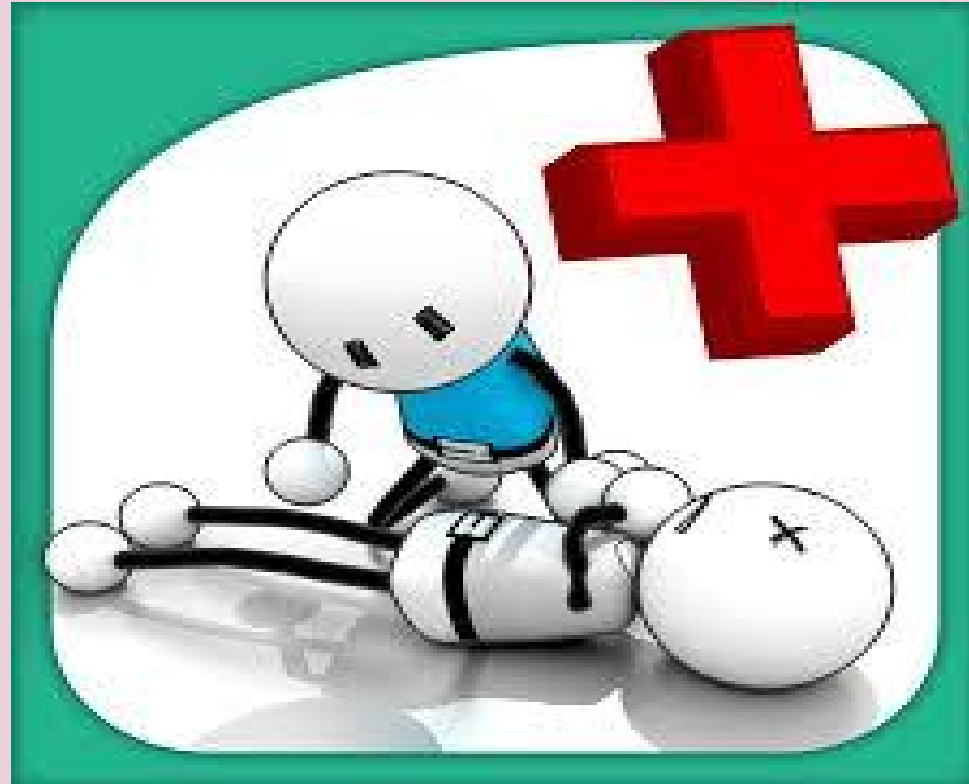


# FIRST AID



# What is First Aid?

First Aid is the assistance or treatment given to a casualty for any injury or sudden illness before the arrival of an ambulance or qualified medical expert. It may involve improvising with facilities and materials available at the time.

## Aim of First Aid

First Aid treatment is given to a casualty in order:

- to save life
- to prevent the condition from worsening
- to promote recovery

# Things to be aware of:

- keep calm.
- reassure everyone that everything is going to be OK.
- get as much information as possible about the accident (number of injured and their conscious state).
- prioritise those who need more help.

# WHAT DO YOU HAVE TO DO?

1. PROTECT
2. ALERT
3. AID

CONDUCTA "PAS":

PROTEGER, AVISAR, SOCORRER

# 1. Protect

**Protect** yourself and the injured person

**Avoid** another accident by eliminating the cause:

- Have someone control traffic
- Keep bystanders away from the scene of the accident
- Extinguish fire if possible without putting yourself in danger

## 2. Alert

Call **112** for assistance or have someone alert the emergency medical service rapidly. Always provide:

- Exact location or address of the accident or incident.
- Telephone number where you can be called.
- How many people are involved.
- Nature of injuries (fractures, burns, etc.
- Indication of the seriousness of the injuries (breathing or not, etc.)
- What first aid has been given.

**Do not hang up until you are sure that the person at the other end has all the information and have them repeat the address to send assistance.**

# 3. Aid

- Keep calm.
- Do not move the injured person unless it is necessary.
- Do a primary and secondary assessment.

# ★ PRIMARY ASSESSMENT

**A. Awareness (Consciousness)**

**B. Breathing**

**C. Circulation - Pulse rate**



# A. AWARENESS

Check for **responsiveness**

- Ask simple questions  
“Can you hear me?”
- Give simple orders  
“Press my hand.”

- ❑ If the person is conscious, do the secondary assessment.
- ❑ If not, check whether he/she is breathing.

# B. BREATHING

Check for **breathing**:

- Look
- Listen
- Feel

- ❑ If the person is breathing, do the secondary assessment.
- ❑ If not, check whether he/she has pulse rate.

# C. CIRCULATION

Check for **circulation/pulse**

To take your pulse rate you have to use two fingers: the middle and the index fingers. Do not use your thumb because it has pulse in it.

- Carotid artery (is located in the neck)
- Radial artery (just above your palm, on your wrist)
- ☐ If the person has pulse rate, perform an **artificial respiration**.
- ☐ If not, a **cardiopulmonary resuscitation (CPR)**.

# ★ SECONDARY ASSESSMENT

Once the victim is out of danger, do a secondary assessment to discover what has happened.

- ❑ Perform a physical examination of the victim.
- ❑ All of this information will be very helpful to the medical team.

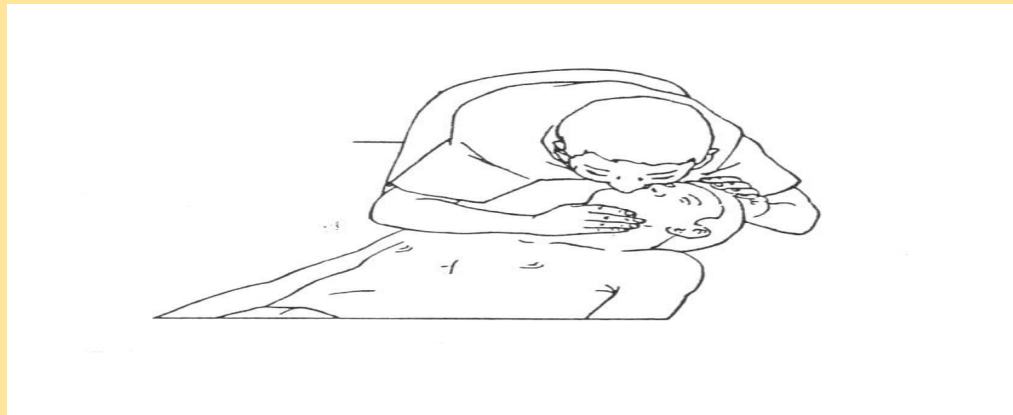
The most dominant CPR techniques are artificial respiration and cardiac massage.

## **ARTIFICIAL RESPIRATION**

This is commonly called "mouth to mouth." The rescuer should kneel next to the victim, who is lying on his back, and hyperextend his neck. This is to prevent the tongue from blocking the flow of air through the larynx.

The rescuer should hyperextend the victim's neck by placing one hand on the chin and the other hand on forehead with the index finger and thumb holding the nose. This rescuer should tilt the victim's head back.

The rescuer will take a deep breath, put their lips around the victim's, and blow all of the air into their mouth. The rescuer should now take another deep breath and repeat. Note if the air is entering the victim's lungs by observing if their chest rises and lowers.



## CARDIAC MASSAGE

You have to find the apophysis xiphoid and place two fingers below this part. From there, place your palms together facing down and press without bending your elbows.



# **BASIC CARDIOPULMONARY RESUSCITATION (CPR)**

When the heart stops beating, the lack of oxygenated blood can cause brain damage or death in only a few minutes.

Perform CPR if the victim is not breathing. Give the person 2 breaths for every 30 compressions. (You have to start with the compressions).The speed at which you perform the CPR is how you count one thousand one, one thousand two. You can not stop performing CPR until the emergency service arrives.

# MUSCULOSKELETAL INJURIES

## 1. SPRAIN

A sprain is an injury to a ligament (tissue that connects two or more bones at a joint). In a sprain, one or more ligaments is stretched or torn.

**What are the signs and symptoms of sprains?**

- Pain
- Swelling
- Bruising
- Not being able to move or use the joint



## How are sprains treated?

- Put ice on the injury.
- Apply anti-inflammatory creams and gels.
- Compress (squeeze) the injury using special bandages.
- Consult your doctor and prepare for an X-Ray.

## 2. JOINT DISLOCATION

A dislocation is an injury in which the bones in a joint are forced apart and out of their usual positions.

### **What are the symptoms of a dislocation?**

- The area may be swollen or look bruised.
- You may notice that the area is red or discoloured.
- It may also have a strange shape or be deformed as a result of the dislocation.

## What should I do if I have a joint dislocation?

- You need to get medical help immediately
- **NEVER** try to put the joint back yourself
- Cool the injured area and, if possible, elevate it. Both of these will reduce swelling.

### **3. MUSCLE CONTUSIONS (BRUISES)**

Bruises are the result of your body colliding with a solid object, or vice versa. When this occurs, the soft tissues under your skin (muscle fibres and connective tissue) are crushed but the skin does not break or rupture. The symptoms associated with bruises are pain, swelling and restricted movement.

#### **Types of bruises**

Bruises are graded into three categories and these are referred to as: first; second; or third degree depending on their severity.

- A **first degree** bruise is the least severe. It is the result of a minor rupture of the capillaries and is accompanied by mild pain, some swelling and stiffness.
- A **second degree** bruise is the result of a moderate rupture of the capillaries and increased bleeding. There is also increased swelling and pain as well as a moderate loss of movement at the injury site.
- A **third degree** bruise is the most severe of the three. It is the result of a major rupture of the capillaries and will result in massive swelling, severe pain and instability around the injury site.

## Treatment

The most effective initial treatment for bruises is the R.I.C.E.R. regimen. This involves the application of **(R)** rest, **(I)** ice, **(C)** compression, **(E)** elevation and obtaining a **(R)** referral for appropriate medical treatment.

**R:** it is important that the injured area be kept as still as possible. This will help to slow down blood flow to the injury and prevent any further damage.

**I:** Apply ice as soon as possible after the injury has occurred.

**C:** Compression achieves two things. Firstly, it helps to reduce both the bleeding and swelling around the injury, and secondly, it provides support for the injured area.

**E:** simply raise the injured area above the level of the heart at all possible times.

**R:** if the injury is severe enough, it is important that you consult a professional physical therapist or a qualified sports doctor for an accurate diagnosis.

## 4. WOUNDS

Wounds are injuries that break the skin or other body tissues. They include cuts, scrapes, scratches and punctured skin. They often happen because of an accident, but surgery and stitches also cause wounds. There are different types of wounds; each is distinctive in its appearance and the source of the injury.

### ➤ **Puncture**

A puncture wound is created when a sharp object enters the skin. These wounds are usually small and do not bleed a lot.



➤ **Incision**

An incision wound is a cut in the skin caused by a sharp object such as a knife, broken glass or scissors. Incisions wounds are neat and the edges of the skin are usually smooth.

➤ **Contusion**

A contused wound is one in which the edges and surrounding tissues are bruised or crushed.

Minor wounds can be treated at home. First, wash and disinfect the wound to remove all dirt. Use direct pressure and elevation to control bleeding and swelling. You should see a doctor if:

- The bleeding does not stop with direct pressure.
- The bleeding lasts longer than 20 minutes.
- The bleeding is the result of a serious accident.

Wounds can have two types of complications: infection and haemorrhage.

# Fractures

A fracture is the medical term for a broken bone.

There are many types of fractures, but the main categories are displaced, non-displaced, open and closed. Displaced and non-displaced fractures refer to the way the bone breaks.

In a **displaced fracture**, the bone snaps into two or more parts and moves so that the two ends are not lined up straight.

In a **non-displaced fracture**, the bone cracks either part or all of the way through, but does not move and maintain its proper alignment.

A **closed fracture** is when the bone breaks but the skin is not damaged.

An **open fracture** is one in which the bone breaks through the skin.

**Symptoms of a fracture are:**

- Intense pain.
- Deformity – the limb looks out of place.
- Swelling, bruising or tenderness around the injury.
- Problems moving a limb.

## Treatment of fractures

The aim of treatment is to put your bones back into place and then prevent them from moving until they heal.

- Do not let the victim move except if necessary to avoid further injury.
- Do not try to completely alleviate the fracture.
- Immobilise the injured body part in a functional position if you will be moving the victim.
- Seek medical help.

# INJURIES

*How do you immobilize the victim in a functional position?;*

You must block off the upper and lower joints where the fracture is.

The following are functional positions for the distinct joints:

- Shoulder: bend the arm of the affected shoulder and put it against the chest
- Elbow: bend the elbow at a right angle and keep it close to the body
- Forearm: bend the arm at a right angle and hang it from your neck
- Wrist: extended
- Fingers: half bent, as if closed around a tennis ball
- Hip: Extended
- Legs: Extended
- Ankles: In right angles

Use tables, parts of the body, or other elements to immobilize the affected area.

- The spine is a very delicate area. Even moving it a little bit can cause paralysis. Never bend the spine or the neck. Carefully tie the victim on top of a hard surface, like a door. If the victim vomits and turns the neck, the surface will move with the movement.

# HEMORRHAGES

This is when a person is bleeding profusely.

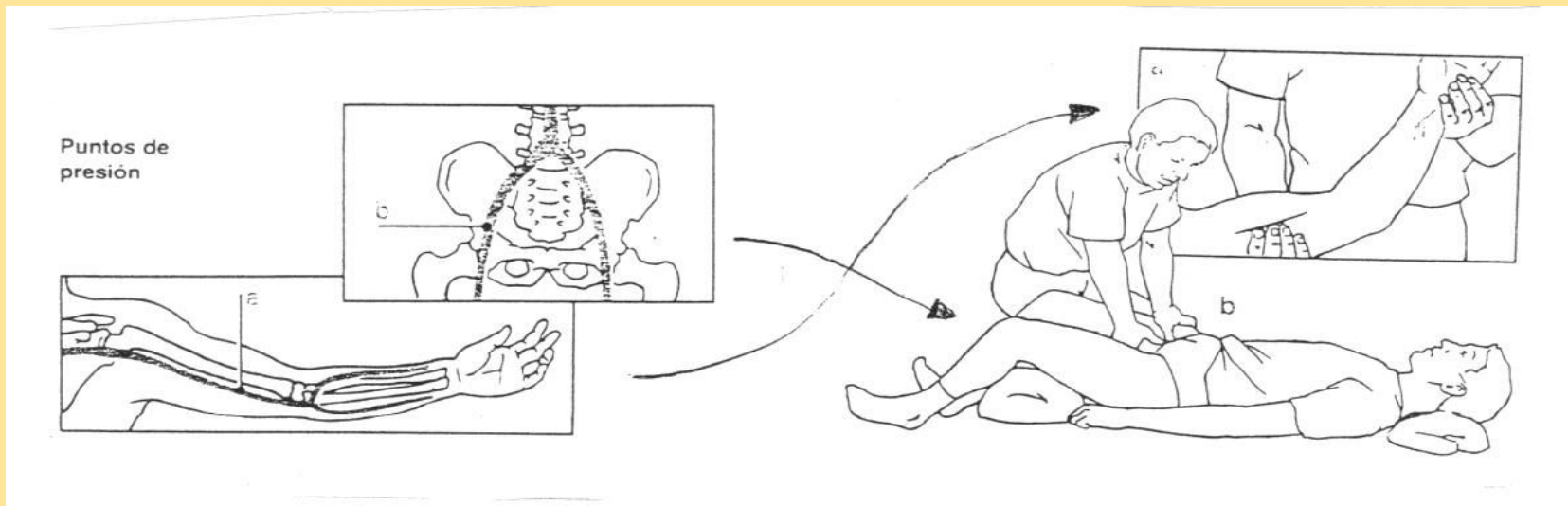
There are 3 types of hemorrhages.

- Artery: the blood is bright red and shooting out in spurts as the heart beats
- Venous: the blood is dark red and flows out continuously without stopping
- Capillary: the blood comes out in the form of small droplets

- **Treatment:**

- Place sterile gauze over the wound and apply a little pressure with your hand.
- If the bleeding does not stop, place more gauze over the first application. Elevate the affected area and continue applying pressure, but this time with more force.
- If the bleeding is serious and still does not stop, you must compress or squeeze the main artery. This may only be done for the upper and lower limbs.





For arms, press along the innerside of the arm with your fingers. You will be pressing the humeral artery, which runs down the inside of the arm. For legs, you will press along the femoral artery.

You should not maintain applying this pressure for more than 15 minutes. Otherwise, healthy tissue beyond the wound will die.

# CHOKING

FOREIGN OBJECT: any object that comes from outside and is introduced into our body. It may be the nose, mouth, throat or trachea.

-In the trachea(windpipe): One may choke because the airways are clogged. Children should be given blows between the shoulder blades lying face down on an adult's lap. In the case of babies, they should be hit on the back in an inverted position.

Adults should cough forcefully. If the victim continues to choke, the rescuer should deliver 5 back blows between the victim's shoulder blades. Lean the victim down to avoid a more serious chock, the object can fall deeper. If this does not work, the rescuer should give the Heimlich maneuver. This should only be performed as a last resort.

# What do you have to do?

A “five-and-five” approach is recommended when delivering the Heimlich maneuver. (MANIOBRA DE HEIMLICH)

In this maneuver, the rescuer stands behind the person choking and wraps their arms around them, placing a fist on their stomach entrance and covering it with the other hand. They pull back and up energetically on the person’s stomach so that the food that was causing suffocation is ejected. Five of these thrusts, combined with 5 blows between the back, is performed to achieve the desired effect.



# LIPOTHYMY

Lipothymy is a fainting or dizziness. This is when your body loses consciousness due to insufficient blood flow to certain parts of the body, or the nervous system.

## **Symptoms:**

- Fatigue
- Breaking into a cold sweat.
- Losing one's balance and falling, but not losing consciousness.
- Chest tightness and difficulty breathing.
- Nausea and vomiting sometimes occur.

## **Advice:**

- Lay the victim on his/her back and elevate the person's legs to restore blood flow to the brain.
- Loosen tight clothing, particularly around the throat and abdomen.
- Sit them up gently and have them perform isometric contractions with their legs several times. Then help them rise slowly to their feet.