

FIRST AID IN SPORTS AND NON-SPORTS PRACTICE

First aid is understood to mean the immediate, adequate and provisional care provided to injured people or people with sudden onset illnesses before being treated in a healthcare center or by emergency services.

You have to act if you are sure of what you are going to do. It is preferable to do nothing if you are not sure what you are going to do, because it is likely that the assistance you provide will not be adequate and will contribute to aggravating the injured person. Remain calm to act calmly and quickly, avoid panic. Do not leave the victim's side; If you are alone, ask for the necessary help.

Call the emergency services as soon as the accident allows.

This small guide is not a substitute for in-depth first aid training, but some small things we can do can be very important until the emergency services arrive. It's about knowing them and applying them to your case.

These notes are mostly based on the [SAMUR First Aid Guide](#) that has been retouched and adapted for our context. To go deeper you can consult the previous link.

We are going to see some cases that may arise in sports, during the practice of physical activities or in normal life.

1. PROTOCOL FOR ACTION IN AN EMERGENCY

We follow the PAS protocol (Protect, Warn, Help)

- ★ We protect to the injured party to avoid greater harm
- ★ We warn you to the emergency service
- ★ We help to the injured party within our possibilities until the emergency services arrive

At all times we try to remain calm, we should not act on the injured party if we are not clear about what to do and we should not risk our lives in case of danger.

2. RECOGNITION OF A VICTIM

The vital signs you should look for in a victim are consciousness and breathing.

2.1 How to assess degree of consciousness:

- To do:
- We are located next to the victim and we perform **stimuli of progressive intensity** as indicated below:
 - ★ We look at whether the person has their eyes open, responds to questions, and moves normally. In this case you would be conscious and alert.
 - ★ If your eyes are not open and you are



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breathing normally, We touch her firmly and shout at her. asking if something is wrong. This person could just be fast asleep.

- ★ If he responds Without being able to maintain the normal state of alert, we would find ourselves facing a situation where consciousness would be altered.
- ★ If we do not obtain a response from the victim in these attempts, we are faced with an unconscious person.
- ★ I called 112 indicating the situation in which the victim is.

In the case of a conscious victim, it is very important to be able to assess what is happening to them. To do this, you must be attentive to the symptoms that the victim reports, as well as use all your senses in their assessment.

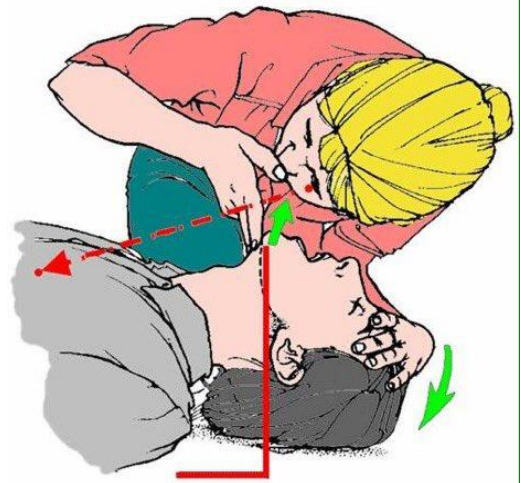
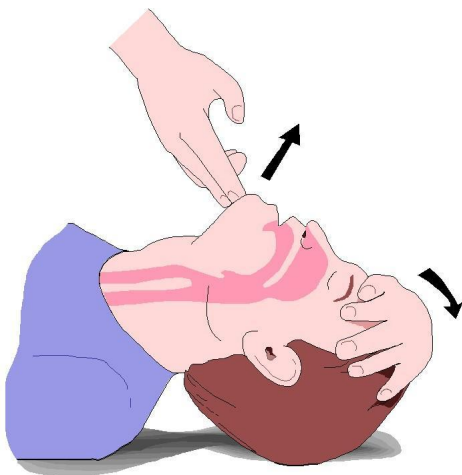
2.2 How to assess breathing:

→ To do:

- ★ Move your face closer to the victim's face, looking toward the chest, listening and feeling the air exhale on your cheek, and watching the chest rise. performing the forehead-chin maneuver: **SEE-HEAR-FEEL**

→ What NOT to do:

- ❑ Lean on the patient's chest to assess breathing.



3. ACTIVATION OF THE EMERGENCY SERVICE

Request for help at 112

→ To do:

- ★ Stay calm to talk to the operator.
- ★ Indicate the exact address of the event
- ★ Note Which is the event.

4. CARDIOPULMONARY RESUSCITATION



These are the maneuvers that must be carried out in those people who suffer cardiorespiratory arrest (CPA). CPA is the sudden, unexpected and, in principle, reversible interruption of spontaneous circulation and respiration.

The person is unconscious

and not breathing (no pulse).

→ To do:

→ If the victim is not breathing, begin CPR maneuvers.

- ★ Kneel next to the victim to do compressions.
- ★ Uncover the patient's chest and place the heel of one hand in the center of the chest, which is the lower half of the victim's central chest bone or sternum. Place your other hand on top and interlace your fingers.
- ★ Stretch your arms, place your shoulders perpendicular to the massage point and keep your back straight.



- ★ Apply pressure by dropping your shoulders. Compress hard and fast with a speed of at least one hundred compressions per minute, with a depth of at least five centimeters and allowing the chest to expand between compressions.
- ★ If we know the technique and have safe means for the patient and ourselves, apply compressions-ventilations in a ratio of 30:2

→ What NOT to do:

- ☐ Leave the victim alone, unless you have to call 112
- ☐ Apply pressure between compression and compression.

- ❑ Give ventilations if you do not know the technique. It is preferable to just do compressions.

5-ANXIETY CRISIS

An anxiety attack is a sudden response of fear or intense discomfort. Symptoms:

- Increased heart rate and non-oppressive chest pain. Feeling of suffocation.
- Stiffness in legs and arms or tingling sensation. Abdominal pain.
- Excessive sweating.

→ **To do:**

- ★ Isolate the victim from the stressful environment.
- ★ Try to relax the victim with calm, successive breaths, taking the air in through the nose and expelling it through the mouth.
- ★ Reassure the victim
- ★ If you have a bag, have him breathe into it.
- ★ Provide privacy to the victim.
- ★ Stay calm and ask for help from the 112 Emergency Service.

→ **What NOT to do:**

- ❑ Make the victim nervous
- ❑ Give exciting drinks or foods (coffee, cola drinks, chocolate, tea, "energy" drinks)



6-LIPOTHYMIA-PRESYNCOPE-SYNCOPE-FAINTING

Lipothymia is the feeling of dizziness without loss of consciousness for a very short period of time and with a rapid and complete recovery.

The Syncope is the loss of consciousness for a very short period of time and with rapid and complete recovery.

The causes may be the same for both.

They can be caused by intense emotions, long periods of sustained fasting (common in people who do not eat breakfast), unpleasant visions, very hot places where they are very sheltered, people who stand for a long time without being able to move, excessive exercise, fear, pain, among others. Symptoms:

- Sensations are rare (distant sounds, blurred vision, tingling in hands).
- Dizziness
- Pale, cold, sweaty skin (especially on the face).
- Falling to the ground due to weakness in the legs.
- It is possible that if you look for a pulse you will not find it or it may be weak, slow and even arrhythmic.
- Muscle weakness (muscles are loose and without tension).
- Nausea or stomach pain (cramping).

→ **To do:**

- ★ Keep calm.
- ★ Prevent the victim from falling to the ground and tumbala.
- ★ If it were already on the ground, cool goose it lying face up and raise legs about 45°
- ★ Make it easy for the victim to breathe without any difficulty
- ★ Get a fresh environment with clean air in the place where you are opening a salenor undressing the victim a little if he is very sheltered.
- ★ Avoid crowds of people around you.
- ★ Never leave the victim alone.
- ★ If you may have hit yourself when you fell, check for wounds or bruises.
- ★ When the victim has completely recovered, sit him up slowly before standing him up and wait a while.
- ★ Call 112 and report what happened.

→ **What NOT to do:**

- ☐ Give the victim food or drink until he or she has fully recovered.
- ☐ Administer medications.
- ☐ Allow him to stand up abruptly.



7-SEIZURES

They are sudden, involuntary, repeated and abnormal contractions of the muscles, caused by brain stimuli. They usually cause weakness or loss of consciousness. The most common cause is epilepsy, but they can occur for other reasons such as head injuries, brain diseases, fever, hypoglycemia, ingestion of toxic substances, etc. Symptoms:

- Sudden loss of consciousness sometimes uttering a scream.
- Permanent stiffness in limbs or back.
- Movements that shake the body.
- Apnea or shortness of breath accompanied by purple lips.
- Clenched jaw, redness of the face, and eyes that are averted, fixed, or blank
- Increased salivation (sometimes it comes out in the form of foam).
- Loss of sphincter control
- After the crisis, disorientation appears in the victim.
- Recovery of consciousness progressively and slowly.

→ **To do:**

- ★ Keep calm.
- ★ If you notice that the victim is going to have a seizure, prevent him or her from falling.
- ★ Make space around you so that you don't hit yourself or something falls on you.
- ★ Protect the victim's head by placing something soft underneath it without straining the victim's neck.



- ★ Loosen all tight clothing
- ★ If vomiting or blood appears, turn the victim to prevent choking.
- ★ Once the crisis has passed, check that breathing is present.
- ★ Call 112 reporting what happened.

→ **What NOT to do:**

- ❑ **Hold the victim during muscle contractions.**
- ❑ Try to put your hand or any object in your mouth (it could break or be swallowed).
- ❑ Forcing the jaw open and inserting something or preventing biting the tongue.
- ❑ Give drinks or food when the victim begins to regain consciousness.

8-AIRWAY OBSTRUCTION BY FOREIGN BODY

Warning symptoms: The universal sign of choking is putting your hands on your neck. Other signs may be difficulty speaking and bluish skin color or salivation from the mouth.

→ **To do:**

- ★ Call 112, preferably someone who is not solving the problem.
- ★ If the victim can cough, encourage him to cough.
- ★ If the victim cannot cough or no longer has the strength to do so, but is still conscious, begin abdominal thrusts.
- ★ **Heimlich maneuver**: Stand behind him and hug the victim from behind with both arms. In this position and standing, place one closed hand resting the fist with the thumb on the abdomen, just above the navel and below the end of the sternum and the other covering the first.
- ★ Tilt the victim forward to facilitate the removal of the object causing the obstruction.
- ★ Press on that point, inward and upward.
- If the victim loses consciousness:
- ★ Lay her on the floor face up, kneel next to her and begin chest compressions.

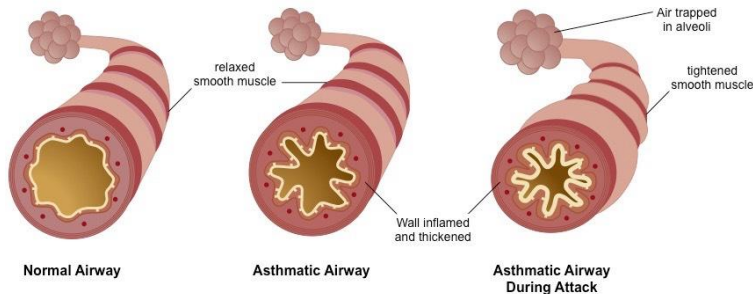


→ **What NOT to do:**

- ❑ Administer first aid to a person in the choking phase if the person is coughing and is able to speak, since just coughing can dislodge the object spontaneously.
- ❑ Try to remove the foreign body with your fingers blindly from inside the mouth.

9-ASTHMATIC CRISIS

The bronchi, for various reasons, close to the passage of air, their diameter decreases and the patient experiences respiratory difficulty. Symptoms are usually noises when breathing, difficulty breathing, and a feeling of drowning.



→ To do:

- ★ Sit or lie down the victim
- ★ reassure her
- ★ Provide you with your medication-inhaler
- ★ Provide a cool and ventilated environment
- ★ Avoid crowds around the victim
- ★ If necessary, transfer to the hospital or activation of emergencies

→ What NOT to do:

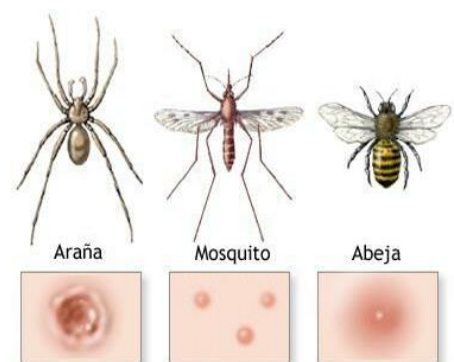
- ☐ alter the victim
- ☐ Give food or drink before recovery

9-BITES AND STINGS

Insect bites and stings can cause localized or generalized reactions, either immediately or delayed over time.

Symptoms that do not imply an emergency vary according to the type of insect and the individual. Most people experience localized pain, redness, swelling or itching. You may also experience a burning, numbness, or tingling sensation. Blisters may appear. Animal bites and bee and wasp stings are painful. Bites from mosquitoes, fleas, and mites are more likely to cause itching than pain.

Some people have a severe allergic reaction to such bites and stings. This is an allergic reaction known as "anaphylactic shock" and requires urgent medical attention. Severe reactions can affect the entire body and can occur very quickly, often within a few minutes.



9.1- Prevention against stings and bites:

→ To do:

- ★ Be cautious when eating outdoors, especially with sugary drinks.
- ★ Use insect repellent (creams or aerosols).
- ★ Wear clothing that covers your exposed parts (closed shoes, high boots and long pants), especially in areas with brush, bushes and rocky areas.

→ What NOT to do:

- ☐ Rummage in insect nesting areas.
- ☐ Make quick and sudden movements near hives or insect nests.
- ☐ Wear perfumes and clothes with light and bright colors.
- ☐ Wear clothing that exposes much of the body.

9.2- Stings and bites:

→ To do:

- ★ Reassure the victim and provide repose.
- ★ Remove rings and all objects that could squeeze the affected part.
- ★ remove the stinger if there was.
- ★ Clean the wound with soap and water.
- ★ Apply ice or cold water compresses to the affected area to reduce inflammation and decrease pain and poison absorption.
- ★ In case of stings inside the mouth that cause breathing difficulties, suck on ice.
- ★ When a severe allergic reaction occurs, call 112

→ What NOT to do:

- ☐ In general, apply tourniquets.
- ☐ Manage medicines.
- ☐ Do not apply mud, because although it calms the pain and itching, it would infect the bite.

9.3- tick bite

→ To do:

- ★ Go to a medical center
- ★ Gently pull on the tick's body with tweezers.
- ★ Wash the skin with soap and water to remove any germs left in the wound.
- ★ Disinfect the area
- ★ Ensure hospital transfer or call 112

→ What not to do:

- ★ Do not use heat because it injures the skin and does not guarantee that the ticks will come off completely.

9.4- Bites from domestic and wild animals

→ To do:

- ★ Clean the wound thoroughly with soap and water.
- ★ Stop bleeding if any
- ★ Cover the wound with gauze or sterile dressings.
- ★ Make sure you are seen by a doctor for your rabies prevention vaccination...

10- ALLERGIC REACTIONS

They are abnormal and exaggerated responses of the immune system to substances that are not well tolerated by the body. These substances are called allergens, which come into contact with the skin, nose, eyes, respiratory tract and digestive tract. These substances can be inhaled into the lungs, ingested or injected.

Many allergic reactions are mild, while others can be serious and life-threatening. They may be limited to a small area of the body or to everything..

→ To do:

- ★ Remove the patient from the focus causing the reaction from allergies.
- ★ Assess the victim's level of consciousness
- ★ If the victim remains conscious, place him in a semi-sitting position.
- ★ Call the emergency services and wait
- ★ Check for symptoms such as paleness, sweating or cold skin, difficulty breathing and speaking.
- ★ Pay special attention to the victim's airway.

→ What NOT to do:

- ★ Give the victim food or drink.
- ★ Let him scratch himself if he has an itch.



11- WOUNDS AND BRUISES

The appearance of wounds and bruises is associated with physical trauma due to sudden impact. To expand on the topic of tendon, muscle and bone injuries, I recommend that you visit the following link to the notes on the 4th ESO topic: [Sports Injuries of the Locomotor System](#), in this topic we will find broader information on production and treatment mechanisms. In many traumatic injuries, the most immediate intervention is what we call the **DO (Ice, Compression, Elevation, Rest)**. However, we outline some small ideas on the subject.

11.1 WOUNDS

Contact with energy from objects in the environment can break the skin and go deep into the soft tissues, dirtying and contaminating, causing pain and hemorrhages. As the wound remains open, the risk of infection is significant.



→ **To do:**

- ★ Clean and disinfect your hands.
- ★ Wash the wound site with soap and water.
- ★ Clean with damp gauze or cloth handkerchiefs, as aseptic as possible, dragging from the center to the edges..
- ★ Use some antiseptic substance without dye
- ★ Cover the surface with moistened dressings and suggest with adhesive tape, adhesive tape or



blindfold.

- ★ In case of bleeding, apply a compression bandage and elevate the affected limb.
- ★ Given the severity and possible complications, ensure transfer to a health center for evaluation or calling 112.

→ **What NOT to do:**

- ☐ Use cotton or alcohol.
- ☐ Stain the wound with dyed antiseptics.
- ☐ Apply ointments without a medical prescription.
- ☐ Apply tourniquets

11.2 CONTUSIONS

When the impact does not break the skin but affects the muscles and blood vessels, it causes lesions that are concentrated in the affected area, with pain, internal bleeding, bruising (bruising), inflammation (from small to large bumps) and difficulty in movement. functional movement.



→ **To do:**

- ★ Apply local cold wrapped with a cloth handkerchief or gauze as aseptic as possible so that it does not come into direct contact with the skin.
- ★ Alternately every 20 minutes.
- ★ Compress the area with an elastic bandage, without tightening too much.
- ★ Try to elevate the affected area.

12- EYE, EAR AND NOSE INJURIES

This type of injury can have multiple origins, mainly producing: itching or stinging, intense pain, erosions, wounds or jamming of objects.

12.1 EYE INJURIES

They cause intense pain, irritation, loss of vision or blurred vision, constant tearing and inflammation of the eyelid.

→ To do:

- ★ Reassure the injured person and prevent manipulation
- ★ Instruct the injured person to remove contact lenses if present.
- ★ Wash the eye with gently running water, letting it run from the nose towards the outer part of the eye, in order to drag the object.
- ★ Cover both eyes with wet gauze and ensure transport to a hospital so that you can be evaluated by an ophthalmologist.
- ★ In case of inflammation or bruise on the eyelids, apply ice or local cold wrapped in a clean tissue.



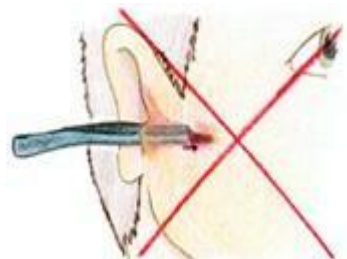
→ What NOT to do:

- ❑ Rub the eye.

12.2 FOREIGN BODIES IN EARS AND NOSE

→ To do:

- ★ Reassure the injured person and prevent the object from being manipulated.
- ★ If the object is on the outside of one nostril, plug the other nostril and blow your nose loudly to try to expel it.
- ★ If an insect has entered your ear, turn your head to position your ear upwards and make it easier for the insect to come out on its own.
- ★ If it doesn't come out, put olive oil or liquid Vaseline at room temperature (not hot) into the affected hole and keep your head tilted to the opposite side for a while until the insect dies.
- ★ Then turn your head over to the affected side until the oil comes out with the insect.



→ What NOT to do:

- ❑ Insert objects (tweezers, sharp objects) to try to extract the foreign body, nor manipulate them, as you can insert it further.
- ❑ Plug your ear if an insect has entered, as it could sting you or cause further injury.

13-HYPERTHERMIA : MUSCLE CRAMPS, INSOLATION AND HEAT STROKE

Our body is capable of maintaining a temperature of about 37° C, regardless of the outside temperature, within certain limits. This is possible thanks to the body's own mechanisms, such as changes in blood circulation closest to the skin and sweating.

When these mechanisms fail due to exposure to prolonged high temperatures or fluid loss (dehydration), a series of progressively more serious disorders appear:

Muscle cramps: produced by milder heat. It consists of muscle spasms, especially in the abdomen, legs and shoulders, due to the loss of fluids and mineral salts.

Insolation: Happens with prolonged exposure to the sun or excessive exercise in a hot environment. It consists of generalized weakness due to exhaustion and severe dehydration.

Heatstroke: serious and urgent disorder where dehydration is extreme and the body's body temperature-regulating mechanisms fail, causing the temperature to skyrocket.

Symptoms:

- Cramps or painful muscle contractures. Elevated body temperature
- Hot, moist or dry, red skin.
- Headache, blurred vision. Nausea, vomiting.
- Alterations of consciousness, seizures. Rapid and weak pulse.
- Rapid and shallow breathing.

→ **To do:**

- ★ Keep calm
- ★ Call 112 reporting the circumstances and condition of the victim.
- ★ Remove the victim to a cool and ventilated place and see Resting.
- ★ Lie her down and elevate her legs to encourage blood flow to the brain.
- ★ If the body temperature is very high, remove his/her clothing and begin to cool his/her body with compresses soaked in cold water.
- ★ If the victim is conscious and oriented, give water or isotonic drinks with sugar.

→ **What NOT to do:**

- ☐ Leave the victim alone.
- ☐ Cool directly with ice, as it could cause burns.
- ☐ Give food or drink if you are not conscious
- ☐ But alcohol

How to prevent:

- Avoid exercising during times of day when it is warmer.
- Stay well hydrated on hot days, especially if you are going to practice any activity that requires wear and tear.



- Wear comfortable, breathable clothing if you are going to be exposed to the sun or in very hot environments, as well as hats or hats
- Gradually start sports activity

14- HYPOTHERMIA

It occurs when a person's temperature drops below 35°C and the body's mechanisms to prevent heat loss (redistribution of blood to important organs, chills) begin to fail. In addition to continuous or sudden exposure to low temperatures, factors such as age, thinness, consumption of alcohol or other drugs or bathing in very cold waters can favor a situation of hypothermia.

Symptoms:

- Chills or shivering with cold, pale, dry and sometimes bluish skin.
- Changes in the person's behavior (confusion, disorientation, irritation).
- Stiffness in arms and legs.
- Alterations of consciousness. Walking unsteadily and clumsily. Slow breathing.
- Pulse is weak and slow.

→ To do:

- ★ Remain calm and secure the environment.
- ★ Call 112 reporting the circumstances and condition of the victim.
- ★ Remove the victim to a warm, dry environment.
- ★ If you have wet or very cold clothes, change them for dry and hot.
- ★ Cover the victim's head with a hat or towel.
- ★ Cover with blankets, first the chest and then the legs and arms.
- ★ Take the temperature.
- ★ Move the victim carefully.
- ★ Try external warming, immersing it in warm water (40° C), bringing it close to a heat source, putting it in a covered bed, but always gradually.
- ★ If conscious and oriented, give hot liquids with sugar.

→ What NOT to do:

- ☐ Leave the victim alone. Give alcohol.
- ☐ Rub directly on the skin to warm it up.
- ☐ Aggressively warm the victim as this could make the situation worse. Do it gradually.

How to prevent:

In case of sightseeing through the mountains, go protected and sheltered. Bring calorie drinks and energy foods. Wear appropriate clothing and footwear with the possibility of dry replacement if necessary.



15- DROWNING

Drowning due to asphyxiation or immersion is caused by the obstruction of a liquid medium to the passage of air into the airways, which means a total or lesser arrival of liquid to



the lungs.

→ **To do:**

- ★ If possible, remove the victim from the scene where the event is occurring.
- ★ **If you do not know how to swim, refrain from starting the rescue and call the emergency service 112.**
- ★ If you have been able to remove the victim, assess his level of consciousness
- ★ Watch for breathing. If he is not breathing or his breathing is ineffective, begin breathing maneuvers. cardiopulmonary resuscitation
- ★ Maintain the victim's body temperature by covering him with blankets.
- ★ put an insecure side position to the victim until the arrival of emergency services.

→ **What NOT to do:**

- ❑ Try to save the victim if they do not know how to swim.