



FIRST AID BASIC COURSE TRAINING MATERIAL

Author of training materials:

Ruta Uiibo, first aid teacher with Estonian Red Cross certificate,
Patred OÜ



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INTRODUCTION

First aid is the first aid given to someone who has been injured or suddenly ill. First aid is helping a victim with little or no medical aid. For certain conditions, it is important to remember the 5-minute rule. Brain cells can live remain without oxygen for approximately 5 minutes. A person normally receives oxygen when he breathes and the heart pumps blood through the lungs, from where the blood carries oxygen to all the necessary organs. If blood circulation or breathing is disturbed, the person no longer functions normally. In such cases, it is important to act immediately, before the ambulance arrives, because if this is not done, the human brain may not wait for help.

LIFELINE

1. Marking the accident area
2. First aid measures
3. Emergency call
4. First aid (continued)
5. Ambulance
6. Hospital

NB! Every chain is only as strong as its weakest link!

› If there are bystanders at the scene, call them for help. Define the tasks specifically and in such a way that they can only be clearly understood.

› Remember that no life is saved at the expense of another life. If the situation is dangerous for you or your helpers, stay away.

› As an assistant, you are the one who decides whether an ambulance is necessary or not.

ON FINDING THE VICTIM

- ! Is he conscious? (if the person answers you, he IS conscious)
- ! Is his airway open? (if you hear a snoring/rattling sound or the person's face is blue or his lips are blue, it is worth investigating and if necessary opening the airway)
- ! Is he breathing? (listen, feel and see - use all your senses to understand)
- ! How is his circulation?
- ! ...Is he bleeding profusely? (close all external bleeding quickly, the most massive first)...Kas tal on suuri verejookse? (sulge kiiresti kõik välised verejooksud, kõige massiivsemad esimesena)

LIFE SAVING FIRST AID

1. Stop bleeding
2. Resuscitate if necessary
3. Stable lateral position
4. Fight the shock
5. **EMERGENCY CALL 112 - Remain as calm as possible and answer all questions as precisely as you can.** Information that is definitely needed:
 - › Where did it happen?
 - › What happened?
 - › How many victims are there?
 - › Who's calling?



DO NOT END THE CALL UNTIL THE RESCUE OPERATOR ALLOWS!

VITAL SERVICES

Checking consciousness:

1. Call the victim.
2. If he doesn't answer you, touch.
3. If there is no response, try if he reacts to pain (for example, pinch, roll his ears, rub the sternum with your knuckles).

If the victim does not respond to any of the aforementioned actions, then the person is unconscious.

Breath control:

1. Check that the oral cavity is empty.
2. Open the airway (if spinal trauma is suspected, avoid pushing the head into the back of the neck, use the technique learned in first aid training).
3. Place your cheek near his mouth to feel the movement of air and listen for breathing.
4. At the same time, put your free hand on the chest to feel the movement of the chest.
5. Keep your eyes on the chest and see if you can see movement.
6. Look, listen, feel!
7. If the person is not breathing, start CPR!



Assessment of blood circulation - whether the pulse is steady, too fast or too slow:

- You can find the pulse most easily on the neck - at the level of the laryngeal node, 2 cm to the right of the laryngeal node to the left
- Look for it with at least two fingers (never use your thumb to find the pulse because with it you can feel your own pulse and never touch both sides at once)

SUDDEN ILLNESSES

CHEST PAIN

The reason may be:

- › Heart blood supply disorders
- › Heart attack
- › Intercostal nerve pain
- › Trauma

The situation may be dangerous if you notice the following signs:

- ! Constant squeezing pain in the center of the chest
- ! Shortness of breath
- ! Prone to fainting and dizziness
- ! Sense of impending danger
- ! Ash skin and bluish lips
- ! Fast, weak or irregular pulse
- ! Profuse sweating

NB! Not all signs of danger need to be present, sometimes only some of them can be observed. About 30% of heart attacks are so-called "silent attacks" - the patient/victim does not complain of chest pain!

Treat it like this: ➡ Advise the victim to rest and, if necessary, remove uncomfortable clothing (for example, open buttons, remove a tie, etc.). A semi-sitting position is best, as this makes it easier for the victim to breathe. Peaceful environment. Do not let the victim run around. Arrange for medical assistance. Assist the victim in administering medication (the victim takes his own medication!). If you think the situation is dangerous, do not give the victim food or drink, **if necessary, start CPR!**

STOMACH PAIN

The reason may be:

- › Inflammation
- › Trauma
- › Indigestion
- › Gynecological problems

All of the above can cause life-threatening surgical problems.

It is necessary to call an ambulance if:

- ! Abdominal pain lasts a long time and is progressive in nature
- ! There are signs of shock
- ! Pancreatitis, cholecystitis or appendicitis are suspected
- ! Ileus, perforation, or gastrointestinal hemorrhage is suspected.

Treat it like this: ➡ As a rule, the patient assumes a comfortable position himself. Advise the victim to lie on his back or side, legs bent. Usually one side is better than the other. If you suspect that the situation may be dangerous, do not give food or drink! Call an ambulance immediately if you think it is serious.

CONVULSIONS

The reason may be:

- › Epilepsy
- › Head trauma
- › Fever
- › Poisonings
- › Various diseases
- › Alcohol consumption

Treat it like this: ➡ Do not hold by force. Place something soft under the head so that the victim does not injure himself. Do not put anything between the teeth, as it can break the teeth or break and get into the airways. When the convulsions are over, the side position if necessary. Reassure the victim when he regains consciousness. If the patient/victim is aggressive, stay away, don't put yourself in danger!

It is necessary to call an ambulance if:

- ! As a rule, if it is a child's seizure.
- ! Whenever it is the first seizure in life.
- ! If the patient has seizures repeatedly, his treatment does not work or the recovery time is too long
- ! If the seizure lasts longer than 5 minutes

CHOKING

The reason may be:

- › Foreign body (food, toys, liquids, etc.)
- › Swelling of the larynx (chemicals, allergy, laryngitis, epiglottitis, etc.)

Treat it like this: ↓

In the case of foreign bodies

1. Bend the victim forward
2. Sharp blows between the shoulder blades
3. Say "cough" in a commanding tone - coughing is many times more effective method of removing a foreign body than the Heimlich technique!
4. Heimlich technique if coughing does not work
5. If the person is unconscious, see if a foreign body can be seen in the oral cavity
6. Blow-through can be used as a last method. It is used only if nothing else works and there is no other way to get the foreign body!

For laryngeal edema

1. In the case of difficulty breathing, a sitting position if the victim is conscious; anti-edema medications, if available and can be administered. NB! Do not try to force a person to swallow a tablet if his throat is swollen!
2. Cold application externally (in case of allergy)
3. In case of laryngitis, open the window or go outside, because the cold and moist air helps to reduce the swelling. If the weather is warm, go to the shower room, turn on the water and sit in the steam (not in hot water)
4. In the case of epiglottitis, put the victim in a prone position, making sure that the face is flat

DIABETES

Symptoms that may occur:

Hyperglycemia (i.e. too high blood sugar level)

- › Thirst
- › No feeling of hunger
- › Vomits
- › Increased urine output
- › Fruity, sweet breath (acetone smell)
- › Rapid breathing
- › Pulse fast and weak
- › Skin warm and dry
- › Seizures usually do not occur
- › Consciousness - dizzy

Hypoglycemia (i.e. too low blood sugar level)

- › No thirst
- › Feeling hungry
- › Usually not
- › Normal
- › Normal breathing
- › Breathing normal
- › Pulse fast and strong
- › Skin pale, cold, sweaty
- › Seizures occur frequently
- › Rapid loss of consciousness

Treat it like this: ↓

Hyperglycemia

1. Call 112
2. Follow the victim
3. Side position if necessary

Hypoglycemia

1. Give him sweets to eat and drink until he feels better
2. 2. Call if necessary 112

FAINT

The reason may be:

- › Heat
- › Shortness of breath
- › Prolonged standing
- › Negative emotions
- › Fainting is a quickly transient loss of consciousness if proper first aid is given, caused by, for example, a temporary decrease in blood vessel tone

Treat it like this: ➡ Lay the victim down. Make sure the victim's airway is open. Raise the legs. A cool cloth can be placed on the forehead. Do not keep the fainted person sitting or standing. If the victim does not regain consciousness within 45-60 seconds, put the legs back down and call an ambulance. Never leave an unconscious victim alone in the supine position! If you are forced to leave the unconscious victim alone, give him a stable lateral position! Remember that leaving a victim alone in a potentially serious condition is always contraindicated!

STROKE

Symptoms that may occur:

- ! paralysis of one side of the body
- ! ipsilateral facial weakness, paralysis (sinking under the corner of the mouth or eye)
- ! speech impediment
- ! swallowing-, balance- consciousness-, hearing and vision disorders
- ! nausea, vomiting
- ! dizziness, headache

NB! Not all signs are always present, sometimes it is difficult to detect a stroke.

Treat it like this: ➡ **CALL AN AMBULANCE ASAP!!** The position of waiting for an ambulance is a supine position, preferably with the upper body elevated by 30 degrees. If necessary, clear the airway. If necessary, give a stable lateral position.

NB! A stroke patient must not be left alone on his back - in case of vomiting, the patient/victim may not be able to protect himself from suffocation.

SHORT OF BREATH

The reasons can be very different, for example:

- › Myocardial infarction
- › Pulmonary edema
- › Pulmonary embolism
- › Asthma
- › Acute bronchitis
- › Pneumonia
- › High blood pressure

Symptoms that may occur:

- ! Disturbances/loss of consciousness
- ! Cyanosis
- ! Forced position
 - Sitting, body tilted forward, a whistling sound is heard when breathing (for example, in an asthma attack)
 - Sitting, body tilted back, patient/victim breathes with open mouth (for example, in the case of pulmonary edema)
- ! Whistles, wheezing
- ! Bubbling sounds
- ! Pink foam at the mouth

Treat it like this: ➡ Being calm is important. A semi-sitting or sitting position is best. Calm and slow breathing. Access to fresh air (NB! Not in the icy cold outside). Help the asthmatic to use an asthma pipe if he has one with him. Call 112.
Physical shortness of breath is life-threatening! Get ready for revival!

ALLERGY

Symptoms that may occur:

- › Red itchy rash
- › Wheezing and labored breathing
- › Raised or hardened areas of the skin
- › Signs of shock
- › Swelling

It is necessary to pay attention:

- ! The strength of the allergic reaction
- ! Reduce ailments
- ! **In the event of an acute reaction, call an ambulance immediately!**

Treat it like this: ➡ If the medicines are with the victim, they can take them. (NB! A patient/sufferer who is unconscious or has a severely swollen throat cannot swallow the tablets!) If possible, reduce throat swelling! If breathing is difficult, give a sitting position. If there is loss of consciousness or the patient/victim is unconscious, place him/her lying down.

NB!!! CALL AN AMBULANCE IMMEDIATELY IF:

- ! The patient has difficulty breathing
- ! The patient has signs of shock
- ! The patient/victim is unconscious

POISONING

In case of poisoning, you can call the poison control hotline 16662.

Poisons can enter the body:

- Breathing in
- When eating in
- By injection
- Through the skin

SWALLOWING

The following symptoms may occur:

- › Nausea
- › Vomiting
- › Abdominal pain
- › Convulsions
- › Heart rhythm disorders
- › Impaired consciousness

Treat it like this: ➡ Follow the victim. If necessary, call an ambulance. CPR if necessary.

ABSORPTION THROUGH THE SKIN

The following symptoms may occur:

- › Pain
- › Swelling
- › Skin rash
- › Redness
- › Itching

Treat it like this: ➡ Remove contaminated clothing. Rinse the contaminated area under cool running water for at least 10-15 minutes. If necessary, call an ambulance. Resuscitate if necessary.

BREATHING IN

The following symptoms may occur:

- › Difficulty breathing
- › Lack of oxygen
- › Cyanosis (gray-blue skin)
- › Cherry red skin with CO
- › Loss of consciousness

Treat it like this: ➡ Provide access to fresh air, avoid aggravation of poisoning. If necessary, call an ambulance. Resuscitate if necessary.

SPLASH IN THE EYE

The following symptoms may occur:

- › Pain
- › Wetting of the eyes
- › Blurred vision

Treat it like this: ➡ Rinse the eye from the inside out with cool running water. If necessary, call an ambulance.

IF THE POISON IS ENTERED INTO THE ORGANISM THROUGH A SKIN DAMAGE

The following symptoms may occur:

- › Pain
- › Redness
- › Swelling
- › Blurred vision
- › Nausea
- › Vomiting
- › Difficulty breathing
- › Convulsions
- › Disturbances of consciousness
- › Anaphylaxis

In case of wasp/bee sting, treat it like this: ➡ If possible, remove the needle/step. If necessary, bind the wound. Keep the limb below the surface of the heart. Cold application. Viper bite – call an ambulance. Be prepared for a life-threatening allergic reaction. In case of an animal bite, go to the ER (stranger animal).

CHILDBIRTH

The following symptoms may occur:

- › Severe back and stomach pain
- › Discharge of amniotic fluid

Danger signs:

- ! Position of the fetus different from the position of the head
- ! Amniotic fluid green
- ! Umbilical cord sinking into the birth canal
- ! Premature birth
- ! Bleeding in childbirth

Treat it like this: ➡ First aid - transport to hospital. If the above-mentioned danger signs appear, transport by ambulance. If the condition of the mother or child seems critical, always transport by ambulance. If the child is born at home, then:

- › if the umbilical cord is around the neck, remove it from there
- › clean the child's mouth and nose of mucus
- › start resuscitation if necessary
- › cover the mother and child warmly
- › place the removed placenta in a clean plastic bag
- › monitor the condition of the child and the mother

NB! Both mother and child must be taken care of during childbirth!

BURNS

The key words in handling are:

1. Stop the process
2. Adequate airways
3. Preventing infection

Treat it like this: ➡ If the clothes on the victim's back are on fire, put out the burning clothes with a blanket or carpet. Cool the burned area under running cold water or by holding it in water. Do not open the blisters, if necessary put a clean bandage on the burn. Protect the burnt one from cooling down. In case they occur breathing difficulties, then place the patient/victim in a half-reclining position. If necessary, call an ambulance.

Important to remember:

- ! Do not apply butter, oil, sour cream, cream, Panthenol (for first aid)
- ! NO, you can't pee on it, you can't put soil on it!
- ! **Only cool water and Burnshield gel apply to the burn!**

ELECTRIC BURNS

Symptoms may occur:

- › Burning
- › Blood circulation disorder
- › Cardiac arrest
- › Pain
- › Limb charring (for example, high voltage)

Treat it like this: ➡ Concentrate for 5-10 seconds, avoid panic. Do everything you can to prevent further casualties. Determine whether you yourself can safely approach the victim. Protect yourself. Reassure the victim, keep warm, resuscitate if necessary!

HEAT STROKE

The reasons may be:

- › High outdoor temperature
- › Inappropriate clothing
- › Heavy physical work in the heat

The following symptoms may occur:

- ! Increased body temperature
- ! The skin is red, dry
- ! Dizziness
- ! Confusion, apathy
- ! Nausea
- ! In more severe cases, convulsions

Treat it like this: ➡ Move to a cool, shady place. Take some of the clothes off of the victim. Start with cooling. Cool drink. If necessary, call an ambulance.

SUNSTROKE

The reasons may be:

- › Excessive exposure to the sun
- › Uncovered head or dark head covering

The following symptoms may occur:

- ! Dizziness, pain
- ! Nausea
- ! Restless
- ! Disorder of consciousness
- ! In a more severe condition, seizures

Treat it like this: ➡ Move to a shady, cool place. Place the victim in a supine position. Start cooling. Cool drink, if the victim is conscious. Stay with the victim and call an ambulance if necessary.

FREEZING AND HYPOTHERMIA

FREEZING

Signs of freezing:

- ! Pinching sensation
- ! Pale skin
- ! Skin numbness
- ! Thickening and hardening of the skin
- ! Blisters
- ! Necrosis

Treat it like this: ➡ Warm the frozen limb slowly. First, remove the coverings from the frozen limb. Warm the limb between your hands, avoiding rubbing. The limb can then be placed in warm water. Cover with a fluffy bandage. If necessary, call an ambulance.

HYPOTHERMIA

Signs of hypothermia:

- ! Trembling
- ! Cold, pale, dry skin
- ! Apathy
- ! A state of confusion
- ! Drowsiness or loss of consciousness
- ! Slow, shallow breathing
- ! Slow, weakening pulse

Treat it like this: ➡ Avoid further hypothermia. Remove wet, damp clothes. Warm up victim slowly. A warm drink. Warm blankets. Put a hat on the victim! If necessary, call an ambulance.

BONE FRACTURES

Classification:

- Closed fractures
- Open fractures

Treat it like this: ➡ Avoid moving the injured area. Arrange rapid transport of the victim to the hospital. If necessary, call an ambulance.

Signs of bone fracture:

- ! Pain
- ! Hematomas
- ! Shortening of the limb, change in the shape of the limb
- ! Crepitation above the fracture, abnormal mobility in the fracture area
- ! Some kind of hard tip under the skin

SPRAINS

Possible signs:

- ! Pain, swelling
- ! A change in the shape of the joint

Treat it like this: ➡ Applying cold to the injured area. Rest the limb. Be sure to go to the hospital to find out the nature of the injury.

WOUNDS AND BLEEDING

Treat it like this: ➡ Protect yourself and, if possible, keep the wound clean. Clean, bind, or apply a band-aid to a wound that does not require suturing. Bandage a wound that needs stitching and go to the hospital if the condition allows. Apply pressure to the wound. If necessary, make a pressure bandage. Elevate the injured limb above the level of the heart. Lay the victim down and, if possible, cover him with something (such as a thermal blanket) to keep him warm. If necessary, call an ambulance.

If a foreign body is in the wound, treat it like this: ➡ Stop the bleeding without pushing the foreign body deeper into the wound. Firmly press the edges of the wound together on both sides against the foreign body that has entered. Secure foreign body wound - but be careful with pressure. Fix the body part in a raised position. Avoid shock formation or reduce its effect by laying down the victim. Reduce the risk of infection as much as possible. Arrange the victim's transport to the hospital. If necessary, call an ambulance.

AMPUTATION

In other words, complete or partial separation of a part of the body

- › Cuts
- › Bruises
- › Blast injuries (for example explosions)

Treat it like this: ➡ Stop the bleeding. Cover the wound with a clean bandage. If possible, give a shock position. Call ambulance. Be with the victim. If possible, put the amputated body part in a clean plastic bag and bring it to the hospital.

NOSE BLEEDS

The reasons may be:

- › Nasal trauma
- › High blood pressure
- › Strong sniffing

Treat it like this: ➡ Tilt the victim forward to prevent blood from entering the throat. Press on the bridge of the nose. Place cold on the back of the head and forehead.

NB! If possible, let the blood run into a container so that the amount can be estimated if necessary.

SPINAL TRAUMA

The reasons may be:

- › Traffic accident
- › Falling
- › Sports
- › Jumping into water in an unknown place!!!
- › Violence

Possible signs:

- ! Pain
- ! Hematomas
- ! Tingling under the skin
- ! Emotional disturbances
- ! Paralysis
- Deformation

NB! None of the aforementioned symptoms may be present. Possible spinal trauma presence is assessed taking into account the trauma mechanism.

Treat it like this: ➡ Your safety first! If at all possible, **DO NOT MOVE the victim!!**

NB! Monitor the airways, bleeding, vomiting, blood spilling into the respiratory tract! ONLY IF EXTREMELY NECESSARY and IF YOU HAVE THE SKILLS to do so, put a neck splint and give the lateral position on the one-piece principle!!

ABDOMINAL INJURY

Possible signs:

- ! Wounds
- ! Hematomas
- ! Foreign bodies

Treat it like this: ➡ Stop the bleeding. Give the victim a suitable position. Cover with a blanket, keep the victim warm and calm him down. If needed call an ambulance and attend to the victim.

NB! Do not give food or drink!

CHEST WOUND

Possible signs:

- ! Wounds
- ! Hematomas (or bruises)
- ! Bone deformities
- ! Foreign bodies

Treat it like this: ➡ If the victim is conscious, put him in a supine position, calm him down. If the patient/victim is unconscious, lay him down.

HEAD TRAUMA

Possible signs:

- ! Wounds
- ! Hematomas
- ! Bone deformities
- ! Skin color, dryness or moisture
- ! Pupils
- ! Blood or other secretions

In addition, there may also be:

- ! Balance disorders
- ! Loss of consciousness
- ! Nausea, vomiting
- ! Confused speech
- ! Bleeding
- ! Pain

Treat it like this: ➡ Put cold on the bump (bruise). Stop the bleeding, calm the victim. Lay the victim down, observe. If necessary, call an ambulance.

FRACTURE OF THE SKULL

Possible signs:

- ! Headache
- ! Bleeding from the nose and/or ears
- ! Clear fluid discharge from the nose and/or ear
- ! Loss of consciousness
- ! A state of confusion
- ! Cramps
- ! Hematomas behind the ear and/or around the eyes
- ! Pupils of different sizes
- ! Restlessness, irritability
- ! Drowsiness
- ! Confused speech
- ! Balance disorders
- ! Visual disturbances
- ! Nausea, vomiting
- ! Swelling
- ! Neck stiffness

Treat it like this: ➡ Find out if the victim is conscious. Suspect spinal injury. There is a risk of aspiration in the case of a fracture of the bones of the facial skull! If you suspect a skull fracture, call an ambulance.

SHOCK

It is a life-threatening condition that occurs when the amount of circulating blood decreases, causing insufficient blood and oxygen supply.

Possible reasons:

- › Traumas
- › Blood loss
- › Burns
- › Heart diseases
- › Allergy

Possible signs:

- ! Pale, sweaty skin
- ! Fast pulse (mostly)
- ! Cold to the touch
- ! The victim often asks for a drink
- ! Vomiting
- ! Fear
- ! Disturbances of consciousness (restlessness, inappropriate behavior, retardation, drowsiness)

Treat it like this: ➡ Lay the victim down. If there is bleeding, stop it. Cover the shock victim with a warm blanket (for example, a thermal blanket). Reassure the victim. Do not give food or drink. If you suspect shock, call an ambulance!

NB! DO NOT KEEP THE VICTIM UP!

REVIVAL

1. Lay the victim on the floor
NB! It is not possible to revive a person on a soft surface!
2. Remove the clothes from the chest!
3. The following must be checked in the following order:
 - a. is he conscious
 - b. is he breathing
 - c. what color is the skin tone

If the victim is unconscious and not breathing, start CPR.

PERFORMING CPR

- The victim is pale: 112 - 30:2:30
- The victim is cyanotic: 2(5):30:2 – 112 – 30: 2
- Give resuscitation to the child in a ratio of 2(5):15

- For a newborn, do it 1:3

MOUTH-MOUTH BREATHING

1. Push the head back by placing one hand on the victim's chin and the other on the forehead.
2. Pinch the victim's nose with the hand on the forehead. When resuscitating a stranger, use a resuscitation mask with a bacteria filter.
3. Place your mouth around the patient's mouth so that no air escapes. Blow while keeping your eyes on his chest and if you see it rise, that's enough.
4. Chest compressions should only be interrupted for artificial respiration. The interruption must be of minimal time consumption, it should not take more than 5 seconds to perform two artificial respirations.
5. Avoid blowing air into the stomach instead of the lungs to ensure the victim's airway is open during CPR!

CHEST COMPRESSIONS

1. Find the right spot on the sternum (lower third). Kneel next to the victim and lean over the sternum so that your hands are directly under you.
2. Then place your crossed hands there so that only the palm is against the skin.
3. Press with straight arms so that the chest sinks 5-6 cm.
4. Hands must be in contact with the skin at all times. If it is a stranger, and you do not have a resuscitation mask with a bacteria filter and you decide not to risk your health and not to perform artificial respiration, **you must not stop chest compressions!**
5. CPR is terminated when
 - a. an ambulance arrives
 - b. the victim shows signs of life or
 - c. the helper's power reserves are exhausted.

IN CASE OF INJURY OR ILLNESS AT WORK

GET MEDICAL HELP

Your employer is responsible for providing first aid - find our Safety Team members to get help. Go to the doctor or hospital if you need treatment. Call 112 if needed.

DOCUMENT

Tell your employer about your injury or illness. They investigate and keep a record of what happened.

REPORT TO THE IQSMS

Employees must report as soon as possible if an injury or illness happens. You can report via IQSMS (or send the form to e-mail accident@magneticgroup.co).

LET'S WORK TOGETHER

We work with you to help you recover, return to work, and safely go home.

Questions? We are here to help.

For details, visit Magnetic HUB:

<https://magneticmro.sharepoint.com/sites/HealthAndSafety>

