

# First aid



## Organizing, Copy-Editing and Reviewings

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## **CHAPTER 1**

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- *Evaluation of the victim's condition*
- *Call for help*
- *Steps to take when administering First Aid*
- *First Aid Kit*
- *Basic Personal Protection for the First Aid giver*

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## CHAPTER 1

### FIRST AID

- *Definition*
- *Evaluation of the victim's condition*
- *Call for help*
- *Steps to take when administering First Aid*
- *First Aid Kit*
- *Basic Personal Protection for the First Aid giver*



#### Definition

First aid is the **immediate** and **temporary** care given to an accident victim or someone who fell sick until transfer to hospital.

**The aim**, is to preserve life, prevent the deterioration of the situation, alleviate pain and help for the resuscitation.

Keeping **calm** and **knowing** is of paramount importance during first aid administration.

#### Evaluation of the condition of the victim

- Always act according to a plan, keeping in mind basic actions that need to be carried out in case of emergency
- Ensure both your and the victim's safety
- Evaluate victim's condition (level of consciousness, pulse, breathing)
- Call for help – call 166 if needed.

Calling for help Calling for help in a timely fashion ensures that the victim receives immediate medical attention.

Calling for help should be done carefully because the information supplied is critical to determine the type of help that will be given and thus the preparation of the medical team assigned. Below, are things that should be mentioned:

- ✓ Whoami
- ✓ Where did the accident take place
- ✓ When did it take place
- ✓ How (witness)
- ✓ How many victims are there
- ✓ Conditionofthevictims



**CAUTION!!! NEVER HANG UP FIRST, LET THE PARAMEDIC TEAM TERMINATE THE CALL!!!**

#### USEFULL NUMBERS TO KNOW

##### European Emergency Number

##### 112: The number to remember when in a European Union country

112 is the European emergency number. Call to this number is **free of charge** and can be used to reach emergency services in all European Union countries. It is a very useful number to any person traveling in E.U. countries should an emergency occur.

112 operates in all countries that are members of the European Union along with the national emergency numbers. In some countries though it is the only number to call. The Number is also operation a line in some countries outside of EU, such as Switzerland and South Africa.

In Greece, 112 operates 24 hours, 7 days a week and connects the caller to services according to the nature of the help needed. Such services are:

Police  
 Fire  
 Brigade  
 Ambulance service  
 Coast guards National SOS line 1056  
 European line for missing children 116000

- The specialised operators answering calls to 112 can respond in **Greek, English and French.**
- Calling 112 is free of charge and can be done from **a landline or a mobile phone (even without SIM card)**
- Calling 112 can be done from phone booths without the use of a pre paid phone card
- 112 operates with in range of every mobile phone carrier. If the area of the incident is not covered by the specific carrier that the mobile phone is issued to, the call will be carried out through other mobile phone carriers automatically.
- By calling 112 the operators can pinpoint the location of where the call is made from.

First Aid Station	150
Fire Brigade (Forests)	191
Fire Brigade	199
Coast Guard	108
Police Headquarters	133
Police (Emergency Number)	100

**112 SOS** Stay **SAFE** in Europe!

**Emergency in the EU?**

Call **112** anywhere **in the EU** free of charge, 24/7 for

- ✓ police
- ✓ emergency medical services
- ✓ fire brigade

Visit [www.my112.eu](http://www.my112.eu) for more information

### Steps to take when administering First Aid

Before commencing administering first aid you should first recognize the problem, think of the factors that aggravate the situation and then follow with actions that will eliminate those factors, that is, give first aid.

- Problem Recognition:

Every wound or illness presents itself in different ways that could help diagnosis. Those manifestations can be broken down in two categories: symptoms and signs..

- A symptom is what the patient feel sand can describe.
- A sign is what you can perceive with your senses during the evaluation (vision, touch, hearing, smell).

### Additional guidelines for First Aid administration.

- *Do not move the victim unless it is pertinent for safety reasons.*
- *Calm the victim down*
- *Cover the victim and keep it warm.*
- *Call a doctor or an ambulance.*



### First Aid Kit

First aid kit should contain:

### **DRUGSSUPPLIES**

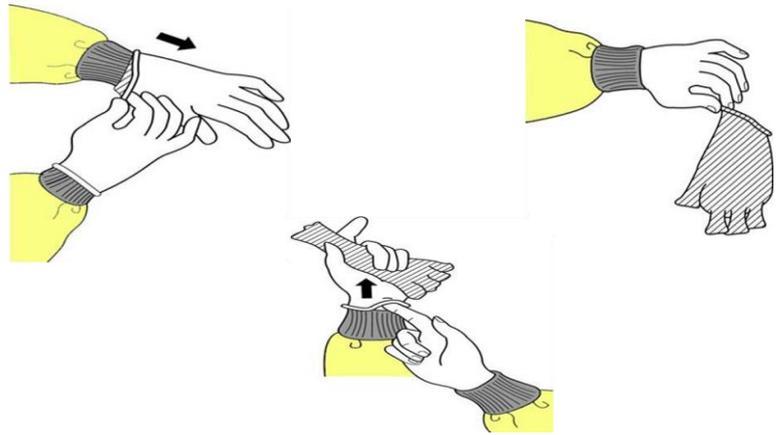
	Cotton
	Sterilized Gauzes/ fucidin
Antiseptic	Bandages
Saline	Leucoplast
Analgesic - antipyretic	Thermometer(avoid mercury)
Antihistamine cream	Scissors
Activated charcoal	One use syringes
	Casts/ Safety Pins
	One use gloves
	Oropharyngeal airway/Ambou
	Torch/Mylar Blanket
	Pen and Paper
	Dry Ice–Ice packs

**CAUTION:**Never administer drugs without doctor'sorders!

### **Basic Equipment for Personal Protection**

**Gloves** can help protect the First Aid giver from infection, so unsterilized gloves can be used. Just be sure they are clean and intact. Always keep in mind the danger of in factious diseases.

**Masks** and face shields along with gloves are very important in the protection of the first aid giver since they can protect from Hepatitis A and B as well as HIV transmission. Face shields offer maximum protection and can be found in a solid and durable case.



## CHAPTER 2

*First Aid during :*

- *Fainting – Loss of senses*
- *Concussion*

### **FAINTING**

Fainting: it can happen to anyone!

3 out of 10 people have experienced fainting at least once in their lives. Fainting might occur due to a variety of reasons, especially during summer.

**Fainting** is the brief loss of senses due to the temporary restriction of the blood flow towards the brain. Recuperation is usually quick and full. A fainting episode usually lasts less than a few minutes and is followed by quick recovery.

In most cases there is no reason to worry since only few of fainting causes are serious. What ever though the cause is, the mechanism off a in ting remains the same: sudden restriction of the blood supply to the brain or drop in blood sugar levels. This is followed by weakness and loss of consciousness, usually for a brief period of time. Extended loss of consciousness is rare. After the fainting episode, usually there is no confusion but the symptoms might come back if the person tries to stand up or sit down too fast.

➤ Before fainting the person might feel

- ✓ Dizziness
- ✓ Ringing in the ears
- ✓ Nausea
- ✓ Blurred Vision
- ✓ Cold Sweat

➤ A person during fainting exhibits :

- ✓ Paleness
- ✓ Slow and weak pulse
- ✓ Shallow breathing
- ✓ Low blood pressure



**First Aid:**

- Lie victim down and raise feet to improve circulation
- Lift legs above heart level
- Tilt head to the side to avoid aspiration
- Loosen tight clothes (belt, tie, bra)
- Ventilate the place and move away on lookers
- Check breathing and pulse
- Administer liquids when victim regains consciousness.
- If heat is the causal factor transfer the victim in a cool place and further cool the body down using wet towels
- When victim regains senses do not let it stand up for about a quarter of an hour

**How to prevent fainting**

If one feels that fainting is imminent, lie down quickly and try to bend legs so as blood flow to the brain is ensured. If lying down is not an option try to sit down with legs bent towards the chest. If the situations leading to fainting are known (extended standing upright) avoid them or change them. Usually there percussions of a fainting episode are not serious

**When to worry**

A simple fainting episode rarely signifies an indication of an underlying serious condition. If it is an isolated incident and there are no other health problems there is no need to worry, although notifying a pathologist is always a good idea. If fainting episodes are recurrent, then visiting the doctor is the best course of action.

**Contact the doctor if the person that has fainted:**

- ✓ Is not making a quick recovery
- ✓ Suffers from diabetes
- ✓ Feels pain, pressure or chest dysphoria
- ✓ Has strong or irregular heart beat
- ✓ Has lost the ability to speak, has visual disturbances or difficulty moving the limbs
- ✓ Has seizures, tongue trauma or urinary incontinence
- ✓ Is pregnant
- ✓ Is above 50 years of age

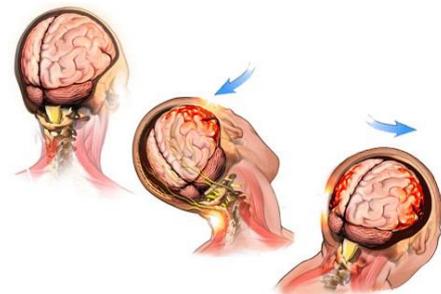
**CONCUSSION**

Concussion is caused after injury or violent shake of the head.

**What is a concussion:**

Brain concussion, which is the full term, is the violent shaking of the brain in the skull. It is by far the most common brain injury, since it can be caused by any sudden blow to the head.

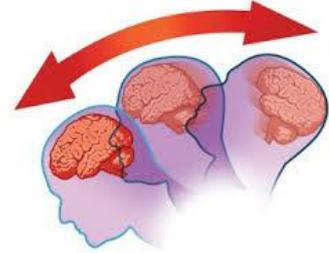
There is also a characteristic lack of any brain cell damage.



Examples of ways a concussion can be caused can be seen in the picture.

After a concussion is caused, loss of senses can follow. The most common symptoms of a **concussion** are:

- ✓ Nausea and vomiting
- ✓ Amnesia
- ✓ Quick pulse
- ✓ Partial or temporary loss of consciousness
- ✓ Cold skin
- ✓ Intense dizziness
- ✓ Paleness of face
- ✓ Difficulty in movement
- ✓ Restricted or loss of vision



#### **FirstAid:**

As it is already known, first aid does not aim to treat but to stabilize the victim until proper medical care can be given. Course of action is as follows:

- In spect that here is no danger for us.
- Immobilize the victim.
- Keep airways of the victim open.
- Every ten minutes check breathing and pulse.
- Check if breathing is regular
- We do not move the victim since brain or spinal cord damage may be present.
- Check if the victim can answer simple questions (“Are you hurt?”, “What’s your name?”)
- Keep victim warm.
- Transport ot hospital if lethargy ,confusion or nausea a aispersistent.
- Keep for 48 hours under supervision.

When victim regains senses after a concussion, a confused state might follow of different individual duration after which clarity will be restored. Nausea may follow. If immediate medical attention is late, keep the person warm, immobilized, and check every two hours if the person is sleeping. If the person has regained consciousness check every ten minutes that it is coherent and movement is normal. In children check if sleeping every 1.5 hour. Temporary amnesia might follow which resolves in an hour but there are symptoms hinting specifically to more serious brain damage. For example if headaches develop and continue past the two hour point, concurrently with dizziness and nausea medical attention is needed. **A list of symptoms is as follows:**

- Epileptic seizure
- Deteriorating headache
- Difficult arousal
- Double Vision
- Inability to recognize people and places
- Continuous vomiting
- Significantly altered behavior
- Anisocoria (Difference in pupil sizes of each eye)

## **CHAPTER 3**

### **Bleeding**

- External bleeding first aid
- Internal bleeding first aid
- Nose bleeding

- Brain hemorrhage
- Abdominal bleeding
- General guidelines for internal bleeding

### **Bleeding**

**Bleeding** is defined as the acute loss of blood circulating in a human. Although there are differences, the normal blood volume in an adult is about 8% of the body weight. A 70 kgm adult has 5.6 litres of blood. For children this varies from 8-9% bodyweight.

Bleeding occurs when blood escapes veins, arteries or capillaries

- Bleeding can be internal or external
- Bleeding is categorized based on the type of vasculature affected

#### Generally about Bleeding

Bleeding types can be distinguished as

- ✓ **Arterial**, where blood is of bright red color and is gushing with pressure and pulse from the wound. Sometimes the gushing happens in rhythm with the arterial pulse frequency
- ✓ **Venous** where blood is dark red and simply flows out of the wound
- ✓ **Capillary bleeding**, where the bleeding is not that prominent, the color is between arterial and venous blood and spreads around the wound.
- Mixed bleeding seen in serious injuries and includes all types of vasculature.
- The **general clinical symptoms** of a medium or extensive bleeding are:
  - ✓ Paleness,
  - ✓ Sweating
  - ✓ Vomiting
  - ✓ Shallow breathing
  - ✓ Quick and weak pulse
  - ✓ Irritability
  - ✓ Dizziness ( $\pm$  loss of senses)
  - ✓ Thirst
  - ✓ Little to no urination
  - ✓ Cold limbs
  - ✓ Wet and cold, clammy skin
- First Aid in External Bleeding

In order to treat bleeding, the general rule is to minimize blood flow using pressure.

When an artery is injured the blood is bright red, comes out in pulses and the injured person can quickly go into shock.

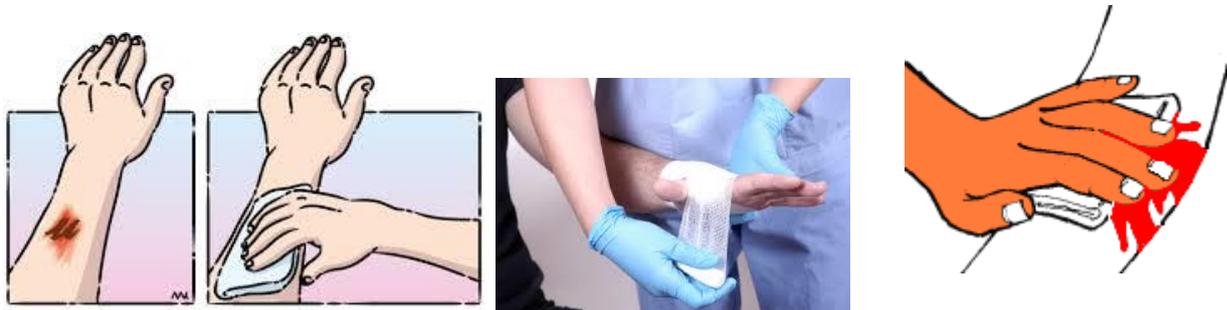
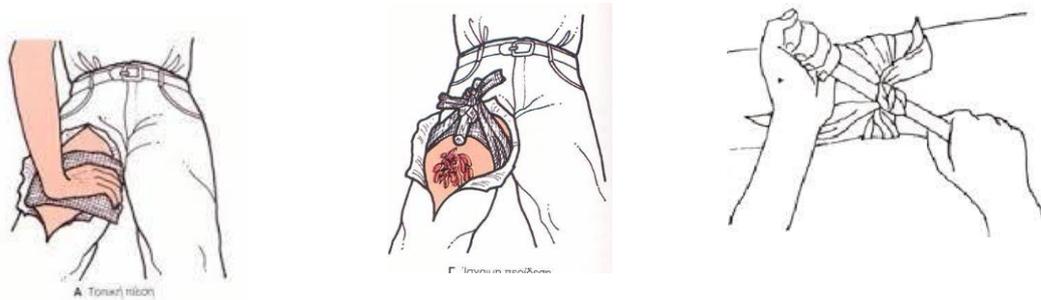
The above symptoms can be accompanied by **the following signs**:

- Hypotension of varying degree
- Tachycardia
- Quick breathing,
- Hypoxia

#### **How to treat External Bleeding :**

- ✓ Apply steady and strong pressure on the wound using a gauze or clean cloth.
- ✓ If there is a foreign object in the wound (for example glass) apply pressure side ways.
- ✓ If the bleeding happens to a limb (hand or foot) and we are sure there is no bone fracture, try to raise it above heart level which will minimize blood flow and help attenuate the bleeding.

- ✓ If the bleeding is persistent and includes an artery , we can apply pressure on the respective main artery (not advised for in experienced practitioners)
- ✓ Using a tourniquet to completed stop blood flow is reserved for grave situations and when the limb has been severed.
- ✓ Cover the wound .
- ✓ Call for medical help



➤ First aid for Internal Bleeding

Nose Bleeding is called the escape of blood from the nose and can be a symptom of a local or generalized condition.

**Nose Bleeding** (Epistaxis) can happen in people of all ages but it is more common in the elderly and the children. In child renusually the nose bleed happens at the anterior portion of the nose, usually at the anterior part of the nose diaphragm (Kiesselbach'sspot ). In elderly patients nose bleed can originate further inside the nose, towards the posterior part, and can not be fully evaluated at home without the help of a trained person. International reports indicate that about 15 in 10000 each year will ask a trained person's help to control nosebleeds and about 1,6 in 10000 will need hospitalization. From the portion of people requiring hospitalization 29% will need a blood transfusion and 5,6% surgical intervention. Nose bleeds are more common in northern climates and during winter since low humidity can dry the nose mucosal membranes.

The clinical image can vary from a mild case of nose bleed to serious nosebleed that in some cases could even kill the patient. In morer are cases the blood might flow at the back of the throat and be evident through spitting or vomiting, which can complicate differential diagnosis.

**We classify** nose bleeds as nosebleeds of the **anterior part**, nosebleeds of the **posterior part** and upper nose. Anterior nosebleeds are the easier to control, whereas as mentioned before posterior nosebleed are more common in the elderly and originates from the sphenopalatine arteries.

## Nosebleed First Aid :

- ✓ Put the person to sit with the head tilted forward.
  - ✓ Press the soft parts of the nose for 5 to 10 minutes.
  - ✓ If the nosebleed does not stop try anterior plugging of the nose using forceps and a gauze dipped in hydrogen peroxide. Remove gauzes when 24 hours have passed to avoid infection.
  - ✓ If nosebleed continues, make sure the person is administered to the hospital
- Predisposition factors for nosebleeds
- Inflammation  
Trauma , especially one caused by fingers during nose picking observed in children
  - Allergic and non allergic rhinitis
  - Hypertension
  - Use of anticoagulants
  - Alcohol abuse
  - Less common factors include tumors and genetic mutations affecting blood clotting mechanism
  - Hormonal changes during pregnancy may increase tendency of bleeding.
- What prophylactic measures can be taken for the prevention of nosebleeds
- The most common cause for nosebleeds is drying of the mucus membranes of the nose. If a person suffers from frequent nosebleeds, one way of dealing with it is moisturizing the these with a special ointment which can be applied using a Q-tip or the finger tip. Many people use different therapies such as A+D nose cream , Vaseline, or saline solution (Physiomer Spray)
- When should the doctor be called or administered to a hospital?
- ✓ If the bleeding cannot be stopped
  - ✓ If the bleeding is intense or patient loses large volume of blood
  - ✓ If you feel weakness or fainting
  - ✓ If the bleeding is combined with head trauma or loss of consciousness
  - ✓ If the bleeding is combined with fever or headache
  - ✓ If you infant or child has nosebleed contact your ear-nose-and-throat surgeon



Nosebleeds can be classified under 4 categories depending on the amount of blood loss. In the following chart they are summarized depending on the patient's initial condition.

Class of haemorrhagic shock				
	I	II	III	IV
Blood loss (mL)	Up to 750	750–1500	1500–2000	> 2000
Blood loss (% blood volume)	Up to 15	15–30	30–40	> 40
Pulse rate (per minute)	< 100	100–120	120–140	> 140
Blood pressure	Normal	Normal	Decreased	Decreased
Pulse pressure (mm Hg)	Normal or increased	Decreased	Decreased	Decreased
Respiratory rate (per minute)	14–20	20–30	30–40	> 35
Urine output (mL/hour)	> 30	20–30	5–15	Negligible
Central nervous system/ mental status	Slightly anxious	Mildly anxious	Anxious, confused	Confused, lethargic

### **IN A GLANCE :**

#### **How to treat bleeding:**

- Wear gloves and press the bleeding point for 5-10 minutes with the fingers or the palm (direct pressure)
- Apply clean gauzes or clean cloth on the injury and tie with elastic band. If the injury bleeds through the band use extra gauzes and continue tying it with the band without removing the first set of gauzes.
  - Call an ambulance and ensure transport to hospital if blood loss is extensive.
  -

#### ➤ **Brain Bleeding**

Brain bleeding is defined as the non controllable bleeding in the brain. It can happen due to an injury or rupture of brain blood vessels.

#### **Symptoms :**

- ✓ A sudden and serious headache
- ✓ Spasms without previous medical history
- ✓ Weakness in one arm or leg
- ✓ Nausea or vomiting
- ✓ Lowered arousal
- ✓ Lethargy
- ✓ Changes in vision
- ✓ Stinging or numbing sensation
- ✓ Difficulty in speech or understanding of language
- ✓ Difficulty in swallowing
- ✓ Difficulty in reading or writing
- ✓ Loss of fine hand movement
- ✓ Loss of coordination
- ✓ Loss of balance



- ✓ Loss of consciousness

### **Treatment of brain bleeding:**

- Call for emergency pre hospitalization care
- Full immobilization
- Prefer a semi-prone position on the bed, with the head being higher than the rest of the body (use a pillow)
- Remove denture if present
- Loosen clothes
- If there is loss of consciousness position the victim in the recovery position
- **DO NOT** administer anything by mouth
- Cover the patient and ensure transportation to the nearest hospital

### Abdominal Bleeding

Bleeding from an abdominal injury is usually extensive and needs immediate attention. Internal bleeding from an injured organ can quickly become a threat to life.

### **Treatment of bleeding in the abdominal area :**

- ✓ Call for emergency pre hospitalization care
- ✓ Keep airways open and restore breathing if needed
- ✓ Put the person to lie on its back
- ✓ Relax the abdominal muscles by bending knees and putting a pillow under
- ✓ Apply direct pressure , if needed, to stop bleeding
- ✓ Do not attempt to remove any foreign objects
- ✓ If intestines are protruding from the wound do not try to push them back in
- ✓ Cover them with a cloth wetted in clean water
- ✓ Cover the whole area with sterilized gauze or clean cloth
- ✓ Keep the person comfortable and warm to avoid shock
- ✓ Do not give anything to the person to eat or drink. Stomach must be empty since surgical intervention might be needed

### General instructions for the treatment of internal bleeding

- ✓ Place victim in a safe position
- ✓ Loosen tight clothes
- ✓ Keep victim warm
- ✓ Keep victim confident
- ✓ Do not administer anything by mouth
- ✓ Check vital signs every 10 minutes
- ✓ Ensure that the victim is transferred immediately to the hospital

### ➤ **If breathing and pulse cease , start CPR**

## **Chapter 4**

### Poisoning

- First Aid in poisoning

#### *Generally*

Poisoning through digestive tract

a. *Poisons that get absorbed*

b. *Caustic poisons*

Poisoning through respiratory tract

Poisoning through contact

- Alcohol poisoning



➤ Food poisoning

Bites

➤ First aid in bites

- ✓ Snakebites
- ✓ Stings from bees and related insects
- ✓ Scorpion stings
- ✓ Jellyfish stings
- ✓ Poisonous fish stings
- ✓ Spider bites

Heatstroke

➤ First Aid in heatstroke

**POISONINGS**

Generally

Poisonings pose a major, global, healthy issue especially in developed countries. Basic causes of poisonings is the ever increasing access to a vast array of chemical substances and pharmaceuticals and the non-conformation to safety measures in their use and handling.

**A Poison** is defined as any external substance that when it enters the body it can cause temporary or permanent damage.. Theoretically all substances have that quality (depending on the dosage),but poisons are those substances that can cause harm to humans in a single administration in dosage less than 50 grams. Potent poisons are defined as the poisons able to cause harm when given in dosages less than 5 grams.

Poisons can enter the body either as an accident or purposefully through one of the following routes:

- From the digestive tract , usually by mouth when we eat or drink
- Through the respiratory system by inhalation of poisonous household or industrial gases, vapors of chemical substances or exhaust smoke from various machines.
- Through the skin (transdermal) by absorbance in the case of contact with poisonous droplets such as the ones given from insecticides or pesticides
- Through the skin by injection as can happen by snakes or insects as well as administration using a syringe

Damage caused by poisons :

Poisons can cause local or systemic damage to the organism

**Locally** chemical burns may appear at the site of the contact, such as severe burns on the lips, oesophagus and stomach that can be caused by caustic chemicals resulting in intense pain.

Other poison can cause intense local irritation such as vomiting or diarrhea that can be exhibited by the digestive system after administration by mouth, or dyspnea and cough if the poison is inhaled.

The **major** effect soft he poisons are the **systemic** ones which implicate the whole body

Some poisons can cause asphyxia by displacing the oxygen from the blood or impair its transport in the cells, while others can act on the central nervous system resulting in the impairment of vital functions such as breathing and blood circulation.

The **signs and symptoms** presented by the victim depend on the nature of the poison and the route of administration.

The severity of the poison depends on:

- Quantity of the poison
- The nature and toxicity of the poison (depressants/stimulants for example)
- Time since administration
- If the administration occurs on full of empty stomach

- Possible addiction/tolerance to the substance

## **POISONING THROUGH DIGESTIVE TRACT**

### **a. Poisons that get absorbed:**

First aid:

- ✓ Keep calm and acquire information from the victim or bystanders for the **kind** of the poison, the **dosage**, the **time** since administration.
- ✓ Call the poison control center 210-7793777.
- ✓ Act on the advice given by the center



### **b. Caustic poisons:**

First aid:

- ✓ Call poison control center 210-7793777
- ✓ DO NOT cause vomiting
- ✓ Administer fluids such as milk or water to dilute the poison
- ✓ Transfer the person to the hospital.
- ✓ Vomiting is also prohibited:
- ✓ In comatose patients
- ✓ In patients during spasms
- ✓ In pregnant women
- ✓ and of course in the case of caustic substances



## **POISONING THROUGH RESPIRATORY TRACT**

Carbon monoxide poisoning is considered very dangerous and can result from the incomplete combustion of carbon.

First Aid:

- ✓ Cover your nose and mouth before exposure to the danger in order to help the victim. Keep some one informed of your actions.
- ✓ Open windows .
- ✓ If you can turn off the leak age source of the poison. Do not use matches or lighters if flammable gasses are involved (danger of explosion/fire)
- ✓ Transfer the victim to a non contaminated area with fresh air
- ✓ Check vital signs and if needed employ CPR.
- ✓ Make sure the victim is transported to the hospital, support vital functions and administer oxygen.



## **POISONING** **THROUGH SKIN CONTACT**

There are many poisons (such as insecticides, herbicides, rodenticides) that have the ability to penetrate the skin and get absorbed systemically. Some of these poisonings are very serious and their victims should be transported to the hospital.

First Aid :

- ✓ Remove clothing items that have come in contact with the poison.
- ✓ Wash the affected area with ample water and soap.
- ✓ Ensure quick transport to the hospital

## **ALCOHOL POISONING**

It can be distinguished in chronic poisoning (alcoholism) or acute (drunkenness)

First Aid:

- ✓ Cause vomiting
- ✓ Administer sweet beverages such as sugar water or orange juice.
- ✓ Keep the victim warm
- ✓ Transfer the victim to the hospital if unconscious, after the victim is put in recovery position.

## **FOOD POISONING**

Food poisoning can result from foodstuff that is poisonous by their nature, or by food that has gone off.

First Aid:

- ✓ Cause vomiting.
- ✓ Administer activated carbon after emesis
- ✓ Treat diarrhea with foods such as rice, rusks, boiled potatoes or carrots, apple compote or banana.
- ✓ Treat dehydration with pharmaceuticals or administer ample fluids, like tea with lemon, cola type beverages (without CO<sub>2</sub>) .
- ✓ Take care for the gradual feeding of the victim.

**210-7793777 POISON CONTROL CENTER**

## **BITES**

Due to the Mediterranean climate of Greece, there is great biodiversity as far as insects and reptiles are concerned. People can come in contact with their poisons through bites or stings.

### Snakebites

Snake bites kill many people annually in tropical countries. In Greece, there are about 20 species of snakes that belong in 4 families. From those, the only venomous ones belong to vipers. In Greece there are 5 species of Viper. The first snake bites are noted during spring, after the winter hibernation, and generally at this time of the year their venom is most dangerous. After the first bite some hours are needed for the snake to produce a new stock.

In Greece, most snakebites are attributed to non venomous species hence they are rarely dangerous.

### Symptoms :

Symptoms can be **local or systemic**. Some of them are :

#### **Local :**

- In tense pain where the bite happened.
- Hands swelling with blisters



### **Systemic :**

- ✓ headache,
- ✓ nausea,
- ✓ vomiting,
- ✓ sweating,
- ✓ fever,
- ✓ tachycardia,
- ✓ drop in blood pressure
- ✓ cataplexy.

### Also the following may appear :

- ✓ Shivering, spasms, lung edema, acute kidney failure, coma, death.
- ✓ It is of great importance to monitor blood clotting, hematocrit and hemoglobin levels.

### First aid

In order to treat a snakebite it is of prime importance for the victim to remain calm and still, since this will **hinder quick absorbance of the poison**.

It is advised to wash the affected area using water and some. Τοπικώς στο τραύμα συνιστάται καλός καθαρισμός με σαπούνι και νερό. Antitetanic serum can be administered if the person is not properly vaccinated followed by the use of antibiotics. Liquids can be also administered as well as antihistamines, cortisone and pain killers. In order to remove the poison the affected area can be opened up and the poison can be removed using mechanical pressure, although keep in mind that it is not advisable according to the latest guidelines since this usually proves inefficient and causes further damage to the tissue and increases the chance for infections. .

Local or systemic symptoms can be treated by the administration of antivenom serum. There is no time limit for its administration and the administration takes place when needed without compromise in its efficacy. The administration is intravenous and before it an allergy test should take place by injecting subcutaneously a small amount (0.1ml of serum)

### Stings from bees and wasps

Stings from bees differ from stings from other insects because the stinger stays on the spot continuing to release poison even after the removal of the insects. In non allergic individuals, reaction to the poison is local with pain, mild swelling, redness and itchiness. The whole reaction lasts from one to couple hours. If the sting takes place in soft tissues such as eyelids or genitals then the swelling might cover a larger area. In individuals sensitized to the poison (allergic) there can be an intense local but also systemic anaphylactic response.

A toxic reaction can also be observed when there are multiple stings from many insects. More than 30 stings can be dangerous, causing generalized swelling, somnolence , fever fainting, spasms hypotension even kidney failure. The treatment is supportive, that is keeping vital systems functional.

### Symptoms :

- ✓ Immediate local pain
- ✓ Localized swelling
- ✓ Allergic or allergic cataplexy symptoms

### First Aid :

- ✓ Wash affected area with soap and water
- ✓ Remove stinger
- ✓ Apply cold item around entry point
- ✓ Use local corticosteroid cream (Filocot or Betnovate)
- ✓ Administer antihistamine pills/ antiallergy medication (Xozal)
- ✓ Use Epi Pen in the case of allergic reaction (adrenaline)



### Scorpion stings

#### Symptoms :

- Local intense pain, swelling, color changes at affect area, inflammation, necrosis

#### First Aid :

- ✓ Tie above sting spot in a way that venous circulation is hindered but arterial remains un affect. Untie the know every 15 minutes for 5 minutes at a time
- ✓ Apply cold items
- ✓ Intravenous cortisone (Solu Cortefi.v.)
- ✓ Transport to hospital

### Jellyfish stings

Jellyfish stings usually cause local reactions but rarely they can be systemic. Local reactions include feeling of burning (described as electric shocks by the victim), itchiness, reddening of the area, blisters and swellings whereas the part of the skin that came with contact displays characteristic marks. After 10 or 15 contacts allergic reactions can be observed such as muscle weakness, vomiting, headache, muscle spasms, difficulty in breath in , diarrhea and rarely cataplexy. If there are parts of the jellyfish still on the skin they can be removed using talk powder.

#### Symptoms :

- Intense burning pain, swelling, reddening of the area
- General signs can be present such as shivering, bad mood and nausea
- Signs of allergic cataplexy

#### First Aid :

- ✓ Apply gauzes with high ethanol content (alcohol oral coholic drink if first not available)
- ✓ If those are unavailable, use warmes al ted water or vinegar
- ✓ Caution: Using only water can make symptoms worse
- ✓ Use local corticosteroids, painkillers and antihistamines
- ✓ In the case of allergic reaction accompany the individual to the hospital

### Stings from poisonous fish

In Greece ,three species are poisonous: we evers, scorpion fishes and moray eels. Symptoms are usually intense local pain and swelling that can spread to the torso or the whole affected limb. Rarely systemic symptoms might develop such as rapid heartbeat, tiredness and drop in blood pressure. Treatment includes local anesthetics (xylocaine), pain killers and antihistamines.

### Stings from spiders

There is a variety of spiders in Greece, which are all theoretically poisonous, but few can actually inject their poison in humans. In Greece, only the Latrodectus (BlackWidow) and Doxoscelles genus can cause local and systemic symptoms.

Doxoscelles: Symptoms generally begin 2-8 hours after the sting and they include local red ness , swelling and itching. The damage dare a might have a whitish halo, might develop a scab and necrosis. Initially they leave a scar. Rarely, 24-72 hours after the sting, generalized symptoms might occur such as fever with shivering, nausea, vomiting malaise, muscle pain, spasms, disseminated intravascular coagulation or hemolysis.

Latrodectus: 10-20 minutes after the sting, there might be pain in the affectedly mphnodes, local redness and cyanosis. Systemic symptoms follow such as chest, lower limb and abdominal pain. It is common for intense agitation, sweating and lacrymation (tears) to appear. Symptoms subside after a few days but weakness and muscle pain might persist for weeks.

Therapy in both cases includes topical antiseptics, antitetanic serum and symptomatic therapy.

## HEATSTROKE

Heatstroke is an emergency where body temperature rises and it can be lethal. During heat stroke , the human body can not dispose of its heat through sweating. It usually occurs where we are at an environment with increased temperature and humidity at the same time. Other causes for heat stroke is intense work involving the muscles in an enclosed space and heavier that appropriate clothes for the season. Also dehydration, diseases of the circulatory system, drug intake, excessive intake of food or alcoholic drinks and a combination of the above factors.

### Symptoms:

Signs and symptoms of heatstroke include:

- Redness of the face.
- Increased body temperature (41 to 42 degrees Celsius)
- Vertigo, nausea, vomiting
- Increased perspiration at first, then skin turns dry, red and hot.
- Headache.
- Rapid breathing and rapid heartbeat
- Exhaustion
- Loss of consciousness – altered behaviour
- Spasms
- Coma



### First Aid :

- ✓ Individuals suffering heat stroke should be transferred with out de lay to a cool, shadowy and if possible well aerated space.
- ✓ Lie the victim on its back and deny access to curious on lookers
- ✓ Aerate the victim using anything possible ( fans, pieces of carton)
- ✓ Remove heavy clothing items and cool down the victim
- ✓ Administer fluids if possible



## Sunstroke

**Sun stroke** is a **pathological condition** that canaries during summer after prolonged sun exposure. During sunstroke, the human body produces or attains more heat that it can manage. In this case ,body temperature may rise and fever may develop. Sunstroke can happen in tired individuals usually in children (thinner skull bones) and the elderly. Symptoms can range from mild to heavy. Humans have the ability to keep their temperature constant between certain limits with the help of thermoregulatory mechanisms(36,8+/-0,4 degrees Celsius). In high temperatures the body exudes the redundant heat by dilating small vessels, sweating and rapid breathing. Heat is removed by the body by conductance (33%), radiation (45%) and evaporation of sweat (22%). Due to prolonged exposure to sunlight, homeostatic mechanisms of the body get exhausted and sunstroke occurs It is attributed to the vulnerability of the human brain in high temperatures. During sunstroke the human body is overheated and produces more sweat to cool down. When the body is incapable of producing

the required amount of sweat, body temperature rises (fever). The first symptom is reddening of the skin followed by weakness, tiredness, dizziness, cramps, confusion, nausea, vomiting, fainting, headache, brain malfunction and disturbances in urination.

Sunstroke can be **mild, moderate or heavy**.

In mild sun stroke the affected individual has ringing in the ears (tinnitus), headache and nausea. Rapid heartbeat and rapid breathing may be noted, and eye pupils might be dilated

In moderate sun stroke, the individual experiences intense headache, weakness and may lose consciousness or appear confused. Nausea, vomiting, rapid breathing and rapid heart beat may also be present. Shivering and feeling of being cold is also common. In some cases blisters in the skin may appear alongside with vertigo and fever.

In heavy sun stroke the victim can lose consciousness, face appears red and then pale. Spasms, hallucinations and delirium may occur alongside with involuntary defecation or urination. Body temperature can rise to 41 degrees Celsius and if sunstroke is not treated brain injury might develop.

#### Symptoms :

Individuals with sunstroke may present :

- weakness,
- dizziness,
- cramps,
- confusion,
- nausea,
- vomiting,
- fainting,
- headache,
- brain malfunction
- difficulty in urination



**Young children, obese individuals, hypotensive or malnourished individuals as well as individuals in bad shape, elderly or actively training individuals** can be considered high risk group for sun stroke alongside with physically unwell individuals (heart failure, diabetes or brain damaged patients).

#### Avoiding sunstroke

- ❖ Avoid exposure to the sun during high times 10.30 - 18.00.
- ❖ Keep hydrated, wear a hat, have cold showers and avoid alcohol and heavy foodstuff

#### First Aid

*Symptoms usually persist for 2 days and in order to recover quickly stay hydrated, stay in a cool place and prefer light clothing.*

- ✓ Try moving the affected individual in a cool place and have her/him have a cold shower or cool the person down with wet cloths
- ✓ Loosen belts and remove clothes. Dissolve a teaspoon of salt in 1 litre of water and administer the solution to the patient slowly. In case of vomiting, nausea or somnolence do not administer fluids.

## Chapter 5

### FOREIGN BODIES

The term «**foreign body**» is used to describe any material that enters our body through injury or through a natural opening (cavity – ear, nose mouth)

#### Foreign bodies in tissues (sand grains, nails, glass, metal, wood)

Small foreign bodies lodged in the skin or underneath it, can be removed using a disinfected needle or forceps

- On the contrary, foreign objects lodged deeply in the wound should NOT be moved since their removal might lead to bleeding or further tissue damage (the foreign body may act as a plug that stops blood loss)

#### First Aid

If the foreign body is lodged deep

- ✓ Do not apply pressure on the lodged body
- ✓ Limit the foreign's body movement with lot so gauze and tie them in place. They will be removed by the doctor.

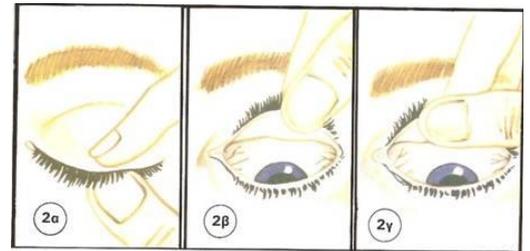
#### Foreign bodies in the eye

##### General Principles

- Do not remove objects lodged firmly in the eye
- DO not let the victim to rub or press the affected eye
- Do not try to remove contact lenses
- Visit the eye doctor immediately

##### Symptoms

- ✓ Pain or sting when the person bats the eyelids
- ✓ Reddening or appearance of blood colored spots
- ✓ Tears and visual disturbances
- ✓ Light sensitivity



##### If a caustic substance is implicated

- Wash the eye with ample amounts of water for 10 minutes by tilting the head sideways towards the affected eye
- Cover both eyes with clean, sterilized gauzes or cloths
- Ask for medical help

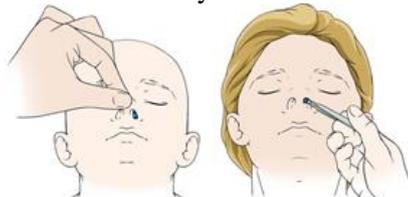
##### If the foreign body can be moved:

- Open widely the eyelids and if the foreign object is in the lower eyelid remove with the edge of a clean cloth or apply water.
- If the foreign body is in the upper eyelid then you can fold the eyelid on a match or Q tip and wash with saline or water.
- If the object cannot be removed then cover the eye with a patch or gauze and see the doctor.
- If the object is on the iris or stuck on the bulb, cover both eyes and transport the victim to the hospital.



#### Foreign bodies in the nose

- Those are usually found in children. Symptoms:



- The person has difficulty breathing through the nose which sometimes appears swollen.
- One or both nostrils discharge fluid that sometimes contains blood .

##### First Aid

- ✓ Keep the person calm and advise breathing through mouth

- ✓ Soft objects can be removed by blowing the nose or sneezing.
- ✓ Irritate the nose using a piece of cotton or pepper.
- ✓ DO NOT try to remove the object by nose picking.
- ✓ Visit the otolaryngologist

**Foreign bodies in the ear**

**Symptoms:**

- The patient complains for ear pain
- If the offending object is an insect, the patient might hear buzzing or have a headache
- Hearing might diminish at the affected ear

**First Aid**

- ✓ Keep the victim calm and positive
- ✓ If there is a chance of foreign body being present do not try to remove it (beware of seeds since they can swell)
- ✓ If the offending object is an insect, use a syringe to administer warm water or a bit of oil in order to wash it away.
- ✓ Visit the otolaryngologist .

**Swallowing a foreign body**

- Common in children. Sharp objects such as nails or pins are the most dangerous since they can injure the stomach and the digestive tract

**First Aid :**

- ✓ Encourage the patient
- ✓ Ensure the patient is transported to the hospital
- ✓ Do not administer by mouth



**Foreign body in the larynx – choking**

- Acute blockage of airways in adults usually happens during a meal.
- Children usually can have this happen during a meal or play time

**When the victim is conscious**

- ✓ If the victim can breathe and cough intently then the blockage is only partial. Coughing might be the most efficient measure, so encourage the victim to cough out the offending object.
- ✓ If the victim can not talk, cough, breath or starts turning cyanotic give 5 strong hits between the shoulders with your palm, bending the victim forward.



- ✓ If the foreign object can not be removed this way, give 5 presses between chest and abdomen using your clenched fists (**Heimlich maneuver**). This method is usually very efficient, but if it fails repeat the cycle.
- ✓ Heimlich maneuver can be self-administered if it is you that is choking. Position yourself with the lower part of the chest resting on the upper part of a chair and use



your fists as above.

**If the victim is unconscious per form CPR**

- ✓ Removing foreign objects in children (1- 8 years old)
- ✓ Encourage the child to cough

- ✓ If this does not work, do as you would do with an adult, administering the 5 strokes described above.
- ✓ If the object is not dislodged administer 5 chest pushes. The palms are used in the same way that you would towards an adult but with the difference that the pressure is set on the chest and they are vertical to its level
- ✓ If this fails perform Heimlich manoeuvre as you would in an adult.
- ✓ Continue the cycle until the object is dislodged or until the child loses consciousness.

## CHAPTER 6

### EPILEPSY – FEVER SPASMS IN CHILDREN

#### EPILEPSY

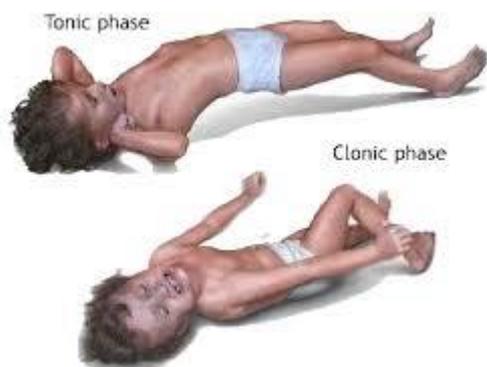
People who suffer from epilepsy have repeating bouts of epileptic seizures and spasms attributed to brain malfunction.

They can be distinguished in:

- Mild seizures that can go unnoticed (patient appears as if she/he is daydreaming)
- Heavy seizures that require the person trying to help to retain his/her composure.

#### Symptoms (Severe form)

- ✓ Loss of consciousness and stiff muscles
- ✓ spasms,



- ✓ sudden collapse and screaming,
- ✓ Contraction and release of the muscles followed by spasms,
- ✓ Foaming at the mouth, sometimes with bloody discharge if the victim bites the tongue
- ✓ After the seizure the patient can recover the senses but it is also possible for the victim to feel dizzy or confused that can last for an hour

#### First Aid :

- Retain composure and move objects and bystanders away from the victim
- Intervene only when crisis is over
- Shield patients head with soft clothes
- Loosen anything that is tight around the victim's throat
- After the seizure put patient in recovery position
- Do not put anything in the patient's mouth
- Let the spasms develop, do not try to make them subside
- Call an ambulance if:
  - Seizures last more than 10 minutes
  - The victim has been injured during the episode
  - More than 10-15 minutes are needed for the victim to regain consciousness
- ❖ When the victim regains senses advice to notify the doctor of the seizure
- ❖ **Epileptics should inform their workplace (or school) of their status as well as where the medication they are treated with can be found**
- CAUTION
  - ✓ Do not move the victim unless there is immediate danger
  - ✓ Do not try to immobilize the victim during the seizure

- ✓ Do not try to open the mouth or put anything in it
- ✓ Protect the victim by taking away dangerous objects and supplying something soft (blanket)
- ✓ Do not try to make the victim “come around o his/her senses” by slapping or shaking. These izure will resolve by it self.
- ✓ Do not administer fluids to the patient until full recovery is made

## **FEVER SPASMS IN CHILDREN**

### General Advice

Fever is defined as any pathological rise in body temperature, compared to the normal values that fluctuate between  $36,8^{\circ}\text{C}$ -  $37,5^{\circ}\text{C}$  if temperature is measured from the mouth or anus and  $36,5^{\circ}\text{C}$ -  $37^{\circ}\text{C}$ , if the temperature is taken from the armpits or bubonic area. Fluctuations of 1 or 2 degrees are common and should raise no concern. On the contrary , bigger fluctuations can indicate a malfunction and can be categorized as

**hypothermia or hyperthermia.**

Temperature in a healthy individual remains constant by two mechanisms with opposing actions:

- ✓ The first one produces heat by metabolic processes
- ✓ The second gets rid of the heat towards the environment with the act of breathing, sweating, urinating etc.

The balance between those two mechanisms constitutes what is defined as thermoregulation.

### Importance of fever



- Fever is our body’s defence mechanism against invading pathogens, hindering their reproduction. If fever exceeds 40 degrees Celcius and is prolonged then it can become dangerous.

- Fever is the most common reason for spasm appearance in children and they generally have a good prognosis leaving no neurological deficits

### First Aid in high fever

- ✓ Remove children’s clothes
- ✓ Bathe the child in lukewarm water that progressively gets cooler
- ✓ Leave the child in the water for 10-15 minutes
- ✓ Administer antipyretic medication always under doctor’s order.
- ✓ Put cold wet cloths on the child’s forehead.
- During spasms:
  - ✓ Clear the are a of objects that could harm the child
  - ✓ Keep the airways open
  - ✓ Call for medical help



## **CHAPTER7**

### **SOFT TISSUE LESIONS**

- CLOSED LESIONS - STRAINS
- OPEN LESIONS - TRAUMA
- COMPLICATED LESIONS
- AMPUTATION
- ✓ Lesions of soft tissue can range from simple strains and scratches to more serious ones like guns hot wound sand lodging of foreign objects
- ✓ Lesions of soft tissues can be of three times:
  - **Strain** : Lesion of the skin without skin breakage
  - **Trauma** : Break age of skin and underlying

- **Complicated Lesions** : open fractures, broken blood vessels and nerve

#### Closed lesions (strains)

##### First Aid:

- ✓ Apply cold compresses for 10 minutes. This will cause vasoconstriction and limit the swelling.
- ✓ Immobilize affected area using elastic band
  - Immobilization will limit pain and bleeding
- ✓ Raise affected limb above heart level.
  - This will reduce swelling
- ✓ Administer pain killers (avoid aspirin)



#### Open lesions (Trauma)

##### First Aid

##### **Three General Rules:**

- Prioritize bleeding control
- Avoid patient going into shock
- Protection from infection
  - ✓ Immobilize affected area
  - ✓ To lessen danger of infection:
    - ✓ Wash your hands thoroughly and use gloves
    - ✓ Wash the wound with ample amounts of running water
    - ✓ Dry the wound using a sterilized gauze. The motion should be done outwards from the wound to the healthy tissue
    - ✓ Cover the wound with sterilized gauze
    - ✓ Consult the doctor to administer antitetanic treatment



## **JOINT LESIONS- FRACTURES**

### Jointlesions

Joints are formed at the point where two or more bones meet and they are distinguished in moving joints and immovable. Tendons, articular cartilage and articular membrane can be found in a joint.

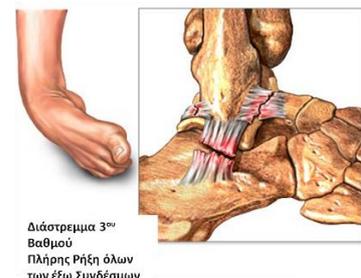


### **Strain**

It is the lesion and possible partial or total rupture of ligaments of a joint

#### Symptoms:

- Pain and sensitivity
- Swelling



- Bruising
- Difficulty in moving

First Aid:

- ✓ Cold compresses for 10-20 minutes
- ✓ Tying with elastic band to immobilize the joint
- ✓ Suspension from the neck if the affected limb is a hand or in a comfortable position if it is a leg.
- ✓ Painkillers as needed

Dislocation

It is the permanent misplacement of the bones of joint that can be accompanied by soft tissue lesions.

Symptoms:



- Disfigurement
- Intense pain
- Absence of motion in the affected joint
- Possible swelling
- Possible bruising

First Aid:

- ✓ Apply cold compresses to the joint for 10-15 minutes
- ✓ Immobilize the joint using an improvised cast.
- ✓ Place affected limb in a comfortable position as you would do in a strain.
- ✓ Do NOT attempt reduction (“repairing” the dislocation yourself)
- ✓ Transport to hospital for proper care

**FRACTURES OF UPPER OR LOWER LIMBS**

**Fracture** is a discontinuation of the bone either from force exerted locally by damage of the bone itself.

Fractures can be categorized in a multitude of ways

Depending on the **intensity of the violence** that caused them in :

- ✓ violent,
- ✓ pathological
- ✓ attributed to strain .

Depending on if the **skin is broken** in :

- open or
- closed.

Open fractures are also called complicated ,they are in contact with the environment and are usually accompanied by damaged blood vessel sand nerves.

Depending on **the mechanism** that caused them in **directorindirect**.

- Direct when they happen at the spot that the strike/violence was applied
- Indirect when they appear in another spot

Depending on the **direction of the fracture line** compared to the transverse axis in:

- transverse,
- skewed,
- spiral etc.



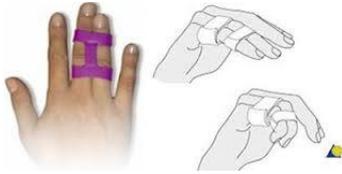
or



Symptoms

- ✓ Intense pain

- ✓ Swelling and bruising
- ✓ Disfigurement.
- ✓ Absence of motion.
- ✓ Pathological motion.



First Aid:

- ✓ Full immobilization of the limb
- ✓ Transfer to hospital.

SPINAL CORD FRACTURE

Spinal cord fractures can be observed in accidents involving fall from great height, falls on the head or buttocks, as well as diving and driving accidents.

First Aid in skull and spinal cord fractures.

- ✓ Immobilize the victim
- ✓ Keep it warm and do not move
- ✓ Call ambulance
- ✓ Transportation should be done on a level and hard surface

**CHAPTER 8**

**BASIC RESUSCITATION**

Steps for «Cardiopulmonary Resuscitation» (CPR)

➤ **The combination of chest compression and artificial ventilation is known as cardiopulmonary resuscitation (CPR)**

When do we employ CPR? CPR is employed when the person is unconscious and not breathing, usually in cases of asphyxia or cardiac arrest.

The Basic Principles (Chain of Survival) is:

- ✓ Timely call of EKAB (166)
- ✓ Timely initiation of CPR
- ✓ Basic steps of CPR.:
- ✓ **Ensure your and the victim's safety**
- ✓ Check if the victim is responsive by shaking their shoulders and asking “**Are you ok? Are you ok?**”

If the victim is non-responsive:

- ✓ **Call for help** , for example employ bystanders.
- ✓ Free the airways
- ✓ This can be achieved by stretching the head , pulling and raising lower jaw and remove any obstructing objects.
- ✓ Check if the victim is breathing
- To check if the victim is breathing position your ear near its mouth and nose for no more than 10 seconds to **feel and hear** if there is air coming out. Concurrently **observe** if the victim's chest is moving in a breathing motion.
  - If you do not hear and feel air coming out and observe the chest moving, while at the same time cyanosis (blue in go fthe skin) is present call 166.
  - Beginim mediately chest compression (30 chest compressions) in order to restore cardiac function of the victim.
- To do the compressions:
  - Place the base of your hand's palm on the center of the chest

- Place your other palm on the top, intertwine the fingers of both hands and press the chest having your hands extended and using your body weight in a fashion that the chest is depressed 4-5 centimetres.

➤ Administer two consecutive breaths (artificial breathing)

To perform artificial breathing, stretch the victim's head backward, lift the chin, close its nose, take a breath, place your mouth on the victim's mouth and blow gently.

- Observe the chest rising
- When the chest returns to original position, repeat once more

**Continue with cycles of 30 chest compressions and two breaths** until the victim is resuscitated, the ambulance arrives or you are exhausted.

**If the victim starts breathing, position it in recovery position.**

### CPR

With the term cardiopulmonary resuscitation we mean the chest compressions and the rescue breaths that help us substitute the lack of blood circulation and the lack of air in the victim's lungs.

The algorithm of basic life support is already described above and will be explained in the following pages

**First and foremost** is safety:

#### **Approach Safely**

Safety comes first both for the victim, for the rescuer (we do not want a second victim!) and the bystander. Be aware of live electric wires, water, sharp objects etc. When safety is ensured we can approach the victim, kneel and shake it lightly by the shoulders.

#### **Check Responsiveness**

- ✓ If the victim is responsive ask what happened without moving it and re evaluate in short time its consciousness level.
- ✓ If the victim is non-responsive attract bystander's attention by waving hands and yelling "Help! Help!"

#### **Call for help**

It is very possible that an unconscious victim has blocked airways (airway is considered the passage to the lungs, through which a person is aerated) from soft mouth tissues such as the tongue or the uvula due to loss of muscular tone. So we must:

#### **Clear the airways**

Resolving the airway obstruction in a person lying on its back can be done as seen in the pictures



As it is seen in the picture, a victim with obstructed airways has difficulty getting air into the lungs. In order to free the airways, two simple and effective manoeuvres can be employed, which are the extension of the head and lift of the chin:

- ✓ Extending the head backwards is done with the hand that is closer to the head, by placing the palm on the victim's forehead and pulling gently the head back.
- ✓ Lifting the lower jaw is done using the index and the middle finger of the other hand, which are placed on bony part of the lower jaw and pressing upwards

- ✓ When ventilation has been restored, it is time to check the presence of autonomous breathing of the victim.

### **Check for breathing**

We approach with our head above the victim's mouth, looking towards its chest. We do this for 8-10 seconds, checking if the chest of the victim rises in a breathing fashion, and feeling-hearing for breathing (we can feel the humidity of the breathing on our cheek). CAUTION: What we are looking for is normal breathing, beware not to mistake it for the death rattle (gargling sound as if the victim is drowning)

- If the victim does not breathe call immediately the emergency pre hospital care (EKAB in Greece)

### **Call 112 (166/199)**

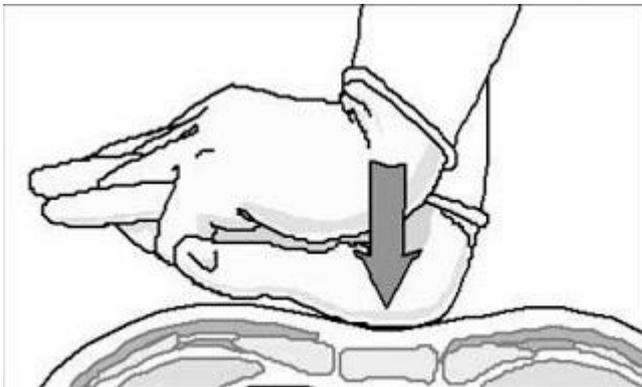
The telephone number for Greece is 166, for Cyprus 199 and for the rest of the Europe 112.

First thing mentioned is where the accident took place, what is the victim's condition, our contact details and that we are about to commence CPR. It is imperative to let the call center hang up first, to be sure that we were fully understood and that we have supplied all the information they will need to help. After professional help has been mobilized that will arrive with proper equipment (defibrillator etc) it is time to commence CPR, starting from re-establishing heartbeat via chest compressions.

### **30 Chest Compressions**

Applying chest compressions is easy as seen on the picture below.

- ✓ Place the base of your hand's palm on the center of the chest
- ✓ Place your other palm on the top, intertwine the fingers of both hands and press the chest having your hands extended and using your body weight in a fashion that the chest is depressed 4-5 centimetres.



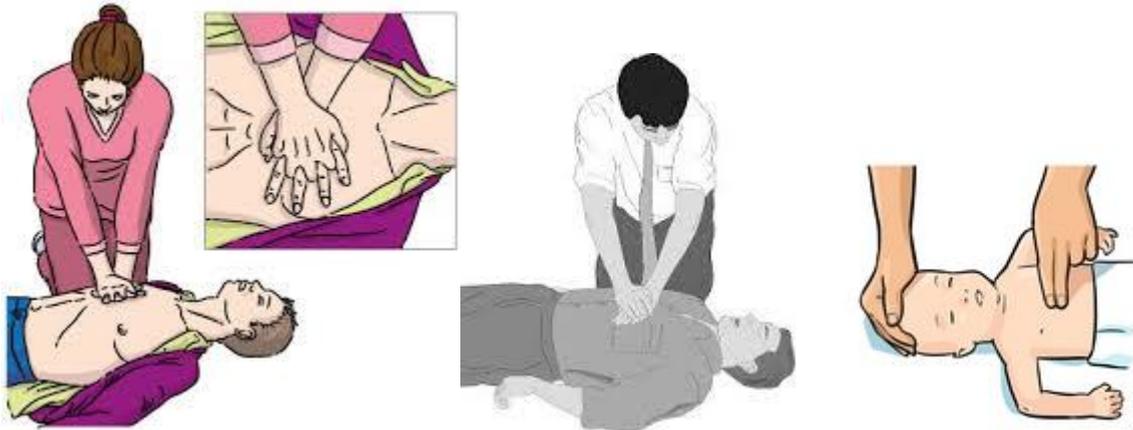
The compression should be done: - *100 compressions per minute Keep compression and relaxation time the same*

- *Do not lose contact with the chest*
- *Movement that comes from the legs*

We can ensure proper rhythm by counting.

Chest compressions can be labour intensive, so if possible get help from another person every two minutes if that is possible.

- After 30 chest compressions follow with two rescue breaths. Keep the airway open with the method described above, pinch the victim's nose between your thumb and index finger using the hand placed on the forehead and seal the victim's mouth with your lips. Exhale normally in the victim's mouth (1 exhalation = 1 second more or less) and see the victim's chest rising



**2 Rescue Breaths**



- If we feel that the supplied air does not go through, then and only then we are allowed to open the victims mouth, check the oral cavity by looking for foreign bodies that can be removed. If there is nothing visible blocking the airways, then we should employ a better way to seal the airway on the next try. As seen on the above pictures we administer the 2 rescue breaths.

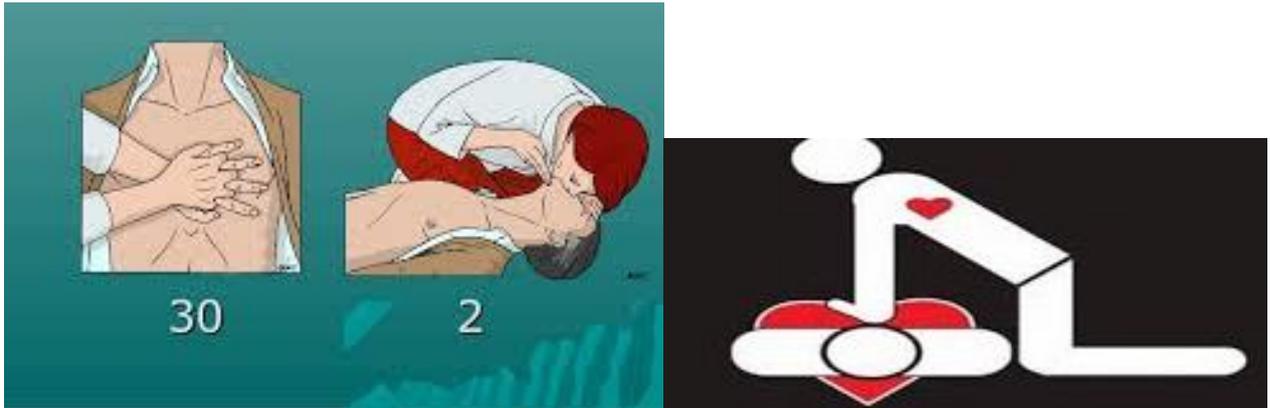
- **We continue with cycles of 30 chest compressions and 2 rescue breaths until:**

We get tired

Professional help arrives

The victim has been resuscitated (cough, movement, or best case scenario full recovery of the senses)





*(The text is a product of translation and modification of the directions for Basic Life Support given by the European Resuscitation Council, ERC, 2005)*

### **RECOVERY POSITION**

It is advisable to position unconscious victims in the recovery position. This position hinders the tongue obstructing the throat and because the head is lower than the rest of the body allows for fluids to flow out of the mouth minimizing risk of aspiration.

Head, neck and back are kept aligned while the bent limbs support the body in a safe and comfortable position. If need a resistor leave the victim alone to call for help, it is imperative to leave the waiting victim in the recovery position.

### **STEPS IN ORDER TO POSITION VICTIM IN THE RECOVERY POSITION**

1. Kneel by the victim and open the trachea by tilting the head and lifting the chin. Straighten the victim's legs. Position the hand that is in your proximity in a 90 degrees angle relative to the body, with the elbow bent and palm facing upwards.
2. Place the other hand on the victim's chest and keep it on its cheek with the palm facing outwards.
3. With your other hand grab the thigh that is away from you and lift the knee upwards while keeping the foot on the ground.
4. Keeping the victim's hand on the chin, push the thigh in away that the victim's body rolls you're your side and on its side..
5. Tilt the head back wards  
, ensure that the trachea is open. Fix the hand under the cheek to ensure that the head remains tilted..
6. Fix the upper leg, if needed, in order for the waist and the knee to bend in 90 degrees angle.
7. Call an ambulance while keeping in mind to check breathing and pulse of the victim regularly.
  - ❖ *Depending on the condition of the victim you might have to modify the position in order to minimize further damage (for example some one who is unconscious due to trauma in the spinal cord might need better head support during moving so as to keep the head and torso aligned at all times).*
  - ❖ *If the limbs are injured and cannot be bent use more helpers or use rolled blankets to avoid the victim's body to fall forward.*

# Unresponsive and Breathing — Recovery Position

## Assess Person

- Pause and assess scene. *Scene is safe!*
- Tap or squeeze shoulder. Ask loudly, “Are you okay?” *No response!*
- Have someone alert EMS and get an AED.
- Look quickly at face and chest for normal breathing. Occasional gasps are NOT considered normal. *Normal breathing present!*



## Prepare

- Extend arm nearest to you up alongside head.
- Bring far arm across chest and place back of hand against cheek.
- Grasp far leg just above knee and pull it up so foot is flat on ground.



## Roll

- Grasp shoulder and hip and roll patient toward you. Roll in a single motion, keeping head, shoulders, and torso from twisting.
- Roll far enough for face to be angled forward.
- Position elbow and knee to help stabilize head and body.

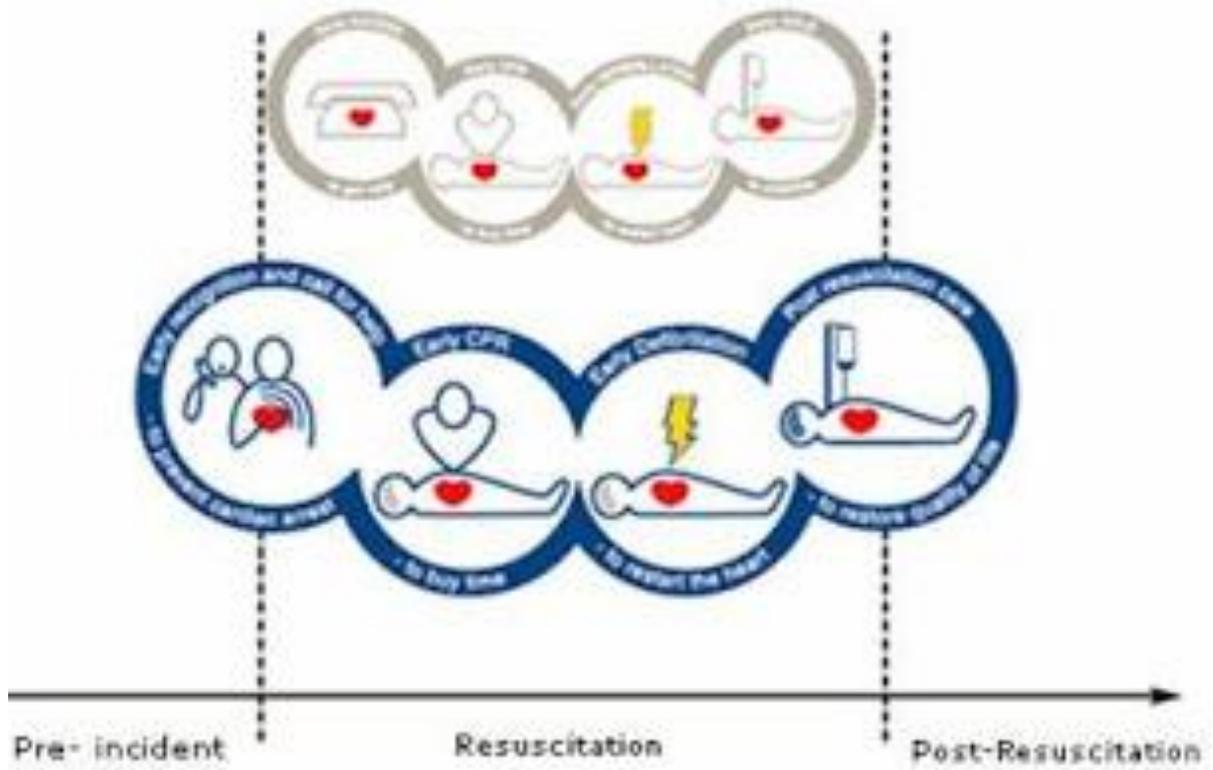


## Suspected Injury

- If person has been seriously injured, do not move unless fluids are collecting in airway, or you are alone and need to leave to get help.
- During roll, make sure head ends up resting on extended arm and head, neck, and torso are inline.

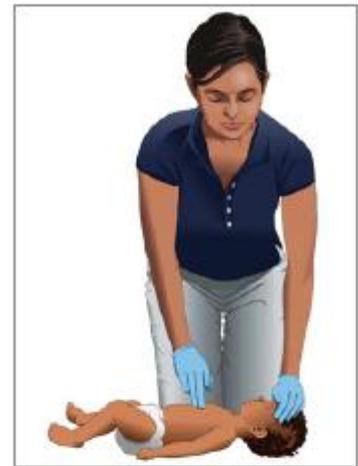
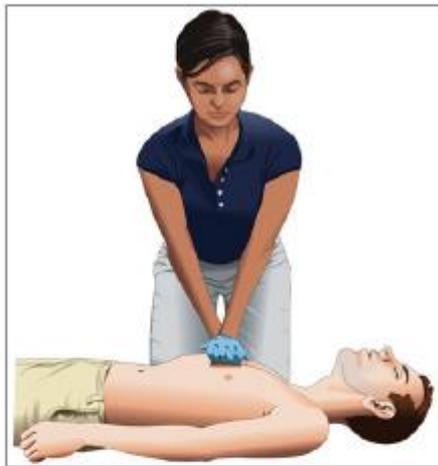


# CHAIN OF LIFE



**FIRST OF ALL :**  
**STOP-THINK – ACT**  
**ILLUSTRATED FOLLOW EXAMPLES**





Skill Components	Adult	Child	Infant
<b>HAND POSITION</b>	Two hands in center of chest (on lower half of sternum)	Two hands in center of chest (on lower half of sternum)	Two or three fingers in center of chest (on lower half of sternum, just below nipple line)
<b>CHEST COMPRESSIONS RESCUE BREATHS</b>	At least 2 inches Until the chest clearly rises (about 1 second per breath)	About 2 inches Until the chest clearly rises (about 1 second per breath)	About 1½ inches Until the chest clearly rises (about 1 second per breath)
<b>CYCLE</b>	30 chest compressions and 2 rescue breaths	30 chest compressions and 2 rescue breaths	30 chest compressions and 2 rescue breaths
<b>RATE</b>	30 chest compressions in about 18 seconds (at least 100 compressions per minute)	30 chest compressions in about 18 seconds (at least 100 compressions per minute)	30 chest compressions in about 18 seconds (at least 100 compressions per minute)

## USING A MANUFACTURED TOURNIQUET

**NOTE:** Always follow standard precautions and follow manufacturer's instructions when applying a tourniquet. Call 9-1-1 or the local emergency number.

### 1 POSITION THE TOURNIQUET

Place the tourniquet around the limb, approximately 2 inches (about two finger widths) above the wound but not over a joint.

### 2 PULL STRAP THROUGH BUCKLE

- Route the tag end of the strap through the buckle, if necessary.
- Pull the strap tightly and secure it in place.



### 3 TWIST THE ROD

Tighten the tourniquet by twisting the rod until the flow of bleeding stops and secure the rod in place. Do not cover the tourniquet with clothing.



### 4 RECORD TIME

Note and record the time that you applied the tourniquet and give this information to EMS personnel.

# APPLYING AN ANATOMICAL SPLINT

AFTER CHECKING THE SCENE AND THE INJURED PERSON:

## 1 GET CONSENT

## 2 SUPPORT INJURED PART

Support both above and below the site of the injury.



## 3 CHECK CIRCULATION

Check for feeling, warmth and color beyond the injury.



## 4 POSITION BANDAGES

Place several folded triangular bandages above and below the injured body part.



*Continued on next page*

## 5 ALIGN BODY PARTS

Place the uninjured body part next to the injured body part.



## 6 TIE BANDAGES SECURELY



## 7 RECHECK CIRCULATION

Recheck for feeling, warmth and color.

**TIP:** If you are not able to check warmth and color because a sock or shoe is in place, check for feeling.



# APPLYING A SOFT SPLINT

AFTER CHECKING THE SCENE AND THE INJURED PERSON:

## 1 GET CONSENT

## 2 SUPPORT INJURED PART

Support both above and below the site of the injury.



## 3 CHECK CIRCULATION

Check for feeling, warmth and color beyond the injury.



## 4 POSITION BANDAGES

Place several folded triangular bandages above and below the injured body part.



*Continued on next page*

## 5 WRAP WITH SOFT OBJECT

Gently wrap a soft object (e.g., a folded blanket or pillow) around the injured body part.



## 6 TIE BANDAGES SECURELY



## 7 RECHECK CIRCULATION

Recheck for feeling, warmth and color.

**TIP:** *If you are not able to check warmth and color because a sock or shoe is in place, check for feeling.*



# APPLYING A RIGID SPLINT

AFTER CHECKING THE SCENE AND THE INJURED PERSON:

## 1 GET CONSENT

## 2 SUPPORT INJURED PART

Support both above and below the site of the injury.



## 3 CHECK CIRCULATION

Check for feeling, warmth and color beyond the injury.



## 4 PLACE SPLINT

Place an appropriately sized rigid splint (e.g., padded board) under the injured body part.

**TIP:** Place padding such as roller gauze under the palm of the hand to keep it in a natural position.



*Continued on next page*

## 5 SECURE BANDAGES

Tie several folded triangular bandages above and below the injured body part.



## 6 RECHECK CIRCULATION

Recheck for feeling, warmth and color.

**TIP:** If a rigid splint is used on an injured forearm, immobilize the wrist and elbow. Bind the arm to the chest using folded triangular bandages or apply a sling. If splinting an injured joint, immobilize the bones on either side of the joint.



# APPLYING A SLING AND BINDER

AFTER CHECKING THE SCENE AND THE INJURED PERSON:

## 1 GET CONSENT

## 2 SUPPORT INJURED PART

Support both above and below the site of the injury.



## 3 CHECK CIRCULATION

Check for feeling, warmth and color beyond the injury.



## 4 POSITION SLING

Place a triangular bandage under the injured arm and over the uninjured shoulder to form a sling.



*Continued on next page*

## **5** SECURE SLING

Tie the ends of the sling at the side of the neck.

**TIP:** Pad the knots at the neck and side of the binder for comfort.



## **6** BIND WITH BANDAGE

Bind the injured body part to the chest with a folded triangular bandage.



## **7** RECHECK CIRCULATION

Recheck for feeling, warmth and color.



# Caring for an Adult Who Is Choking

1. Verify that the person is choking by asking the person to speak to you.

- **If the person is able to speak to you or is coughing forcefully:** Encourage the person to keep coughing, but be prepared to give first aid for choking if the person's condition changes.
- **If the person is unable to speak to you or is coughing weakly:** Send someone to call 9-1-1 or the designated emergency number and to obtain an AED and first aid kit. Continue to step 2 after obtaining consent.

2. Give 5 back blows.

- Position yourself to the side and slightly behind the person. Place one arm diagonally across the person's chest (to provide support) and bend the person forward at the waist so that the person's upper body is as close to parallel to the ground as possible.
- Firmly strike the person between the shoulder blades with the heel of your hand.



3. Give 5 abdominal thrusts.

- Have the person stand up straight. Stand behind the person with one foot in front of the other for balance and wrap your arms around the person's waist.
- Using two fingers of one hand, find the person's navel. With your other hand, make a fist and place the thumb side against the person's stomach, right above your fingers.
- Cover the fist with your other hand.
- Pull inward and upward to give an abdominal thrust.

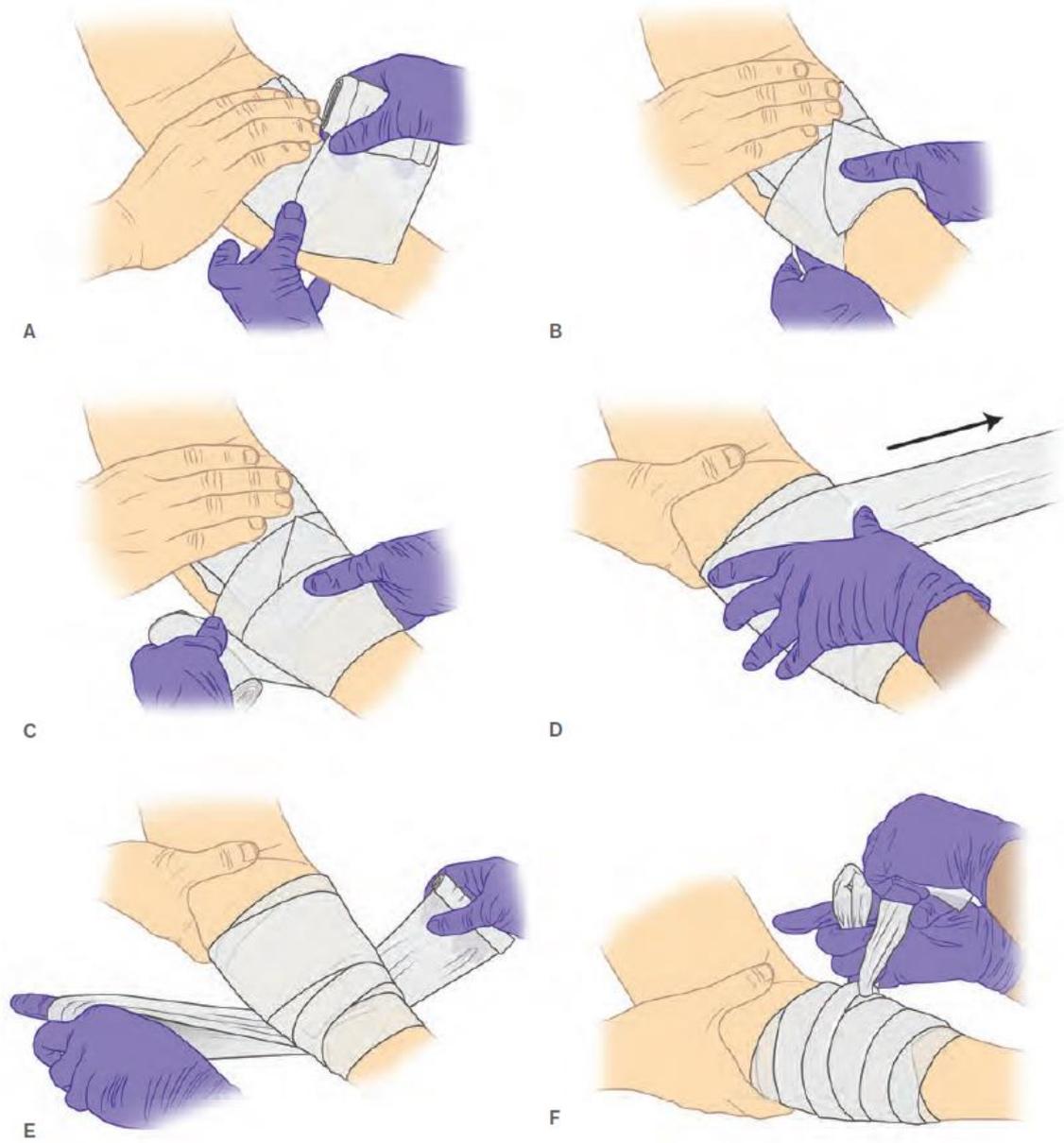


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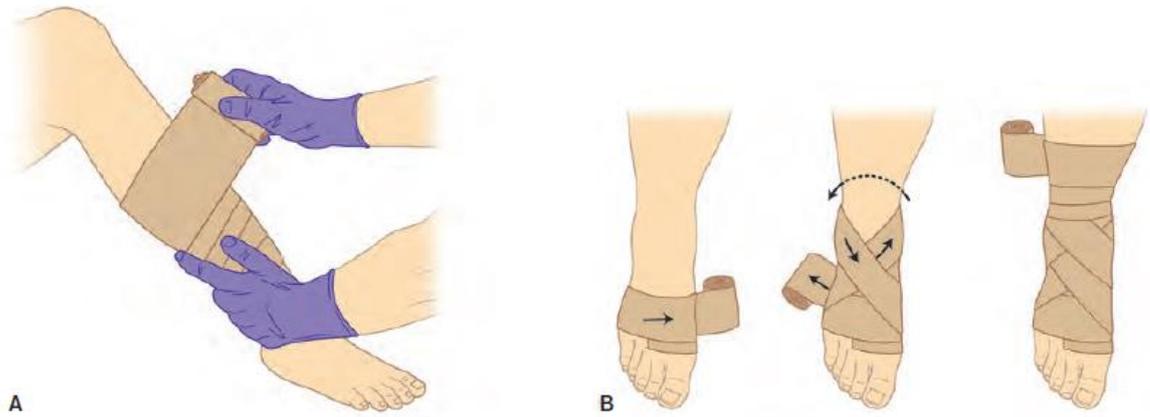
4. Continue giving sets of 5 back blows and 5 abdominal thrusts until:

- The person can cough forcefully, speak, cry or breathe.
- The person becomes unresponsive.

**Note:** *If the person becomes unresponsive, gently lower him or her to the floor and begin CPR if you are trained, starting with compressions. After each set of compressions and before attempting rescue breaths, open the person's mouth, look for the object and remove it if seen. Never put your finger in the person's mouth unless you actually see the object.*



**Figure 6-2.** To tie a bandage, begin by placing the end of the bandage on the dressing at a 45-degree angle (A). Wrap the bandage one full turn, and then fold the angled end of the bandage up, creating a “dog ear” (B). Continue wrapping the bandage, overlaying the “dog ear” to anchor it and moving upward (C). Once the dressing is covered, roll out the remaining length of bandage (D). While holding the bandage, use the index finger of the other hand to split the bandage in half, moving it down and underneath the limb (E). Bring the two ends of the bandage up and tie them in a bow or knot (F).



**Figure 7-2.** To apply a pressure immobilization bandage over a long body section, use overlapping turns and gently stretch the bandage as you wrap (A). To cover a joint, use overlapping figure-eight turns (B).

# NOSEBLEED

## CAUTION

- Do not let the casualty tip his head back because blood may then run down the throat and induce vomiting.

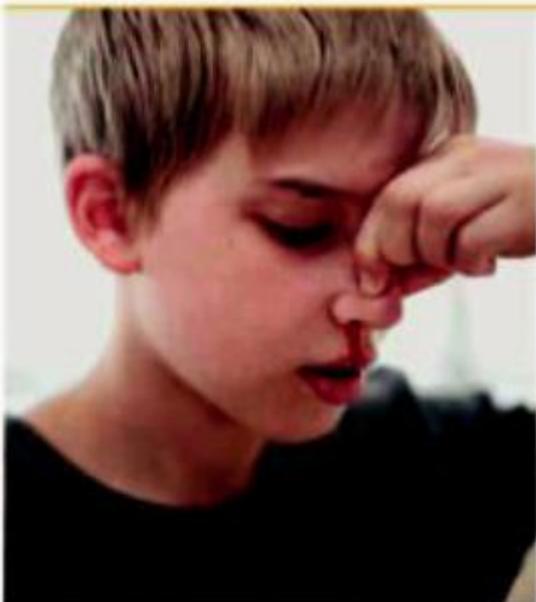
## YOUR AIMS

- To maintain an open airway
- To control bleeding

**Bleeding from the nose most commonly occurs** when tiny blood vessels inside the nostrils are ruptured, either by a blow to the nose, or as a result of sneezing, picking, or blowing the nose. Nosebleeds may also occur as a result of high blood pressure and anticlotting medication.

A nosebleed can be serious if the casualty loses a lot of blood. In addition, if bleeding follows a head injury, the blood may appear thin and watery. The latter is a very serious sign because it indicates that the skull is fractured and fluid is leaking from around the brain.

## WHAT TO DO



- 1** Tell the casualty to sit down and tilt his head forward to allow the blood to drain from the nostrils. Ask him to breathe through his mouth (this will have a calming effect) and to pinch the soft part of his nose for up to ten minutes, holding constant pressure. Reassure and help him if necessary.
- 2** Advise the casualty not to speak, swallow, cough, spit, or sniff since this may disturb blood clots that have formed in the nose. Give him a clean cloth or tissue to mop up any dribbling.
- 3** After ten minutes, tell the casualty to release the pressure. If the bleeding has not stopped, tell him to reapply the pressure for two further periods of ten minutes.
- 4** Once the bleeding has stopped, and with the casualty still leaning forward, clean around his nose with lukewarm water. Advise him to rest quietly for a few hours. Tell him to avoid exertion and, in particular, not to blow his nose, because this could disturb any clots.
- 5** If bleeding stops and then restarts, help the casualty reapply pressure.
- 6** If the nosebleed is severe, or if it lasts longer than 30 minutes, arrange to take or send the casualty to the hospital.

## SPECIAL CASE FOR A YOUNG CHILD

A child may be worried by a nosebleed. Tell her to lean forward, and then pinch her nose for her, reassure her, and give her a bowl to spit or dribble into.



## KNOCKED-OUT ADULT TOOTH

If a **secondary (adult) tooth is knocked out**, it should be replanted in its socket as soon as possible. Gently rinse off any dirt before replacing it in the socket. If this is not possible, ask the casualty to keep the tooth inside his cheek or under his tongue if he feels able to do this without swallowing the tooth. Alternatively, place it in a small container of milk to prevent it from drying out.

### CAUTION

- Do not clean off any fleshy debris—you may damage the tissues, reducing the chance of reimplantation.

### WHAT TO DO



- 1 Gently push the tooth into the socket. Then press a gauze pad between the bottom and top teeth to help keep the tooth in place.
- 2 Ask the casualty to hold the tooth firmly in place. Send him to a dentist or the hospital.

## BLEEDING FROM THE MOUTH

Cuts to the **tongue, lips, or lining of the mouth** range from minor injuries to more serious wounds. The cause is usually the casualty's own teeth or dental extraction. Bleeding from the mouth may be profuse and can be alarming. In addition, there is a danger that blood may be inhaled into the lungs, causing problems with breathing.

### CAUTION

- If the wound is large, or bleeding lasts longer than 30 minutes or restarts, seek medical or dental advice.

### WHAT TO DO

- 1 Ask the casualty to sit down, with her head forward and tilted slightly to the injured side, to allow blood to drain from her mouth. Place a sterile gauze pad over the wound. Ask the casualty to squeeze the pad between finger and thumb and press on the wound for ten minutes.



- 2 If bleeding persists, replace the pad. Tell the casualty to let the blood dribble out; if she swallows it, it may induce vomiting. Do not wash the mouth out because this may disturb a clot. Advise her to avoid drinking anything hot for 12 hours.

### YOUR AIMS

- To control bleeding
- To safeguard the airway by preventing any inhalation of blood

### SPECIAL CASE BLEEDING SOCKET

To control bleeding from a tooth socket, roll a gauze pad or tea bag thick enough to keep the casualty's teeth from meeting, place it across the empty socket, and tell him to bite down on it.



**WHAT TO DO**

- 1** Help the casualty sit or lie down. Support the injured part in a comfortable position, preferably raised.



- 2** Cool the area by applying a cold compress, such as an ice pack in a towel (p.241), to the injury. This helps reduce swelling, bruising, and pain.



- 3** Apply comfortable support to the injured part. Leave the cold compress in place or wrap an elastic bandage around the area. Secure it with a support bandage that extends to the next joint; for an ankle injury, the bandage should extend from the base of the toes to below the knee.



- 4** Support the injured part in a raised position to help minimize bruising and swelling in the area. Check the circulation beyond the bandages (p.243) every ten minutes. If the circulation is impaired, loosen the bandages.



- 5** If the pain is severe, or the casualty is unable to use the injured part, arrange to take or send him to the hospital. Otherwise, advise the casualty to rest the injury and to seek medical advice if necessary.

**RECOGNITION**

There may be:

- Pain and tenderness
- Difficulty in moving the injured part, especially if it is a joint
- Swelling and bruising in the area

**YOUR AIMS**

- To reduce swelling and pain
- To obtain medical help if necessary

## WHAT TO DO

- 1 Sit the casualty down and give him a cold compress to hold against the injury. Carry out an assessment of the casualty's level of consciousness using the AVPU scale (opposite). Treat any scalp wounds by applying direct pressure to the wound (p.122).



- 2 Regularly monitor and record vital signs—breathing, pulse and level of response (pp.52–53). Watch especially for changes in his level of response.
- 3 When the casualty has recovered, ask a responsible person to look after him.
- 4 If a casualty's injury is the result of a sporting accident, do not allow him to return to the sport until he has been fully assessed by a medical practitioner.
- 5 Advise the casualty to seek medical help or arrange transportation to a hospital if he develops signs and symptoms of a worsening head injury (see CAUTION, opposite, and YOUR AIMS, above), or if ANY of the following apply:
  - He is over 65 years of age
  - He has had previous brain surgery
  - He is taking anticoagulant (anticlotting) medication
  - The head injury is accompanied by drug or alcohol intoxication
  - There is no responsible person to look after him

## RECOGNITION

There may be:

- Brief period of impaired consciousness
- Scalp wound
- Dizziness or nausea
- Loss of memory of events at the time of, or immediately preceding the injury
- Mild generalized headache
- Confusion

For severe head injury there may also be:

- History of a severe blow to the head
- Deteriorating level of response
- Loss of consciousness
- Leakage of blood or blood-stained watery fluid from the ears or nose
- Unequal pupil size

## YOUR AIMS

- To place the casualty in the care of a responsible person
- To obtain medical help if the head injury is associated with loss of consciousness, confusion, or any other alteration in consciousness; if it is associated with motor or sensory defects, or persistent vomiting

## SPECIAL CASE SEVERE HEAD INJURY

**Call 911 for emergency help**—tell the dispatcher that you suspect head injury. Maintain an open and clear airway. Do this in the position the casualty was found—try not to move him because of the additional risk of spinal injury (pp.158–59). If this is not possible, use the jaw thrust method to open the airway (p.159). Regularly monitor and record vital signs—breathing, pulse, and level of response (pp.52–53)—while waiting for help to arrive. Watch especially for changes in his level of response.

## LOWER LEG INJURIES

### CAUTION

- Do not allow the casualty to eat or drink because an anesthetic may be needed.
- Do not raise the casualty's legs, even if he shows signs of shock, because you may cause further internal damage.

### RECOGNITION

There may be:

- Localized pain
- Swelling, bruising, and deformity of the leg
- An open wound
- Inability to stand on the injured leg

### YOUR AIMS

- To immobilize the leg
- To arrange transportation to the hospital

**Injuries to the lower leg** include fractures of the shinbone (tibia) and the fibula, as well as damage to the soft tissues (muscles, ligaments, and tendons).

Fractures of the tibia are usually due to a heavy blow (for example, from the bumper of a moving vehicle). Because there is little flesh over the tibia, a fracture is more likely to produce a wound. The fibula can be broken by the twisting forces that sprain an ankle.

### WHAT TO DO

- 1 Help the casualty lie down, and gently steady and support the injured leg. If there is a wound, carefully expose it and treat the bleeding. Place a dressing over the wound to protect it.



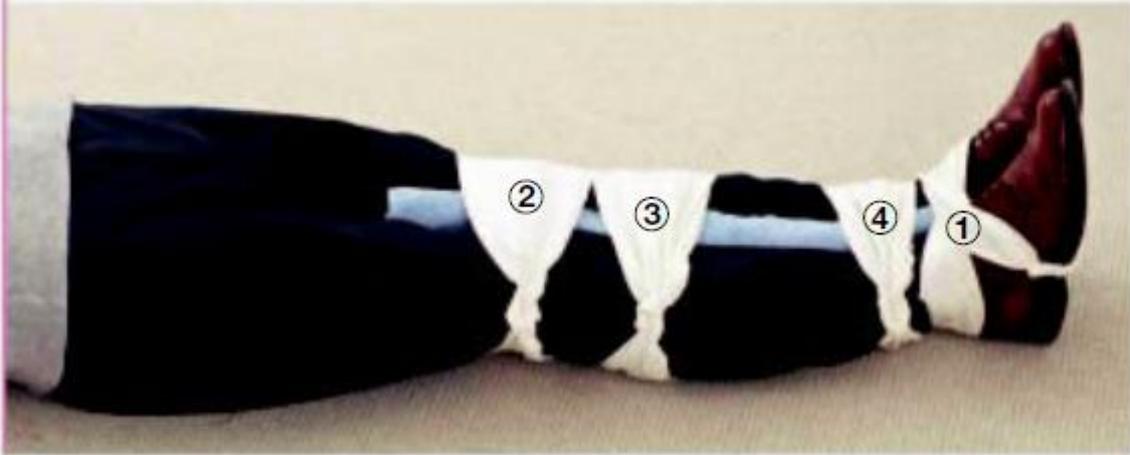
- 2 **Call 911 for emergency help.** Support the injured leg with your hands; hold the joints above and below the fracture site to prevent any movement. Maintain support until the ambulance arrives.



## LOWER LEG INJURY

- 3** If the ambulance is delayed, support the injured leg by splinting it to the other leg. Bring the uninjured leg alongside the injured one and slide bandages under both legs. Position a narrow-fold bandage (p.249) at the feet and ankles (1), then

broad-fold bandages at the knees (2) and above and below the fracture site (3 and 4). Insert padding between the lower legs. Tie a figure-eight bandage around the feet and ankles, then secure the other bandages, knotting them on the uninjured side.



- 4** If the casualty's trip to the hospital is likely to be long and rough, place soft padding on the outside of the injured leg, from the knee to the foot.

Secure the legs with broad-fold bandages as described above.

### SPECIAL CASE IF THE FRACTURE IS NEAR THE ANKLE



- 1** Steady and support the injured leg by hand at the knee and foot (not over the fracture site) to prevent any movement. If there is a wound, treat the bleeding and place a dressing over the wound to protect it. **Call 911 for emergency help.** Maintain support until the ambulance arrives.



- 2** If the ambulance is delayed, splint the injured leg to the other leg—ask a helper to maintain support while you secure bandages. Bring the uninjured leg to the injured one. Position a narrow-fold bandage (p.249) at the feet. Slide two broad-fold bandages under both knees; leave one at the knee (2) and slide the other down to just above the fracture site (3). Insert padding between the lower legs and tie the feet together (1). Then secure the other two bandages (2 then 3). Tie all knots on the uninjured side.

# CHEMICAL BURN TO THE EYE

## CAUTION

- Do not allow the casualty to touch the injured eye.
- Remove a contact lens only if it slips out easily.
- If the incident occurs in the workplace, notify the safety officer and/or emergency services.

## RECOGNITION

There may be:

- Intense pain in the eye
- Inability to open the injured eye
- Redness and swelling around the eye
- Copious watering of the eye
- Evidence of chemical substances or containers in the immediate area

## YOUR AIMS

- To disperse the harmful chemical
- To arrange transportation to the hospital

**Splashes of chemicals** in the eye can cause serious injury if not treated quickly. Some chemicals damage the surface of the eye, resulting in scarring and even blindness.

Your priority is to wash out (irrigate) the eye so that the chemical is diluted and dispersed. When irrigating the eye, be careful that the contaminated rinsing water does not splash you or the casualty. Before beginning to treat the casualty, put on protective gloves if available.

## WHAT TO DO

- 1** Put on protective gloves. Hold the casualty's affected eye under gently running cold water for at least ten minutes. Irrigate the eyelid thoroughly both inside and out; if the casualty's eye is shut in a spasm of pain, gently, but firmly, try to pull the eyelid open.



- 2** Make sure that contaminated water does not splash the uninjured eye. You may find it easier to pour the water over the eye using an eye irrigator or a glass.



- 3** Ask the casualty to hold a clean gauze pad over the injured eye. If it will be some time before the casualty receives medical attention, bandage the pad loosely in position.
- 4** Arrange to take or send the casualty to the hospital. Identify the chemical if possible and pass on details to the medical staff.

# FOREIGN OBJECT IN THE EYE

## CAUTION

- Do not touch anything that is sticking to, or embedded in, the eyeball. Cover the eye (p.123) and arrange to take or send the casualty to the hospital.

## RECOGNITION

There may be:

- Blurred vision
- Pain or discomfort
- Redness and watering of the eye
- Eyelids held tight in spasm

## YOUR AIM

- To prevent injury to the eye

## SPECIAL CASE IF OBJECT IS UNDER UPPER EYELID

Ask the casualty to grasp the lashes on her upper eyelid and pull the upper lid over the lower lid; the lower lashes may brush the particle clear. If this is unsuccessful, ask her to try blinking underwater because this may also make the object float off. Do not attempt to do this if the object is large or abrasive.



Foreign objects such as grit, a loose eyelash, or a contact lens that are floating on the surface of the eye can be easily rinsed out. However, you must not attempt to remove anything that sticks to the eye or penetrates the eyeball because this may damage the eye. Instead, make sure that the casualty receives urgent medical attention.

## WHAT TO DO

- 1 Advise the casualty not to rub her eye. Ask her to sit down facing a light.



- 2 Stand beside, or just behind, the casualty. Gently separate her eyelids with your thumbs or finger and thumb. Ask her to look right, left, up, and down. Examine every part of her eye as she does this.



- 3 If you can see a foreign object on the white of the eye, wash it out by pouring clean water from a glass or pitcher, or by using a sterile eyewash if you have one. Put a towel around the casualty's shoulders. Hold her eye open and pour the water from the inner corner so that it drains onto the towel.
- 4 If this is unsuccessful, try lifting the object off with a moist swab or the damp corner of a clean handkerchief or tissue. If you still cannot remove the object, seek medical help.

## FOREIGN OBJECT IN THE EAR

If a foreign object becomes lodged in the ear, it may cause temporary loss of hearing by blocking the ear canal. In some cases, a foreign object may damage the eardrum. Young children frequently push objects into their ears. The tips of cotton swabs are often left in the ear. Insects can fly or crawl into the ear and may cause distress.

### WHAT TO DO

- 1 Arrange to take or send the casualty to the hospital. Do not try to remove a lodged foreign object yourself.
- 2 Reassure the casualty during the journey or until medical help arrives.

### SPECIAL CASE INSECT INSIDE THE EAR

Reassure the casualty and ask him to sit down. Support his head, with the affected ear uppermost. Gently flood the ear with tepid water; the insect should float out. If this flooding does not remove the insect, seek medical help.



### CAUTION

- Do not attempt to remove any object that is lodged in the ear. You may cause serious injury and push the foreign object in farther.

### YOUR AIMS

- To prevent injury to the ear
- To remove a trapped insect
- To arrange transportation to the hospital if a foreign object is lodged in the ear

## FOREIGN OBJECT IN THE NOSE

Young children may push small objects up their noses. Objects can block the nose and cause infection. If the object is sharp it can damage the tissues, and "button" batteries can cause burns and bleeding. Do not try to remove a foreign object; you may cause injury or push it farther into the airway.

### WHAT TO DO

- 1 Try to keep the casualty quiet and calm. Tell him to breathe through his mouth at a normal rate. Advise him not to poke inside his nose to try to remove the object himself.
- 2 Arrange to take or send the casualty to the hospital, so that it can be safely removed by medical staff.

### CAUTION

- Do not attempt to remove the foreign object, even if you can see it.

### RECOGNITION

There may be:

- Difficult or noisy breathing through the nose
- Swelling of the nose
- Smelly or blood-stained discharge, indicating that an object may have been lodged for some time

### YOUR AIM

- To arrange transportation to the hospital

# COLD COMPRESSES

**Cooling an injury** such as a bruise or sprain can reduce swelling and pain. There are two types of compress: cold pads, which are made from material dampened with cold water, and ice packs. An ice pack can be made using crushed ice and a small amount of water sealed in a plastic bag, or packages of frozen peas or other small vegetables.

## CAUTION

- To prevent cold injuries, always wrap an ice pack in a cloth. Do not leave it on the skin for more than ten minutes at a time.

## COLD PAD

- 1 Soak a clean washcloth or towel in cold water. Wring it out lightly and fold it into a pad. Hold it firmly against the injury (right).
- 2 Resoak the pad in cold water every few minutes to keep it cold. Cool the injury for at least ten minutes.



USING A COLD COMPRESS

## ICE PACK

- 1 Partly fill a plastic bag with crushed ice, or use a pack of frozen vegetables. Wrap the bag in a dry cloth.
- 2 Hold the pack firmly on the area (left). Cool the injury for no more than ten minutes at a time, removing the pack for five-minute periods.

## **ΒΙΒΛΙΟΓΡΑΦΙΑ :**

### **Βιβλιογραφία και Πηγές Εικόνων**

#### ***Ελληνόγλωσση Βιβλιογραφία***

- Βεσκούκη, Γ.Λ. (1999). *Πρώτες Βοήθειες Και Αγωγή Υγείας*. Διδακτορική Διατριβή. Αθήνα: Πανεπιστήμιο Αθηνών, Τμήμα Νοσηλευτικής.
- Γερασιμάτος, Α., Καραγιάννης, Γ.Μ. (2009). *Πρώτες Βοήθειες Για Πολίτες. Εγχειρίδιο Εκπαιδευόμενο, Ενότητα 1.2*. Πάτρα: Ελληνικός Ερυθρός Σταυρός.
- Γιανναδάκη, Μ. (2012). *Σημειώσεις Πρώτων Βοηθειών*. Ηράκλειο: Ελληνικός Ερυθρός Σταυρός.
- Γκούβρα, Μ., Κυρίδης, Α. & Μαυρικάκη, Ε. (2001). *Αγωγή Υγείας Και Σχολείο*. Αθήνα:
- Γεωργιάδης, Ν., Παπαδόπουλος, Λ. (2000). «*Η εφαρμογή στην Πρωτοβάθμια Εκπαίδευση προγραμμάτων αγωγής μη γνωστικών αντικειμένων*», στο Μπαγάκης Γ. (Επιμ.),
- Προαιρετικά Εκπαιδευτικά Προγράμματα στη Σχολική Εκπαίδευση. Αθήνα: Μεταίχιμο.
- Δαρβίρη, Χ. (2007). *Προαγωγή Υγείας*. Αθήνα: Εκδόσεις Πασχαλίδη.
- Καραδήμας, Ε. (2005). *Ψυχολογία της υγείας*, Θεωρία και κλινική πράξη. Αθήνα:
- Τυπωθήτω,
- Κόκκος, Α. (2004). *Οι Κοινωνικές Διαθέσεις Απέναντι στην Τυπική Εκπαίδευση και την Εκπαίδευση Ενηλίκων: Η Περίπτωση της Ελλάδας*, Πρακτικά του 1ου Συνεδρίου. Αθήνα:Επιστημονική Ένωση Εκπαίδευσης Ενηλίκων
- Komaroff, L.A. (2004). *Όλα για την Υγεία*. Αθήνα: Εκδόσεις Φλούδα.
- Κωλέτση – Κουνάρη, Χ., Μαμάη- Χωματά, Ε. (2007). *Κοινωνική Οδοντιατρική*. Αθήνα: Ιατρικές Εκδόσεις Πασχαλίδη.
- Μπαλόπουλος, Γ.(2001). *Πρώτες Βοήθειες*. Αθήνα: Ιατρικές Εκδόσεις Π.Χ. Πασχαλίδης
- Νικολάου, Ε. *Σωματική Και Ψυχική Υγεία*. Αθήνα: Υπουργείο Εθνικής Παιδείας Και Θρησκευμάτων, Γενική Γραμματεία Εκπαίδευσης Ενηλίκων, Ινστιτούτο Διαρκούς Εκπαίδευσης Ενηλίκων.
- Παπασταματίου, Μ. κ.ά. (2011). *Βασικές Αρχές Στην Παροχή Πρώτων Βοηθειών*. Αθήνα:Κ. Παρισιάνου.
- Πατούλης Γ. (2009). *Πρώτες Βοήθειες για Όλους*. Αθήνα: CopyrightΚαυκάς.
- Σαρρής, Μ. (2001). *Κοινωνιολογία της υγείας και ποιότητα ζωής*, Αθήνα: Παπαζήση.
- Σουρτζή, Π. (1999). *Προαγωγή της υγείας στην κοινότητα*. Αθήνα: Στο: Κοινοτική
- Νοσηλευτική Καλοκαιρινού– Αναγνωστοπούλου. Πανεπιστημιακές Παραδόσεις. 55
- Τούντας, Γ. (1994). *Προαγωγή υγείας*. Στο Ε. Κακλαμάνη, Υ. Φραγκούλη Κοπυμαντάκη (Επιμ). Προληπτική Αθήνα: Ιατρική Και Αυ. Ιατρ. Εκδ.
- Πολίτου, Α., [http://www.chem.uoa.gr/courses/toxikologia/toxic\\_narkwtika.pdf](http://www.chem.uoa.gr/courses/toxikologia/toxic_narkwtika.pdf). Ημερομηνία προσπέλασης: 25/7/2013
- ΣΕΑ Κοζάνης, <http://www.seakozanis.gr/aimodosia?showall=1> Ημερομηνία προσπέλασης: 3/8/2013
- Τούντας,Γ.,<http://asclepieion.mpl.uoa.gr/pubASPIS>

#### ***Ξενογλωσση Βιβλιογραφία***

- Horner, J.W. (1980). *Health Education And Public Policy In The United Kingdom*.
- Community Medicine 2(3), Pp:229-235 (Ottawa Charter For Health Promotion, 1986).
- Schreiber, G.B., Mccurdy,P., Sanchez,A., et al. (1999). Frequency of blood donation and rreserve capacity of the blood supply (abstract).Transfusion. 39S:32S.
- World health organization (1948). Who Constitution. Geneva.
- WHO (1946). *International Health Conference*. New York.
- WHO (2004). *World Report On Road Traffic Injury Prevention*. Geneva: World Health Organization.

### Διαδικτυακές Πηγές

- Εθελοντές Αιμοδότες Ροδόπης, <http://www.earodopis.gr/content/view/78/32/>. Ημερομηνία προσπέλασης: 3/8/2013
- Εθνικό Σχέδιο Δράσης για τα Ατυχήματα, 2008 [http://www.ektepn.gr/Documents/PDF/EE2012.pdf](https://www.google.gr/url?sa=t&rct=j&q=&esrc=s&source=web&cd=26&ved=0CFYQFjAFBQ&url=http%3A%2F%2Fwww.moh.gov.gr%2Farticles%2Fhealth%2Fdomes-kai-drasesgia-thn-ygeia%2Fethnika-sxeda-drashs%2F95-ethnikasxediadrashs%3Ffdl%3D232&ei=2WYcUsPNJMbFtQac7IAQ&usq=AFQjCNGYHDHKOdprq980PyaSXFOq4ZOeg&sig2=mYmZ4801ekilFdZQzHIygQHμερομηνίαΠροσπέλασης:27/8/2013</a></li><li>• ΕΚΤΠΠΝ, <a href=) ημερομηνία προσπέλασης: 25/7/2013
- Ελληνικό Ιατρικό Κέντρο, <http://g.elobot.co.uk/thema/berns/ti-prepei-na-xerete-gia-tinprolipsi-enkavmaton> ημερομηνία \_\_55
- Τούντας, Γ. (1994). *Προαγωγή υγείας*. Στο Ε. Κακλαμάνη, Υ. Φραγκούλη Κοπυμαντάκη (Επιμ). Προληπτική Αθήνα: Ιατρική Και Αυ. Ιατρ. Εκδ.
- Πολίτου, Α., [http://www.chem.uoa.gr/courses/toxikologia/toxic\\_narkwtika.pdf](http://www.chem.uoa.gr/courses/toxikologia/toxic_narkwtika.pdf). Ημερομηνία προσπέλασης: 25/7/2013
- ΣΕΑ Κοζάνης, <http://www.seakozanis.gr/aimodosia?showall=1> Ημερομηνία προσπέλασης: 3/8/2013
- Ελληνικό Νοσοκομείο Παιδών Αγγλία Κυριακού. Διαθέσιμο στον ιστότοπο: [http://www.aglaiakyriakou.gr/poison\\_a.html](http://www.aglaiakyriakou.gr/poison_a.html). Ημερομηνία προσπέλασης 23/7/2013
- Καραμπάτσου, Δ., <http://www.firstaidtraining.gr>, Ημερομηνία προσπέλασης 16/6/2013
- Κουγιουμτζόγλου, Χ., <http://protesbohthies.blogspot.com>. Ημερομηνία προσπέλασης 21/11/08
- ΚΕΕΛΠΝΟ Διαθέσιμο στον ιστότοπο: <http://www.keelpno.gr/> Ημερομηνία προσπέλασης: 25/7/2013
- Λυμπέρη, Α.Ι., [http://1menemend.pbworks.com/w/file/51576924/prwtes\\_bohtheies%20\(1\).pdf](http://1menemend.pbworks.com/w/file/51576924/prwtes_bohtheies%20(1).pdf) Ημερομηνία Προσπέλασης: 23/6/2013
- ΝΙΜΙΤΣ, [http://www.nimts.gr/content/index.php?option=com\\_content&task=view&id=108&Itemid=140](http://www.nimts.gr/content/index.php?option=com_content&task=view&id=108&Itemid=140) Ημερομηνία προσπέλασης: 26/7/2013
- ΟΚΑΝΑ, <http://www.okana.gr/component/k2/item/176> Ημερομηνία προσπέλασης: 25/7/2013
- ΟΤΕ Health Pages, Ημερομηνία προσπέλασης: 25/8/2013 <http://www.healthpages.gr/portal/page/portal/1535/Fullstory?ArticleID=625>.
- Πανελλήνιος Σύλλογος Αιμοδοτών, <http://www.aimodosia.org/default.asp?id=4>
- Παπαστεργίου, Δ. <http://www.geniki-odontiatriki.gr/symvoules/39-stomatiki-ygieini> . Ημερομηνία προσπέλασης 23/7/2013



