

شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية



مراجعة نهائية وملخص شامل

[موقع المناهج](#) ← [المناهج الإماراتية](#) ← [الصف الثاني عشر](#) ← [علوم صحية](#) ← [الفصل الأول](#) ← [الملف](#)

التواصل الاجتماعي بحسب الصف الثاني عشر



روابط مواد الصف الثاني عشر على تلغرام

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المزيد من الملفات بحسب الصف الثاني عشر والمادة علوم صحية في الفصل الأول

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UNIT 1 - MEDICAL TERMINOLOGY

What is medical terminology?

Language used by medical professionals.

- allows health professionals to communicate.
- can be understood by all healthcare professionals.
- describes the condition of a patient.
- identifies the treatment that a patient needs.
- saves time in a medical emergency.

Parts of medical words

Prefix = beginning of the word

Root word = middle (provides the meaning of the word)

Suffix = ending of the word

Combining vowels= used to connect two root words and to connect a word root to a suffix

ROOT WORDS

arthr (joint)	
gastr(stomach)	
phleb(vein)	
carcin(cancer)	chem(chemical)
glyc(sugar)	lipid(fat)
psych(mind)	thromb(clot)
cardi(heart)	derm(skin)
heam(blood)	osteo(bones)
	tox(poison)
	pulmon(lungs)

PREFIXES

a- or an (without or lack of)
hyper (too high)
ab (away from or off)
hypo (too low)
anti (against)
inter (between)
ante (before)
intra (within)
brady (slow)
myo (muscle)
epi (above)
tachy (fast)

SUFFIXES

aemia (blood condition)
genic (forming or causing)
ism (condition or disease)
itis (inflammation)
logy (study of)
sis (state of or condition)-
pathy - disease

UNIT 1 - MEDICAL TERMINOLOGY

Examples of Medical Terminology

hyperglycaemia

Break it down into 3 words:

hyper / glyc / aemia

- The prefix in this word is **hyper**. A prefix goes at the start of a word.
- The root word is **glyc**. This is the basic part of the word.
- The suffix in this word is **aemia**. A suffix goes at the end of a word

Medical words and their meanings:

Example	Word meaning
leukaemia	cancer of the blood
carcinogenic	cancer forming
hyperthyroidism	a condition where the thyroid is overactive
arthritis	inflammation of the joints
biology	study of the body
osteoporosis	condition of the bones
neuropathy	a disease of the nervous system

UNIT 1 - MEDICAL

TERMINOLOGY

Medical Report

Used by healthcare professionals.

It keeps track of a patient's treatment and progress during the time that the patient is in their care.

- **Personal information** = name, age, ethnicity, contact info
- **Medical history** = medications, allergies and medical conditions
- **Medical complaint** = Why they are visiting the doctor
- **Physical examination results** = height, weight, vital signs,
- **Test results and diagnosis** = results of any tests that the patient has had.
- **Treatment plan and progress report** = After the disease or illness has been diagnosed, the healthcare professional will write a treatment plan on this part of the report.

KEY WORDS:

- **Ethnicity** = Where the person is from.
- **Medical complaint** = why are they visiting the doctors.
- **Vital signs** = blood pressure, respiration rate, temperature and pulse.
Respiration rate = the rate of breathing.
- **Confidential** = do not tell anyone any information.
- **Diagnosis** = finding out the disease the person has.

UNIT 1 - MEDICAL TERMINOLOGY

Common medical terms

Acute = An illness that lasts for a short time, **less than three months.**

Chronic = A disease or illness that **lasts more than three months.**

Cure = Something (such as a drug or medical treatment) that stops disease and makes someone healthy again.

Diagnosis = This is when a medical professional identifies the disease or illness that a patient has.

Infectious = A disease that can be spread to other people by germs.

Prognosis = A doctor's opinion about how someone will recover from an illness or injury.

Remission = When the symptoms of the patient's disease get better (but are not cured)

Sign= Evidence of an illness that can be seen (such as a skin rash)

Symptom = A feeling or physical change (such as pain).

Terminal = an illness that cannot be cured.

Treatment = make someone feel better or become healthy again

UNIT 2 - DISEASES AND DISORDERS

Disease =

A disease is a medical condition that stops the body from working normally.

Diseases can cause:

- pain in the body.
- parts of the body to stop working.
- in some cases, death.

Communicable diseases=

can be passed or spread from one person to another.

Non-communicable=

diseases cannot be passed from one person to another.

Acute= less than 3 months

Chronic = more than 3 months

Communicable diseases	Non-communicable diseases
influenza (flu)	epilepsy
COVID-19	hypertension
gastroenteritis	diabetes
malaria	multiple sclerosis

Acute diseases	Chronic diseases
COVID-19	arthritis
common cold	diabetes
pneumonia	asthma
influenza (flu)	allergies

Medical specialists

Orthopaedic surgeons =specialise in the skeletal system including bones and joints.

Neurologists = specialist doctors who have trained in the nervous system disorders, including diseases of the brain, spinal cord, nerves, and muscles.

Pulmonologists= are doctors who have trained in the treatment of conditions of the respiratory system.

Gastroenterologists = are experts on the digestive system, including how it works, and the diseases and problems that can occur in it.

Cardiologists = are doctors that specialise in the diagnosis and treatment of diseases of the circulatory system.

Immunologists = are experts in diagnosing, treating, and managing asthma, all types of allergies and other diseases of the immune system

UNIT 2 - DISEASES AND DISORDERS

DISEASES OF THE MUSCULOSKELETAL SYSTEM

ARTHRITIS

What is it?

Arthritis is a chronic disease. It is the **inflammation of the joints**. This happens because of cartilage breaking down between the bones in a joint, which can result in one bone grinding directly on another.

Signs and symptoms

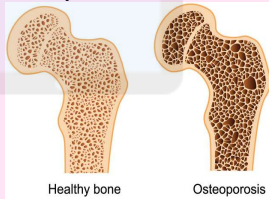
- Pain and swelling around the affected joint
- Lack of motion: the joint will not be able to move as much as it should
- Stiffness after sleeping or sitting for a long time
- Grating: a feeling of bones rubbing together inside the joint



OSTEOPOROSIS

What is it?

Osteoporosis is a chronic disease that develops slowly and causes the **bones to become weak and porous**. This loss of bone density and strength can cause bones to break easily.



Signs and symptoms

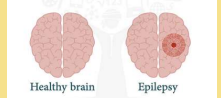
- Bones that break easily
- Back pain
- Stooped posture
- Loss of height

How to manage Osteoporosis

- getting enough calcium in the diet
- reducing intake of fizzy drinks and caffeine.
- getting enough vitamin D from food and non-food sources.
- doing weight-bearing physical activity such as running, walking and weightlifting.
- taking medication which slows down the weakening of the bones

DISEASES OF THE NERVOUS SYSTEM

EPILEPSY AND SEIZURES



What is it?

Epilepsy is a chronic disease affecting the central nervous system. **It causes abnormal brain activity which can lead to seizures.** Epilepsy is non-communicable.

Signs and symptoms

- Seizures
- have a stiff body with an arching back.
- have noisy, difficult breathing.
- have sudden uncontrolled movements.
- fall down.
- suddenly become unresponsive or unconscious



ALZHEIMER'S DISEASE

What is it?

Alzheimer's is a disease that causes **brain cells to waste away and die.**

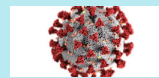
Signs and symptoms

- difficulty remembering newly learned information.
- forgetting people's names, or the names of everyday things.
- getting lost in familiar places
- having trouble with vocabulary and following conversations.
- difficulty concentrating or thinking
- behaviour changes such as mood swings or depression

Dementia

Dementia is a general term used to describe the symptoms associated with a **decline in mental ability**. It is severe enough to reduce the quality of daily life. There are many causes of dementia but Alzheimer's is the most common. The damage to brain cells can impact someone's way of thinking, behaving and their feelings. It is not a normal part of aging. **Alzheimer's is a disease; dementia is not.**

DISEASES OF THE RESPIRATORY SYSTEM



COVID-19

What is it?

Newly discovered coronavirus. The COVID-19 virus spreads through droplets from the nose or mouth of an infected person when he or she coughs or sneezes.

Signs and symptoms of COVID-19

- loss of taste and/or smell
- dry cough
- fever
- tiredness
- headache
- aches and pains
- sore throat

The main parts of the respiratory system are:

- the nose and mouth
- the trachea.
- the bronchus.
- the lungs.
- the bronchioles.
- the alveoli.



ASTHMA

What is it?

Asthma is a chronic disease that causes **inflammation of the airways**. When the airway becomes inflamed, it becomes swollen and makes breathing very difficult.

Signs and symptoms:

- Coughing
- Shortness of breath when exercising
- Tightness in the chest~
- A wheezing or whistling sound when breathing

Common diseases of the Respiratory System:

- Asthma
- Chronic obstructive pulmonary disease (COPD)
- Pneumonia
- COVID-19
- Other viruses that affect the respiratory system

UNIT 2 - DISEASES AND DISORDERS

DISEASES OF THE DIGESTIVE SYSTEM

GASTROENTERITIS

What is it?

Gastroenteritis (stomach bug) happens when **bacteria or viruses** cause inflammation in the stomach and intestines.

Signs and symptoms

- Watery diarrhoea
- Cramps and pain in the stomach
- Nausea (feel sick)
- vomiting
- Muscle aches
- Headache
- Fever



Causes

- It can happen as a result of poor hygiene, after contact with animals or after eating contaminated food or drinks.

Who can get Gastroenteritis?

- Gastroenteritis can affect any person of any age.
- It is more dangerous for very young children, older adults and people with other serious medical conditions.
- Most cases of gastroenteritis are communicable

FOOD INTOLERANCE



What is it?

Food intolerance means a person has **difficulty digesting certain foods**. Foods that people commonly have an intolerance to include **lactose (found in dairy products), gluten and eggs**.

Signs and symptoms

- Stomach pain
- Bloating
- Headaches
- Nausea
- Diarrhoea

Mild allergies (small)

- sneezing.
- watering, red, or swollen eyes
- swelling of the face, lips, or throat.
- itchy mouth or nose.
- bumpy red rash forming on the skin

Treatment

Avoiding things that cause the reaction. Medications can reduce the immune system reaction and ease symptoms. These are called **antihistamines**.

KEY WORDS FOR IMMUNE SYSTEM:

Autoimmune disease =

when the immune system recognises healthy body cells as unhealthy ones and attacks them.

Antibodies=

a substance produced by the body to fight disease

DISEASES OF THE CIRCULATORY SYSTEM

HYPERTENSION



What is it?

Hypertension is also known as high blood pressure. It means that the blood pressure in the arteries is higher than it should be.

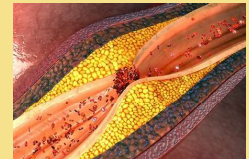
Treatment

- Having a healthy lifestyle
- Eating a diet low in salt, fat and caffeine,
- maintaining a healthy weight and exercising,
- avoiding smoking.
- Medications are also available that lower blood pressure and relax the blood vessels.

Risk factors

- Family history of hypertension.
- Being overweight,
- having too much salt in the diet,
- smoking,
- not doing exercise
- having high-stress levels

ATHEROSCLEROSIS



What is it?

A **fatty substance called plaque builds up in the arteries and eventually blocks blood flow**. If this happens in the arteries of the heart, it can cause a blockage which can lead to a heart attack. In the brain, it can cause a stroke.

DISEASES OF THE IMMUNE SYSTEM

ALLERGY

What is it?

The **immune system produces antibodies which think that the substance is harmful**. This can cause inflammation of the skin, eyes, and airway.

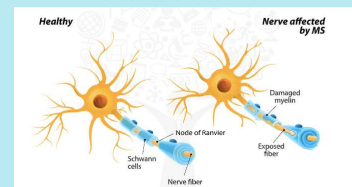


Severe allergies (Anaphylaxis)

- severe chest tightness
- shortness of breath
- skin rash.
- rapid weak pulse
- loss of consciousness

Treatment

If someone has a **severe allergy** to something, they might carry an **adrenaline auto-injector**. This can save their life if they are experiencing anaphylaxis.



MULTIPLE SCLEROSIS (MS)

What is it?

An autoimmune disease of the brain and spinal cord. It happens because the immune system attacks the protective covering (the myelin) of the nerve cells. This causes damage to the nerves and disrupts the communication between the brain and the rest of the body. **MS makes it difficult to do everyday tasks.** It is a chronic disease. .

UNIT 3 - TECHNOLOGY IN HEALTHCARE

The latest advances in technology

- Artificial intelligence (AI)
- Augmented reality (AR)
- Virtual reality (VR)
- 3-D printing
- 5G
- Robotic surgery
- Artificial organs
- Medical wearables
- Telemedicine services

Developments in healthcare

- Patients are diagnosed quicker
- Patients have quicker recovery times
- People are living longer
- Better healthcare facilities
- Modernised hospitals and equipment



Health-related apps

Alhosp is the UAE's official app for COVID-19 testing results, vaccine certification and contact tracing.

Contact tracing

Contact tracing is used to identify people who have been in contact with an infected person.

It uses GPS and Bluetooth.



E-service

E-services are electronic services that are provided using the internet.

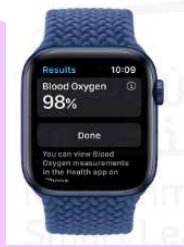
Medical e-services allow you to book appointments to accessing medical records and paying medical bills.

Benefits of health-related applications or e-services

- Available to use 24/7.
- Do not have to plan a trip to a healthcare facility in order to receive test results
- Saves time from their day, and can make a call for a doctor's appointment.
- Patients can access these services from anywhere in the country, or anywhere in the world.

UNIT 3 - TECHNOLOGY IN HEALTHCARE

SMART TRACKERS AND FITNESS WATCHES



Keep track of physical activity and heart rate.

SMART HEARING AIDS

Smart hearing aids are fitted with sensor technology which uses AI to filter out background noise such as wind, and focus on specific sound sources such as speech.



WEARABLE ECG MONITORS

Check your heart in 30 seconds.



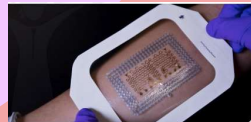
- Electrocardiograms (ECG) track heart rhythm and rate, heart health, some can even measure other vital signs such as blood pressure.
- They can also detect and alert the user when their heart rate is abnormal.
- One type of wearable ECG monitor gets users to place their fingers on top of two electrodes and attach the bottom electrode to their left ankle. Results are received within thirty seconds.

SLEEP MONITORS



They help people to learn their sleep needs and they can provide clinical solutions. Sleep monitors track sleep cycles and help users who do not get enough sleep, or those who wake up too late or too early. These devices can play music which can help increase sleep length. The headband monitor is connected to a mobile application.

WEARABLE BIOSENSORS



Biosensor devices are portable sensors that come in the form of patches and bandages. They create two-way communication between the user and their doctor. The doctor can monitor health and give diagnoses based on physical motion and biofluids.

Biosensors can measure:

- heart rate
- respiratory rate
- skin temperature
- body temperature
- posture
- falls
- step count

UNIT 3 - TECHNOLOGY IN HEALTHCARE



Virtual reality (VR) =

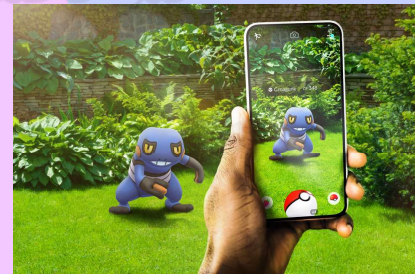
when a person completely enters into a digital environment and cannot see the real environment around them. They use **goggles** to do this.

How AR/VR are used in healthcare

- Medical training
- Robotic surgery
- Physiotherapy
- Mental health treatment
- Emergency treatment
- Personalised treatment

Augmented reality (AR) =

This technology augments (changes) the real world by adding additional data to it.



How AR and VR improves the patient experience

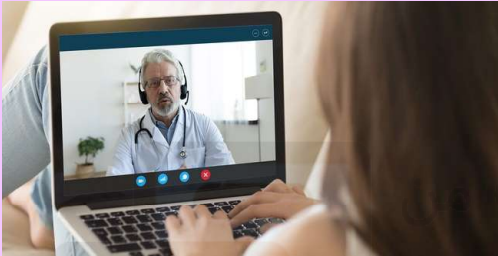
- Making patients more aware of what exactly is happening to their bodies before, during and after treatment.
- Doctors can show patients what their surgery will look like and what the results should be once the procedure is completed.
- Self-guided treatments such as meditation and physiotherapy can make the recovery process more enjoyable for patients.
- VR can be used as a distraction tool for patients who are in pain.
- Some women have used VR while in labour to help distract them from any pain and discomfort.

UNIT 3 - TECHNOLOGY IN HEALTHCARE



Telemedicine =

defined by the WHO as, “healing from a distance.” Can speak to the doctor on the phone or over video call.



The telemedicine services aim to provide people at home with the medical services that they require. However, in some cases, the patient needs to be physically assessed by a doctor. If this happens, they will be referred to a hospital.

Conditions via telemedicine:

- Coughs and colds
- Asthma
- Allergies
- Headache
- Fever
- Muscle pain
- Joint and back pain
- Skin problems
- Minor burns
- Obesity
- Mental illness

Benefits of telemedicine

- **Convenience** - spend less time and money getting to and from hospital and waiting for their doctor.
- **Improved access to care** - it is easy for people who have disabilities, are very old, or not near to a healthcare facility to call a doctor and speak from their own home.
- **Reduced risk of spreading infections** - going to the hospital involves being around people who are sick.

Artificial intelligence

(AI) = a computer’s ability to think, behave and learn like a human.

How is AI used in healthcare

Keeping well = apps that encourage healthy behaviours and help people to manage a healthy lifestyle.

Early detection of disease = AI is being used to detect diseases, such as cancer, more accurately and in the early stages.

Medical wearables and other devices with AI technology can be used to detect heart disease in the early stage.

Treatment = AI can help to create individual care plans and help patients with long-term treatment programmes.

End of life care = AI combined with newer technology means robots can have conversations and carry out other social interactions with people to keep aging minds sharp and to reduce loneliness.

Medical training = training in realistic situations.

Practice their skills in case they are faced with a challenging scenario in a clinic.

UNIT 4- MEDICAL EMERGENCIES

HEAD INJURIES

Paralysis =

the loss of the ability to move or feel anything in part of the body

3 types of head injuries



Concussion

A 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.



Scalp Wounds

A cut to the head.



Skull Fractures

A break in the cranial bone, also known as the skull.

Symptoms of a head injury~

1. **Unconsciousness**
2. **Acting sleepy or confused.**
3. **Fits or seizures.**
4. **Difficulty speaking or staying awake.**
5. **Problems with the senses.**
6. **Vomiting**
7. **Blood or clear fluid coming from the ears or nose**
8. **Amnesia (memory loss)**
9. **Sudden swelling or bruising around both eyes or behind the ears**
10. **Difficulty with coordination and walking**

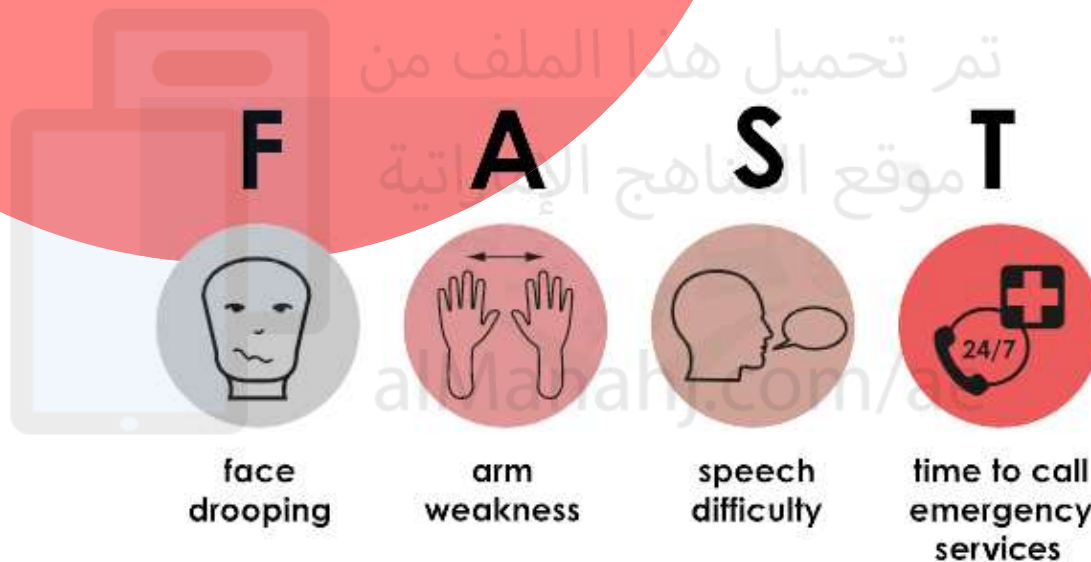
Symptoms of a Spinal injury~

1. **extreme back pain or pressure in the neck, head or back.**
2. **weakness, or paralysis in any part of the body.**
3. **numbness, tingling or loss of sensation in the hands, fingers, feet, or toes.**
4. **difficulty with balance and walking.**
5. **difficulty breathing after injury.**
6. **a twisted neck or back.**

UNIT 4- MEDICAL EMERGENCIES

STROKE

A stroke is a condition that happens when the supply of oxygen to the brain is reduced or stops completely.



SIGNS AND SYMPTOMS OF A STROKE

Face drooping: This is when one side of the face droops. Do they have numbness in their face?

Arm weakness: Do they feel weakness in one or both arms?

Speech difficulty: Are they finding it difficult to talk? Does their speech sound different?

Time: If the answer is yes to any of the above, call the emergency services immediately. Let the operator know that you suspect the patient is having a stroke.

UNIT 4- MEDICAL EMERGENCIES

DIABETIC EPISODE

Diabetes is a disease where the body is unable to properly produce or respond to a hormone called insulin.

Two types of Diabetes



HYPERglycemia

Hyperglycemia is when blood glucose levels are too high because insulin is not present or the body doesn't respond to the insulin that is present.

Causes:

- does not receive insulin treatment
- eats too many sugary foods.

Symptoms of hyperglycemia



How to help:

- Changing the dosage of insulin
- Eating fewer carbohydrates and sugary foods
- Exercising more
- If hyperglycaemic symptoms worsen, or if the person has problems breathing, a very dry mouth, or a fruity smell in their breath, they should see a doctor

HYPOglycemia

Hypoglycaemia is very low blood glucose.

Causes:

- misses a meal.
- has not eaten enough food.
- does a lot of physical activity



Symptoms of hypoglycemia



How to help:

- Give them a sugary drink, or a sugary snack such as a sugar lump or a sweet.
- After 15mins recheck levels. If they have not returned to normal, they should eat some more.
- If the person becomes unconscious, you should call 998 and ask for emergency medical help.

UNIT 4- MEDICAL EMERGENCIES

- A seizure happens when there is a disruption in the electrical activity in the brain.
- It leads to muscle contractions that the body cannot control and can cause the person to become unresponsive.
- The most common cause of a seizure is epilepsy.

Signs and symptoms of a seizure

- sudden loss of responsiveness.
- a stiff body with an arching back.
- noisy, difficult breathing.
- grey/blue coloured lips.
- sudden uncontrolled movements.
- saliva at the mouth, possibly bloodstained if they have bitten their tongue or lip.
- loss of bladder or bowel control.



FEBRILE SEIZURE = In young children, seizures are usually caused by a raised body temperature (fever), often following infection. This occurs because the brain is not developed enough to cope with the body's high temperature.



MEDICAL CARE FOR A FEBRILE SEIZURE=

The medical care for a febrile seizure is the same as that for an adult seizure (recovery position).

- You need to cool the child down.
- You should wait until they have stopped having the seizure to remove any bedding and any extra clothing that could help cool them.
- Make sure there is fresh air, you could use air conditioning for this.

UNIT 4- MEDICAL EMERGENCIES

- A poison is anything that someone swallows, breathes in, gets into their eyes, or gets on the skin that can cause sickness or death.



POISON

Signs and Symptoms of poisoning

- Redness or burning around the mouth
- A chemical smell on the breath
- Vomiting
- Difficulty breathing
- Drowsiness
- Confusion
- Seizures
- Sudden heartbeats

Causes of poisoning

- household products, such as bleach.
- cosmetic items, such as make-up or nail polish.
- some types of plants.
- household chemicals and pesticides.
- carbon monoxide.
- medicines for pets

MEDICAL CARE FOR POISONING=



Call the emergency services immediately.

If the person is conscious (awake):

- Ask them to sit down.
- If they have been poisoned by swallowing something, ask them to spit out anything that is left in their mouth.
- Do not give them anything to eat or drink.
- If they have been poisoned by something splashing onto their skin or clothes, remove any items that were in contact with the poison.
- Wash the affected area with warm or cold water.
- Be careful not to touch the poison whilst helping.
- Stay with the person who has been poisoned until medical help arrives