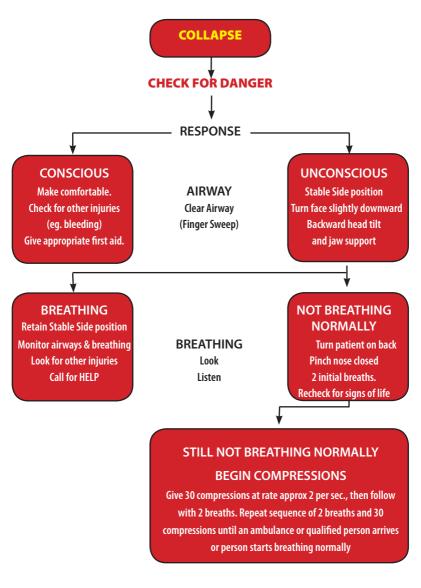
**SECTION 14** 

# **FIRST AID**

	Basic Life Support Flow Chart	2
1.	General Guidelines	3
2.	Infection Control for the First-Aider	3
3.	Bandaging Wounds	4
4.	Bleeding Control	5
5.	Burns	5
6.	The DRABC Action Plan	7
7.	Convulsions	9
8.	Electric Shock	9
9.	Heart Attack	10
10.	Thermal Stress	11
11.	Heat Stroke	12
12.	Shock	12
13	Sprains	13
14.	Strains	13

# **FIRST AID**

# **Basic Life Support Flowchart**



# CALL 000 or 112 for an ambulance

## **1. GENERAL GUIDELINES**

All employees should exercise sound judgement and practices and not exceed their level of training when rendering first aid. First aid kits shall be maintained and should be readily available for use. They shall be inspected at regular intervals to ensure that expended items are replaced.

No employee is permitted to intentionally use a needle to give injections to workers, use scalpels or knives to open the skin of a co-worker or any other medical procedure that results in the release of blood. (Exceptions: the removal of splinters, emergency injections (Epipen) for an allergic reaction and using protective equipment in first aid treatment.

Employees shall not intentionally handle needles or other sharp objects that are known or thought to be contaminated with blood or other body fluids such as those that might be present following an emergency medical response.

Employees shall not intentionally place their hands in waste receptacles where blood or other body fluids are known to be present without first donning protective gloves.

Broken glass that has been contaminated with blood shall not be picked up with the hands. A mechanical device, such as a dust pan, tongs or forceps, shall be used to retrieve the glass.

## 2. INFECTION CONTROL FOR THE FIRST AIDER

When administering first aid, employees shall:

- Treat every person as a potential source of infection.
- Wash their hands before treating the casualty.
- Use fresh disposable gloves for each casualty.
- Use disposable masks for resuscitation.

If significant exposure to bodily fluid occurs:

- For a puncture or penetrating injury.
- Wash the area well with soap and water.
- Gently squeeze the injury and encourage it to bleed, but do not traumatise the wound.
- Splashes to broken skin and open wounds.

VESI Fieldworker Handbook updated 2008

**SEC14:** 

3

- Wash the area well with soap and water.
- Splashes to the eyes and/or mouth:
- Irrigate with copious quantities of water.

Report the contact to your Doctor and Team Leader as soon as practicable.

Used gloves, swabs, etc. should be placed in a sealed plastic bag and disposed of appropriately. If in doubt, contact you local hospital or medical centre.

## **3. BANDAGING WOUNDS**

A bandage may comprise of any material used to wrap or cover an injured body part. Bandages are used to:

- Hold dressings in place.
- Apply pressure to control bleeding.
- Protect a wound from contamination or infection.
- Prevent swelling.
- Restrict movement.
- Provide support to an injured limb or body part.

#### General principles when applying bandages:

- With the casualty in a comfortable position, support the injured part in the position in which it will be bandaged.
- Always use a reef knot to tie bandages (refer to Appendix I). For pressure bandages to control bleeding, apply a dressing and firm bandage to hold the pad in place. For bandages used for immobilisation, tie the knot on the opposite side of the wound.
- Apply the bandage securely and firmly enough to hold the dressing in place and apply the needed pressure or immobilisation, but no so tightly that it restricts circulation. When bandaging extremities, leave the fingernails or toenails exposed so as to give a visual check that the circulation is not impaired.

The two primary types of commercially available bandages, which are used for most wounds, are the Roller Bandage (which can be wrapped around a body part) and the Triangular Bandage (which can be folded, wrapped and tied in various ways for differing injuries).

# **4. BLEEDING CONTROL**

For bites, cuts, wounds, punctures and fractures:

- If an arm or leg wound, raise the limb above heart level.
- Using a clean cloth, apply direct hand pressure to the wound.
- If the bleeding stops, bandage the wound normally.
- Apply pressure bandage if required.

# **5. BURNS**

The aim of first aid in burn injuries is to:

- Remove the casualty from the heat source.
- Cool the affected area.
- Protect the injured area from infection and further damage, and obtained medical aid.

## Immediate action:

- Remove the casualty from danger.
- Extinguish burning clothing (smother with a blanket, jacket or similar, or use water).
- Remove hot clothing.
- Hold the burnt area under cold, gently running water until the affected area has returned to normal body temperature (usually 10 minutes).

## General management:

- **Do not** apply any lotions, ointments or oily dressings.
- **Do not prick** or break blisters this increases the risk of infection.

- If the casualty is thirsty or there is a long delay, give frequent small amounts of water. **Do not give alcohol.** 
  - Seek medical aid urgently.
  - Extreme pain can be alleviated by gently pouring water over the dressing, however ensure that this does not over-cool the area, particularly if the burnt area is extensive.

#### Management of deep burns:

- Remove or cut away clothing from the burnt area but leave clothing that is stuck.
- If possible, remove constricting rings, bracelets etc. before any swelling starts.
- Wash with gently running cold water to reduce the swelling and pain, and until the temperature returns to normal this usually takes at least ten minutes.
- Cover the burnt area with a sterile or clean non-stick dressing, and bandage lightly to minimise fluid loss and pain.

#### Chemical and corrosive burns:

- Wash off immediately with a large volume of flowing water for approximately twenty minutes.
- Remove contaminated clothing and footwear, but avoid contaminating yourself.
- Do not attempt to pick off contaminants that stick to the skin.
- Cover the area with a sterile or clean non-stick dressing.
- Seek medical assistance urgently.

#### **Electrical burns:**

- Wash and cool the burnt area under gently running water, well away from live assets.
- Apply a clean, dry dressing.
- Seek medical attention urgently for all electrical burns, as the surface skin may show little evidence of burning, even though deep tissue may be seriously burnt.
- **SEC14:.** Seek medical attention urgently.

6

# **6. THE DRABC ACTION PLAN**

Whenever you approach the scene of an accident or emergency, follow the DRABC Action Plan to ensure the safety of all concerned and to optimise the casualty's path to recovery.

## D – check for Danger:

- To yourself.
- To bystanders.
- To the casualty.
- Take all precautions necessary to ensure that nobody else can be injured you will not be able to effectively render assistance if you become a casualty yourself.

## **R** – check for Response:

Is the casualty conscious? Gently shake the casualty and ask if they can hear you.

- If the casualty is conscious, check for other injuries and manage any bleeding.
- If the casualty is unconscious, turn them onto their side. This should be done by kneeling beside the casualty and placing their furthest arm at right angles to their body. Their nearest arm is then laid across their chest. With the casualty's near knee raised, roll the casualty away from you. Continue to support the casualty in this position until the airway and breathing have been checked.

## A – clear and open the Airway:

- Whilst still supporting the casualty on their side, tilt their head back and down slightly. Open their mouth and with two fingers, gently clear any foreign objects. Dentures should only be removed if they are loose or broken.
- To open the airway, place one hand on the casualty's forehead and support the chin with the other hand. Tilt the head back gently and lift the jaw forward, opening the casualty's mouth slightly.

## B – check for Breathing:

- Look for the rising and falling of the chest.
- Listen for the sound of breathing.
- Feel with your cheek close to the casualty's mouth.

If the casualty is breathing, ensure that they are in the stable side position. To do this, adjust the upper knee so that the thigh is at right angles to the hip, and place the hand of the upper arm under the casualty's cheek to maintain head tilt. Now check for other injuries and manage as required.

If the casualty is not breathing, turn them onto their back and commence EAR (expired air resuscitation), giving two full breaths. Remember to keep the casualty's head tilted, pinch their nostrils or seal them with your cheek, and to lift their jaw forward/upward with your other hand.

## C – Compressions:

With CPR, the correct placement of your hands is important.

- Locate the lower end of the breastbone by feeling along the lowest rib on each side from the outside inwards.
- Locate the upper end of the breastbone by placing a finger in the groove between the collarbones.
- Extend the thumbs of each hand equal distances to meet in the middle.
- Keep the thumb of one hand in position and place the heel of the other hand below it.

For an adult, the breastbone should be depressed about 5cm.

Give 30 compressions at the rate of approximately 2 per second, followed by 2 breaths. Maintain this cycle until an ambulance or qualified person arrives or the person starts breathing normally.

The cycle of compressions and breaths is the same whether there are 1 or 2 first-aiders.

# SEC14: 8 VESI Fieldworker Handbook updated 2008

# 7. CONVULSIONS

- Clear the area around the casualty to keep them from injuring themselves.
- Do not force anything into the casualty's mouth.
- Do not attempt to restrain the casualty.
- When the convulsions are over, start CPR if required, otherwise keep the casualty quiet and calm.
- Seek immediate medical attention.

## 8. ELECTRIC SHOCK

- Protect yourself. If the casualty can be safely removed from the electricity source, do so.
- After the casualty is safely removed from live assets:
- If they are not breathing:
  - Commence CPR
- If they are breathing:
  - Treat for shock
  - Treat the burns as heat burns
  - Maintain body temperature
  - Keep the casualty quiet and laying down

# 9. HEART ATTACK

Chest symptoms:

- Uncomfortable pressure.
- Crushing pains.
- Fullness or tightness.

**NOTE:** Pain can be at the centre of the chest behind the breast bone and may spread to either shoulder, neck, lower jaw or either arm.

Other symptoms may include:

- Sweating, nausea, shortness of breath and/or weakness.
- Discomfort will usually last longer than two minutes. Pain may come and go at intervals.

## Expect a denial from the casualty:

• Examples: "It's indigestion", "I'm too healthy", and "It can't happen to me".

#### If the casualty is conscious:

- Have the casualty rest quietly and calmly. Allow the casualty to assume a position that provides the most comfort and ease of breathing.
- Ask if the casualty is taking any medication.
  - If YES: assist in administering medicine according to the casualty's instructions.
  - If NO: keep the casualty quiet and calm.
- Call for medical assistance.
- Be prepared to administer CPR if required.

#### If the casualty is unconscious:

- Check for a pulse.
- If there is NO pulse, commence CPR.
- If there is a pulse, then keep the casualty under observation and maintain the airway as required.
- Call for medical assistance.

# **10. THERMAL STRESS**

## **Heat Cramps**

### • Symptoms:

- Painful spasms. These can be in fingers, large leg muscles, and the abdominal wall or in all of them.
- Heavy sweating, cold and clammy skin.
- Intermittent cramps.
- Treatment:
- Apply firm pressure (no kneading) to cramped muscle.
- Applying warm/wet towels also gives relief.
- Do not give large quantities of water, instead, give half a glass of water at 15 minute intervals, as tolerated by the casualty.

## **Heat Exhaustion**

- Symptoms:
- Profuse sweating, weakness, dizziness, sometimes cramps.
- The skin is cold and pale, clammy with sweat.
- The pulse is rapid and weak.
- Body temperature is normal or below normal.
- Vomiting may occur.
- Treatment:
- Quickly move the casualty to a cooler place.
- Turn the casualty on their side if vomiting occurs.
- Make the casualty rest.
- If conscious, give half a glass of water at 15 minute intervals, as tolerated by the casualty.
- Provide additional fluids after the rest period.
- If untreated, exhaustion may lead to heat stroke.

## **11. HEAT STROKE**

#### Symptoms:

- Weakness, dizziness, nausea, cramps.
- Although sweating stops, clothes are sweat soaked.
- The skin is hot and dry.
- High body temperature.
- Rapid and strong pulse.
- Armpit and groin areas are dry.
- Treatment:
- Loosen or remove clothing.
- Move the casualty to a cooler place and make every effort to lower body temperature.
- Wrap the casualty in cool wet sheets if possible.
- Make the casualty rest.

## 12. SHOCK

- Signs and symptoms:
- Pale, clammy skin, sweating, chills.
- Weakness, faintness, drowsiness, confusion.
- Weak rapid pulse (over 100 beats per minute).
- Short, rapid and shallow breathing.
- Nausea.
- Unconsciousness.
- Treatment:
- If the casualty is not breathing, commence CPR.
- Elevate the casualty's feet by 300mm.
- Keep the casualty warm and lying flat.

- Stop any severe bleeding with direct hand pressure.
- Do not move the casualty unless there is no alternative.
- Do not give the casualty any alcoholic beverages.

## 13. SPRAINS

A sprain occurs when a joint is forced beyond its normal range of movement, stretching or tearing the ligaments that support the bones in the joint. Symptoms may include:

- Pain, which may be quite intense and increase if the joint is moved.
- Swelling (normal joint contours are altered when compared with the opposite limb).
- Bruising.

## Management of sprains:

- Rest the injured limb.
- Ice apply cold packs to the affected area.
- Compression apply a firm bandage to the injured joint.
- Elevate the injured part.

## **14. STRAINS**

A strain is the result of overstretching a muscle or tendon. Symptoms may include:

- Pain in the region, usually sharp and of sudden onset.
- Loss of power and additional pain on movement.
- Tenderness over the muscle.

## Management of strains:

- Control any bleeding within the tissue by applying a cold pack over the injured area.
- Advise the casualty not to over-stretch the muscle any further.
- Support the injured muscle with a pressure bandage.
- Encourage gentle exercise to reduce painful spasm.

