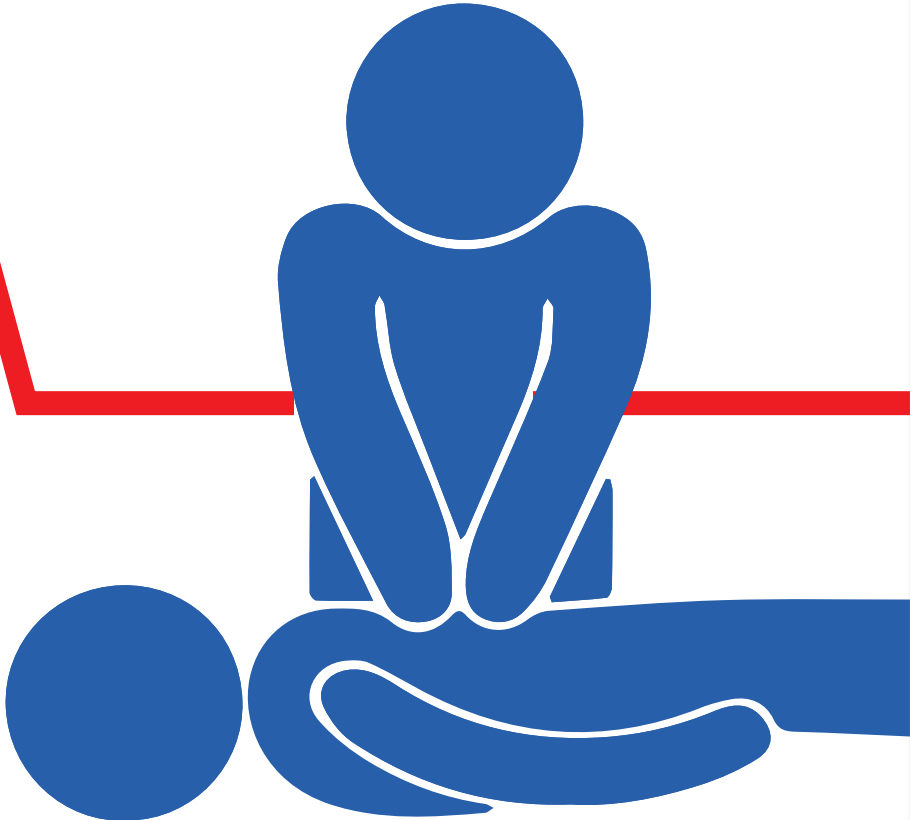




Safety and Security Solutions

# Training Manual



**First aid**

Your first aiders are:-


The nearest first aid box is situated:-

--

**Unit 1 First aid in the workplace**

**Unit 5 Wounds and bleeding**

**Unit 2 Patient assessment**

**Unit 6 Altered levels of consciousness**

**Unit 3 Respiratory emergencies**

**Unit 7 Musculoskeletal injuries**

**Unit 4 Cardiac first response**

**Unit 8 Burns and scalds, chemicals, electric shock**



<b>R</b>	<p>First Aid <b>Ready</b> Assessment</p>	<ul style="list-style-type: none"> <li>• When did your workplace last undertake a First Aid Assessment?</li> <li>• Is your organisation a high or low risk workplace?</li> <li>• Do you have workplaces that are remote or where access to emergency services is limited?</li> </ul>
<b>E</b>	<p><b>Enough</b> Trained First Aiders</p>	<ul style="list-style-type: none"> <li>• When your First Aiders are away from the workplace - sick, at lunch or on leave, how do you currently cover them?</li> <li>• Do all First Aiders in your workplace have current First Aid qualifications and up-to-date skills obtained in the last 12 months?</li> <li>• Does everyone know who the First Aiders are in your workplace?</li> </ul>
<b>A</b>	<p><b>Accessible,</b> visible First Aid Equipment</p>	<ul style="list-style-type: none"> <li>• Does your workplace have visible First Aid Kits and Signage?</li> <li>• How often is your First Aid Equipment checked so it is ready for a First Aid emergency?</li> <li>• Does your workplace require a First Aid Room and/or Equipment?</li> </ul>
<b>D</b>	<p><b>Drills</b> and First Aid Procedures</p>	<ul style="list-style-type: none"> <li>• Does your workplace run First Aid Drills?</li> <li>• Do you need assistance to assess your First Aid Drills and Procedures?</li> <li>• Are your workplace First Aid Procedures visible and accessible?</li> </ul>
<b>Y</b>	<p><b>You</b> and <b>your</b> unique business activities</p>	<ul style="list-style-type: none"> <li>• Would you know if, and when, your business requires additional First Aid?</li> <li>• Do some of your activities increase First Aid risk to employees, visitors and customers?</li> <li>• How do you cover First Aid beyond standard business hours?</li> </ul>

# Contact Us

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## Unit 1 First aid in the workplace

“Occupational First-Aider” means a person trained and qualified in occupational first aid QQI Level 5.

First aid is the immediate help given to someone who is injured or ill, to keep them safe until they can get more advanced medical treatment by seeing a health professional or go to hospital. (if required)

**999 call Information and sequence required by Ambulance Control** when requesting an emergency ambulance response:

- 1 Phone number you are calling from
- 2 Location of incident
- 3 Chief complaint
- 4 Number of patients
- 5 Age (approximate)
- 6 Gender
- 7 Conscious? Yes/no
- 8 Breathing normally? Yes/no
- If over 35 years – Chest Pain? Yes/no
- If Trauma - Severe bleeding? Yes/no



### Infection control precautions

hand washing, glove use and disposal, clinical waste disposal

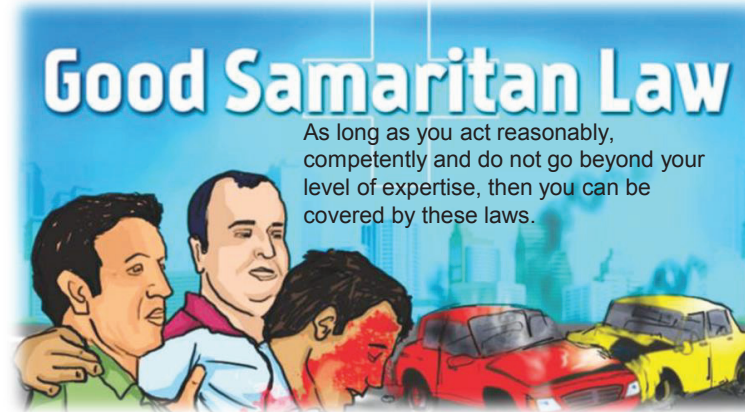
### Patient confidentiality



### Duties of an employer,

An employer shall

- (a) provide and maintain suitably marked and easily accessible first-aid equipment, as is adequate and appropriate
- (b) designate at each place of work under the employer's control the number of occupational first-aiders as is necessary to give first-aid



### Recording first aid treatment

- Name of Occupational First Aider
- Name of patient
- Type of injury
- Treatment given
- Date



### Post traumatic stress (PTS) / management



### Role and responsibilities of the Occupational First Aider (OFA)

- Promote recovery
- Prevent injury
- Protect all involved

1. Introduce yourself
2. Ask for consent
1. Assess the situation quickly and calmly
2. Protect yourself and them from any danger
3. Prevent infection between you and them
4. Arrange for the right kind of help
5. Comfort and reassure
6. Assess the casualty
7. Give first aid treatment



### HSA Recommended Contents of Occupational First Aid Boxes and Kits

- Plasters
  - Safety Pins
  - Sterile Eye Pads
  - Triangular Bandages
  - Crepe Bandages
  - Shears
  - Disinfectant Wipes
  - Gloves
  - CPR Mask
  - Sterile Wound Dressings Medium / Large / Extra Large
  - Water Based Burns Dressing Small / Large
- Sterile water where there is no clear running water for eye irrigation / burns



### First aid room facilities and equipment

Where first aid rooms are required

- Sink with running hot and cold water
- Drinking water and disposable drinking vessels
- A suitable store for first aid materials
- First aid equipment
- Soap
- Paper towels
- A chair
- A bowl or basin
- Smooth topped working surfaces
- Suitable refuse containers / plastic bag
- A couch and frequently cleaned pillow / blankets
- Clean protective garments for use by first aiders
- A first aid treatment record book





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## Unit 2 Patient assessment

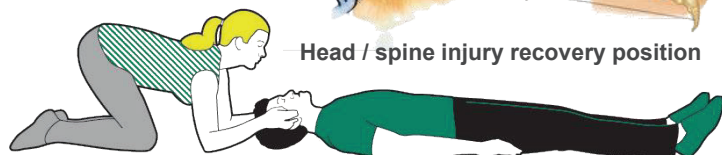
**The Primary Survey** is a quick way for you to find out if someone has any injuries or conditions which are life-threatening. If you follow each step methodically, you can identify each life-threatening condition and deal with it in order of priority.

### A, B, C, D Steps

- A for Airway
- B for Breathing
- C for Circulation
- D for Deadly Bleeding. ...

This involves checking to determine if the victim is conscious or unconscious, has an open airway and is breathing, and has a pulse.

### Head / spine injury technique for opening airway



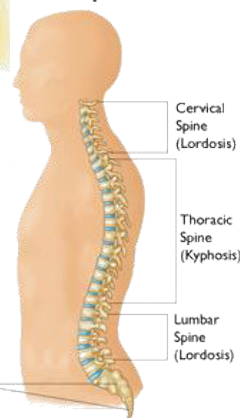
Head / spine injury recovery position



**DANGER**



### The Spine



**“SAMPLE”** is a first aid mnemonic acronym used for a person's medical assessment. The questions that are asked to the patient include

- Signs & Symptoms,
- Allergies,
- Medications,
- Past medical history,
- Last oral intake,
- Events leading up to present injury



**The cause = mechanism of injury** to help determine how likely it is that a serious injury has occurred

**Handover** information between first Aiders & other health care practitioners

**The Secondary Survey /** Head to Toe assessment is done once the primary survey is completed and non-life threatening injuries can be assessed. Assessments are used in order to determine the injury, how the injury occurred, how severe the injury is, and to eliminate further injury



**Either alert or unresponsive**

DOTS is used to remember what to look for when conducting a physical assessment of a casualty (looking for injuries).

### DOTS stands for:

- Deformities
- Open wounds
- Tenderness
- Swelling



**Treat injuries you discover**

### Recovery Position

If breathing, unresponsive & no injuries



The recovery position works by protecting the casualty's airway. In addition, protects against aspiration ("inhalation") of stomach contents. By placing the casualty on their side, any stomach contents will drain away from the airway.

### A.V.P.U Scale

Assessing levels of consciousness

The AVPU scale ("alert, voice, pain, unresponsive") is a system by which you can measure and record a patient's responsiveness, indicating their level of consciousness.

- A** The patient is awake.
- V** The patient responds to verbal stimulation.
- P** The patient responds to painful stimulation.
- U** The patient is completely unresponsive.



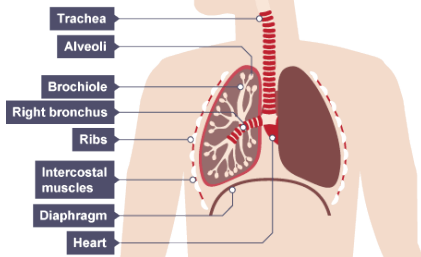
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## Unit 3 Respiratory emergencies

Air = 21% Oxygen  
79% Nitrogen  
1% Gases

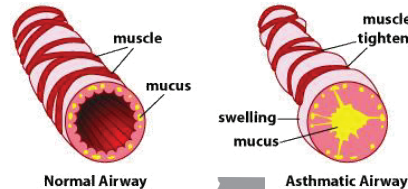


The respiratory system is involved in the intake and exchange of oxygen and carbon dioxide between an organism and the environment

When you breathe in, or inhale, your diaphragm contracts (tightens) and moves downward. This increases the space in your chest cavity, into which your lungs expand. The intercostal muscles between your ribs also help enlarge the chest cavity. They contract to pull your rib cage both upward and outward when you inhale



**Anaphylaxis Shock** is life-threatening when a person's immune system overreacts to a substance



**Choking = FBAO / Foreign Body Airway Obstruction**  
Alternate Back slaps x 5  
And Abdominal Thrusts x 5 (Heimlich manoeuvre)



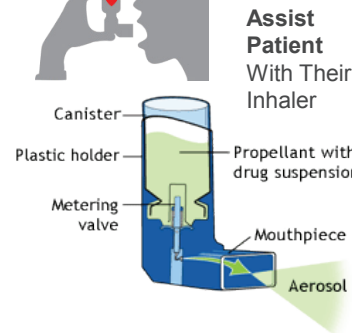
Unresponsive Do CPR  
Call 999



**Asthma (AZ-ma)** is a chronic (long-term) lung disease that inflames and narrows the airways.  
Asthma causes recurring periods of wheezing (a whistling sound when you breathe), chest tightness, shortness of breath, and coughing



Fresh Air  
Upright position



Assist Patient With Their Inhaler

**Choking** is when your airway gets blocked and you can't breathe properly. When someone chokes, the airway can either be partly or fully blocked. If it's a mild blockage, they should be able to clear it themselves by coughing.

**To help an adult or child over one year old: Back Slaps**

1. Stand behind the person and slightly to one side. Support their chest with one hand.
2. Give up to five sharp blows between the person's shoulder blades with the heel of your hand.
3. Check if the blockage has cleared.
4. If not, give up to five abdominal thrusts

Child 1+ Years old



Infant 0 to 1 years old



**To perform abdominal thrusts (Heimlich maneuver)**

1. Stand behind the person. Wrap your arms around their waist. Place your leg in-between theirs for stability encase they fall
2. Make a fist with one hand. Position it slightly above the person's navel.
3. Pull your arms up in a 'J' like motion to try dislodge obstruction. Repeat



Save yourself





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## Unit 4 Cardiac first response

### Chain of Survival



There are five steps to saving someone's life.

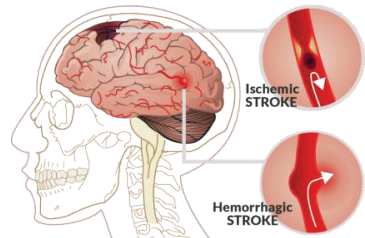
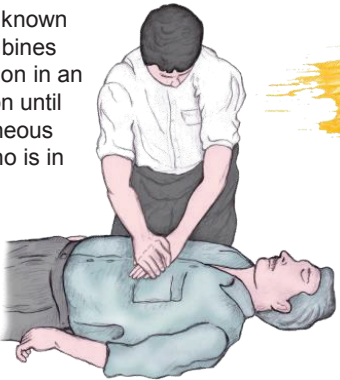
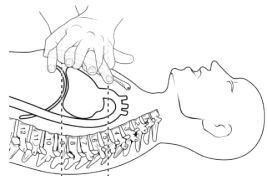
- The 5 links in the adult out-of-hospital **Chain of Survival** are
1. Recognition of cardiac arrest and activation of the emergency response system
  2. Early cardiopulmonary resuscitation (CPR) with an emphasis on chest compressions
  3. Rapid defibrillation
  4. Basic and advanced emergency medical services
  5. Advanced life support and post-cardiac arrest care
- A strong Chain of Survival can improve chances of survival and recovery for victims of cardiac arrest.



**Cardiopulmonary resuscitation**, commonly known as CPR, is an emergency procedure that combines chest compression often with artificial ventilation in an effort to manually preserve intact brain function until further measures are taken to restore spontaneous blood circulation and breathing in a person who is in cardiac arrest

**Push hard & fast**  
30 compressions  
2 breathes

**Use CPR mask**  
Barrier device



BRAIN STROKE



- Facial weakness
- Arm weakness
- Speech problems
- Time to call 999

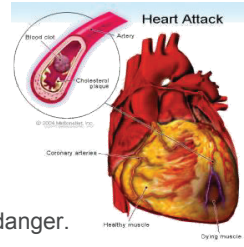


**Heart Attack:** The heart is about the size of your fist located on the left side of your chest. It lies between the right and left lungs, in the middle of the chest and slightly towards the left of the breastbone. The heart is enclosed in the pericardium which is a double layer.

Myocardial infarction – The damaging or death of an area of the heart muscle (myocardium) resulting from a blocked blood supply to that area; medical term for a heart attack. Coronary thrombosis – Formation of a clot in one of the arteries that conduct blood to the heart muscle.

**Watch out for these problems:**

- Nausea, Indigestion, Heartburn, or Stomach Pain. ...
- Pain that Spreads to the Arm
- You Feel Dizzy or Lightheaded
- Throat or Jaw Pain
- You Get Exhausted Easily
- Snoring., Sweating.
- Chest Discomfort. It's the most common sign of heart danger.



An **automated external defibrillator (AED)** is a portable device that checks the heart rhythm and can send an electric shock to the heart to try to restore a normal rhythm.



AEDs are used to treat sudden cardiac arrest (SCA). SCA is a condition in which the heart stops suddenly and unexpectedly stops beating



May assist in the administration of **aspirin** if available for suspected cardiac chest pain. Ask 4 questions first (age, allergy, stomach ulcers, blood disorder)





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**Unit 5 Wounds and bleeding**



1. Introduce You
2. Get Consent
3. Gloves on
4. Scene Safety



**The control of bleeding using PEEPS**

- Posture
- Expose/ examination
- Elevation
- Pressure
- Shock

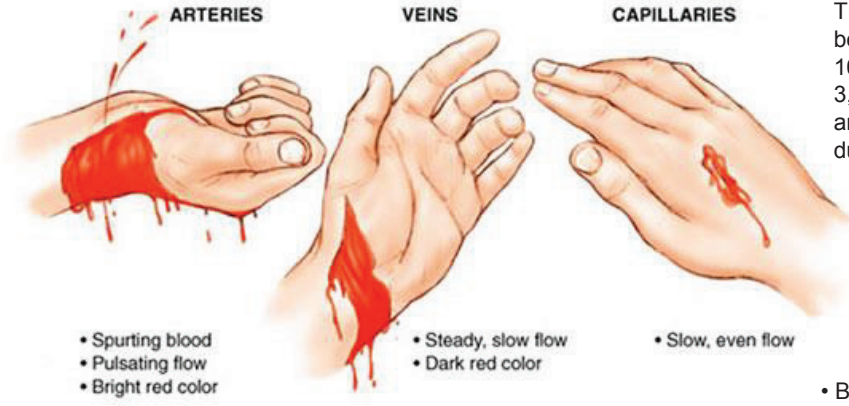
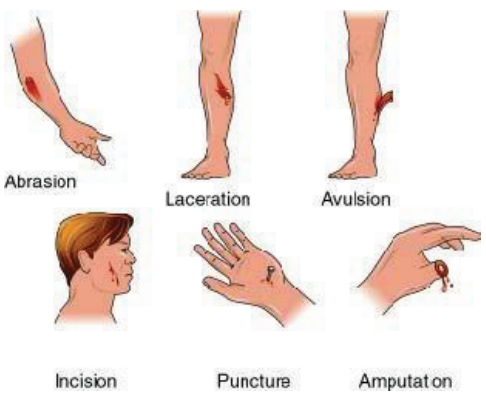


**The capillary refill nail test**

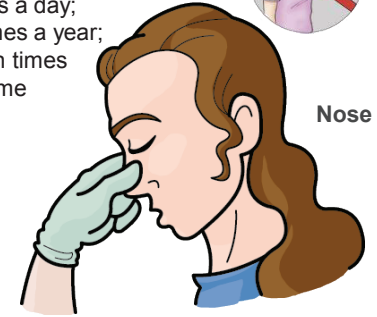


**Wound types**

The 6 types of wounds are abrasion, avulsion, incision, laceration, amputation and puncture. An abrasion is a wound caused by friction when a body scrapes across a rough surface. An avulsion is characterized by a flap. An incision is a cut with clean edges. A laceration is a cut with jagged edges. A puncture is a wound where something passes through or becomes impaled in the skin.



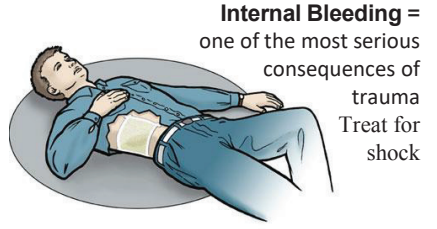
The average adult heart beats 72 times a minute; 100,000 times a day; 3,600,000 times a year; and 2.5 billion times during a lifetime



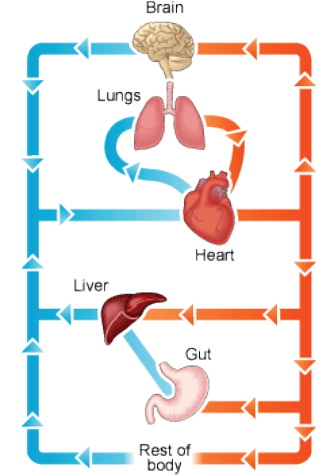
**Nose Bleed**

- Blood makes up around 7% of the weight of a human body.
- Blood contains red blood cells, white blood cells and platelets.
- These blood cells float in a yellow liquid called blood plasma.

**Functions of blood.** Transports gases, nutrients, waste, cells and hormones throughout the body. Protects against blood loss through clotting. Protects against disease through phagocytic white blood cells and antibodies. The process by which blood is made is called Haemopoiesis.

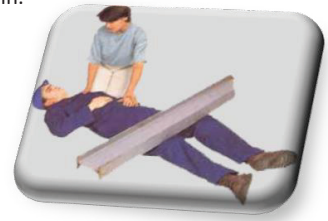


**Internal Bleeding =** one of the most serious consequences of trauma  
Treat for shock



**About the Heart and Circulatory System**

The circulatory system is composed of the heart and blood vessels, including arteries, veins, and capillaries. Our bodies actually have two circulatory systems: The pulmonary circulation is a short loop from the heart to the lungs and back again, and the systemic circulation (the system we usually think of as our circulatory system) sends blood from the heart to all the other parts of our bodies and back again.



**Crush Injury =** part of the body is squashed. For crushing more than 15 minutes. DO NOT release the weight.



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## Unit 6 Altered levels of consciousness

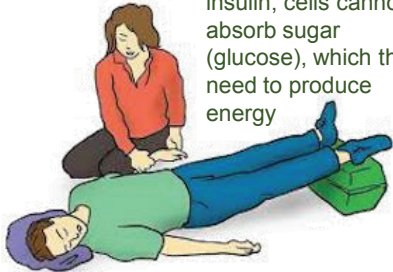
The medical term for fainting is syncope. **Fainting** is a sudden loss of consciousness, usually temporary and typically caused by a lack of oxygen in the brain. The brain oxygen deprivation has many possible causes, including hypotension (low blood pressure).



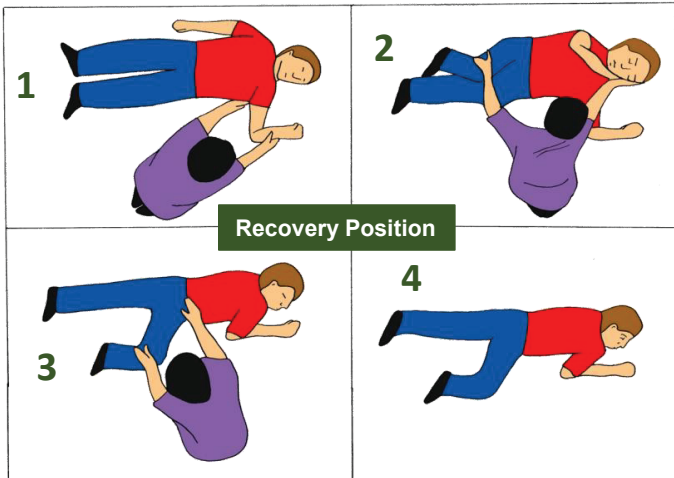
**Diabetes** without insulin, cells cannot absorb sugar (glucose), which they need to produce energy



**Causes of unconsciousness** include low blood pressure, dehydration, hyperventilation, low blood sugar and syncope. Abnormal heart rhythm, straining, alcohol and drug poisoning



AVPU Assessment



Recovery Position



**Concussion** is a brief period of unresponsiveness – someone with concussion may be confused, but only for a short time, followed by complete recovery.



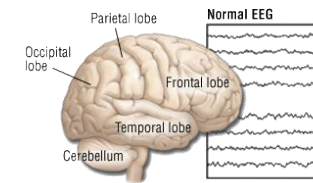
Compression

**Cerebral compression** – a severe blow to the head can cause bleeding or swelling inside the skull that can press on the brain – this is called cerebral compression and is life-threatening.

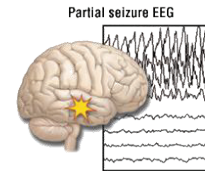
**Skull fracture** – if there is a head wound this is a sign that there may be deeper damage within the head, like a crack or break in the skull (skull fracture), which may be serious.



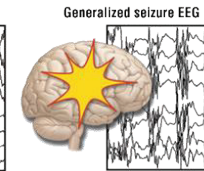
**Spinal injury** – you should always assume that someone who has had a head injury may also have a neck (spinal) injury and treat them for this as well.



Normal EEG



Partial seizure EEG

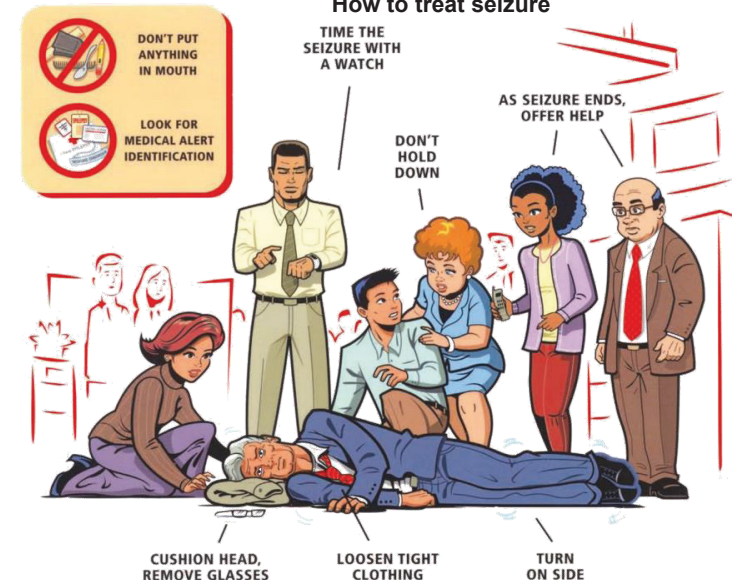


Generalized seizure EEG

**Epilepsy** is a neurological disorder marked by sudden recurrent episodes of sensory disturbance, loss of consciousness, or convulsions, associated with abnormal electrical activity in the brain.

**A seizure** is a sudden surge of electrical activity in the brain.

### How to treat seizure



**DON'T PUT ANYTHING IN MOUTH**  
**LOOK FOR MEDICAL ALERT IDENTIFICATION**

TIME THE SEIZURE WITH A WATCH

DON'T HOLD DOWN

AS SEIZURE ENDS, OFFER HELP

CUSHION HEAD, REMOVE GLASSES

LOOSEN TIGHT CLOTHING

TURN ON SIDE





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## Unit 7 Musculoskeletal injuries

**RICE** refers to the combination of rest, ice, compression (pressure), and elevation. This treatment is used to treat injured muscles, ligaments, and tendons.



Rest prevents further injury and may speed healing. People should limit their activity and avoid putting weight on and/or using the injured body part. For example, they should use crutches and not participate in contact sports.



Ice and compression minimize swelling and pain. Ice is enclosed in a plastic bag, towel, or cloth and applied for 15 to 20 minutes at a time, as often as possible during the first 24 to 48 hours. Usually, compression is applied to the injury with an elastic bandage.

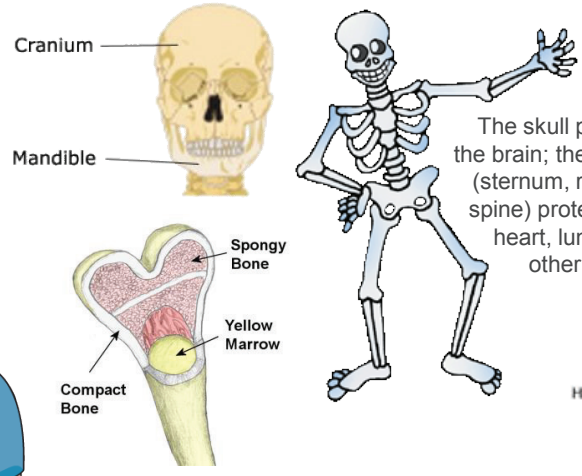
Elevating the injured limb helps drain fluid away from the injury and thus reduce swelling. The injured limb is elevated above heart level for the first 2 days.



- Soft Tissue Injury**
- Rest
  - Ice
  - Compress
  - Elevate



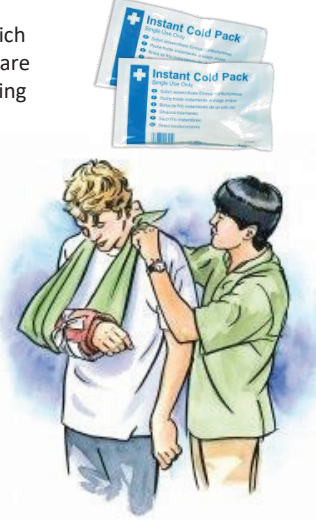
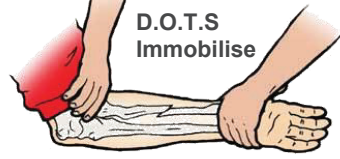
Packed with over 200 bones, skeletons protect, shape, support and move our bodies, as well as producing red blood cells in the bone marrow



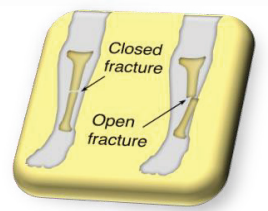
The skull protects the brain; the thorax (sternum, ribs and spine) protects the heart, lungs and other organs

A **sprain** occurs when the ligaments which hold the bones together around a joint are damaged (partially torn) by overstretching or twisting.

A **strain** occurs when a muscle or tendon is damaged by overstretching or an excessive contraction and is also partially torn or "pulled".

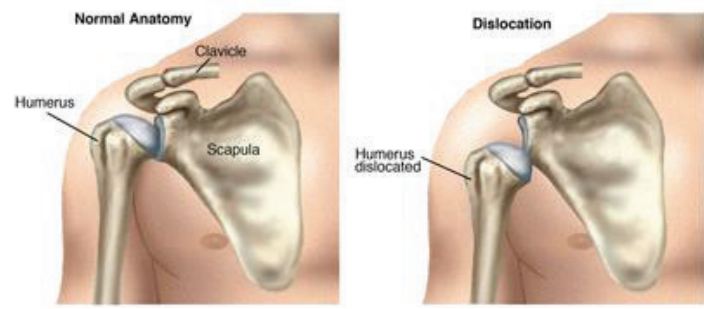


A **fracture** is a broken bone. There are two types of fractures: closed fractures, in which the skin is not broken, and open fractures in which sharp bony ends have caused a wound to the overlying skin.



A **dislocation** happens when one end of a joint is moved out of its normal position. The most commonly injured tissues with sprains and strains are the ankle and knee ligaments, the leg muscles, the lower back, the wrist and the shoulders.

### Shoulder Dislocation



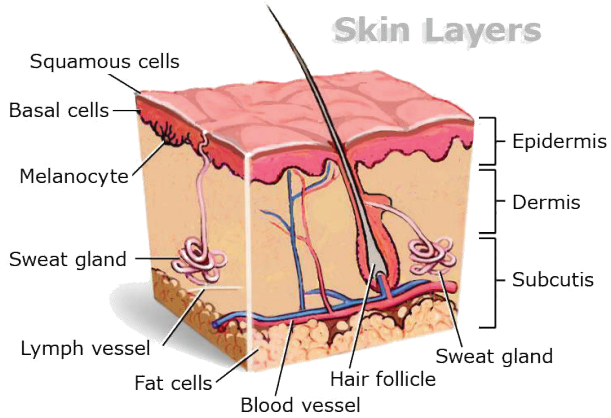


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## Unit 8 Burns and scalds, chemicals, electric shock



**A burn** is caused by dry heat (iron or fire)

**A scald** is caused by something wet (hot water or steam) treatment can reduce pain and facilitate healing

**Poisoning** is caused by exposure to a harmful substance. This can be due to swallowing, injecting, breathing in, or other means. Most poisonings occur by accident. Immediate first aid is very important in a poisoning emergency. The first aid you give before getting medical help can save a person's life



If the suspected poison is a household cleaner or other chemical, read the container's label and follow instructions for accidental poisoning. **Inhaled poison.** Get the person into fresh air as soon as possible

**National Poisons Unit  
Beaumont Hospital**  
Members of Public: +353  
(01) 809 2166

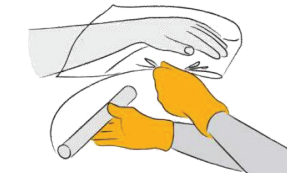
**Treatment of minor burns**  
Cool 10 mins



A chemical burn is irritation and destruction of human tissue caused by exposure to a chemical, usually by direct contact with the chemical or its fumes.

### Chemical Burn Treatment

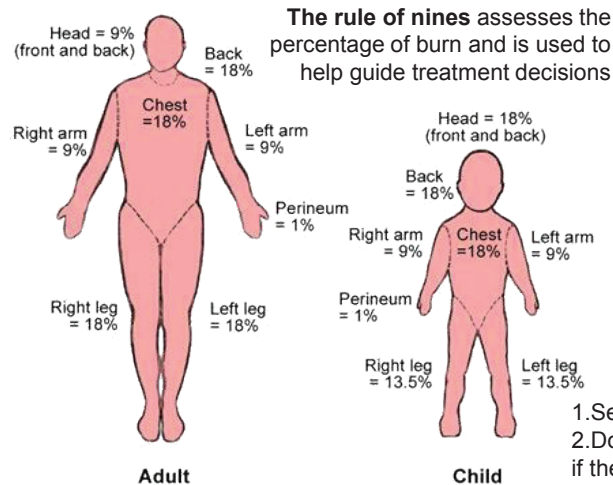
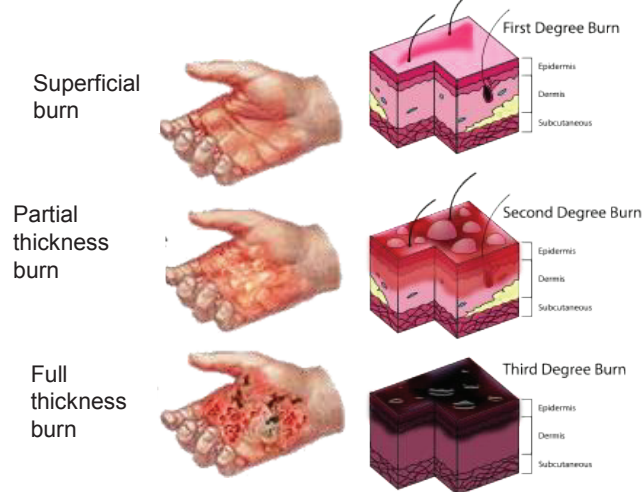
1. Protect Yourself. Put on gloves or apron, if possible. ...
2. Rinse and Clear Burn Area. Flood area with cool water for at least 20 minutes or until help arrives. ...
3. Cover a Small Burn Area. You can wrap a small burn with dry, sterile gauze or clean cloth.
4. Seek medical attention



### Electric Shock



1. Separate the Person From Current's Source. To turn off power:
2. Do CPR, if Necessary. When you can safely touch the person, do CPR if the person is not breathing or does not have a pulse
3. Treat Injuries / apply bandage. Wait for 999/112 to Arrive





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## Examination in accordance with QQI - FETAC regulations

### FAR Exam Breakdown Day 3

Summary

1. CPR / AED Skills Demonstration 40%
2. Skills Demonstrations 40%
3. Examination 20%

An FAR Instructor recognised by the Health and Safety Authority will act as the internal assessor and assess candidates

#### 1 - CPR / AED Basic Life Saving Skills 40%

Demonstration 1 Candidates will be assessed in the following basic life saving skills:

- Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED)

#### 2 - Skills Other Occupational First Aid Skills 40%

Demonstration 2 Candidates will be assessed in 2 of the following skill areas:

- Patient assessment
- Respiratory emergencies
- Wounds
- Bleeding
- Shock
- Altered levels of consciousness
- Musculoskeletal injuries
- Burns and scalds
- Electric shock



#### 3 - The written examination 20%

The examination will be 45 minutes in duration.  
 The format of the examination will be as follows:  
 20 MCQ (mutli choice answers).

Grading

Pass 50 - 64%

Merit 65 - 79%

Distinction 80 - 100



What should be in a first aid kit in work.  
**HSA Guide**



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Materials	First-aid travel kit contents	First-aid box contents		
		1 to 10 persons	11 to 25 persons	26 to 50 persons <sup>1</sup>
Adhesive plasters	20	20	20	40
Sterile eye pads (no. 16) (bandage attached)	2	2	2	4
Individually wrapped triangular bandages	2	2	6	6
Safety pins	6	6	6	6
Individually wrapped, sterile, unmedicated wound dressings medium (no. 8) (10 x 8 cms)	1	2	2	4
Individually wrapped, sterile, unmedicated wound dressings large (no. 9) (13 x 9 cms)	1	2	6	8
Individually wrapped, sterile, unmedicated wound dressings extra large (no. 3) (28 x 17.5 cms)	1	2	3	4
Individually wrapped disinfectant wipes	10	10	20	40
Paramedic shears	1	1	1	1
Pairs of examination gloves	3	5	10	10
Sterile water where there is no clear running water <sup>2</sup>	2 x 20 mls	1 x 500 mls	2 x 500 mls	2 x 500 mls
Pocket face mask	1	1	1	1
Water-based burns dressing small (10 x 10 cms) <sup>3</sup>	1	1	1	1
Water-based burns dressing large <sup>3</sup>	1	1	1	1
Crepe bandage (7 cm)	1	1	2	3

<sup>1</sup> Where more than 50 persons are employed, pro rata provision should be made.

<sup>2</sup> Where mains tap water is not readily available for eye irrigation, sterile water or sterile normal saline (0.9%) in sealed disposable containers should be provided. Each container should hold at least 20 ml and should be discarded once the seal is broken. Eye bath/eye cups/refillable containers should not be used for eye irrigation due to the risk of cross-infection. The container should be CE marked.

<sup>3</sup> Where mains tap water is not readily available for cooling the burnt area.



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## Stock Your First Aid Kit (Car)

So what should you have in your first aid kit to ensure you've covered the bases for multiple emergency situations? Luckily, well-stocked pre-packaged first aid kits are available to purchase, which helps eliminate the guesswork of what you should put in your car. Or, if you're so inclined you can create your own first aid kit with the exact items you want, and forego anything you think you may not need. And if you decide to go the put-together route, you can also supplement it with additional items you may find useful to your particular needs.



A good first aid kit should include at least the following:

- **Bandages** (several sizes and shapes)
- **Gauze**
- **Sterile dressings**
- **Antibiotic ointment or cream**
- **Tweezers**
- **Scissors**
- **Aspirin**
- **Cotton swabs**
- **Aloe Vera** (to treat minor burns)
- **Insect bite relief pads**
- **Sunscreen**
- **Hand sanitizer**
- **Saline solution**
- **Medical gloves**
- **Tourniquet**

You should also include this first aid manual and guide that features easy-to-follow instructions on how to handle common emergency situations.