial, venous and capillary bleeding

Activity

Activity 19: Identify the bleed

What type of cut do you see in the pictures below? Write capillary, artery or vein beside the picture.

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Notes

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2.6 Open soft tissue injuries

Open soft tissue injuries are any injury where blood is released through broken layers of skin. Open injuries can vary from minor injuries, such as a small graze to the skin or papercut, to severe life-threatening injuries involving uncontrollable bleeding and amputations.

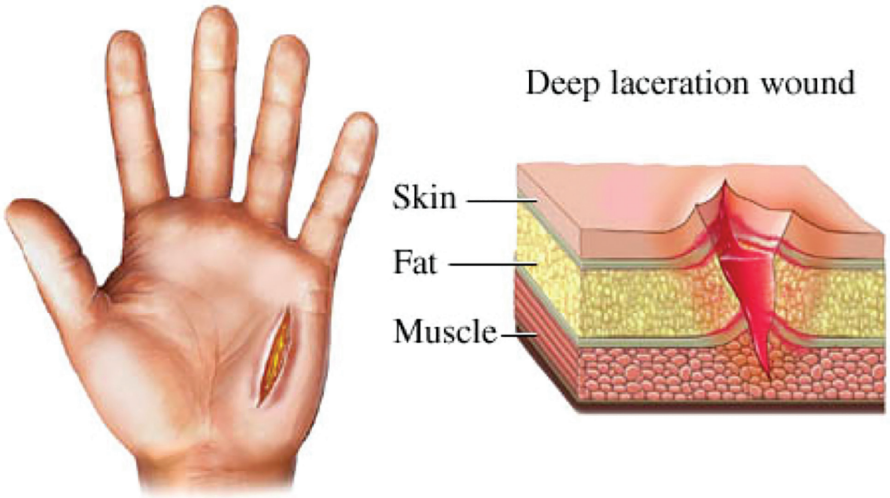
The main categories of soft tissue injuries are:

Abrasion

An abrasion is an injury caused by scraping/grazing the skin on a rough surface. This type of injury is common on knees, elbows and hands, often as a result of falling or tripping.

Laceration

A laceration is a cut or tear in the skin. If the wound is deep, it may go through the skin to the muscle tissue. Major blood vessels and nerves may also be damaged.



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Avulsion

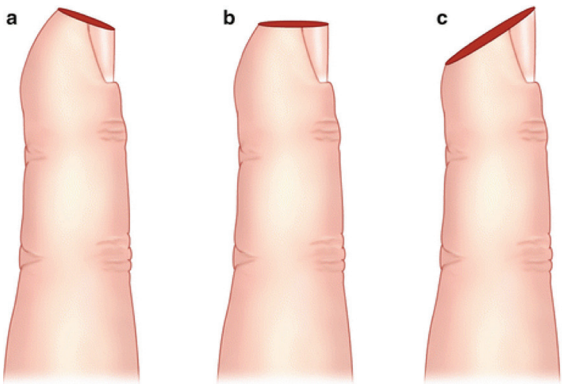
An avulsion is a tearing away of tissue. The separated part usually contains various layers of tissue.

Puncture

A puncture is caused by an object such as a splinter, knife or other sharp object going through the flesh. If the object goes right through the body and out the other side, it is called a perforated wound. If the object stays in the body and is sticking out of the skin, the object is classed as impaled.

Amputation

An amputation is the complete removal of tissue from the body. It may start as an avulsion wound then the tissue becomes completely separated from the body, this is considered amputation.



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2.6 Open soft tissue injuries

Activity

Activity 20: What is the type of injury?

Draw a line to match the injury to the correct category of soft tissue injury.

Abrasion

Laceration

Avulsion

Puncture

Amputation

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First aid for amputation

If part of the body is torn off, it is classed as an amputation. Finger or toe amputations are common as a result of accidents or injuries. If treated properly, it can be possible to reattach amputated fingers or toes. It is very important to know what to do in this situation to increase the chance of being able to have a successful reattachment.

Follow these steps to give first aid for an amputation:

- Call an ambulance, or get someone else to.
- Get a first aid kit and AED if available.
- Wear personal protective equipment such as gloves.
- Stop the bleeding from the injured area by applying pressure. Keep firm pressure on the wound for as long as needed to slow and stop the bleeding.

Activity

Activity 21: Common causes of amputation

Discuss as a group as many different causes of accidental amputation as you can think of. What do you think is the most common accident/incident that results in amputation?

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2.6 Open soft tissue injuries

You need to find the amputated part and follow these steps to increase the chance of being able to reattach it:

- Rinse the amputated part with clean water.
- Wrap it in a clean dressing.
- Put it in a watertight plastic bag.
- Put that bag in another bag or bowl of ice, or cold water.
- Label the bag with the time of amputation and the person's name and make sure it goes to the hospital with the injured person.

Note: Do not put the amputated body part directly in ice as this may cause further damage.

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First aid for puncture injuries

If someone has a puncture injury, and the object such as a nail, knife or piece of glass is still in the wound, you should keep it there until a medical professional arrives. This is because removing the object can result in heavier bleeding.

Follow these steps for a puncture injury:

- Call an ambulance, or get someone else to if possible.
- Get a first aid kit and AED if available.
- Wear personal protective equipment such as gloves.
- Try to stop any bleeding you can see without removing the object.

Activity 22: Puncture injuries

Explain in your own words why it is important to NOT remove an object that is still in the body.

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2.7 Applying a dressing to a wound

External and internal bleeding

Bleeding can be either internal or external. External bleeding is when the skin is broken and blood comes out. Internal bleeding is bleeding under the skin. When bleeding is external, it needs to be stopped before the person loses too much blood. Dressings and bandages can be used to stop this bleeding.

Dressings and bandages

The difference between a dressing and a bandage can often be confused.

Dressing	Bandage
Material that is used directly on the wound to stop bleeding. Any clean cloth or a piece of gauze can be used as a dressing.	Material that is used to protect or cover an injury. It can also be used to apply pressure to a wound by tying it tightly.

Activity

Activity 23: Bandage or dressing?

In your own words, explain the difference between a dressing and a bandage giving examples of when each may be used.

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When do you need to call the emergency services for bleeding?

Smalls cuts can be easily treated at home; however, there are times when heavy bleeding and deep cuts will need medical treatment.

You should phone for an ambulance if:

- there is a lot of bleeding.
- you are not able to stop the bleeding.
- the injured person is showing signs of shock.
- you think there is a chance of a head, neck or spine injury.
- you do not know what to do.

Activity 24: Should you call for an ambulance?

Read the statements below and decide if you need to call for an ambulance as a result of external bleeding.

Scenario	Call an ambulance (yes or no)
You have a paper cut and your finger is bleeding.	
Your sister has fallen and banged her head; it is not bleeding much but she is dizzy and confused.	
Your mother cut her finger with a knife; it was bleeding a lot to start with but is slowing down after applying pressure.	
Your friend has cut herself on broken glass and it will not stop bleeding.	
Your friend has cut her arm and it is bleeding very heavily.	
Your sister falls over and grazes her knee.	

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2.7 Applying a dressing to a wound

Control external bleeding

If someone is bleeding, you should take the following steps:

Get a first aid kit

Wear protective equipment such as gloves

Apply pressure:
If possible, get the injured person to apply pressure to the wound while you put the gloves on. You can then take over and apply pressure to the wound to slow the bleeding.

Apply dressings to the wound:
Use a dressing from the first aid kit or some clean cloth. Apply direct pressure over the area that is bleeding. To do this, use the palm of your hand or the flat part of your fingers.

Add a second dressing if needed:
If the bleeding does not stop, you should apply another dressing and apply more pressure (press harder). Keep the first dressing on and apply the second dressing over the top of it as removing it could make the wound bleed more. Keep pressure on the wound until the bleeding stops.

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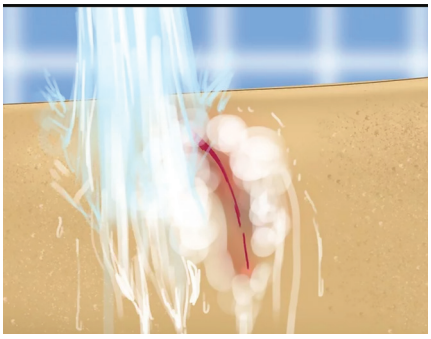
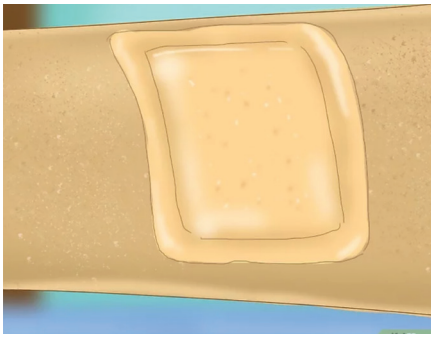
Wrap a bandage around the dressing to keep it in place.

When the bleeding has stopped, or you can no longer keep the pressure on the wound, wrap a bandage tightly over the dressing to hold it in position.

If the cut is small and not bleeding heavily, wash it under water and apply a small dressing such as a plaster.





Activity

Activity 25: Practise applying a dressing

In pairs, practise applying a dressing and a bandage to a wound. One person will be the patient, the other person will apply the dressing, then switch roles.

How easy did you find applying a dressing? What did you find easy? What was more difficult?

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2.8 Hygiene and infection control

Protecting yourself from infection

It is important to protect yourself and the casualty from cross infection. Infection is a risk even with minor injuries, especially with open wounds. Washing your hands and wearing gloves reduces this risk.

Hand hygiene

Hand hygiene is one of the most important parts of infection control. Although washing your hands may seem like a simple task, lots of people do not do it properly. To effectively wash your hands, follow the steps below:

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Activity 26: Order the steps

Put the steps of hand washing in the correct order by numbering the statements 1 to 10.

	Apply enough soap to your hands to cover all areas.
	Rub the thumbs by twisting around them with the opposite hand.
	Dry hands with a single use towel.
	Use the towel to turn off the tap.
	Wet hands with water.
	Rub back of fingers with the opposite palm, fingers interlocked.
	Rub hands palm to palm with fingers interlaced.
	Rub one hand over the other with fingers interlaced.
	Rub hands palm to palm.
	Rinse hands with water.

Which step is missing from the statements above? Write the missing step in your own words and explain where it should fit in.

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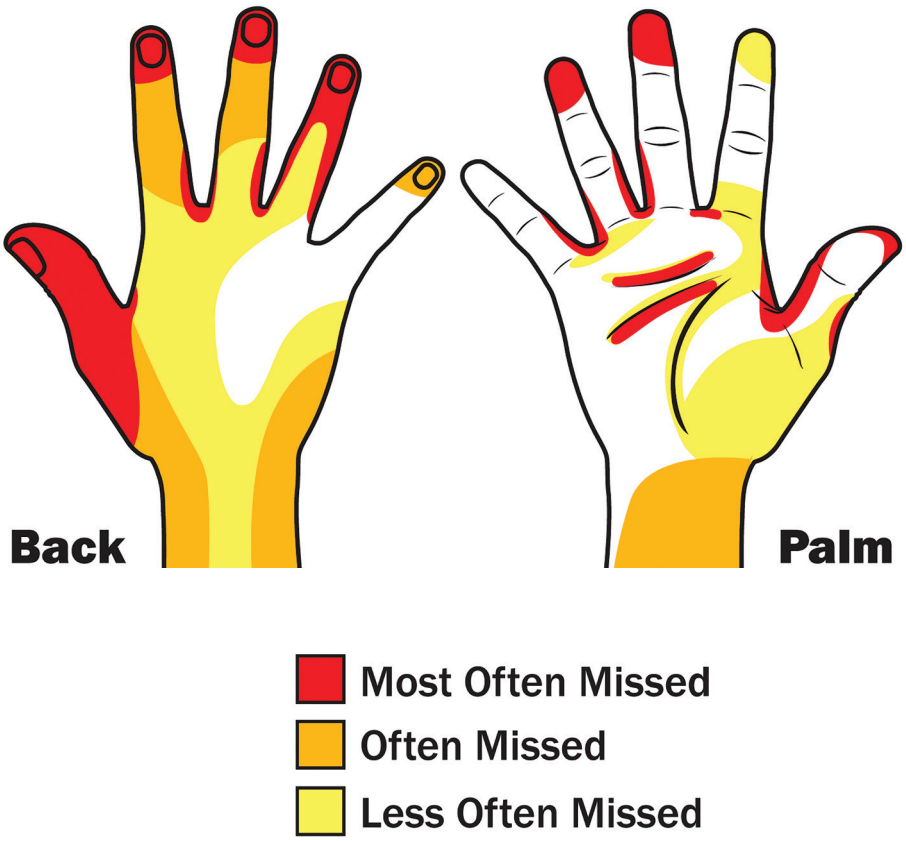
2.8 Hygiene and infection control

Look at the image below, these are the areas that people most commonly miss when washing their hands. It is important to think about this next time you wash your hands to ensure you do it properly.

Areas most often missed with inadequate handwashing.



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Activity 27: Create a poster

Create a poster explaining the importance of hand hygiene. It should include why it is important and when you need to do it.

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2.8 Hygiene and infection control

Protective clothing

As well as washing your hands there are other things you can do to reduce the chance of cross-contamination. This includes wearing protective clothing when treating casualties.

Activity

Activity 28: What is protective clothing?

Discuss as a class. What do you think protective clothing is? Can you think of any examples? When would these be used?

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Activity 29: Which protective clothing?

Pick a picture. Which type of protective clothing would you wear when dealing with a casualty or patient? Circle the correct picture.

Protective clothing for first aid can include gloves, gowns, masks and eye protection.

Gloves protect you from diseases that can be caught through handling blood or other bodily fluids. Due to their small size and how cheap they are, protective gloves are usually found in most first aid kits.

The use of gloves also protects the casualty from the germs on your hands contaminating their wound.

Some important points to remember:

- Always wear gloves when treating a casualty (even if you cannot see any blood).
- Change your gloves with each use.
- Wash your hands straight away after removing your gloves.
- Remove and bin your gloves in the correct way.
- Do not wear the same gloves when treating different patients.

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2.8 Hygiene and infection control

The correct removal of gloves is important. It will reduce your risk of contamination.

The following poster shows you how you should properly remove gloves.

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Activity 30: How to remove gloves

Use the step-by-step poster to make notes in your own words on how to correctly remove disposable gloves.

Notes:

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2.8 Hygiene and infection control

Activity

Activity 31: Fill in the blanks

Fill in the blanks using the words in the boxes below.

protective	disease	wash
skin	gloves	contamination

When helping at the scene of an accident, I should always use my _____ clothing. Using protective clothing, such as _____ , can protect me from contracting a _____ . The patient will also be protected from _____. After I correctly remove my gloves, I should immediately _____my hands. This will remove any blood or bodily fluids that may have made contact with my _____ .

Reducing the spread of disease in a clinical setting

Five moments for hand hygiene

The World Health Organization developed guidelines on hand hygiene in healthcare. These guidelines are called the five moments for hand hygiene and they define the key moments for hand hygiene.

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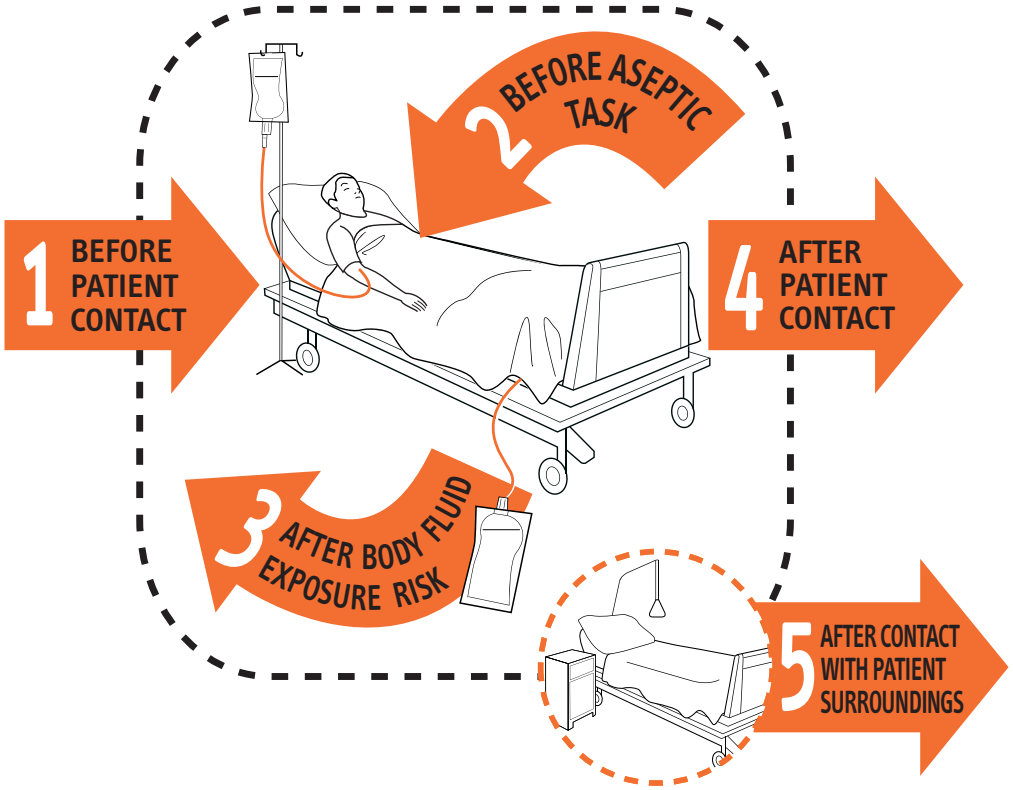
Your 5 moments for HAND HYGIENE



1 BEFORE PATIENT CONTACT	WHEN? Clean your hands before touching a patient when approaching him or her. WHY? To protect the patient against harmful germs carried on your hands
2 BEFORE AN ASEPTIC TASK	WHEN? Clean your hands immediately before any aseptic task. WHY? To protect the patient against harmful germs, including the patient's own germs, entering his or her body
3 AFTER BODY FLUID EXPOSURE RISK	WHEN? Clean your hands immediately after an exposure risk to body fluids (and after glove removal). WHY? To protect yourself and the health-care environment from harmful patient germs
4 AFTER PATIENT CONTACT	WHEN? Clean your hands after touching a patient and his or her immediate surroundings when leaving. WHY? To protect yourself and the health-care environment from harmful patient germs
5 AFTER CONTACT WITH PATIENT SURROUNDINGS	WHEN? Clean your hands after touching any object or furniture in the patient's immediate surroundings, when leaving - even without touching the patient. WHY? To protect yourself and the health-care environment from harmful patient germs

WHO acknowledges the Hôpitaux Universitaires de Genève (HUG),
in particular the members of the Infection Control Programme, for their active participation in developing this material.

World Health Organization

October 2006, version 1.

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2.8 Hygiene and infection control

Activity

Activity 32: Five moments of hand hygiene

Name each of the five moments of hand hygiene and explain why it is important in each of these moments.

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It is extremely important to take precautions to reduce contamination. These precautions include standard precautions and transmission-based precautions.

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Standard precautions

Standard precautions are the main approach for reducing the spread of healthcare-associated infections.

Standard precautions include:

- hand hygiene; before and after patient contact.
- the use of personal protective equipment (PPE).
- the safe use and disposal of sharp objects.
- routine environmental cleaning.
- correctly disinfecting reusable medical equipment.
- respiratory hygiene; for example, coughing into a tissue.
- waste management.
- appropriate handling of linen (bed sheets).

Transmission-based precautions

Transmission-based precautions are used as well as standard precautions. These will be used when it is believed that a disease is already present, to reduce the risk of it spreading further.

Transmission-based precautions can be broken down into three categories: contact precautions, droplet precautions and airborne precautions.

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2.8 Hygiene and infection control

Contact precautions:

- Appropriate patient placement: keep patients who have diseases that could spread to others away from other patients.
- Use personal protective equipment (PPE) appropriately.
- Avoid transporting/moving patients where possible.
- Use disposable patient-care equipment where possible and disinfect equipment that can't be disposed of.
- Clean and disinfect rooms more regularly.

Droplet precautions:

- Source control: put a mask on the patient.
- Ensure appropriate patient placement.
- Use personal protective equipment (PPE) appropriately.
- Avoid transporting/moving patients where possible.

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Airborne precautions:

- Source control: put a mask on the patient.
- Patients should be placed in an airborne infection isolation room (AIIR).
- Healthcare professionals who are more at risk of catching infections should not treat this type of patient.
- Use personal protective equipment (PPE) appropriately.
- Avoid transporting/moving patients where possible.
- Immunise anyone who comes into contact with the patient who is at risk of contracting the disease.

Activity 33: What is the difference?

Explain the difference between standard precautions and transmission-based precautions. When will each be used? Give examples.

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End of unit quiz

Quiz

Quiz – Unit 2

1. Outline the steps you should take when you arrive at the scene of an accident.

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2. Explain the importance of hand hygiene.

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3. Describe the difference between a bandage and a dressing.

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4. Explain the difference between bleeding from and artery and vein.

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Student's comments
Things to think about: Which part of the unit did you enjoy? What part of the unit were you good at? What do you need to improve? **Additional comments:**

Teacher's feedback
Things to think about: Did the student participate? What was the student's attitude towards activities? Did the student display safe and appropriate behaviour? **Additional comments:**

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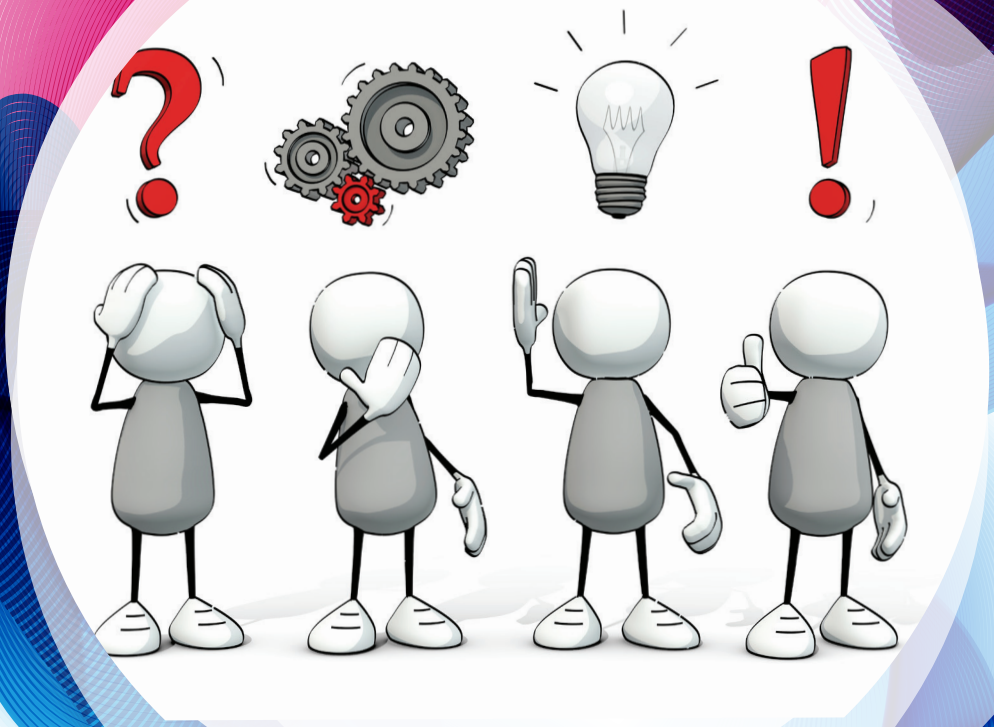

03

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Emotional health

Emotional health is one of the dimensions of health. Emotional health can have an impact on the other areas of health. To understand emotional health, it is important to understand and recognise your emotions and feelings. When you recognise the different emotions and feelings, you can use strategies to help manage them.

Self-esteem is how a person thinks and feels about themselves. It is an emotional evaluation of their own self. There are also strategies that people can use to improve their own self-esteem and confidence.

In this unit, you will learn about the different emotions and feelings, how to rate self-esteem and coping strategies that you can use to help manage your own emotions and feelings. You can use these strategies to advise others on how to manage their feelings. You will also learn about peer pressure and some strategies to resist negative peer pressure.

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Learning outcomes

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Learning outcome 3: Explain the concept of emotional health in relation to managing feelings, self-esteem and coping strategies.

Performance indicators:

11.3.1	Explore the concept of self-esteem in relation to a person's emotional health.
11.3.2	Identify ways to improve self-esteem in self and others.
11.3.3	Identify feelings in relation to emotional health.
11.3.4	Identify ways to manage feelings.
11.3.5	Describe different coping strategies and when they are required.
11.3.6	Discuss strategies to resist negative peer pressure.

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Glossary of key words

Word	Form	Definition
advice	noun	guidance or recommendations given to someone
appropriate	adjective	suitable in the circumstances
assertive	adjective	showing a confident personality
behaviour	noun	the way a person acts or conducts themselves
challenge	noun	a task or situation that tests abilities
compliments	noun	an expression of praise or admiration
coping	verb	to deal with something difficult
critical	adjective	to be disapproving or making a negative judgement
emotional	adjective	relates to a person's emotions and feelings
express	verb	how people say or show their feelings or thoughts
feelings	noun	an emotional state relating to the emotions

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Word	Form	Definition
manage	verb	to be in charge of something
optimistic	adjective	to be hopeful about something or about the future
peer pressure	noun	influence from others in the same age group
recognise	verb	to identify something or someone
refusal	noun	not willing to do something
relationships	noun	how two or more people or things are connected
self-esteem	noun	confidence in yourself or your ability and value of self-worth
strategy	noun	a plan or actions to get something finished
trigger	verb	something that leads to a reaction

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3.1 Self-esteem and emotional health

What is emotional health?

Emotional health is one of the dimensions of health. Good emotional health refers to how people feel about themselves and their ability to manage their feelings as they deal with challenges in life. As you have already learnt in Unit 1, emotional health can have an effect on the other dimensions of health; physical, mental and social.

Activity 1: What is emotional heath?

What does emotional health mean to you? Discuss in pairs and make notes in the following space. Discuss with your class.

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There are lots of different things that effect emotional health. These include: self-esteem, identifying and managing feelings, recognising and using coping strategies and being able to resist peer pressure.

To improve emotional health, people must be able to understand their emotions and what they mean.

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All emotions are important. That does not mean they are all good long-term. We should not have to sit back and let them hurt us. Instead, we can use different skills and coping strategies to help manage different emotions. This leads us to being able to control emotions and adjust our mindset and behaviour.

Self-esteem and emotional health

What is self-esteem?

Self-esteem is how a person thinks and feels about themselves. It is an emotional evaluation of our own self. Self-esteem is not about feeling better than other people. It is not about thinking that you are perfect. It is about being happy with who you are, even with your faults. Self-esteem is about how you value yourself.

Activity

Activity 2: What does self-esteem mean to you?

In pairs, think about what self-esteem means to you. Write or draw your ideas in the following space.

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3.1 Self-esteem and emotional health

It is important to understand your own self-esteem. This will help you to give advice to others if they are having difficulty with their emotional health.

Having a high self-esteem is good for your emotional health. When a person has a high self-esteem, they accept who they are and value themselves. It means they don't criticise themselves for their flaws. People will criticise themselves from time to time, but if they regularly think badly about themselves, they might have low self-esteem.

To recognise your own self-esteem, ask yourself the following question.

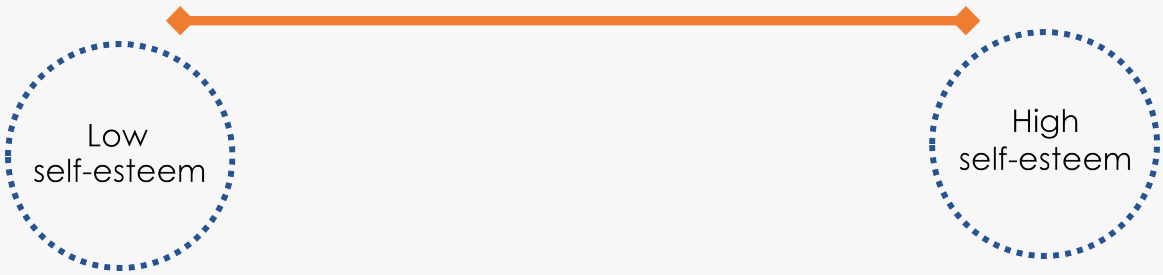
'Am I important and do I see value in myself?'

If you say 'yes,' then you probably have high self-esteem. If you say 'no,' then you might need to work on building your own self-esteem.

Activity

Activity 3: Rate your own self-esteem

Do you think you have high or low self-esteem? Maybe you are somewhere in the middle? Ask yourself the question **'Am I important and do I see value in myself?'** Then put an X on the line where you rate your own self-esteem.



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When you have rated your own self-esteem, think about why you have high or low self-esteem. What characteristics show this? Make notes in the following space.

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3.1 Self-esteem and emotional health

Activity 4: Rate others' self-esteem

In pairs, think about how you would encourage someone else to think about their self-esteem. What questions would you ask them? How would you know if they have high or low self-esteem? Write your answers in the following space. Then share your answers with your class.

What questions would you ask?

1. .....

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2. .....

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3. .....

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How would you know if their self-esteem is high or low?

1. .....

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2. .....

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3. .....

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3.2 Improving self-esteem

Low self-esteem

Before you try to build self-esteem, it is important to recognise the signs of low self-esteem.

Signs of low self-esteem include:

- Saying or thinking negative things and being critical about yourself.
- Focusing on your negatives and ignoring your achievements.
- Thinking other people are better than you.
- Not accepting compliments, feeling sad, depressed, anxious, ashamed or angry.

People who have low self-esteem can:

- have difficulty with relationships with others.
- have problems at school.
- become very upset by criticism or disapproval from others.
- withdraw from activities and people.
- have problems with body image that can lead to negative lifestyle choices.
- be less likely to stand up for themselves or resist peer pressure.

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Activity 5: Effects of low self-esteem

In groups, discuss how you think low self-esteem can affect health. Remember to think about the dimensions of health. Make notes in the following space. Discuss your answers with your class.

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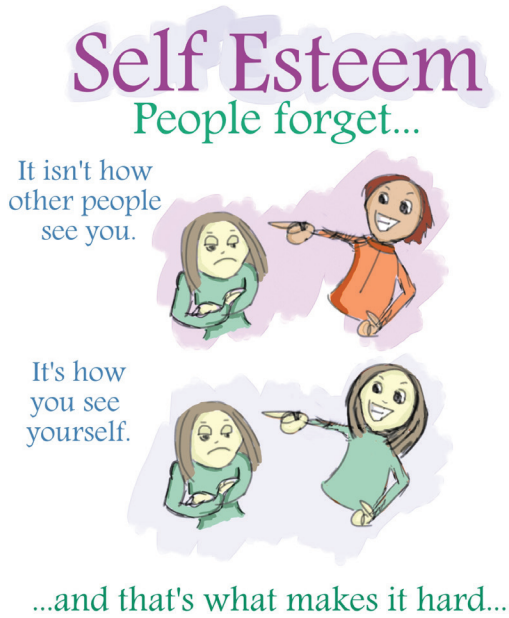

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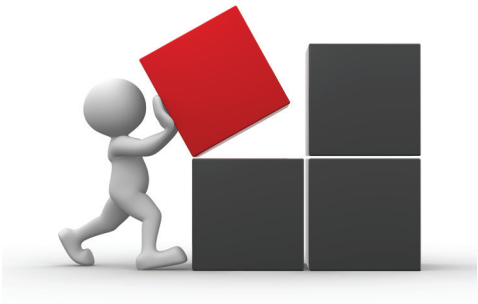
3.2 Improving self-esteem

Improving self-esteem

If you feel like you have low self-esteem, do not worry. There are lots of ways you can improve and develop it. To improve your self-confidence and build your self-esteem, you can:

- think about things you are good at. What are your strengths?
- celebrate the small things in your life and give yourself a pat on the back when you achieve even a small thing.
- challenge your negative thinking; look for different explanations and put things into perspective.
- think about things you can change for the better and do not worry about things you cannot change.



- avoid trying to do things perfectly. Perfection is not possible.
- stop beating yourself up if you make mistakes; everyone makes mistakes.
- do things you enjoy. It is easier to be positive when you are doing things you like.
- be with people who do not bring you down.
- volunteer to help other people. This can make you feel better about yourself.
- do dome exercise - it can improve your mood.

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Activity 6: Improving self-esteem

Think about the different things you like to do that help your self-esteem. Make a list of these things in the following space.

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Why do you think these things can help to improve your self-esteem?

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3.2 Improving self-esteem

Activity

Activity 7: Improving self-esteem for others

Now that you can identify low self-esteem, think of how you would encourage someone else to improve their self-esteem. Make notes in the following space. Be creative! Discuss with your class.

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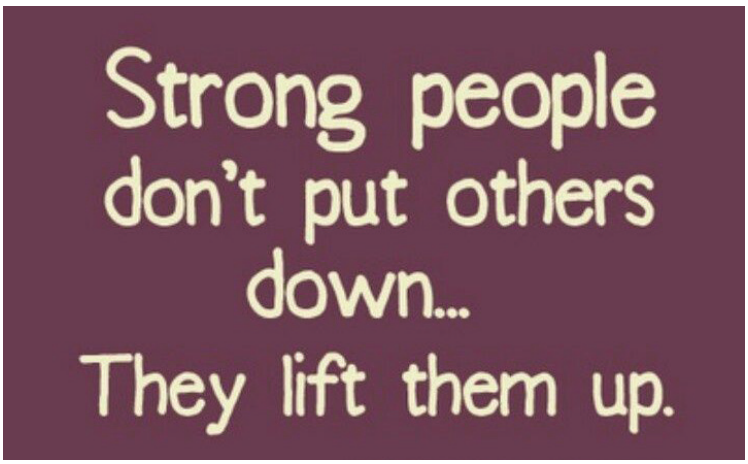

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Improving self-esteem for others

Here are some examples of how you can help others increase their self-esteem:

- Give praise to your friends when they have reached a goal.
- Support your friends by listening to them when they have a problem.
- Help someone by giving good advice.
- Say positive things to someone who is not very confident.
- Give compliments.
- Support them in areas they are not confident in.
- Help them set and achieve their goals.

Activity 8: Practise

Your teacher will give you a piece of paper with one of the following statements on it. You will choose one piece of paper. Say what is on the paper to another student. Then switch your piece of paper with the other person. Do this until you have said all of the statements to different people in your class.

'It is nice to see you today.'
'You did really well.'
'I can listen if you need to talk.'
'You are a really good friend.'
'I have great fun when I spend time with you.'
'We all have different strengths and weaknesses, why don't you try again?'
'You are a fun person to be around.'

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3.3 Feelings and emotional health

What are feelings?

You have already learnt in Unit 1 that emotional health is about how people feel about themselves and their ability to manage their feelings as they deal with challenges in life.

Feelings are subjective. This means that they come from people's experiences, beliefs, values or memories.

Feelings are linked to emotions. Feelings are the body's way of giving meaning to emotions. Feelings helps us to understand emotions.

Here are the basic emotions. When you feel these emotions, you get a feeling.

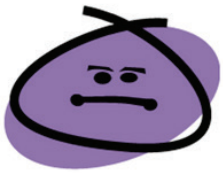
Take a moment and read each of the emotions and their descriptions. What feelings do you get when you think about each of these emotions?

Anger
A feeling of annoyance

Joy
A feeling of happiness

Anticipation
A feeling of excitement

Sadness
A feeling of sorrow or to be unhappy



Disgust
A feeling of disapproval

Surprise
A feeling of shock

Fear
A feeling of anxiety or worry

Trust
A feeling of belief in a person or thing

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Activity 9: Understanding emotions

In groups, think about the meaning of each of the emotions. Write your answers in the following space. Then discuss your answers with your class.

Sadness: .....

Surprise: .....

Disgust: .....

Joy: .....

Fear: .....

Anticipation: .....

Anger: .....

Trust: .....

When you have discussed the meaning of each of the emotions with your class, stick each of the emotions around the classroom on a large sheet. In groups, you must think of all of the feelings related to the emotion you have been given. Write all of the feelings around the emotion. Then share your answers with your class.

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3.3 Feelings and emotional health

Feelings and emotional health

Feelings are a very important part of emotional health. When people can identify and manage their feelings, they are more likely to:

- be in control of their behaviours.
- have good relationships with others.
- be able to cope with challenges in day-to-day life.
- have more self-esteem and self-confidence.
- be able to express themselves clearly.
- be able to make decisions.

Control of behaviour

Being in control of behaviour is a very important part of emotional health. Sometimes, when people can't manage their feelings, they find it difficult to manage their behaviour.

Negative emotions can be more difficult for people to manage.

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Activity 10: Negative emotions and feelings

In the following space, make note of the negative emotions and feelings that you identified from the previous activity. Then discuss with your class why they are negative emotions and feelings.

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3.3 Feelings and emotional health

Good relationships with others

To have good relationships with others, people must be able to manage their own feelings. To build good relationships, it is important to be able to recognise other people's emotions.

Activity

Activity 11: Identify the emotions

Read the following sentences and think about what emotion or feeling is missing. Write your answers in the space provided.

joy	angry	sad
worry	guilty	love
embarrassed	excited	nervous

1. My family are so important to me. I _____ them so much.

2. When I spend time with my friends, it brings me so much _____.

3. I am feeling really _____ now, I blamed my friend for something that I did.

4. My friends ignored me yesterday. I felt _____ when this happened.

5. I felt really _____ today and then I shouted.

6. I know I am going to _____ before my exam tomorrow.

7. I was _____ when my parents found out I was lying.

8. I can't wait to go on my holidays. I am very _____.

9. I am _____ about going on a roller coaster. I have never been on one before.

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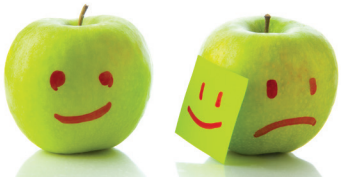
Challenges in day-to-day life

People face many challenges in day-to-day life. This is normal. Sometimes people can become angry or sad or even excited. It can be more difficult to manage the negative emotions and feelings; for example, fear, anger or nervousness.

Knowing what causes these emotions and feelings can help people deal with them. These are called triggers. When people understand the triggers, they can find it easier to deal with things.

Express feelings clearly

To be emotionally healthy, people should be able to clearly express their feelings. It can sometimes be difficult to express feelings.



Activity 12: Express feelings

In pairs, discuss how you think you should express the following emotions and feelings. Make notes in the following space. Then discuss with your class.

anger	sadness	worry
excitement	guilt	jealousy

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3.4 Managing feelings

Identify feelings

Activity 13: Finish the sentence

Read each of the statements and then fill in the blanks. Do you think there are better ways to deal with emotions and feelings? When you have finished, discuss with your class.

1. I feel angry. When I feel like this I want to _____ _____.

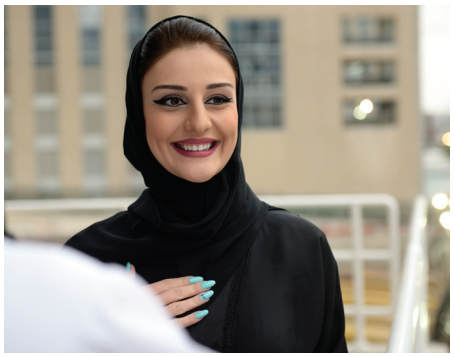
2. I felt jealous of my friend when she got something I wanted. When I feel jealous I _____.

3. I lied about my sister. Now I feel guilty. When I feel guilty I want to _____ _____.

4. I am feeling very worried about an exam that I have to do. When I am worried I want to _____.

5. I am very excited about a new subject I will be learning about in school. When I am very excited I _____ _____.

People can have different reactions to their feelings. How people manage their feelings is very important for their emotional health.



Sometimes, people can manage their emotions very well. When they manage their emotions well, their behaviour makes them feel better and they do not need to change how they manage their feelings.

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For example, when a person smiles when their friend says something nice to them. This is an appropriate behaviour for a feeling and it can help the person to express a feeling of joy.

If a person does not manage their feelings properly, they might need to work on how they manage them. For example, if someone feels angry and they shout at someone else. This is not an appropriate behaviour for a feeling.

Activity 14: Managing feelings

Read the following statements. Put a tick in the space provided if you think it is good management of feelings. Put a cross in the space if you think it is poor management of feelings.

When Maryam was feeling excited, she told her friends about the trip that she was really looking forward to going on.	
When Fatima was feeling sad, she kept it to herself. She was embarrassed to tell her family that she was feeling sad.	
When Maitha was angry, she shouted at her friends.	
When Salama was feeling guilty about lying, she told the truth and apologised.	
When Reem was feeling worried about an exam, she studied more and did some exercise to help reduce her stress levels.	

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3.4 Managing feelings

Managing feelings

Anger is one emotion that people sometimes find hard to control. Everyone gets angry sometimes. It is important that you can recognise this emotion and know how to manage it in a healthy way. Anger can affect what you say or do before you even know that you are angry. If someone feels angry, very often it can be hard for them to see it in themselves. This makes it difficult for them to manage that feeling.

Activity

Activity 15: What does angry look like?

In the following space, draw a picture of what angry looks like. Think about the signs that show that a person is angry.

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Activity 16: Angry signs

Look at the following image. Circle the warning signs that you show when you get angry, then discuss with your class. Do you show different anger warning signs to others in your class?

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3.4 Managing feelings

Managing feelings

Recognise feelings

In order to manage feelings, it is important to try to recognise the emotion or feeling early on. If you are already shouting or crying, it is a bit late.

Take some time

Take some time out for yourself. Regularly give yourself time to relax. If you recognise that you are feeling angry or upset, take some time out to think about what you want to do.

Deep breathing

Deep breathing can help make you feel more relaxed and can help you to think straight.

Activity

Activity 17: Practise

Push your chair back from your table. Put both feet on the floor and put your hands on your legs. Inhale (breathe in) for four seconds and exhale (breathe out) for four seconds. Repeat these steps five times. Make notes in the following space.

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Think before you speak

Try not to say something when you feel angry or upset. When you speak on impulse (say something quickly without thinking about it) you might regret it later.

Try exercise

Exercise can help you to feel less stressed. It can also give you some time to think about your emotions and reflect on things that happened.

Activity

Activity 18: What do you recommend?

What strategies would you recommend to a person who wants to manage their feelings? Write your answers in the following space. Make note of how these strategies will help them. Then share your ideas with your class.

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3.5 Coping strategies

What are coping strategies?

Coping strategies are the things people do or use to help them to deal with challenging emotions and situations. There are lots of different things that can be considered a coping strategy. There is no right or wrong coping strategy if it helps the person to deal with a difficult situation or emotion. Using coping strategies can help to build resilience. Resilience can help a person to adapt to challenging situations.

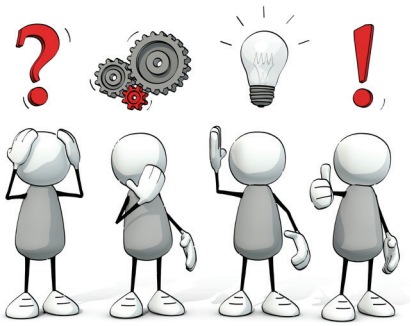
Coping strategies

Coping strategies can be used for many different situations. They can be used:

- before an emotion becomes challenging.
- when the person sees signs that they might be feeling a negative emotion.
- when the person has reacted to a negative emotion.
- when the person has dealt with the emotion but recognises that they need to cope better if they feel the emotion again.

Embrace emotions

This means that a person accepts the emotion that they are feeling. It can be hard to accept a negative emotion especially if the person doesn't want to accept it.



Think about the situation and use reason

When people feel negative emotions, it can be easy to think about the problem and only focus on the cause of the negative emotion. Instead, it is useful to think about the situation and how to overcome it.

People should think about the following questions:

- Is there anything I can do to change the situation?
- Is there anything I can do to make it better?
- If I can't change anything now, is there something I can do for the next time?
- If I can't change anything, how can I make myself feel better about it?

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Learn to relax

Learning to relax is a very important coping strategy. Everyone can find something they enjoy doing that helps them to relax.

Activity

Activity 19: Relax

Think about the different things that you do to relax and write them in the following space. Which of these things would you recommend to a person who wants to learn to relax in order to help them cope with their emotions?

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3.5 Coping strategies

Positive attitudes and being optimistic

Being optimistic means to be hopeful about the future. People who are optimistic try to see the good in every situation and look for the positives.

Activity

Activity 20: Positive attitude

Read the following statements. Decide if they show a positive or negative attitude. Write 'P' in the space if you this it shows a positive attitude and 'N' in the space if you think it shows a negative attitude.

I found a subject difficult at school today. I am going to ask my friend to explain it to me, so I will understand it for tomorrow.	
I found a subject difficult at school today. I am going to watch a movie tonight and not think about it until tomorrow.	
I found a subject difficult at school today. I really want to learn this new topic, so I will spend some extra time trying to catch up.	
I found a subject difficult at school today. I am sure it is important to learn this topic, so I will ask my teacher to explain it to me again.	

Get support

It can be helpful to share problems, emotions and feelings with a family member or good friend. Family and friends can help to talk through the cause of the emotion and discuss ways to resolve the issue. If there is no way to resolve the issue, they can offer comfort and support.

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Notes

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3.6 Resisting peer pressure

What is peer pressure?

Peer pressure is the pressure put on you by the people you know, to do things that you do not want to do, or things that you would not normally do. Peer pressure is not good if you are being pressured into doing something you do not want to do.

It is important to know the difference between encouragement and peer pressure. Encouragement can come from family members who want you to do well.

The people who put peer pressure on you are generally in your own age group; however, they can be older or younger than you. If you can identify peer pressure you can use strategies to resist it.

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Types of peer pressure

If you feel that someone is putting peer pressure on you, you can practise skills to resist it. Resisting peer pressure means you don't give in to it. It is not good to give in to peer pressure, but it can be difficult to resist peer pressure. Recognising the types of peer pressure can help you to resist it.

Indirect peer pressure

Unspoken pressure: Your peers don't have to use words to put pressure on you to do something. Non-verbal communication can be used to try to put peer pressure on you. Non-verbal peer pressure can include exclusion. If you don't do what they want, they leave you out of things in future. It can also be in the form of persuasive or disapproving looks.

Self-pressure: Sometimes we can change what we do or say to suit other people.

Direct peer pressure

Direct peer pressure occurs when you are being asked directly to do something you don't want to do. This is a strong form of peer pressure and it can be more difficult to resist.

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3.6 Resisting peer pressure

Activity 21: Types of peer pressure

Read the following statements. Decide which type of peer pressure they are. Write your answers in the space provided.

1. You want to go to the mall, but your friends want to go somewhere else. They tell you not to go to the mall and to go with them instead.

2. You are out shopping with your friends and you like a pair of shoes. You don't say anything about the shoes because you think your friends will disapprove.

3. You agreed to go to the beach with your friends. When you meet up, you ask if they are ready for the beach. They give you a disapproving look and say that they are going somewhere else instead.

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Strategies to resist peer pressure

Take some time: Take some time and think about what is best for you. Are you being pushed to do something you don't want to do? If you feel that it is not right for you; then maybe you should reconsider doing it.

Evaluate the suggestion: Think about what is being suggested to you. Associate it with a description; for example, would it be fun, or would it be dangerous? Is it peer pressure or encouragement?

Have value for yourself and your own opinions: Your opinions matter. If you don't want to do something, this might be because you don't believe it would be good for you. Could it could have a negative effect on you or on someone else?

Clarify: Further question the suggestion. Try to find out if they are trying to put pressure on you or if it is an honest suggestion or encouragement.

You have the right to say no: If you decide that what is being asked of you is not appropriate and you don't want to do it, it is ok to say no. Being assertive is about saying no in a respectful and convincing way. Make your point to them and be firm. Try to avoid getting angry and stay calm. Here is an example of how to say no in an assertive way. ***'No thank you, that's not what I want to do today.'***

Share the problem: Speak to a good friend or family member and tell them about the peer pressure you are experiencing. They can help you practise being assertive and how you can say no.

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3.6 Resisting peer pressure

Refusal skills

A refusal skill is a strategy you can use to help you to say no. You can use refusal skills in a situation when there is something that you don't want to do and you need to communicate it. There are many types of refusal skills that you can use when trying to say no. When dealing with peer pressure, some refusal skills are more successful than others.

Activity

Activity 22: Refusal skills

Here are some examples of refusal skills. Read the following statements. In the space provided, write 'yes' if you think they are good refusal skills. Write 'no' if you think they are not good refusal skills.

Ah, no, I'm not sure, ah.	
No, I do not want to do that.	
I can't go there, I am not allowed.	
I don't think we should do that, we could get in trouble for that.	
I can't go there today, I promised another friend I would meet her.	
I don't think that is a good idea, why don't we go to the mall instead?	

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Activity 23: Good refusal skills

In the previous activity, you decided if each method of saying no was a good way or not a good way. In the following box, you will see the same statements. In the space provided, write down which way of saying no you think is best and explain your answer.

Ah, no, I'm not sure, ah.	I don't think we should do that; we could get in trouble for that.
No, I do not want to do that.	I can't go there today; I promised another friend I would meet her.
I can't go there; I am not allowed.	I don't think that is a good idea, why don't we go to the mall instead?

.....

.....

.....

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3.6 Resisting peer pressure

Activity

Activity 24: Say no

In pairs, read the following statements. Taking turns, each student will practise saying no in an assertive way to each statement. In the space provided, write the words you used to say no in an assertive way.

Don't go to the gym today, come with us instead.

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Why do you like those shoes? Don't get those.

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Join this sports club with us; it's much better than the sports club you are in.

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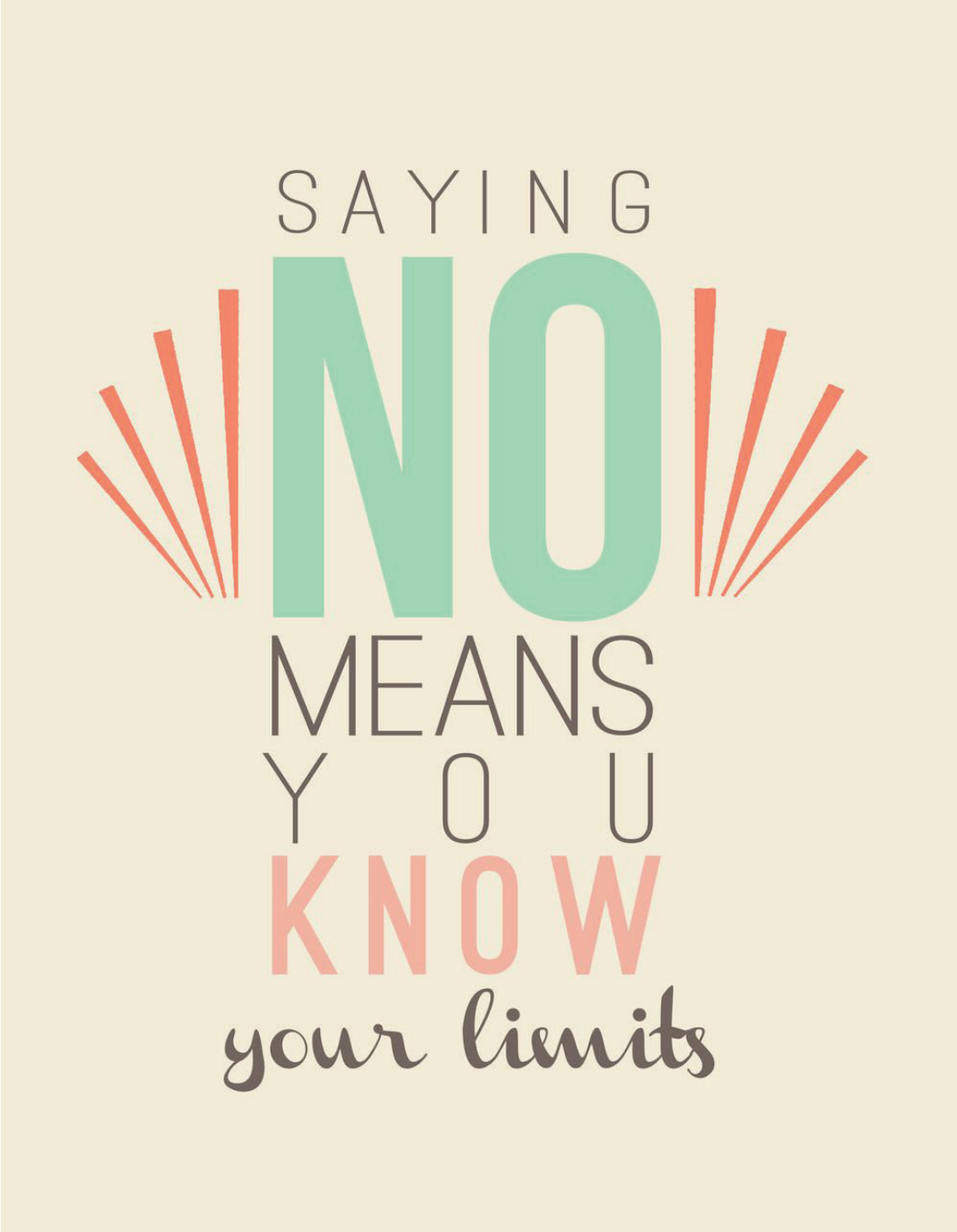

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End of unit quiz

Quiz

Quiz – Unit 3

1. Which of the following best explains self-esteem? Tick the correct answer.

Being happy with who you are	
Changing who you are to suit others	
Trying to be like your friends	

2. Which of the following can help to improve self-esteem? Tick the correct answers.

Do things you enjoy	
Do some exercise	
Think about the things you are good at	

3. Match the emotions with their descriptions.

Anger	Feeling of happiness
Joy	Feeling of being afraid of something
Fear	Feeling of being annoyed
Anticipation	Feeling of excitement

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4. Give five examples of how you can manage anger.

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5. In the following space explain what a refusal skill is. Then list some refusal skills that you could use to resist peer pressure.

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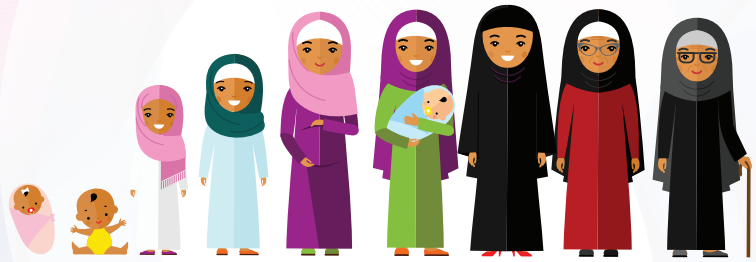
Student's comments
Things to think about: Which part of the unit did you enjoy? Which part of the unit were you good at? What do you need to improve? **Additional comments:**

Teacher's feedback
Things to think about: Did the student participate? What was the student's attitude towards activities? Did the student display safe and appropriate behaviour? **Additional comments:**

Notes



04

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Growth and development

Human development is a lifelong process of physical, behavioural, cognitive, and emotional growth and change. This process will take place throughout your lifetime. Look at a picture of yourself from one year ago. Do you look the same? Do you feel like the same person? Different stages of growth and development have taken place during this period and will continue to do so. You will study these changes in more detail throughout this unit.

This unit will help you to understand the principles of human growth and development. We will explore the physical changes, behavioural traits and healthcare needs at each stage of the human life cycle.

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Learning outcomes

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Learning outcome 4: Describe and understand the principles of human growth and development.

Performance indicators:

11.4.1	Identify the different stages of the human life cycle.
11.4.2	Explore the physical traits for a foetus.
11.4.3	Explain the physical changes, behavioural traits and health for infants.
11.4.4	Explain the physical changes, behavioural traits and health for children aged 7-11.
11.4.5	Explain the physical changes, behavioural traits and health for children aged 11-7.
11.4.6	Explain the physical changes, behavioural traits and health for adolescents.
11.4.7	Explain the physical changes, behavioural traits and health for adults.
11.4.8	Explain the physical changes, behavioural traits and health for older adults.

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Glossary of key words

Word	Form	Definition
adolescence	noun	the period during which a young person develops from a child into an adult; usually teenage years
behavioural traits	noun	characteristics that are consistently demonstrated regardless of changing circumstances or environment
communication	noun	exchanging of information by speaking, writing, or using some other medium
development	noun	the process in which someone or something grows or changes and becomes more advanced
emotional	adjective	relating to a person's emotions or feelings
foetus	noun	an unborn baby in the stage of development in the womb

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Word	Form	Definition
growth	noun	the process of change; increasing in size
hormones	noun	a regulatory substance produced in the body
mood swings	noun	an abrupt and unaccountable change of mood
physical maturity	noun	when the body has fully developed into an adult
puberty	noun	the period during which adolescents reach physical maturity
self-confidence	noun	a feeling of trust in your own abilities, qualities, and judgement

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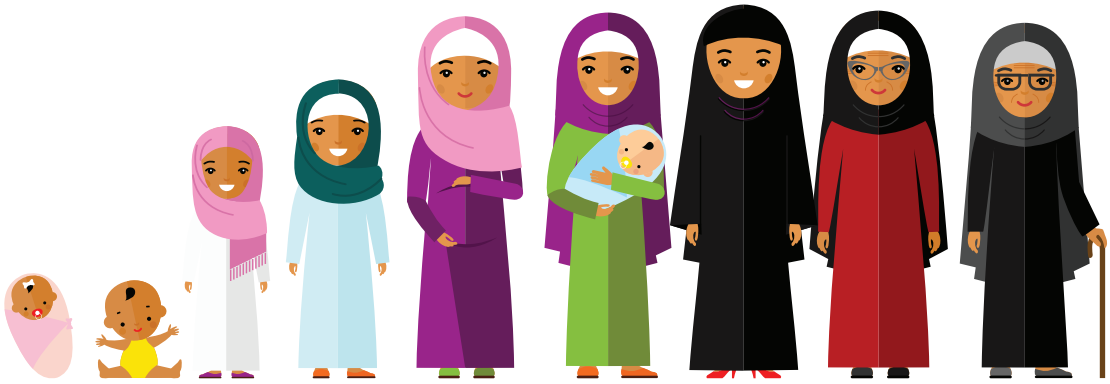
4.1 Stages of the human life cycle

Human development

Human development is a process that happens continuously throughout life. The human life cycle is divided into different stages.



Activity 1: What do you know?

Discuss as a class what you already know about human development and the human life cycle. Can you name any of the different stages?

The human life cycle is divided into the following stages: foetal development, infancy, childhood, adolescence, adulthood and older adulthood. Physical, emotional and social changes occur at each stage of the life cycle. Personal needs also change.

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Activity 2: Word search

Find the stages of the human life cycle in the word search below.

U	E	W	A	K	J	O	V	N	K	O	H	C	R	R
E	A	H	K	D	R	M	D	F	K	B	T	H	K	R
D	E	V	E	L	O	P	M	E	N	T	R	I	K	F
A	D	L	M	Z	A	L	M	T	A	N	I	L	G	F
M	V	F	A	W	Y	N	E	D	H	M	B	D	T	E
A	D	U	L	T	A	M	U	S	N	U	T	H	T	J
K	R	Z	D	D	E	L	T	E	C	N	I	O	H	N
T	Z	M	O	E	T	O	P	I	H	E	J	O	Y	T
A	L	I	B	H	Y	L	F	D	L	L	N	D	E	L
B	F	H	O	R	Z	Z	Z	L	J	T	I	C	V	M
X	P	O	E	Z	H	Y	M	U	S	I	K	T	E	W
D	D	D	M	L	M	L	K	J	Q	I	A	Y	R	Z
U	L	T	N	E	M	A	X	V	N	L	H	V	C	E
O	U	I	W	E	Y	C	N	A	F	N	I	F	C	S
O	S	B	V	M	I	G	C	C	C	A	R	Z	D	J

adolescence	development	birth
adult	older	childhood
adulthood	foetal	infancy

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4.1 Stages of the human life cycle

Activity

Activity 3: Human life cycle video

Watch the video that shows the stages of the human life cycle and make notes below. Your teacher will ask you questions about the video.

Movie

.....

.....

.....

.....

.....

.....

.....

Activity

Activity 4: Human life cycle stages

Write the name of each stage of the human life cycle in the correct order.

1.
2.
3.
4.
5.
6.

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Activity 5: Family members

Think of family members and what stage they are at in the human life cycle.

Family member	Stage

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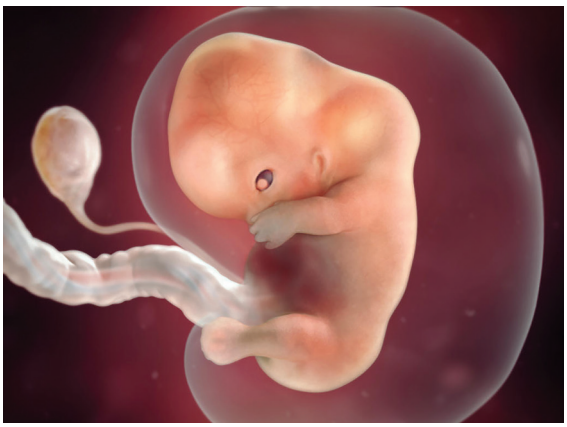
4.2 Physical traits of a foetus

Foetal development

The first stage of the human life cycle starts before you are even born; as an embryo which develops into a foetus in the womb.

A fertilised egg forms an embryo inside the mother's womb. At first, this creation looks like a group of cells. From around eight weeks, this group of cells gradually turns into the shape of the human body. This is called the foetus.

The foetal stage officially starts after 10 weeks of pregnancy. Before the foetus has formed, there have already been a lot of physical developments that have happened to the embryo.



The embryo:

- has started the process of developing heart and nervous tissue.
- has started developing a gastrointestinal tract.
- has distinguishable limbs.

The foetal stage continues to develop a lot of the key characteristics that have started in the embryo. By week 14, the foetus will develop male or female physical characteristics.

Between weeks 13 -16, the foetus will start to move. This can be felt by the mother. This means the muscles are developing. The skeleton of the foetus is mostly cartilage, or soft connective tissue, but may also contain some hardened bone.

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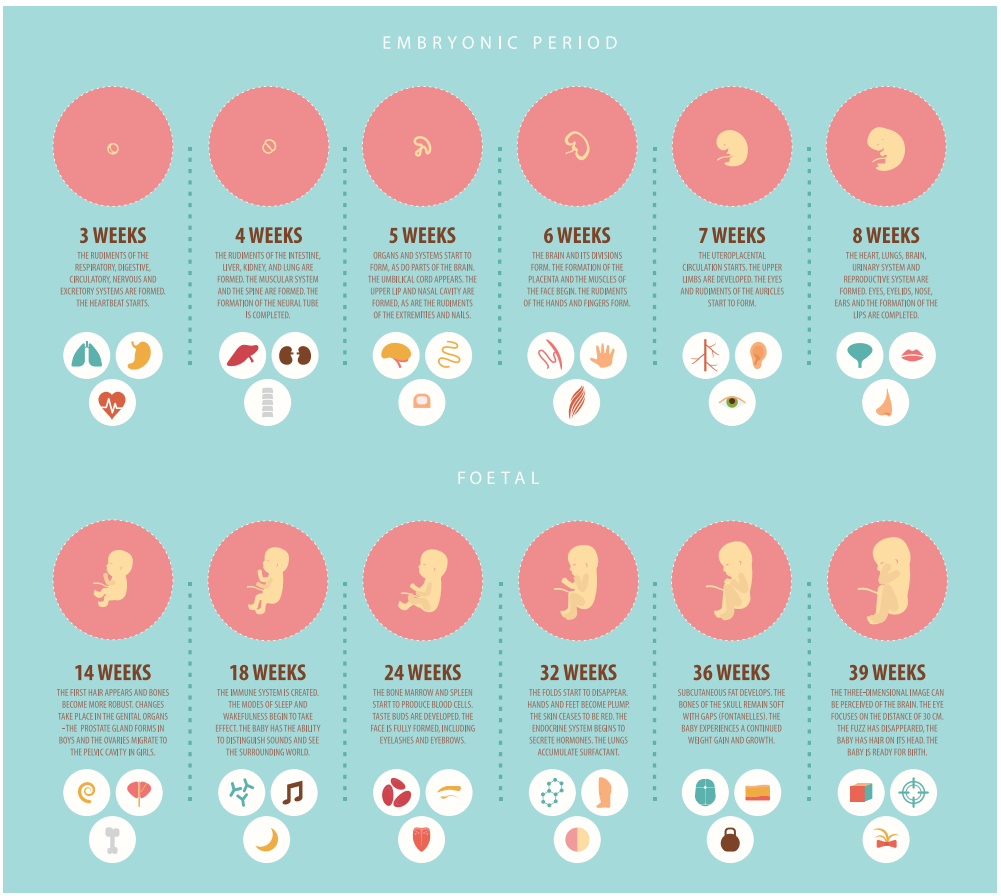
During this time the liver and pancreas (which make up part of the digestive system) will start secreting enzymes and hormones within the foetus.

By week 19, the heartbeat of the foetus can be easily heard with a stethoscope. The lungs and alveoli (air sacs) will develop around week 23, as the respiratory system continues to form. Around this time, the nervous system starts to function.

By week 31, almost all tissues and body systems are present. The remaining weeks of pregnancy allow for further developments in the respiratory system and further growth, including an increase in body fat.

Between 36 and 40 weeks, the foetus is considered to be 'full-term'. The foetal stage ends when the mother enters labour and the baby is born.

This image below shows the physical characteristics at each stage of the embryo and foetal development.



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4.2 Physical traits of a foetus

Activity 6: Matching activity

Match the week of development with the physical characteristics expected at this stage.

10 weeks	The foetus will develop male or female physical characteristics.
14 weeks	This is the start of the foetal stage.
13-16 weeks	The foetus will start to move.
19 weeks	Almost all tissues and body systems are present.
23 weeks	The lungs and alveoli (air sacs) will develop.
31 weeks	The heartbeat can be clearly heard using a stethoscope.
36-40 weeks	The foetus is considered to be 'full-term'.

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Notes

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4.3 Physical changes, behavioural traits and health of infants

Physical development of an infant

The term infant generally refers to babies from birth to 1 year old; however, babies up to 1 month old may be referred to as newborns. Toddler generally refers to those aged 1 to 2 years old.

There is a huge amount of physical development that occurs in infants. They grow extremely quickly at this stage. An infant's weight generally doubles in the first 6 months and triples by the age of 1 year old. Generally, growth is between 10 to 12 inches (25cm - 30cm) in length in the first 2 years.

Brain development is also rapid at this age. At birth, the brain is only 25% of the weight of an adult's brain. By 2 years old, the brain is 80% of an adult's brain.

Reflexes and motor skills

Newborns and infants cannot survive on their own. They are totally dependent on their parents. However, they have certain instincts already. These are reflexes or automatic reactions which allow them to respond to certain things. For example, a newborn will instinctively 'latch on' to their mother and suck to be fed, grasp a finger that is placed in their hand, and respond to noise.

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The table below shows common motor reflexes in infants:

Reflex	Stimulus/action
blinking	An infant will close their eyes when there is a gust of wind.
Babinski	An infant will twist their foot inwards and fan their toes when you stroke the side of their foot.
Babkin	An infant will turn their head and open their mouth when you put pressure on the palm of both hands.
grasping	An infant will grasp when you press something against the palm of their hand.
Moro	An infant will arch their back and throw their arms outwards when they hear a loud noise or something surprises them.
plantar	An infant will curl their toes when you touch their foot.
rooting	An infant will turn their head towards where the touch came from and attempt to suck when you stroke their cheek.
stepping	An infant will try to 'step' or 'walk' when you hold them just above a surface.
sucking	An infant will begin to suck when you put something, such as a finger, in their mouth.

Activity

Activity 7: Motor reflexes role play

Get into teams of three. Two members of the team will demonstrate one of the motor reflexes shown in the table above. The third person will try to guess which action it is. Take at least two turns to guess, then rotate. Make notes below.

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4.3 Physical changes, behavioural traits and health of infants

Activity 8: Picture match

Look at the pictures below. Match the picture to the correct action.

Moro	grasping	blinking
plantar	sucking	stepping

Answer:

Answer:

Answer:

Answer:

Answer:

Answer:

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Motor skills

Motor skills are the physical abilities of a person. Infants' motor skills will develop with their physical growth. By one month old, most infants will be able to lift their chin while lying on their stomach. By 2 months old, infants should be able to raise their chest off the ground. By 4 months old, infants may be able to hold things like small toys on their own and sit up with support. By 5 months old, they may be able to roll over.

By 8 months old, they may sit without support, and around 10 months old, may stand up with support. Between 10 to 14 months, infants may stand on their own and start to walk. However, all of these skills vary from infant to infant. The exact development of each infant is different.

Activity

Activity 9: Infant development video

Watch the video about infant development. In pairs, answer the questions below based on the average age of development.

Movie

When do infants develop head control?

.....

When does an infant start to sit upright?

.....

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4.3 Physical changes, behavioural traits and health of infants

When do infants crawl?

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When do infants start to move around using furniture as support?

.....

When do infants walk?

.....

Health

Occasionally, trauma or injury can happen to the baby during birth, and if babies are born prematurely (early), they may have a low birth weight. Most babies will recover from these birth issues; however, some babies may be born with certain genetic conditions or disorders.

Correct nutrition, medical care and hygiene are extremely important for infants. Medical care for infants includes proper immunisation to prevent certain diseases.

Vaccinations work by injecting a very small amount of the virus or bacteria that causes disease into the body. It is a small enough amount for it not to make you ill. The immune system then creates the antibodies to fight off this disease. Therefore, if this disease enters your body again, your immune system recognises it and immediately produces the antibodies needed to fight it. This is called immunity.

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National Immunisation Program

Routine immunisations in the UAE are started from birth. The National Immunisation Program, which is recommended by the DHA, is shown in the table.

Age Vaccine	Birth	2 Mos	4 Mos	6 Mos	12 Mos	18 Mos	5 - 6 Years
BCG	BCG						
Diphtheria, Pertusis, Tetanus		Dtap	Dtap	Dtap		Dtap	DPT
Haemophilus Influenza Type b		Hib	Hib	Hib		Hib	
Hep. B	HBV	HBV	HBV	HBV			
Polio		IPV	OPV	OPV		OPV	OPV
Pneumococcal		PCV	PCV	PCV		PCV	
Measles,Mumps,Rubella					MMR		MMR
Varicella					Varicella		Varicella

Combined Dose Single Dose

As you can see from the table, some immunisations only need one vaccination to be effective; others need multiple. Some vaccinations can be combined; this means that more than one disease is covered in one injection.

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4.3 Physical changes, behavioural traits and health of infants

Activity

Activity 10: Immunisations for infants in the UAE

Look at the immunisation table. Write the name of each vaccine that is routinely given to infants in the UAE and when it should be given.

Vaccine and age at which it is required:

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Vaccine and age at which it is required:

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Vaccine and age at which it is required:

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Vaccine and age at which it is required:

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Vaccine and age at which it is required:

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Vaccine and age at which it is required:

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Vaccine and age at which it is required:

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Vaccine and age at which it is required:

.....

Infant mortality refers to the percentage of babies that die within the first year of life. According to the World Health Organization, the UAE's infant mortality rate is 10 deaths per 1,000 live births. Infant deaths are most commonly as a result of birth defects, such as heart problems or complications during pregnancy, and sudden infant death syndrome (SIDS). SIDS is an unexpected and unexplained death of an otherwise healthy infant.

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PHYSICAL DEVELOPMENT MILESTONES

Left is FINE MOTOR: small muscle groups like hands, fingers, and wrists
Right is GROSS MOTOR: larger muscle groups like arms, legs, and full body

BIRTH - 6 MONTHS

- Holds objects in fist
- Grasps objects
- Eyes and head follow
- Turns head from side to side
- Holds up head and chest during tummy time
- Swipes at objects
- Rolls from back to belly

6 - 12 MONTHS

- Feeds self items like cereal or crackers
- Exchanges items between hands
- Picks up objects
- Points
- Put objects in containers
- Drinks from cup
- Scoots on tummy
- Holds bottle
- Sits without support
- Crawls after objects
- Pulls self into standing position
- Walks with support

12 - 18 MONTHS

- Uses spoon to feed self
- Turns pages in board books
- Stacks blocks
- Scribbles with crayons or markers
- Walks without support
- Squats down
- Stands up
- Carries large objects
- Can empty containers

18 - 24 MONTHS

- Unbutton large buttons
- Turn doorknobs
- Holds cup or glass in one hand
- Squats for extended periods of time
- Throws a large ball
- Kicks a ball

Remember! All milestones are when MOST children achieve skills. Everyone develops differently.

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4.3 Physical changes, behavioural traits and health of infants

Activity

Activity 11: What is expected at this age?

Explain briefly in your own words the physical development, behavioural traits and health of an infant.

Physical development and motor skills

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Behavioural traits

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Health

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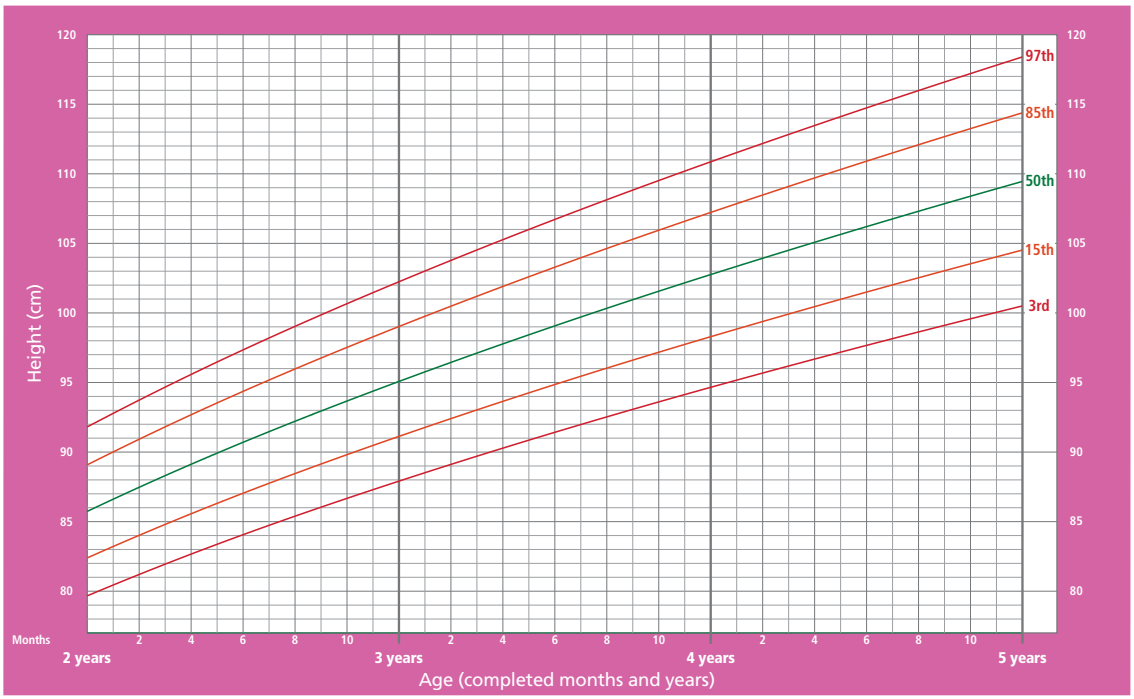
4.4 Physical development, behavioural traits and health of children aged 2-6

Physical developments

Ages 2 to 6 are generally referred to as early childhood years. This age group is still growing very quickly; physically and mentally developing. By around 3 years old, children start to lose their 'baby fat' and become leaner and more athletic looking. Their body grows longer and abdominal (stomach) muscles form. Boys usually have more muscles than girls. The average 3-year-old is around 95cm tall and approximately 14.5kg. Between 3 and 6-year-old children usually grow 5-7cm and gain 1.8-2.7kg per year. By the age of 6, the average child weighs around 21kg and is approximately 117cm tall.

Percentile growth charts show how many other children of the same age are the same height. If a child is in the 3rd percentile, it means that 3% of children of the same age are the same height. If the result is in the 50th percentile, it means that 50% of children of the same age are the same height.



WHO Child Growth Standards

Health professionals can use growth charts to help see the development of the child over a period of time. If the child is regularly in the lower percentiles, it may suggest a nutritional deficiency.

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Activity 12: Calculate percentiles

Look at the growth chart for girls and calculate the following:

1. How tall are 50% of 4-year-old girls? _____
2. If a 3-year-old girl was in the 85th percentile, how tall would she be?

   _____

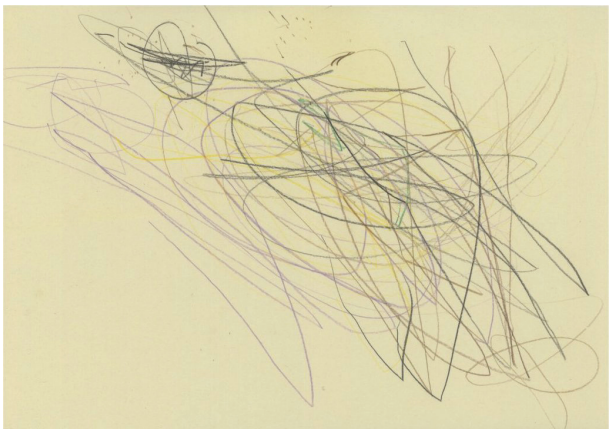
3. If a 2-year-old girl is 89cm tall, which percentile is she in?

   _____

Motor skills

Motor skills can be broken down into two categories; gross motor skills and fine motor skills. Gross motor skills use large body movements, such as running jumping, skipping, hopping, twisting, throwing and balancing.

Fine motor skills use small body movements, such as writing, drawing and tying your shoelaces. Both of these types of motor skills develop a lot during early childhood, but fine motor skills develop more slowly than gross motor skills. For example, the difference in ability between a 2-year-old and a 6-year-old's running skills are less significant than the difference between a 2-year-old and 6-year-old's drawing skills. The more children practise motor skills at this age, the more they will develop.



Drawing by a 2-year-old

Drawing by a 6-year-old

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4.4 Physical development, behavioural traits and health of children aged 2-6

Activity 13: Fill in the blanks

1. Motor skills can be broken down into _____ categories.
2. Gross motor skills use _____ body movements.
3. Jumping, skipping, _____ and balancing are some of the body movements in the gross motor skills category.
4. Gross motor skills develop more _____ than fine motor skills.

Activity 14: Class discussion

Discuss as a class why you think this age group are better at gross motor skills than fine motor skills. Can you think of any other examples that demonstrate this?

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Activity 15: Playtime activities

Design a playtime schedule that will help to develop motor skills for a 5-year-old. Draw or write your activities in the boxes. Choose up to six different activities.

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4.4 Physical development, behavioural traits and health of children aged 2-6

Health

Young children should generally be in good health unless they develop certain medical conditions. Generally, this age group will get minor illnesses, such as colds, coughs and stomach aches. Respiratory (breathing) illnesses are common at this age due to the fact that their lungs have not fully developed.

The majority of deaths that occur at this age are a result of accidental injuries, rather than diseases and illness. The most common cause of accidental death among this age group is car accidents. The other common causes of death include drowning, suffocation, burns, poisoning and falling from a height. Accidental injury is common at this age due to children's lack of fear and wanting to explore things without knowing the dangers.

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Activity 16: Self-study

Explain in your own words why you think younger children get more minor illnesses than older children.

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Activity 17: What is expected at this age?

Explain briefly, in your own words, the physical development, behavioural traits and health of a young child.

Physical development and motor skills

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4.4 Physical development, behavioural traits and health of children aged 2-6

Behavioural traits

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Health

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Notes

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4.5 Physical development, behavioural traits and health of children aged 7-11

Physical development

Older children (aged 7-11) are still growing physically but it is slower than it was at a younger age. Growth will vary a lot between different children at this age. This can be as a result of gender, genetics (characteristics passed on from parents), ethnicity, hormones, nutrition, disease or the child's environment.

This age group will grow about 5 – 7.5cm per year and gain around 3kg per year. Bones will broaden and lengthen which can sometimes result in growing pains. During this age, children will also lose their 'baby teeth'.

Motor skills

Gross motor skills and fine motor skills both continue to improve in this age group. Children tend to be active; regularly running, jumping, skipping, riding bikes, etc. As children this age grow, they become stronger, faster and more coordinated. This means their gross motor skills improve.

Fine motor skills are also developing as children regularly draw, paint, write, cut, shape and create things. They develop skills like tying their shoelaces.

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Activity 18: Motor skill development

List up to five activities that children aged 7-11 can do that will help develop their motor skills. Try to think of activities that are not already listed in your workbook.

1. .....

2. .....

3. .....

4. .....

Health

This age group tend to be at a very healthy stage of life. The illnesses that happen regularly in early childhood, such as colds, coughs and stomach aches are less regular at this age due to the body's immunity increasing. Any minor illnesses seem less severe as children this age have learnt more coping skills to deal with being uncomfortable.

The majority of deaths and disability at this age, like early childhood, are from accidents. The most common cause of death is a car accident.

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4.5 Physical development, behavioural traits and health of children aged 7-11

Activity

Activity 19: What is expected at this age?

Explain briefly, in your own words, the physical development, behavioural traits and health of a child aged 7-11.

Physical development and motor skills

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Behavioural traits

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Health

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4.6 Physical changes, behavioural traits and health of adolescents

Adolescence

Generally, age 12-19 is considered adolescence; this is the transition age between childhood and adulthood. There are lots of changes that happen at this stage of life; physically, emotionally, mentally and socially. An adolescent's intelligence increases significantly during this time.

Physical development

Puberty

Puberty is the change between childhood and physically maturing to an adult. Puberty takes different lengths of time in different people but generally takes between 6 to 7 years. The time puberty starts also varies. Generally, girls begin puberty before boys; at around 11 to 12 years old. Boys tend to start between 12 to 14 years old.

An early sign of reaching maturity is the adolescent growth spurt; a noticeable increase in height and weight. For girls, this is common between the ages of 10 and 14 and usually ends by 16. Boys' growth spurt starts between 10 to 16 years old and ends by 18 years old.

One of the main things that triggers these changes are hormones. Hormones are chemical substances that act like messenger molecules in the body. In girls, the hormone oestrogen triggers the start of puberty.

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The changes that happen to girls during this time includes:

- Grow taller
- Hips widen
- Breasts develop
- Pubic hair grows
- Reproductive organs develop
- Menstrual cycle starts (periods)

Activity 20: Word definition

Draw a line to match the statement to the correct answer.

This is the change from childhood to becoming an adult.	**Growth spurt**
In the human life cycle, this name is generally given to the age group 12-19 years old.	**Puberty**
This is one of the changes to a girl's body during puberty.	**Healthy diet**
This is when someone's height and weight change very quickly.	**Adolescence**
Having this can help with your health and well-being when going through puberty.	**Breasts develop**

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4.6 Physical changes, behavioural traits and health of adolescents

The changes that occur during puberty will have a big effect both physically and emotionally. Adolescents need to get used to their newly developed body and different emotions that may be affected by hormones. Sometimes puberty can cause skin problems, such as acne and pimples.

During puberty, many changes happen, not only physically, but also emotionally and socially. Adolescents will start to think abstractly and may begin to make plans and set long-term goals for the future. Everyone progresses at a different rate and may have a different view of the world.

In general, the following are some changes that may occur mentally and emotionally:

- Develop the ability to think abstractly
- Be concerned with social issues
- Think long-term
- Set goals
- Compare with classmates
- Want independence from parents
- Classmate influence and acceptance becomes very important

Emotional changes during adolescence

It is normal for adolescents to become very self-conscious. In other words, they begin to care a lot about what they look like, and what others think of them. Adolescents often compare themselves (especially physically) to others their age.

Adolescents are much more sensitive. It is common, at this age, for them to take more notice of the facial expressions, body language, or voice tones of others. While learning to figure out these various cues, they may misread someone's expressions or tone of voice.

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Mood swings, or extreme highs and lows can be common. They may go from feeling very high and happy to very low and sad, to very high again. This can often happen multiple times within the same day. This is also normal as at this age the brain is learning to process and control emotions in a more grown-up way.

There may be stages where adolescents feel that they are invincible, or that nothing bad will ever happen. It can be fun to feel 'ten feet tall and bulletproof'. However, acting on this behaviour is sometimes not a good idea and can lead to problems.

Activity

Activity 21: Changes since childhood

Think about changes that you have gone through since childhood. Also, think about the ones you still haven't experienced. List them in the correct column.

Emotional	Social	Physical

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4.6 Physical changes, behavioural traits and health of adolescents

As lots of changes are happening at this time in life, it is important to embrace these changes. How can you make the most of these changes?

- Take on new challenges.
- Don't lose your identity. You don't need to be the same as your friends.
- Talk to a trusted adult about problems or concerns.
- Find ways to manage and handle stress that works for you.

Recognising unhealthy emotions

So, how do you know, exactly, when 'normal' isn't normal?

There are going to be mood swings during adolescence. There are going to be times when adolescents feel invincible. There will also be some degree of self-consciousness. However, help may be needed when these things go to the extreme. In other words, when the moodiness goes beyond ups and downs, and there are feelings of intense depression, or when someone is acting 'ten feet tall and bulletproof' all day, every day.

Help can come in the form of a school counsellor, or a medical doctor or nurse who specialises in adolescent behaviour.

These professionals know which behaviours are normal adolescent emotions and which are extreme.

Health

Adolescents are generally healthy. Among the more serious conditions that do occur at this age, obesity, eating disorders and depression are more common. This can be partially due to adolescents getting used to the changes that have happened to their body during puberty, social pressures and unstable emotions from hormones.

Eating disorders

Eating disorders include anorexia nervosa, bulimia nervosa, binge eating disorder and other specified feeding or eating disorders.

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Anorexia nervosa is when the person tries to keep their body weight as low as possible. It can come from a fear of gaining weight and results in the person not eating enough food, and sometimes over exercising to burn extra calories. It can become extremely dangerous as someone with anorexia is ultimately starving themselves. In extreme cases it can result in death.

Bulimia nervosa also comes from a fear of gaining weight. However, it differs from anorexia as, instead of restricting eating, individuals binge eat (eat large amounts of food in a small amount of time). They then purge this food by making themselves sick, using laxatives to make them go to the toilet, or over exercise to avoid gaining weight. Bulimia can lead to a number of other health problems, some of which are as a result of purging:

- Feeling tired and weak
- Dental problems - stomach acid from being sick can damage teeth and cause bad breath, a sore throat, or tears to the lining of the throat
- Irregular or absent periods
- Dry skin and hair
- Brittle fingernails
- Swollen glands
- Fits and muscle spasms
- Heart, kidney or bowel problems, including permanent constipation
- Bone problems, such as osteoporosis

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4.6 Physical changes, behavioural traits and health of adolescents

Binge eating disorder is when someone regularly eats a lot of food in a short period of time. They then often feel uncomfortably full, upset and guilty. Long-term binge eating can result in obesity and the conditions associated with this.

It is important that someone with an eating disorder gets support as soon as possible to reduce the chance of other conditions developing as a result of it. The problem is, often people with eating disorders either don't know they have a problem or don't want help. It is therefore important to support friends or family members that you think may need help.

> "A PART OF YOU WANTS TO CRY OUT FOR HELP, HOPING SOMEONE WILL CATCH YOU AND FORCE YOU TO GET HELP, BUT YOU CAN'T ASK FOR HELP. YOU CAN'T BECAUSE IF YOU TELL SOMEONE, THEN IT'S ALL OVER, YOU'RE NOT IN CONTROL ANYMORE"
>
> Natalie

Activity

Activity 22: Where can you get help?

In small groups, do your own research into eating disorders. Find out how they can be treated and what support there is in your local area for someone with an eating disorder.

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Activity 23: Health advocate

In small groups, create a poster that will show support for someone who has an eating disorder. Think about what you can say to them to try and help them, and how you can encourage them to get support.

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4.6 Physical changes, behavioural traits and health of adolescents

Activity

Activity 24: What is expected at this age?

Explain briefly, in your own words, the physical development, behavioural traits and health of an adolescent.

Physical development and motor skills

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Behavioural traits

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Health

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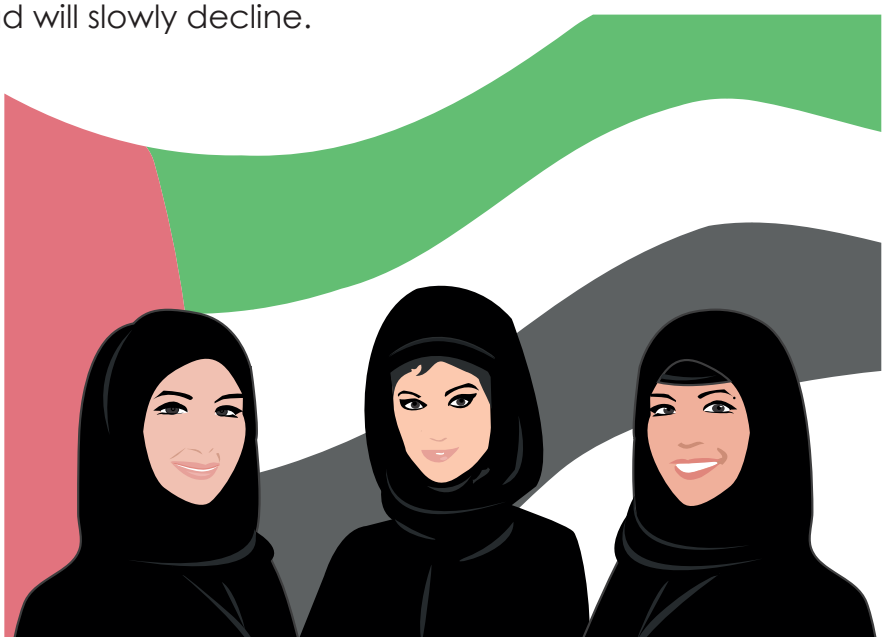
4.7 Physical changes, behavioural traits and health of adults

Physical changes

Once a person reaches adulthood, development changes significantly. This is because an adult is no longer physically developing and growing like they did during childhood and adolescence. Adulthood is the longest stage of the human life cycle. It starts between 17-19 years old until 65 years old. In all stages of the life cycle before this, development has been progressing (moving forward) and increasing; whereas by adulthood, physical development stops and instead will slowly decline.



As adulthood covers the longest part of the life cycle, it is sometimes broken down further to 18-35 years old (young adults), 36-50 years old and 51-64 years old.

Young adulthood is generally the time when women may choose to have children. If this is the case, pregnancy involves huge physical changes to the body.

Young adults usually have very good fine and gross motor skills as they tend to be at their fittest and strongest at this stage of life.

45 to 64 year-olds still have good physical functioning but start to see certain physical changes. Wrinkles will develop, organs may not function as well as they used to; lung and heart capacities will be lower than at a younger age. Motor skills will also start to decline as strength, coordination, and reaction time and sensation

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(hearing, sight, taste, touch, smell) decrease. Therefore, it is common for this age group to need glasses and may notice their physical fitness is less than it used to be.

Activity 25: When I reach adulthood?

What do you want to do when you reach adulthood? What are your goals and dreams? Draw or write your ideas below.

Menopause

Menopause is when a woman's menstrual cycle stops. The average age of this happening is 51 years old; however, it can be any time from mid 30s to mid 60s. Menopause does not happen overnight. It is usually a gradual process. Symptoms of menopause include irregular periods, hot flushes, fatigue and mood changes.

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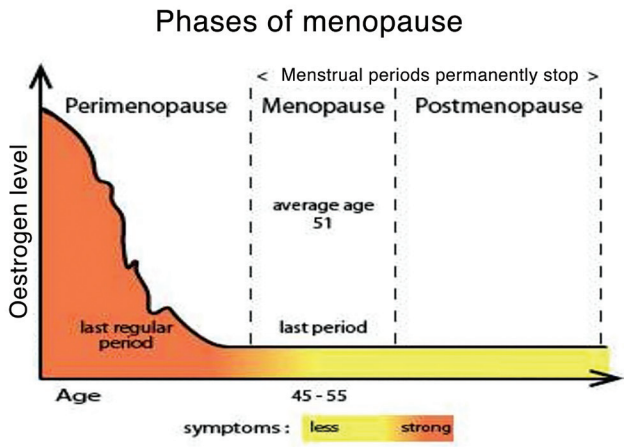
4.7 Physical changes, behavioural traits and health of adults



Emotional and social development

Young adulthood is sometimes seen as the peak years of the life cycle. Individuals are generally in good health, have plenty of energy, dreams, plans and ambitions. Society also has a strong emphasis on youthfulness. At this age, often nothing seems impossible and with a positive attitude anything can be achieved.

Intellectual development

There are no official figures that can confirm if intelligence increases or decreases through adulthood. However, generally IQ scores tend to be higher as adults age; at least, until adults are in their 50s.

The way young adults think tends to differ more than actual intelligence compared to middle-aged adults. For example, young adults tend to have a more idealistic view on life and anything may seem possible. Whereas, the older adults within this age group may have a more direct goal or aim; this may be down to learning from mistakes in the past and having more insight from various things that have happened in their life.

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Activity 26: How an adult's view of the world changes

Discuss as a class, then make notes below. The way a younger adult thinks and makes decisions is very different to a middle-aged adult. Why do you think this is? What different decisions do you think this will result in? What do you think younger adults are more likely to do that middle-aged adults may not do?

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Health

Younger adults (aged 18-44) generally should be in the best health of their lives and be at their most physically fit; endurance and stamina should be high at this age. However, the effects of aging will start to occur, 40-year-old individuals may notice their physical fitness and energy levels decreasing.

Middle-aged adults (aged 45-64) are generally still healthy. However, socio-economic and lifestyle factors have a larger impact on health at this age. Socio-economic factors include how educated someone is, their income, housing and access to healthcare.

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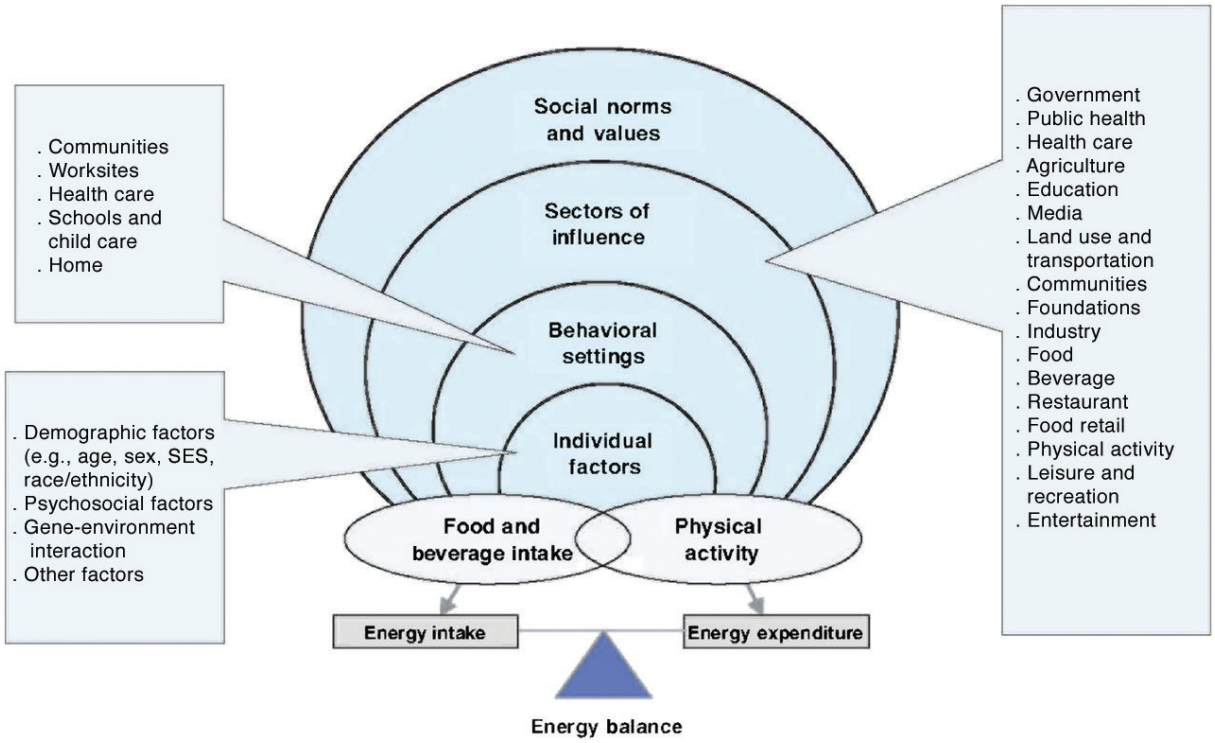
4.7 Physical changes, behavioural traits and health of adults

The following diagram shows the socio-economic factors that can affect someone's health.



The most common health problems during middle age are arthritis, asthma, bronchitis, coronary heart disease, diabetes, genitourinary disorders, hypertension (high blood pressure) and strokes.

Activity

Activity 27: What is expected at this age?

Explain briefly, in your own words, the physical development, behavioural traits and health of an adult.

Physical development and motor skills

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Behavioural traits

Health

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4.7 Physical changes, behavioural traits and health for older adults

Physical changes

Older adults (65 years and over) will be aging by this stage which results in physical decline. This means their physical fitness and health is generally getting worse. Energy levels will be lower than in younger years and muscle mass will decrease. The immune system will also not be as strong as it used to be, therefore, illness is more common. Internal organs, such as the heart and lungs, become less able.

The effects and speed of this decline will be affected by factors such as lifestyle. Poor diet and lack of exercise over the years can increase the speed of ageing and likelihood of developing non-communicable diseases.

During this stage some of the senses weaken. Eyesight and hearing usually deteriorate. Motor skills also decrease; reflexes are slower and fine motor skills reduce. This means simple every day tasks may become harder. For example, older adults who drive may find it more difficult than they used to.

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Activity 28: The effect the physical decline has on the body

As you have just learnt, the body is physically weakening at this age. Think about the effect this may have on someone physically. Name some tasks or activities that older adults might start to find more difficult.

What physical effects of aging may an older adult notice?

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Tasks/activities that may become more difficult at this age:

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Intelligence

Older adults generally find it harder to learn new things than younger age groups. A good example of this is if you think about technology; young children tend to be able to use a smart phone, computer or tablet a lot more easily than older adults.

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4.7 Physical changes, behavioural traits and health for older adults

An older adult's memory also tends to worsen as they get older. Particularly their short-term memory. However, in the same way that keeping physically active will keep you fitter for longer, older adults who keep their minds active are also more likely to keep their mental abilities into older age.

Older adults often have a lot of wisdom and practical knowledge/experience that they have gained over the years. So, although they have less energy and are slower at learning new things, they generally have the ability to conserve energy and have more understanding, patience and experience than younger adults.

Health

According to the World Health Organization (WHO), the average life expectancy for both men and women in the UAE is 77.1 years. However, lots of people live a lot longer than this.

Older adults generally have more health problems as they get older. Most older adults have at least one chronic health problem; however, this does not stop many adults staying active well into their 80s.

The most common medical conditions among older adults are arthritis, cancer, cataracts of the eyes, dental problems, diabetes, hearing and vision problems, heart disease and hypertension. Fractures, particularly in the hips, are common in this age group as they are more likely to have falls. Common colds or flu can be a lot more serious for the elderly due to the body's weakened immune system.

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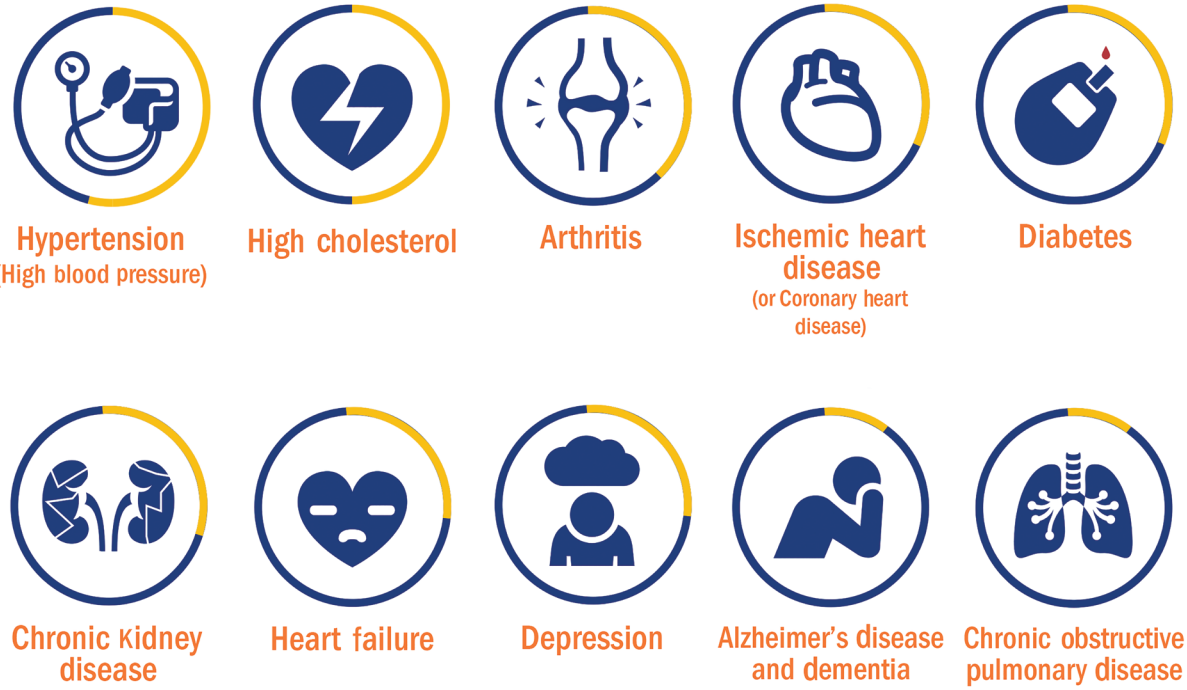
10 Common chronic conditions for adults 65+



Poor nutrition can also result in poor health. The average 65-year-old needs 20% less calories than they did during younger adulthood, but they still need the same amount of micronutrients (vitamins and minerals). Life expectancy can often be increased through a healthy lifestyle; healthy diet and regular exercise.

Dementia and Alzheimer's disease

Dementia is a condition that results in reduced brain function. It can affect memory, thinking and other brain functions. Alzheimer's is the most common type of dementia. Alzheimer's disease is common among older adults. One of the first signs of Alzheimer's is memory loss; as the disease develops this memory loss will become worse and other symptoms can develop, including:

- confusion, disorientation and getting lost in familiar places.
- difficulty planning or making decisions.
- problems with speech and language.

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4.7 Physical changes, behavioural traits and health for older adults

- problems moving around or doing every day tasks without help.
- personality changes, such as becoming aggressive, demanding and suspicious of others.
- hallucinations (seeing or hearing things that are not there) and delusions (believing things that are untrue).
- low mood or anxiety.

Dementia vs. Alzheimer's

	Dementia	Alzheimer's disease
General definition	A brain related disorder caused by diseases and other conditions.	A type of dementia. It is the most common type.
Cause	Many, including Alzheimer's disease, stroke, thyroid issues, vitamin deficiencies, reactions to medicines, and brain tumors.	Unknown, but the 'amyloid cascade hypothesis' is the most widely discussed and researched hypothesis today.
Duration	Permanent damage that comes in stages.	Average of 8 to 20 years.
Typical age of onset	65 years and older.	65 years but can occur as early as 30.
Symptoms	Issues with memory, focus and attention, visual perception, reasoning, judgment, and comprehension.	Difficulty remembering newly learned information. With advancement, disorientation, mood and behaviour changes may occur.

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Activity 29: Create a poster

Create a poster to raise awareness of what dementia is. Include the symptoms and research what support there is available for people with dementia.

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4.7 Physical changes, behavioural traits and health for older adults

Activity

Activity 30: The effects of dementia

Dementia is not a nice condition for someone to have. It can be very upsetting for both the person and their family/friends. Discuss in groups how you think dementia could affect the life of the person who has it and their family. Make notes below.

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Activity 31: What is expected at this age?

Explain briefly, in your own words, the physical development, behavioural traits and health of an older adult.

Physical development and motor skills

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Behavioural traits

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Health

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End of unit quiz

Quiz

Quiz – Unit 4

1. List in order, the different stages of the human life cycle, including the approximate age a person is during this stage.

Stage of human life cycle	Age

2. During which stage of the human life cycle do you go through puberty? List some of the changes that occur during puberty.

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3. Explain briefly what Alzheimer's and dementia are. Which stage of the life cycle are they most common?

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4. As a person gets older their body ages and diseases/disorders are more common. What can reduce the chance of diseases and possibly increase life expectancy?

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Student's comments
Things to think about: Which part of the unit did you enjoy? What part of the unit were you good at? What do you need to improve? **Additional comments:**

Teacher's feedback
Things to think about: Did the student participate? What was the student's attitude towards activities? Did the student display safe and appropriate behaviour? **Additional comments:**