SILVER SALTIES HOME LIFESAVERS FIRST AID COURSE

Non-Accredited

Acknowledgement: Based on Surf Life Saving Western Australia's Home Lifesavers Course

INTRODUCTION TO FIRST AID

Welcome Silver Salties Participants!

This is a non-accredited course

to update your knowledge,

and understanding about first aid skills

which you might need

in day to day living situations.

INTRODUCTIONS

- Our presenters for today
- Participants' names and backgrounds
- Common first aid experiences for those who want to share!

YOUR HEALTH AND SAFETY

General Housekeeping

- Emergency evacuation procedures
- Restrooms
- Onsite facilities
- Hygiene requirements, cleaning equipment & first aid resources

WARNING

There may be images and information in the presentation that may be distressing or upsetting to some candidates.

Whilst we understand these concerns, the images and content are important for training purposes.

Please let your trainer know if you have any concerns before undertaking the training session.

INTRODUCTION TO FIRST AID

Content

- Definition & Aims of First Aid
- The Healthcare Team
- Approach to Victim Care
- Assessment Principles
- Priorities of First Aid
- Basic Life Support Flow Chart
- Accident Scenes
- Secondary Survey
- Vital Signs Observations
- The Handover
- Evaluating First Aid Response
- Stress Management

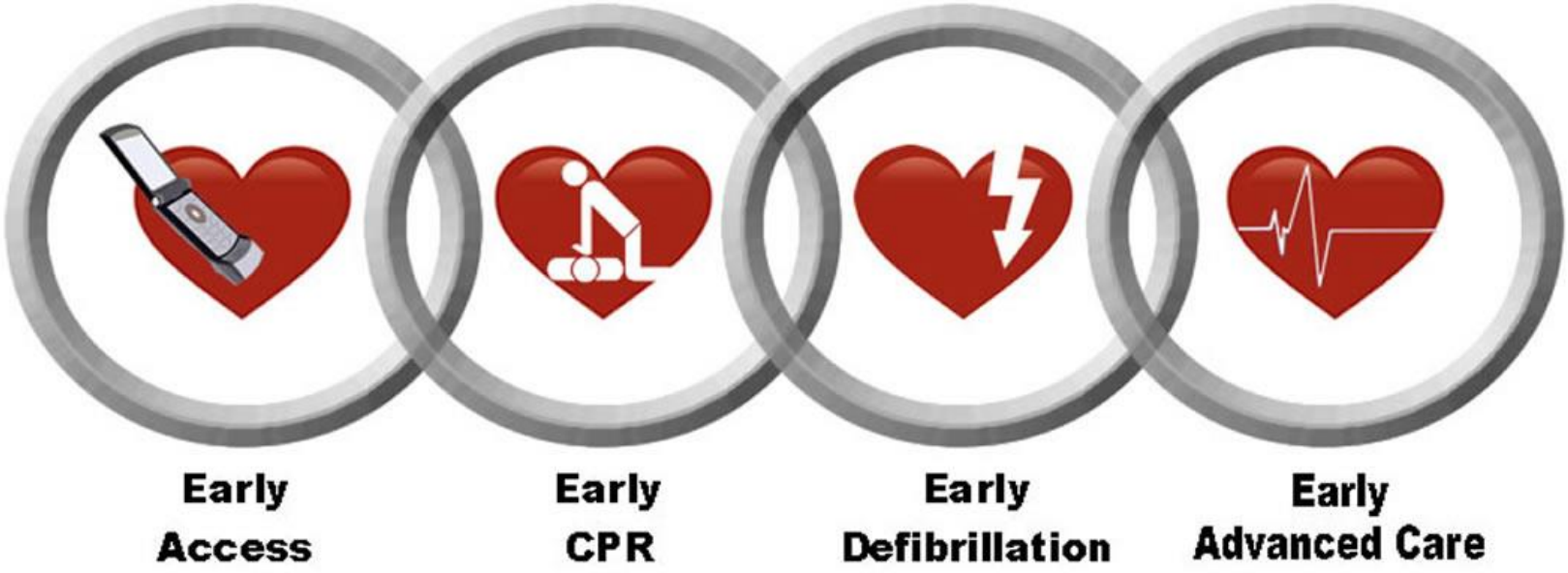
DEFINITION & AIMS OF FIRST AID

First Aid is any emergency care given to an injured or ill person before professional medical services arrive.

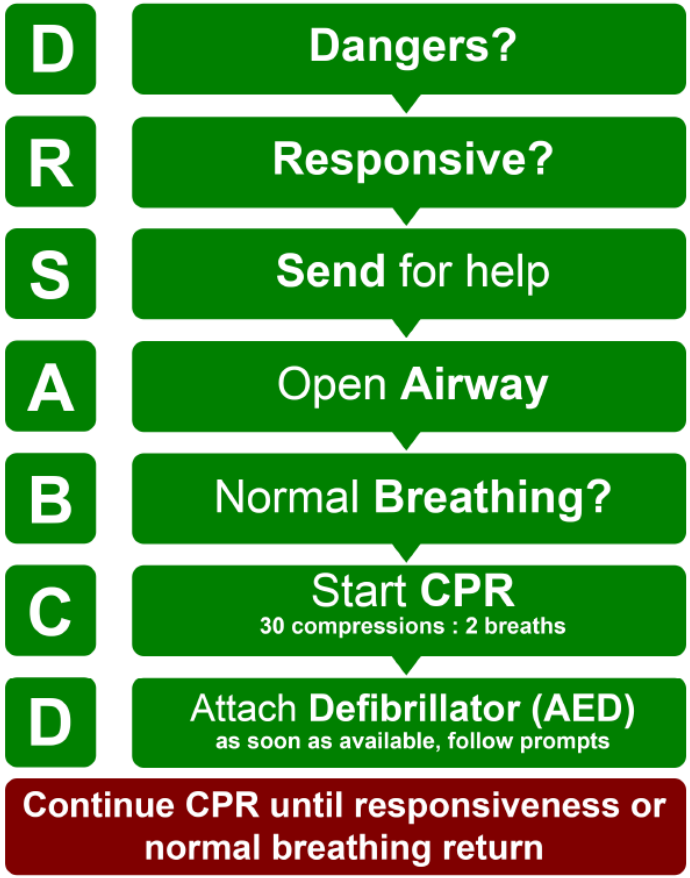
The Aims of First Aid are to:

- Preserve life
- Protect the unconscious
- Prevent the condition worsening
- Promote recovery
- Seek medical assistance

CHAIN OF SURVIVAL



PRIMARY SURVEY



D = DANGER

To Yourself, Bystanders and Victim

- Assess the situation
- Ensure it is safe for YOU to approach
- Car ignition, electricity, chemicals, inhalation, water currents, etc.
- Victims *may be moved* in a dangerous situation, to manage care of their airway/breathing or severe bleeding

R = RESPONSE

- Approach cautiously if unsure
- Talk to victim to ask questions and gain consent
- Touch legs, arms, hands, shoulders to get a response
- If the victim is non-responsive, or provides a minor response such as groaning without opening their eyes, we manage them as being UNCONSCIOUS

Unconscious victims have priority!

S = SEND FOR HELP

Call 000, request an ambulance; Send for Defibrillator; Send for other first aid assistance.

1. Call from a safe location & stay calm
2. 000 operator will ask if you need police, fire service or ambulance
3. You will then be connected to an emergency service operator who will take the details of the situation
4. Speak clearly and answer all the operator's questions
5. Don't hang up until the operator has all the information they need *(be the last to hang up).*

A = AIRWAY

OPEN

Open mouth and look for obstructions – vomit, blood, water... (no head tilt).

CLEAR

Roll victim onto side and scoop out obstruction using fingers.

TILT

When the victim's mouth is clear, OPEN the airway using a full head tilt (neutral head alignment for infants).

Airway takes precedence *OVER ANY OTHER INJURY!*

B = BREATHING

Check to see if the victim is breathing normally.

LOOK for breathing with rise and fall of the chest.

LISTEN for breathing (normal, irregular, none) of air from the mouth and nose.

FEEL for breathing with your hand lightly resting on the sternum.

C = CARDIOPULMONARY RESUSCITATION

If victim is unresponsive and not breathing normally, immediately begin CPR.

30 COMPRESSIONS

&

2 RESCUE BREATHS

If unable/unwilling to do rescue breaths, COMPRESSIONS only (100-120 bpm).

CPR CHART

	Adult	Child	Infant
Ratio (Compressions: Breaths)	**30:2**		
Compress using	**2 hands**	**1-2 hands**	**2 fingers**
Depth of compression	**1/3 depth of Chest**		
Head tilt	**Full**	**As required**	**Nil**
Rate of compression	**100-120 per minute**		
Compression Points	**Middle of chest (sternum)**		
Rescue Breaths	**Enough to inflate chest (Mouth to mouth and nose on infant)**		

PREGNANCY & CPR

Resuscitation in late pregnancy

- Due to anatomical changes that occur in a woman's body during late pregnancy (when she becomes obviously pregnant), performing CPR needs a slightly modified technique.

- The modification is needed to reduce the woman's chance of inhaling stomach contents into her airway and lungs as well as reducing the pressure her uterus (womb) places on major abdominal blood vessels when she lies flat on her back, which reduces blood flow to her heart and the uterus.

- To overcome this problems, use the **left lateral tilt** position.

ONE FIRST AIDER

- If a first aider is operating alone, it is very important to find a position that is comfortable in administering compressions as well as rescue breaths.

- An efficient position is to place one knee level with the victim's neck and the other knee level with the lower end of the victim's chest.

- This avoids shuffling to change position, which wastes energy and time.

TWO FIRST AIDERS

- The transition should be smooth and with minimal interference with resuscitation.

Method

- The first aiders should kneel on opposite sides of the patient.

- The first aider undertaking compressions should count aloud as they do compressions. This allows the other first aider to correctly time breaths to reduce interruption in compressions. The second person maintains the airway throughout and counts cycles.

- The first aider performing compressions should indicate when ready to change roles.

D = DEFIBRILLATOR

Automatic External Defibrillator (AED)

Defibrillators detect irregular heart rhythms and provide an electric charge which *may* help restore normal heart function.

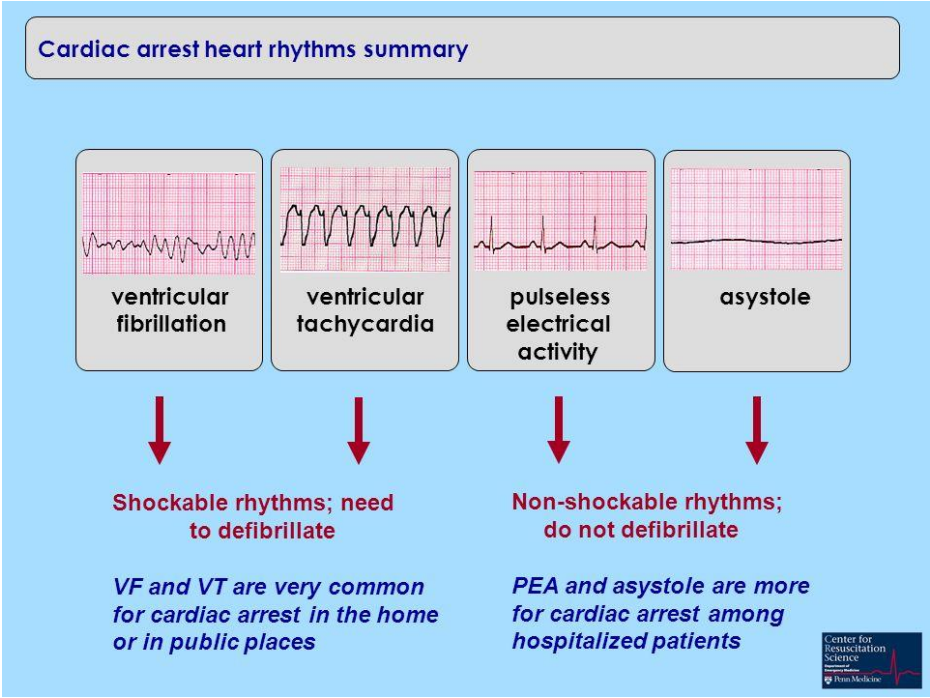
CPR must still be performed in conjunction with an AED!

DEFIBRILLATION

Why is defibrillation needed?

- In order for the heart to pump efficiently it is controlled by two electrical pacemakers.
- When a person suffers a cardiac arrest, this electrical system develops lethal, rapid and erratic heart rhythms:
  - **ventricular fibrillation (VF) or**
  - **ventricular tachycardia (VT)**

  This is later followed by asystole, where there is no electrical activity.



PAD PLACEMENT

Child

Antero-posterior pad placement

Adult

Anterior-lateral pad placement

RECOVERY POSITION

Protecting the Airway

Care of the airway takes precedence over any other injury.

The unconscious victim needs the first aider to keep their airway open and clear of foreign materials.

This is best achieved by placing the victim into the recovery position, which will:

- Maintain a clear airway
- Facilitate drainage
- Reduce the risks of inhaling foreign material.

BREATHING; UNCONSCIOUS PERSON

Recovery Position:

- Place nearest arm across chest with hand on opposite shoulder
- Raise the nearest knee
- Supporting the head and neck, gently roll the victim onto their side
- Use head tilt and open mouth to allow drainage

THE HANDOVER

After arrival of ambulance paramedics or other health care professionals, it is vital to perform proper handover of the victim.

If you are performing CPR and an ambulance arrives, don’t stop. Keep going until the paramedics are ready to take over.

THE HANDOVER

What to say

Inform paramedics or other relieving health care professionals what you know of the incident in a concise manner. Tell them:

- The history, including time of the incident
- Any signs you have noticed
- Any symptoms that the victim has conveyed
- What the victim was doing at the time
- Any drugs that may have been taken
- What first aid actions you have taken
- Any other factors you consider relevant, e.g. environmental factors

OBSERVING VITAL SIGNS

Vital signs observations are a measure of a victim's:

- Pulse
- Breathing
- Level of consciousness
- Skin state

The most important vital signs to be observed before performing CPR are the:

- Level of consciousness (unresponsiveness)
- Breathing

CPR SCENARIO

Practical Assessment 1

- Follow & demonstrate DRSABCD
- Demonstrate a minimum of 2 minutes of uninterrupted CPR on an adult (placed on the floor) – effective compressions & ventilations
- Demonstrate single operator CPR
- Demonstrate 2 person CPR
- Demonstrate clearing vomit & regurgitation
- Follow AED prompts with rotation of operators
- Manual handling techniques (recovery position)
- Secondary survey – after care

CONDITIONS AFFECTING LEVEL OF CONSCIOUSNESS

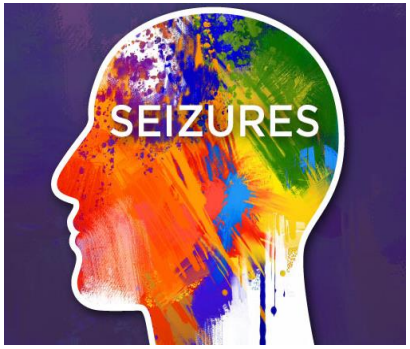
SEIZURES & EPILEPSY

A **seizure** is caused by a disturbance of the electrical activity within the brain.

Epilepsy is a disorder in which a person has repeated seizures over time.

Management: DO NOT restrain the victim

- Protect them from injury
- If biting their tongue, do not place any objects into their mouth
- When seizure has stopped, roll victim into recovery position
- Follow DRSABCD
- Reassure the victim
- Seek medical attention, call 000 if required.



INFANT CONVULSIONS

Children under the age of 4 years can suffer epileptic type seizures due to high temperature caused by illness, including colds, throat or urinary tract infections.

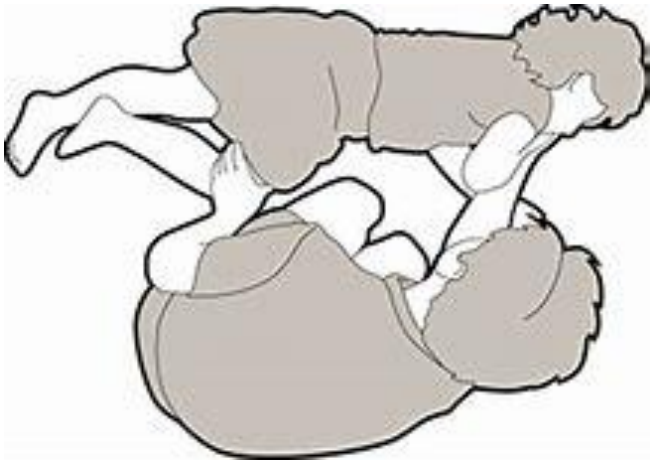
Recognition

- Hot & sweaty skin
- Skin flushed
- Stiffness and rigid body – may have back in an arched position
- Frothing saliva
- The eyes may roll or upturn
- Victim may hold breath
- May vomit

INFANT CONVULSIONS

Management

- Protect victim from any immediate danger
- Turn victim onto their side
- Clothing should be minimal
- Lightly cover the child
- Seek medical advice or **call 000**



DIABETES

Diabetes is a condition caused by a disorder of the pancreas, an organ that produces a hormone called insulin which is used to convert glucose (sugar) into energy.

The pancreas of a person with diabetes is either not producing enough insulin, or has stopped production entirely; instead of glucose being turned into energy, it remains in their blood.

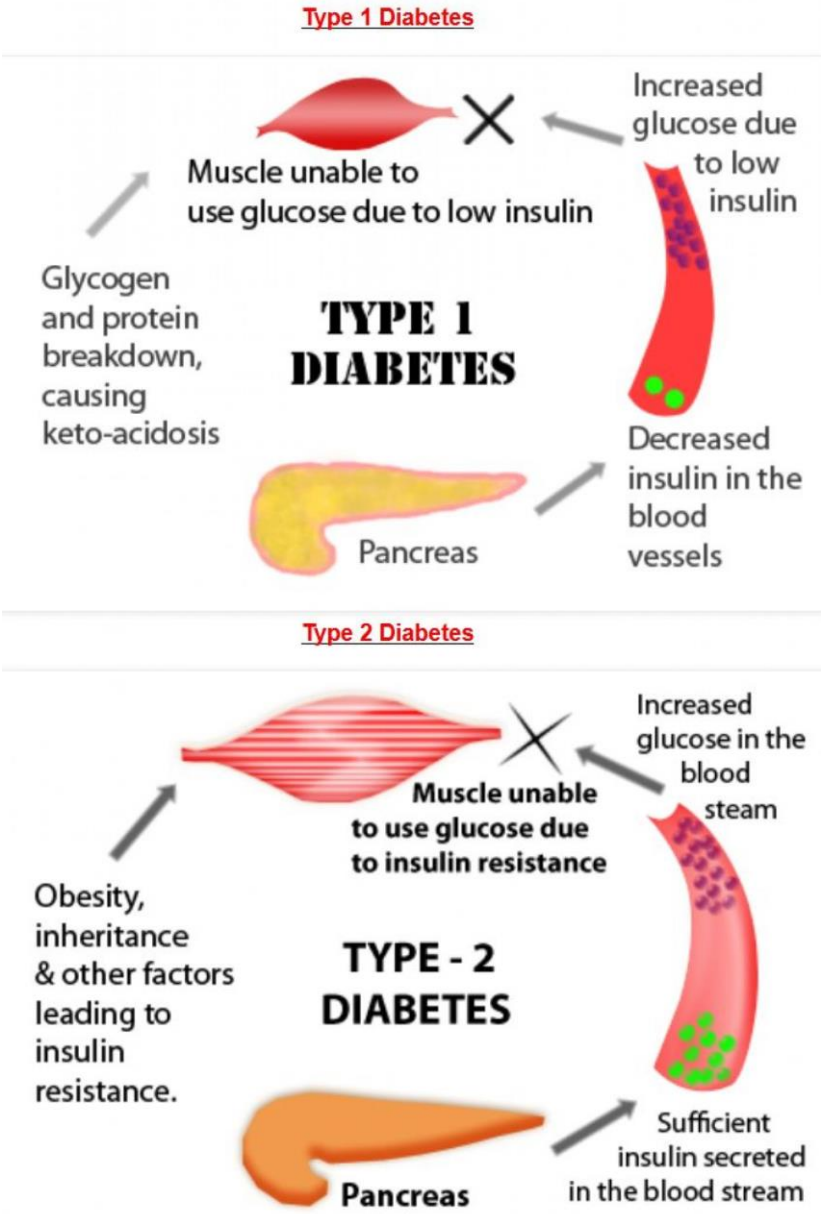
There are two conditions a first aider may come across:

1. Too much sugar in the blood **– HYPERGLYCEMIA**
2. Too little sugar in the blood **– HYPOGLYCAEMIA**

DIABETES

The two (2) main types of diabetes are:

- Type 1, which often develops in children and requires lifelong treatment with insulin
- Type 2, which is more common in adulthood and is controlled with diet, exercise and medications



DIABETES - LOW SUGAR LEVELS HYPO

Recognition

- Become weak, light headed
- Can appear drunk, aggressive, confused
- Develops cold, pale, moist skin
- Rapid pulse
- May become unconscious

DIABETES - LOW SUGAR LEVELS HYPO

Management

- Provide the victim with 4 or 5 glucose tablets, or 5-20 jelly beans, or a large spoon of honey, or a sugary drink; chocolate or lollies may also assist.

- If no improvement within 10-15 minutes,

  give a further 4 or 5 glucose tablets, or alternatives as listed above
- If they recover, give them a snack, such as milk, bread, fruit or yoghurt
- If no improvement seek medical assistance, call 000

DIABETES – HIGH SUGAR LEVELS - HYPER

Recognition

- The condition develops when the victim has not taken their insulin
- Drowsiness
- Nausea & Vomiting
- Thirst
- Rapid pulse.
- Victims breath smells of nail polish
- Unconsciousness

DIABETES – HIGH SUGAR LEVELS - HYPER

Management

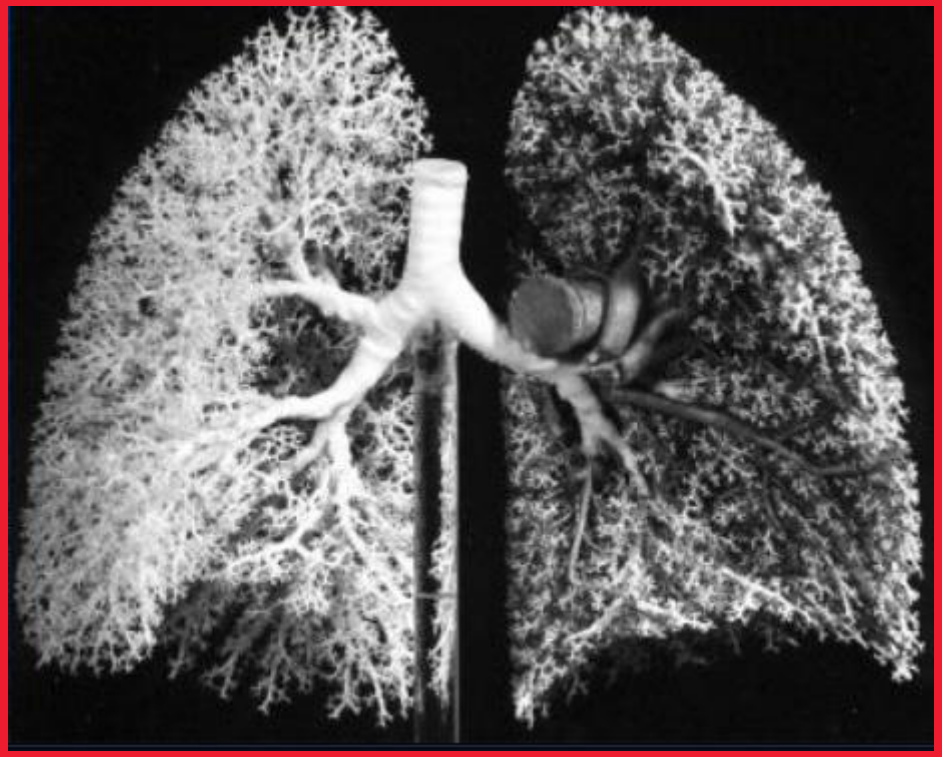
- Follow DRSABCD
- Seek urgent medical assistance, call(000
- Providing a conscious victim, with high blood glucose, with sugar will NOT cause any further harm.

Never administer insulin to a victim.

Incorrect administration can be fatal.

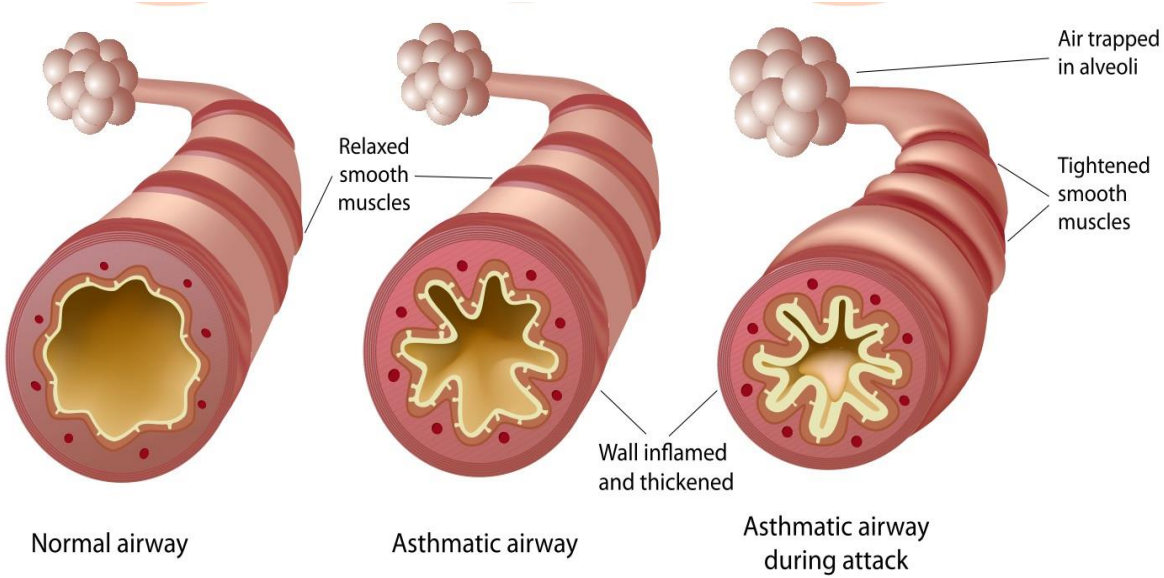
SEEK medical advice

RESPIRATORY EMERGENCIES



ASTHMA

Asthma is a condition affecting the airways in which there is narrowing and spasms of the small air passages in the lungs. This is further complicated by swelling and excessive mucus.



Severe asthma is a life-threatening medical condition that needs immediate treatment!

RECOGNITION OF ASTHMA

Good Control	Mild Asthma	Moderate Asthma	Severe Asthma	Life-Threatening
Need reliever medication less than 3 times per week	Wet or dry cough	Wheezing breathing sounds	Call 000	Call 000
Only occasionally have signs of asthma during the day	Slight wheeze	Persistent cough	Only able to speak few words	Symptoms get worse very quickly
Can do activities without having an asthma episode	Some difficulty breathing	Difficulty breathing	Persistent coughing; wheeze may not be audible	Severe shortness of breath
	Tightness in chest	Difficulty speaking	Victim distressed	Lips are blue
	Children may say “sore tummy”	More distressed	Victim grasping for breath	Extreme difficulty breathing
	Can speak in complete sentences		Victim going into shock; has pale, sweaty skin	No relief from medication

COMMON ASTHMA TRIGGERS

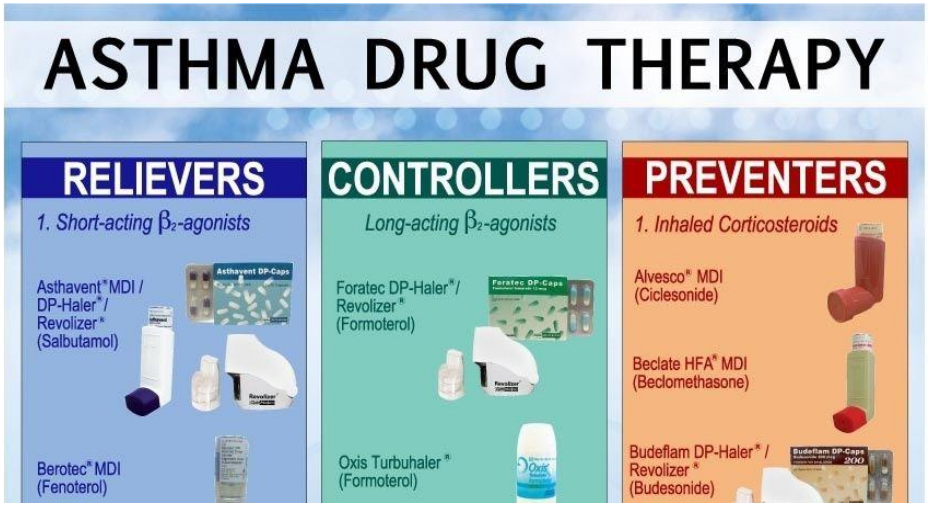
ASTHMA MEDICATIONS

Although there is no cure for asthma, it is treatable with a range of medications to help manage the condition. These fall into (3) three main categories:

- Relievers provide immediate relief during an episode (coloured blue or grey).
- Preventers are designed to give long term relief, take 2-4 weeks to become effective (coloured, orange & brown)
- Symptom controllers provide longer-lasting relief, up to 12 hours.

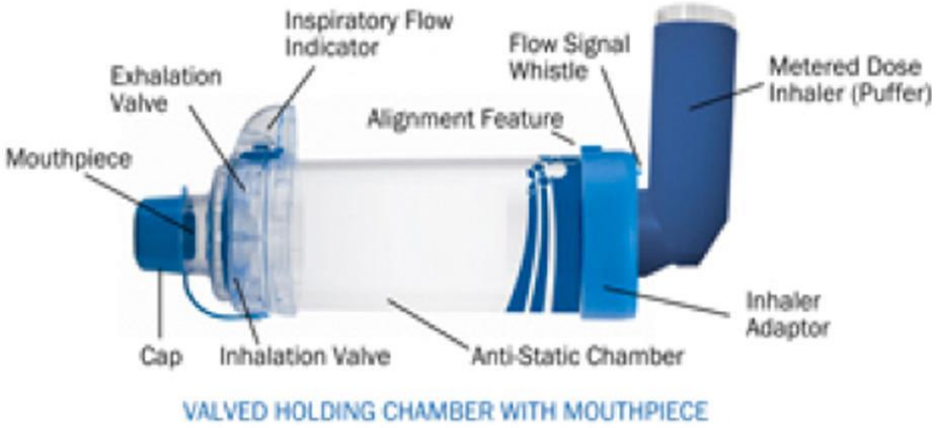
In an asthma emergency use RELIEVER medication or SYMBICORT (red inhaler)

The only combination medicine that may be used in an asthma emergency for people over the age of 12.



DEVICES FOR DELIVERING MEDICATION

- Asthma medications are available in a variety of delivery devices.
- The most commonly used devices are a pressurised metered-dose inhaler:
  - **Turbuhaler**
  - **Autohaler**
  - **Accuhaler**



VALVED HOLDING CHAMBER WITH MOUTHPIECE

ASTHMA MANAGEMENT PLAN

1 Sit the person upright

— Be calm and reassuring
— Do not leave them alone

2 Give 4 puffs of blue reliever puffer medication

— Use a spacer if there is one
— **Shake** puffer
— Put **1 puff** into spacer
— Take **4 breaths** from spacer

Repeat until **4 puffs** have been taken

Remember: Shake, 1 puff, 4 breaths

3 Wait 4 minutes

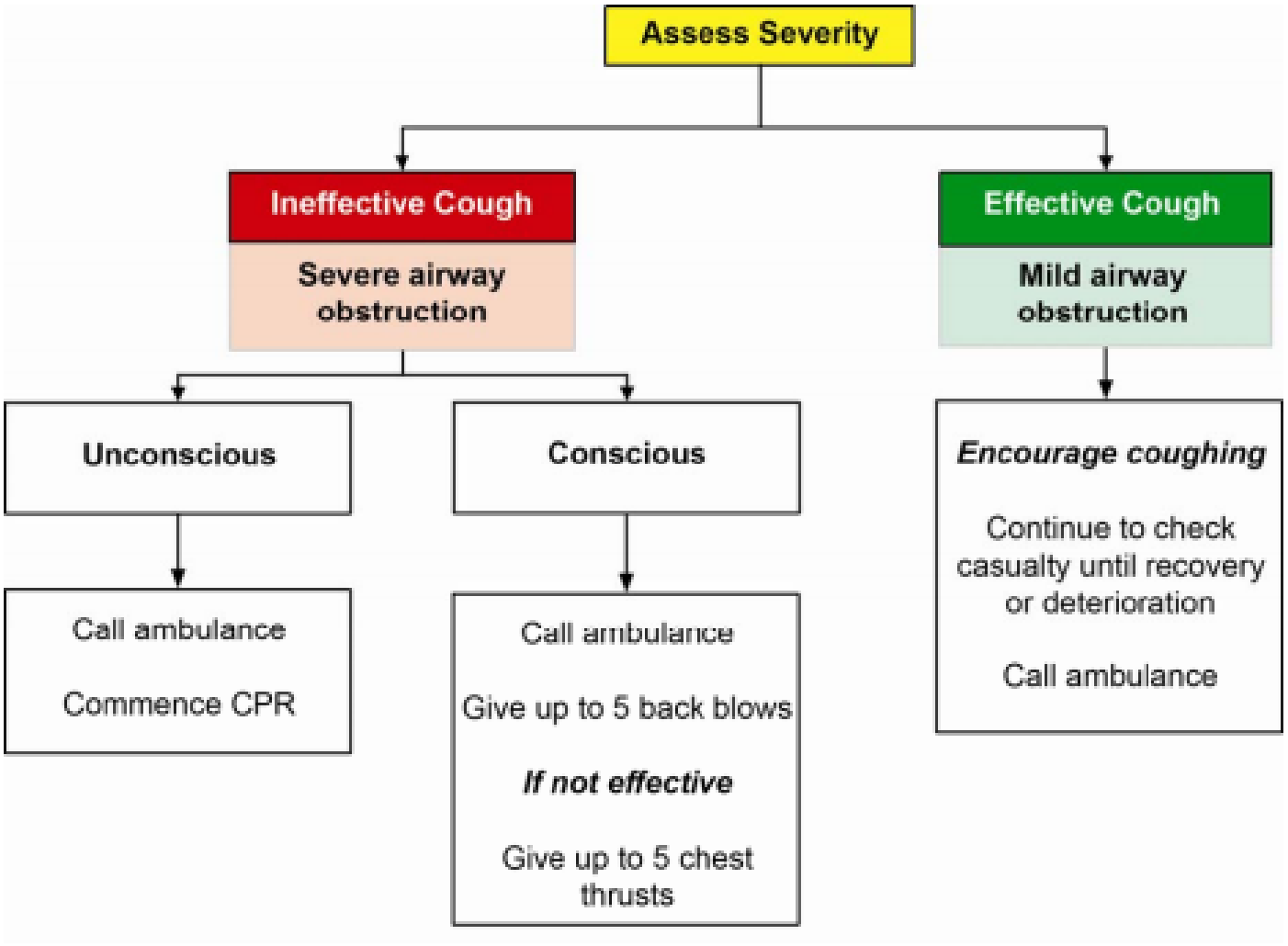
— If there is no improvement, give **4 more puffs** as above

4 If there is still no improvement call emergency assistance (DIAL 000)*

— Say 'ambulance' and that someone is having an asthma attack
— Keep giving **4 puffs** every **4 minutes** until emergency assistance arrives

*If calling Triple Zero (000) does not work on your mobile phone, try 112

CHOKING


Assess Severity
Ineffective Cough
Severe airway obstruction
Effective Cough
Mild airway obstruction
Unconscious
Conscious
Call ambulance
Commence CPR
Call ambulance
Give up to 5 back blows
If not effective
Give up to 5 chest thrusts
Encourage coughing
Continue to check casualty until recovery or deterioration
Call ambulance

CHOKING ASSESSMENT

Situation: Your colleague is eating a piece of chicken and a bone has become stuck. They are holding their throat and is gasping for air.

Response required:

- Recognise and respond to the emergency
- Recognise the need for immediate first aid response
- Identify, assess and manage immediate hazards
- Seek assistance from emergency services
- Use standard precautions
- Provide the correct treatment: 5 black blows, 5 chest thrusts
- Arrange further assistance
- Monitor the victim’s condition; respond appropriately

ALLERGY VS ANAPHYLAXIS

Allergy is an abnormal immune response. In an allergic reaction, the individual's immune system responds to a harmless substance as though it may cause harm.

An allergic reaction can affect different body systems:

- Respiratory system
- Skin
- Gut
- Heart & Circulation

Anaphylaxis is a life-threatening allergic reaction requiring immediate attention, so always call 000.

Anaphylaxis is usually triggered by:

- Food
- Insect stings
- Medicines

ALLERGY VS ANAPHYLAXIS

Allergens

- An allergen is any substance (often a protein) that induces an allergic reaction.
- Airborne allergens like pollen may trigger a mild allergic reaction such as sneezing, runny nose and itchy eyes.
- Anaphylaxis: the allergen is most likely to be something in food, an insect sting, a medication or a latex product.
- Allergens can enter the body by being ingested, inhaled, injected or absorbed through the skin.
- People who suffer from allergies should be vigilant in avoiding their known allergens. Avoidance is much better than treatment.

SIGNS & SYMPTOMS ALLERGY VS ANAPHYLAXIS

Mild to Moderate Allergic Reaction

- Itching
- Swelling of lips, face and eyes
- Tingling mouth
- Hives or welts (rash)
- Abdominal pain, vomiting (severe allergic reaction to insect bites & stings)

Anaphylaxis – Severe Allergic Reaction

- Pale & floppy appearance
- Swelling of the tongue
- Swelling or tightness in the throat
- Difficulty talking or hoarse voice
- May have difficulty breathing
- Wheeze and/or a persistent cough
- Loss of consciousness, collapse

ADRENALINE

Adrenaline, also known as epinephrine, is the medication given when there is a sign of anaphylaxis. The risks of not giving adrenaline far outweigh any potential side effects.

Adrenaline:

- Is best stored at room temperature, below 25 degrees and should not be refrigerated
- Should be checked to ensure it's clear and not brown or cloudy
- Shelf life is usually 1-2 years; regularly check the expiry date
- If expired, replace immediately
- In an emergency, expired or cloudy adrenaline may be used **only** if there is no other option.

INJECTION DETAILS

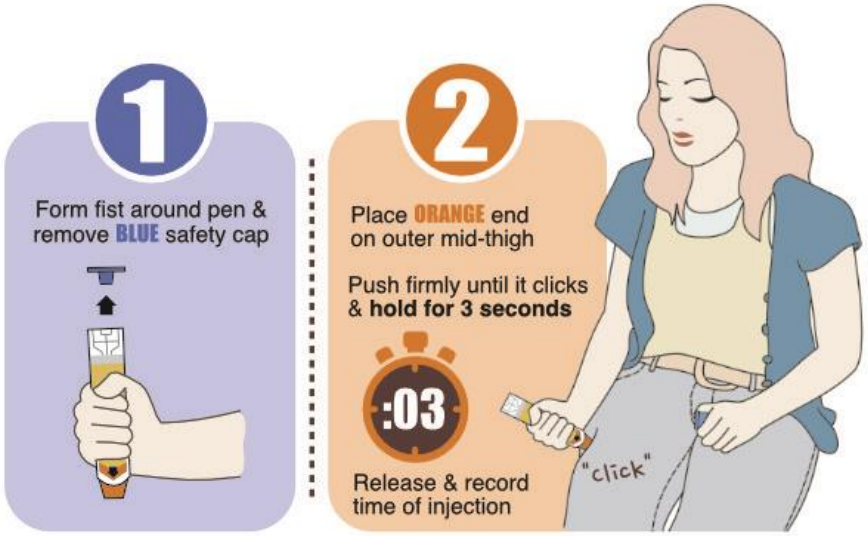
- Adrenaline is most rapidly absorbed when injected into the outer muscle of the mid-thigh as it reduces the risk of inadvertently injecting into an artery or vein and makes nerve tendon damage unlikely.
- The injection site is also the least painful part of the body; can be injected through thin clothing; avoid seams; check pockets.
- Each auto-injector has only one dose of adrenaline and is designed to be used as a first aid device by people without any formal medical training.

Adrenaline auto-injectors come in two dosages:

- Adults and children over 20kg 0.3mg dose; and
- Children 1-5 years or below 20kg: 0.15mg is generally prescribed

INSTRUCTIONS FOR USE

- Remove the EpiPen from its canister.
- Grasp the EpiPen with the blue end facing upwards *(blue to the sky)* and remove the blue safety release. This arms the unit ready for use
- Holding the EpiPen in your fist with clenched fingers wrapped around it, press the orange *(orange to the thigh*) end gently against the outer mid-thigh.



- Firmly hold in place for <u>3 seconds</u> while the adrenaline is injected under pressure.
- Remove the EpiPen from the thigh and record the time given.
- Seek medical assistance, call 000.
- If no improvement after 5 minutes, repeat steps 1-6 to administer a second EpiPen.
- Used EpiPens should be handed over to paramedics.

ALLERGY/ANAPHYLAXIS ASSESSMENT

Situation: Your colleague has eaten banana and walnut bread at a staff morning tea and is now finding it difficult to breathe; she/he has started to show signs of swollen lips. He/she was unaware there were walnuts in the banana bread.

Response required:

- Recognise and respond to the emergency
- Recognise the need for immediate first aid response
- Identify, assess and manage immediate hazards. Seek assistance from emergency services, use standard precautions
- Obtain consent from the victim
- Conduct a visual and verbal assessment of the victim
- Conduct a hazard assessment to identify and minimise risk
- Treat for anaphylaxis using an adrenaline auto injector training device (EpiPen)
- Monitor victim's condition and respond appropriately
- Complete Incident Report.

BLEEDING & WOUNDS

EXTERNAL BLEEDING

Types of Bleeding

- **Arteries**: major blood vessels which carry bright red oxygenated blood away from the heart at high pressure. When an artery is damaged, bright red blood spurts from the wound in time with the heart beat

- **Veins**: blood vessels which return de-oxygenated blood back to the heart. The blood is a darker red colour as it is carrying less oxygen as well as carrying wastes from body cells. When a vein is damage, darker red blood steadily flows from the wound

- **Capillaries**: minute vessels containing both arterial and venous blood. As there is very little pressure in these vessels, blood will only ooze from wounds, grazes or abrasions.

CONTROL OF MAJOR EXTERNAL BLEEDING

The body's response to blood loss:

In an effort to reduce blood loss, the body lowers the blood pressure to the bleeding vessels and constricts all other surface blood vessels. This redirects much needed blood into the main vessels so that the vital organs (brain, heart, lungs, kidneys and liver) receive an adequate blood supply

Management:

- Apply direct pressure (victim may be able to assist)
- Rest the victim
- Apply dressing/pad & pressure bandage
- Immobilise the injured part
- Seek further medical assistance

TOURNIQUETS

Tourniquets should only be applied to a limb, not over a joint if the major bleeding control measures have failed and the situation is life-threatening.

Application:

- Apply to bare skin above the bleeding point (on single bone), tightened until bleeding stops
- Recheck application if bleeding doesn't stop
- Ensure the tourniquet can be easily seen
- If bleeding continues, apply a second tourniquet and also a haemostatic dressing if available, above the first tourniquet
- Note and record the time applied and pass onto ambulance service
- If trained in oxygen administration, assess oxygen saturation and administer oxygen therapy, if required.

BLEEDING FROM THE NOSE

Management:

- Victim to apply pressure to the soft part of the nose by pinching firmly just below the bone for a minimum of 10 minutes (up to 20 minutes is required) and ask them to breathe through their mouth
- Sit the victim upright with head slightly forward
- If the bleeding is controlled after 10 minutes, ask the victim not to blow their nose for several hours
- If not controlled after 10 minutes, reapply the above management for a further 10 minutes

If the bleeding is not controlled after 20 minutes,
seek medical assistance.

BLEEDING FROM EMBEDDED FOREIGN OBJECT

DO NOT attempt to remove foreign object.

DO NOT attempt to shorten an embedded object unless its size is unmanageable.

The donut bandage method not only assists in the control of bleeding, it also provides some support to the impaling object.

Management:

- Apply gloves, if possible
- Control any bleeding
- Build up dressings around the object and wound
- Seek urgent medical assistance

INTERNAL BLEEDING

Internal bleeding can be caused by medical conditions such as stomach ulcers, penetrating injury from a direct blow to the body causing fractures, or the rupture of blood vessels or organs such as the liver or spleen. Internal bleeding can be either revealed or concealed.

Revealed Bleeding

The condition is made obvious by the flow of blood from the mouth, ear, rectum, a penetrating wound, in the urine, or by bruising.

Concealed Bleeding

Concealed internal bleeding can be difficult to detect as it collects within a body cavity such as the chest, abdomen or skull.

INTERNAL BLEEDING

The key to suspecting internal bleeding is:

- History of the incident, e.g. fall from a height, stomach ulcers, car accident
- Pain, bruising, swelling around the affected area
- Rigidity and distension of abdominal muscles if the area is affected

- **Signs and symptoms of shock:**
  - Cold, pale, sweaty skin
  - Rapid, weak pulse
  - Rapid, shallow breathing
  - Show signs of anxiety or restlessness
  - May develop nausea and vomiting
  - May complain of thirst, giddiness
  - As shock increases, the victim becomes drowsy and may become unconscious and unresponsive

INTERNAL BLEEDING

Management if Conscious:

- Reassure the victim
- Assist victim into a comfortable position
- If no breathing difficulties, elevate legs slightly
- Loosen any tight clothing
- **DO NOT** give the victim food or drink
- Seek urgent medical attention, **call 000**

Management if Unconscious:

- Follow DRSABCD
- Seek medical assistance, **call 000**

SKELETAL INJURIES

FRACTURES

A fracture is where a bone is either broken or cracked; in children, the bone may bend and crack – this is known as a greenstick fracture.

Fractures can be caused by:

- Direct force: a bone is broken at the site of impact – direct blow.
- Indirect force: a bone breaks some distance from the point of impact.
- Abnormal muscular contraction: pieces of bone being pulled away from where muscles are attached.

TYPES OF FRACTURES

Closed fractures
The skin surface around the fracture is not broken. In this case there are no complications from infection.

Open fractures
A wound leads from the surface of the skin to the fracture, or a broken bone protrudes through the skin. This can lead to severe blood loss and infection.

Complicated fractures
Involve injury to other organs and/or nerves as a result of an open or closed fracture.

Fracture types

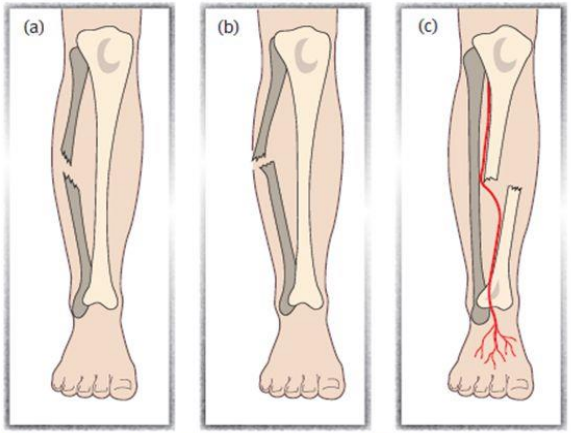


Figure 16.7 Types of fractures: closed (a), open (b) and complicated (c)

FRACTURES

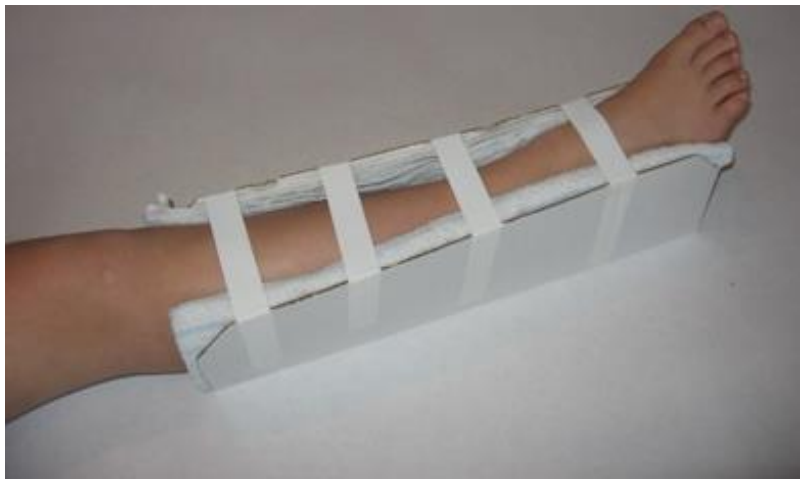
Recognition

- Pain at or near the site of the fracture
- Difficulty/impossible to move injured part (immobility)
- Loss of power
- Swelling
- Deformity
- Tenderness

General Management

- Stop bleeding
- Stop movement
- Immobilise joints
- Check circulation to limb
- Check nerve function
- Positioning
- Elevation, if possible
- Treat shock

If unconscious, stop bleeding, follow DRSABCD, call 000



DO NOT attempt to realign the limb

SOFT TISSUE INJURIES

BRUISES, STRAINS AND SPRAINS (including sports injuries)
Soft tissue injuries can involve muscles, tendons, ligaments and cartilage which are either bruised, strained, sprained or ruptured.

Management:

- **Rest** the victim and the injured part.
- **Ice** compress applied to the injured area for 20 minutes every 2 hours for up to 24 hours.
- **Compression** bandage applied firmly.
- **Elevate** the part to reduce swelling.
- **Refer** the victim to a qualified professional.

DISLOCATIONS

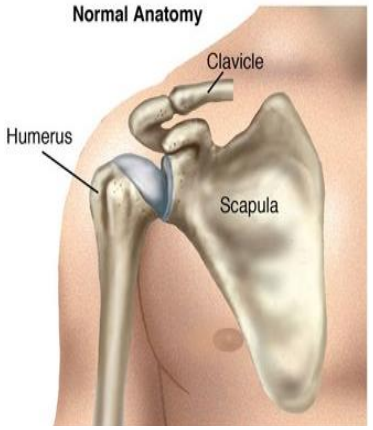
A dislocation occurs at a joint when a sudden force ruptures the ligaments forcing the bones of the joint into an abnormal position causing severe pain and a loss of function of the injured part.

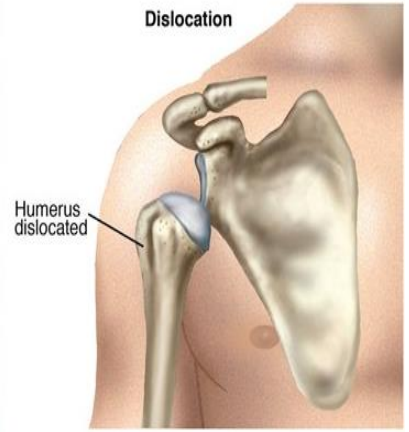
NEVER attempt to relocate the affected bones.

Management

- Manage using **RICER** principles for treatment.
- Immobilise the limb in the position of most comfort.
- Check for circulation in limbs.
- If no circulation – seek urgent medical assistance.
- All dislocations must be treated by a medical professional.

Shoulder Dislocation





FRACTURE/STRAINS/SPRAINS ASSESSMENT

Situation: Your colleague has fallen over in the carpark, they are finding it hard to get up. You notice your work colleague is unable to walk, is clutching their wrist tightly and have an abrasion on their elbow.

Response required:

- Recognise and respond to the emergency
- Recognise the need for immediate first aid response
- Identify, assess and manage immediate hazards
- Seek assistance from emergency services
- Use standard precautions
- Provide the correct treatment: RICER
- Arrange further assistance
- Monitor the victim's condition and respond appropriately.

BURNS

Burns can be life-threatening and require immediate treatment.

Burns are classified as being:

- Dry – caused by flames and hot objects
- Wet – caused by hot liquids and steam
- Radiation – caused by over exposure of skin to the sun
- Cold – caused by exposure to extreme cold, resulting in frostbite
- Chemical – caused by contact with a chemical agent
- Electrical – caused by contact with electricity.

BURNS

Assessment of Burns

- Burns are assessed according to the AREA & DEPTH involved.
- The RULE of NINES is used when estimating the extent/area involved; this involves dividing the body into surface areas of 9% (see Table, below).

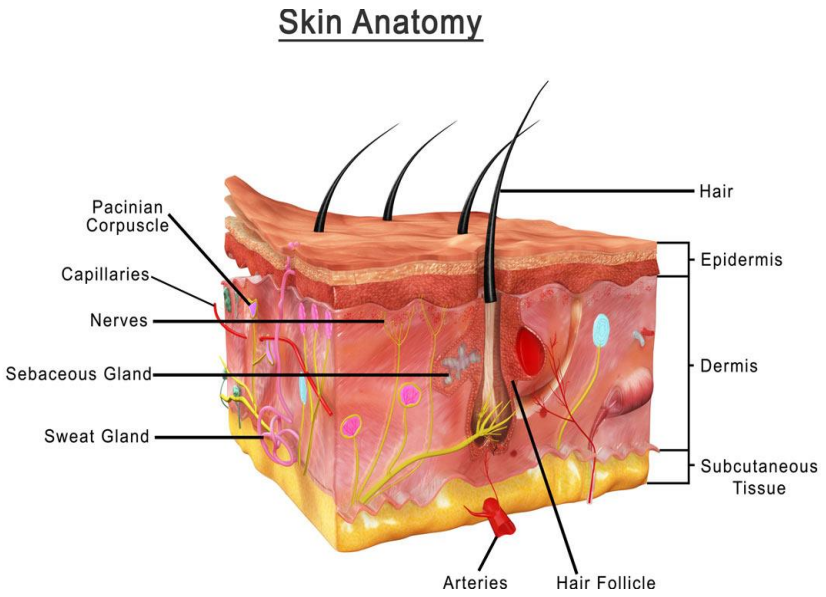
BURN AREA ASSESSMENT	
HEAD & NECK	= 9%
EACH ARM	= 9%
FRONT OF CHEST	= 9%
UPPER HALF OF LEG	= 9%
BACK OF CHEST	= 9%
LOWER HALF OF EACH LEG	= 9%
ABDOMEN	= 9%
GENITALIA	= 1%
LOWER HALF OF BACK	= 9%

BURNS

DEPTH of the burn is assessed as either being SUPERFICIAL (partial thickness) or DEEP (full thickness).

SUPERFICIAL (surface layers of skin)
Recognition:

- Reddened area
- May be blistering
- Swelling
- Painful



DEEP (all layers of skin)
Recognition:

- Pale, waxy, sometimes charred
- Outer area will be red (usually superficial areas are included)
- Relatively pain free (except areas involving superficial burns)

BURNS

DRY/WET BURNS – FLAME & SCALDS

Management:

- Control danger/remove victim from any dangers/hazards
- STOP, DROP & ROLL the victim to the ground in order to put out the flames and prevent the victim from running; smother flames with a blanket, coat or other non-flammable material;
  use cold water
- Immediately cool the affected area with cold running water for up to 20 minutes
- **<u>DO NOT REMOVE</u> ANYTHING STICKING TO SKIN**
- Cover the affected area with a sterile, non-adherent dressing
- Elevate burnt limb(s)
- Seek urgent medical assistance, **call 000**

BURNS

CHEMICAL BURNS

Management:

- Control danger/remove victim from any dangers/hazards
- Immediately irrigate the affected area with cold running water for at least 20-30 minutes;
- Use protective clothing
- Further management as for DRY/WET BURNS

NOTE: Bitumen should not be removed from the skin unless it is obstructing the victim's airway.

Phosphorus burns (fireworks, flares, etc.) should be kept wet, preferably immersed in water. If forceps are available remove any phosphorus particles.
DO NOT USE FINGERS!

BURNS

ELECTRICAL BURNS

Management:

- Before managing a victim of electric shock, always switch off the power source first. DO NOT ENDANGER YOURSELF!
- After DANGER has been controlled, cool the burnt area with cold running water for 20 minutes.
- Cover the affected area with a sterile, non-adherent dressing.
- Seek urgent medical assistance, call 000.

❖ Note: Electrical burns can cause extensive damage to deeper tissues. Electrical current always takes the shortest route to earth, which is usually through the body. This can cause entry and exit burns.

BURNS

RADIATION BURNS
(SUNBURN)
Management:

- Move the victim to a shaded area
- Cool burnt area with cold running water for 20 minutes
- Give the victim frequent small drinks of clear fluids.
- Seek urgent medical advice for blistering

❖ NOTE: Sunburn can be just as serious as any other burn

VENOMOUS BITES, STINGS & POISONS

SNAKEBITE

When bitten by a snake, the venom is usually injected beneath the skin and the first aid priority is to minimise movement of the victim and the bitten area by applying Pressure Immobilisation.

Recognition:

- Initial high state of anxiety
- Bleeding may occur from the bite
- Headache
- Nausea
- Abdominal or chest pain
- Drowsiness
- Blurred or double vision
- Breathing difficulties
- Cold, pale skin

SNAKEBITE

Management: Conscious Victim

- Immediately rest, calm and reassure the victim. DO NOT wash the venom off the bitten area, as the venom may be identified later at the hospital.
- Promptly apply a firm broad heavy 10-15 cm elastic or crepe bandage over the area of the bite on the limb. DO NOT apply in an effort to cut off the circulation to the limb, but tight enough so that two fingers can be slid under the bandage. Then bandage from the fingers or toes working upwards, ensuring you cover the entire limb as far as you can go.
- If only one bandage is available, use it to apply pressure on the bite site and as much of the limb as possible.
- When bandaging is complete, mark the bite site.
- Immobilise the limb with a splint or sling.
- Seek urgent medical assistance, **call 000.**

Management: Unconscious victim:

- Follow DRSABCD. Seek urgent medical assistance, **call 000.**
- Treat as for a conscious victim.

SPIDER BITES

Funnel-web

Recognition:

- Tingling around the mouth
- Muscle spasm and weakness
- Pain at the site of the bite
- Profuse sweating
- Outpouring of fluid
- Breathing difficulty
- Unconsciousness
- Respiratory arrest

Management:

- Treat as a snake bite.
- Follow DRSABCD, seek urgent medical assistance, **call 000.**

SPIDER BITES

Red-Back

Recognition:

- Pain at site of bite
- Sweating around the bite site
- Nausea and vomiting
- Joint pain
- Abdominal pain
- Muscle weakness, spasm
- Aches, pains and general weakness

Management:

- Apply ice compress for 20 minutes.
- Seek urgent medical assistance, **call 000.**

BEE / WASP / ANT BITES

Wasp: stings its victim several times.

Honey bee: stings once – leaves barb and poison sac in the skin.

Ants: bull ants and jack jumper ants can sting several times.

Bee/Wasp/Ant Bites

Management:

- Apply ice compress
- Monitor airway & breathing
- If abdominal pain, vomiting or breathing difficulties develop, treat as for anaphylaxis & **call 000.**

Honey bee: Scrape the barb first and follow above first aid management

SWALLOWED POISONS

A poison is any substance that can harm or threaten life. Poisons may enter the body by being swallowed, injected, absorbed though the skin or inhaled. The effect of a poison will vary according to what the substance actually is and how much has been absorbed.

Recognition: Corrosive Poisons

- Pain to mouth and or abdomen
- Burns to lips and mouth
- Nausea
- Vomiting
- Tight chest, difficulty breathing
- Drowsiness
- Breath odour
- Unconsciousness.

Management:

- Check for immediate dangers, hazards
- Monitor airway & breathing
- Dilute substance with small sips of water
- Contact Poisons Information Centre (PIC)
- Seek urgent medical assistance if advised by Poisons Information Centre

POISONS

Recognition Non-Corrosive Poisons (non-burning)
Some common types of non-burning poisons include medications (tablets and/or mixtures), plants, general detergents, contaminated foods.

Management if conscious:
- Monitor airway & breathing
- Ascertain the type & quantity of poison swallowed
- Wash out mouth with water
- Contact Poisons Information Centre
- Seek urgent medical assistance, if advised by Poisons Information Centre
- Send any vomitus & remains of poison with the victim to hospital for analysis.

Management if unconscious:
- Clear the airway and follow DRSABCD
- Seek urgent medical assistance, call 000
- If victim vomits – clear their airway.

POISONS INFORMATION CENTRE
13 11 26
Call from anywhere in Australia—24 hours a day

INHALED POISONS

The effects of inhaled toxic gases vary and may not be initially obvious, but can result in unconsciousness and other life-threatening problems.

Carbon Monoxide (CO):
A victim's red blood cells bind to carbon monoxide about 200-300 times more readily than they do to oxygen, resulting in reduced oxygen availability to the body, particularly to the brain.

Recognition:

- Headache
- Giddiness
- Yawning
- Diminished vision
- Rapid pulse
- Cherry-red skin
- Vomiting
- Unconsciousness
- Dilated pupils

Management:

- Remove the victim from the contaminated environment
- Take care of airway & breathing
- If trained, consider oxygen treatment
- If appropriate, remove contaminated clothing
- Flush any contaminants from eyes and skin
- Seek urgent medical assistance, **call 000**

ABSORBED POISONS

When poisons are absorbed through the skin it may be due to careless use of pesticides and weed killers.

Management:

- DO NOT become contaminated yourself, wear safety gloves
- Immediately irrigate/shower the affected skin and remove all contaminated clothing
- Irrigate skin for 20 minutes
- Seek medical advice, if in doubt

THANK YOU

Ask your Surf Life Saving Club about

Other First Aid Courses

If you are interested in learning more