Supporting University Community pathways for REfugees-migrants

Supporting Refugees on Health and Law Issues

Developing training modules on issues related to health care services

ARISTOTLE UNIVERSITY OF THESSALONIKI
VU VRIJE UNIVERSITEIT AMSTERDAM
Universität zu Köln
GREEK COUNCIL FOR REFUGEES
ΙΔΡΥΜΑ ΚΡΑΤΙΚΩΝ ΥΠΟΤΡΟΦΙΩΝ IKY
Co-funded by the Erasmus+ Programme of the European Union

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Consortium:

- Aristotle University of Thessaloniki, Greece
- Vrije Universiteit Amsterdam, The Netherlands
- University of Cologne, Germany
- Greek Council for Refugees, Greece

Co-funded by the Erasmus+ Programme of the European Union

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Chapter 1: First Aid

- **Immediate** and **temporary** help administered to the victim in the case of injure or sudden illness until an **ambulance**, a doctor or an expert arrives.

FIRST AID & C'S

What is First Aid

It is the immediate and temporary help administered to the victim in the case of injure or sudden illness until an ambulance, a doctor or an expert arrives.

First Aid

Prevention comes first…but Knowledge saves!

Because prevention comes first…

Do I love life?
Do I respect myself?
Do I value human existence?
If the answer is
YES
Then…
I PROTECT MYSELF
AND
I PROTECT OTHERS!

So…

- I **drive** carefully and not under the influence of alcohol or other substances. I respect road traffic regulations. I wear seatbelt or helmet
- I **eat** correctly and healthy
- **I exercise**
- **I do not "contaminate"** both my physical and social environment
- **I don't put myself or others in danger** due to negligence, indifference, bragging or inflated sense of self-esteem
- In my personal value scale, life and beauty comes first not profit or monetary
- **It is my duty** to know, think, resist, choose and decide serving life and fellow humans.

If, though an accident happens:

Then

Knowledge

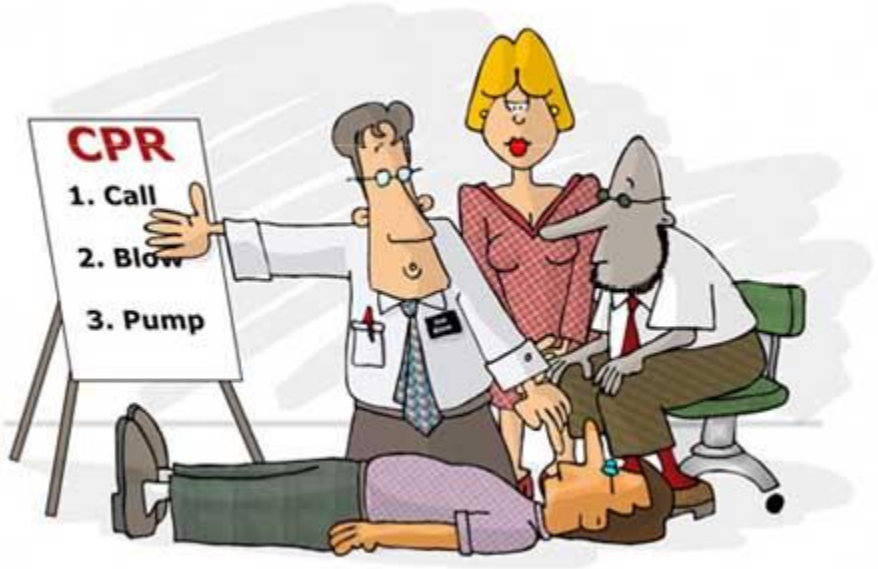
SAVES!!!

WORKPLACE FIRST AID TRAINING LTD.

"Learning To Save Lives"

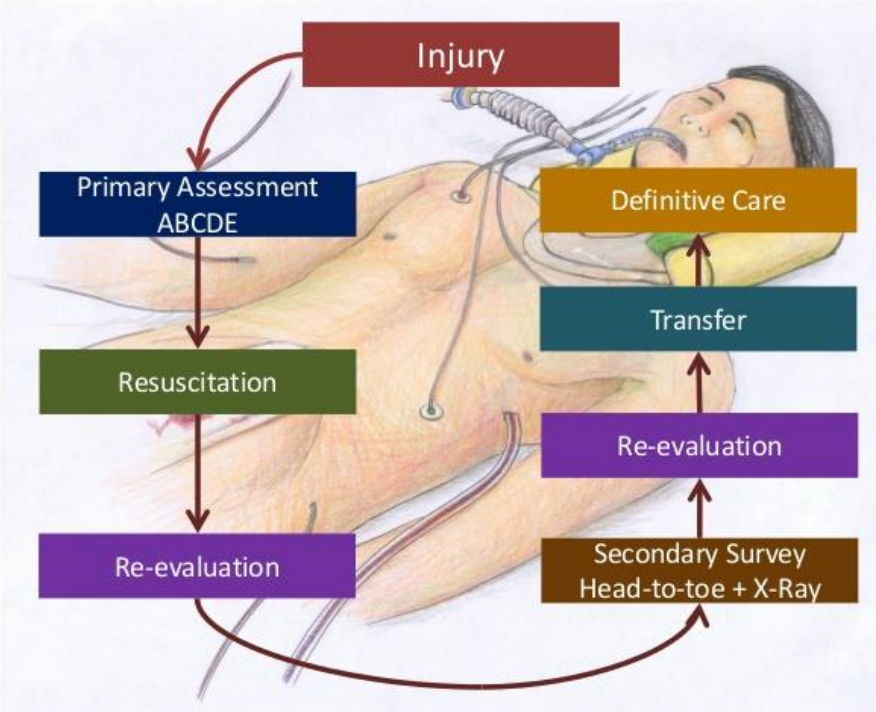
What is the aim of first aid?

- Preservation of life
- Prevention of the deterioration of the situation
- Help during resuscitation
- Pain relief



Prerequisites for the successful administration of First Aid

1. Calmness
2. Knowledge
3. Pharmaceutical and first aid material



Responsibilities of the First Aid giver

- Situation evaluation
- Call for help
- Protection of the victim from other dangers
- Identification of the problem and quick action
- Utilization of everyone than can help
- Staying close to the victim

Stages of Action

Stage 1: Approach
Stage 2: Situation Evaluation
Stage 3: Call for specialized help/care
Stage 4: Administration of First Aid

This Action Plan is a vital aid to the first aider in assessing whether the victim has any life-threatening conditions and if any immediate first aid is necessary. They are **DRABC** .

D - Check for **DANGER**
- To you
- To others
- To victim

B - Check for **BREATHING**
- Is chest rising and falling?
- Can you hear victim's breathing?
- Can you feel the breath on your cheek?

R - Check **RESPONSE**
- Is victim conscious?
- Is victim unconscious?

C – Check for CIRCULATION
Can you feel a pulse ?
Can you see any obvious signs of life?

ACTION PLAN

How do I APPROACH?

- We take care for both our and the victim's safety at the site of the accident (park your car, turn off the engine, regulate traffic, turn off gas leak, turn off electricity, move victim only if immediate danger is imminent)
- Approach calmly – retain composure and carefully ask, introduce yourself, comfort .
- Take care of the victim(s). Priority given to those in immediate need and higher chance of survival.
- Take care for our and the victim's safety as well as other bystanders.
- Approach the victim calmly and carefully
- We take care of victims that have immediate need of care and more chances of survival.

Are you ok?
Shake and yell

Stage 2: Approach

Stage 1: Approach

How do I EVALUATE THE SITUATION?

Check if the victim is breathing

- **remove** any foreign objects from the mouth that could hinder breathing
- **clear the trachea:** Put two fingers under the victim's jaw and lift. Simultaneously put the hand on the forehead and tilt the head back

Breathing:

Stage 2: Evaluation

- Location
- Type of accident
- Number of victims
- Age of victims *(infants, children…)*
- Gravity of the situation
- Objects in the accident site *(liquids, gasses, objects...)*
- Further dangers

How to check for breathing: < 10 seconds

See: chest movements

Hear: sound of airflow

Feel: exhalation on the cheeks

Check for Breathing

Breathing evaluation

- See
- Hear
- Feel

(twice)

Breathing

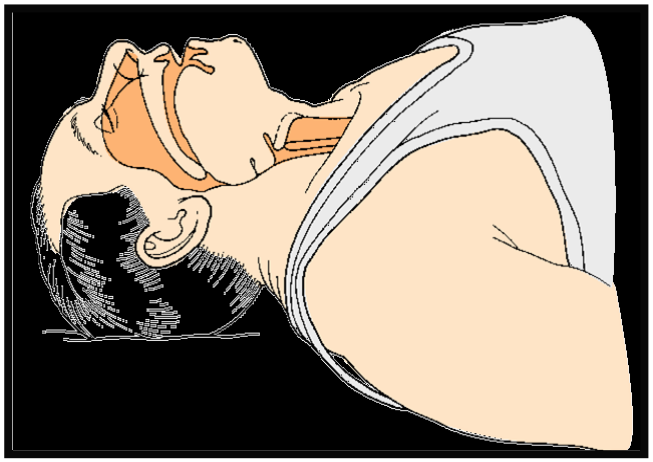
Breaths/min

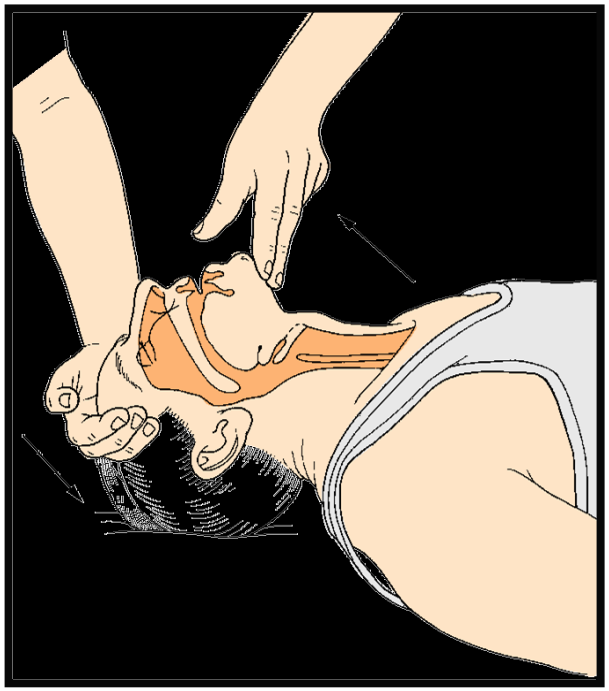
12-20/minute

>25 over ventilation

<12 under ventilation

Lifting the chin in a person that has lost consciousness





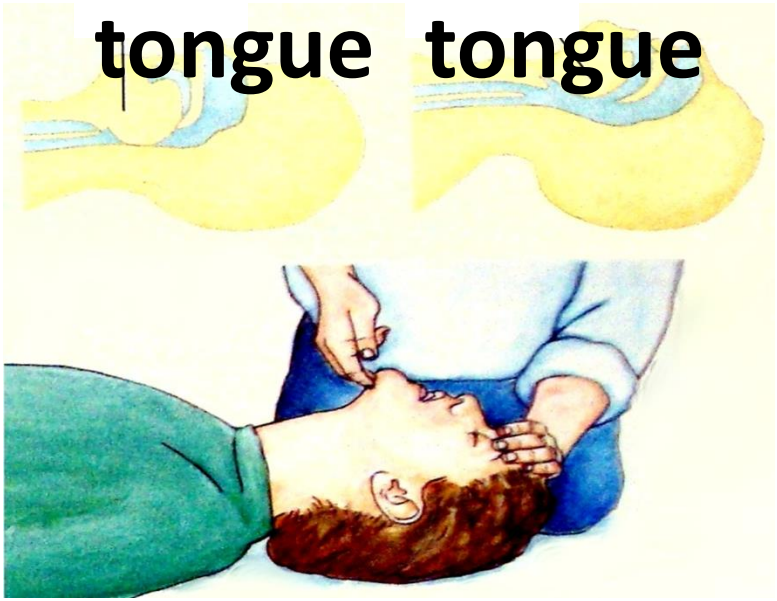
Pulse sites

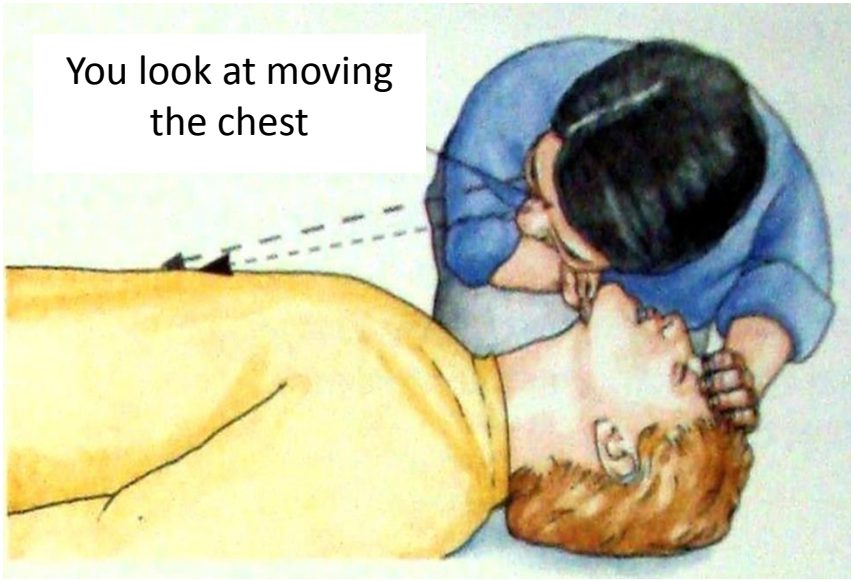
- Adults: 60-80/min
- Children: 80-100/min
- Infants: 100-140/min

How to check for breathing

- See
- Hear
- Feel

(twice)





CALL for HELP!

With the help of the instructor you will take part in exercises involving a scenario of calling emergency departments!

Basics of FIRST AID

- **Evaluate the accident site**
- Keep in mind the bystanders!

Call for help - 112

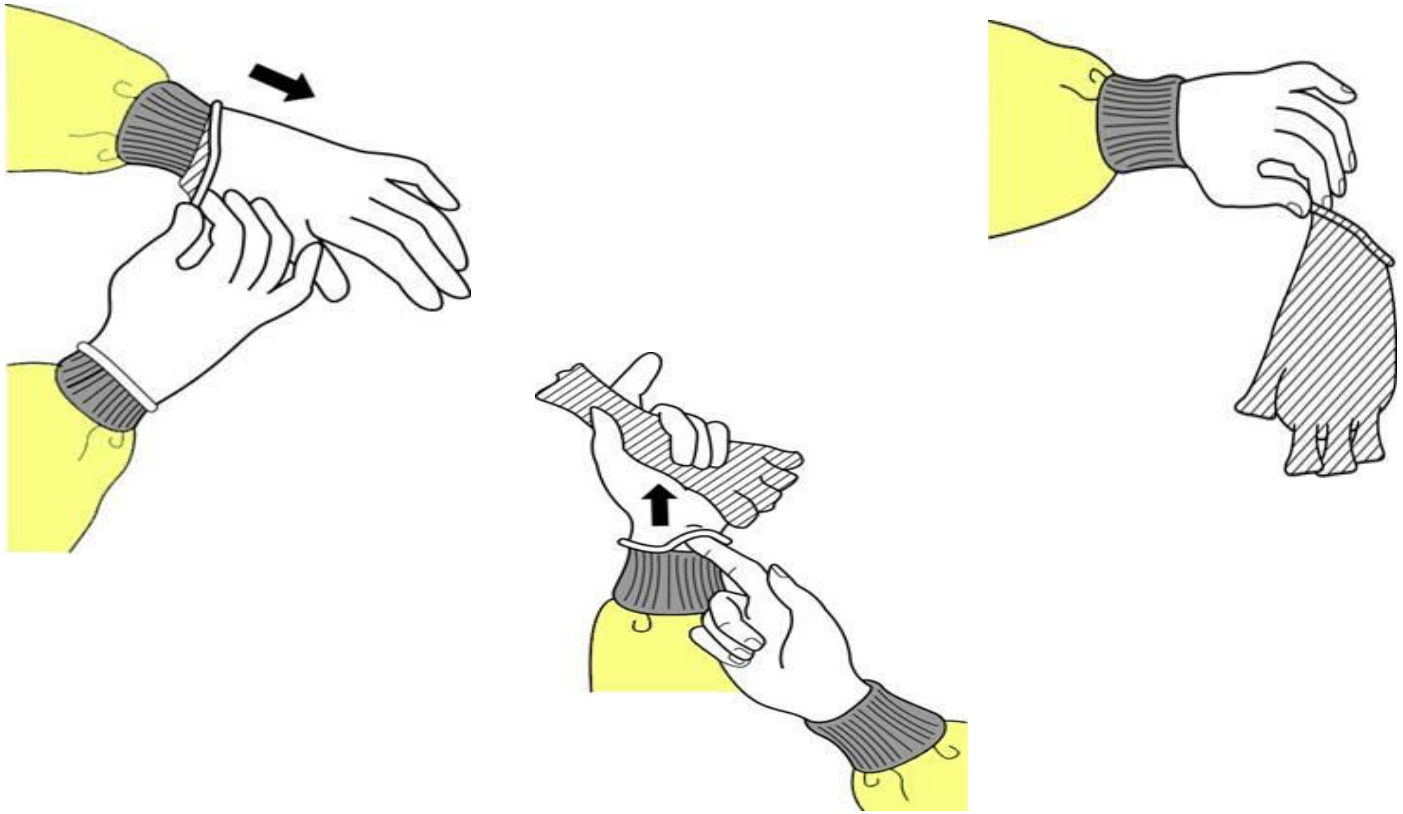
Basics of FIRST AID

During traumatic events children usually respond with:

- ✓ **fear**
- ✓ **Increased agitation**
- ✓ **inability to act towards danger**
- ✓ **hyperactivity**
- ✓ **confusion**
- ✓ **guilt**
- ✓ **loss of speech and persistent crying**

Attention!
Reassure the children for their safety and if we are sure for the safety of their relatives.
Don’t make promises you cannot keep!

Personal Safety Measures



Personal Safety Measures


Ambu


Can Also Be
Used
For AED
Training


rebreath

What should be in a First aid kit?

- Elastic Bandages width12 cm.
- Gauze Bandages width 10 cm.
- Triangular Bandages
- Sterile dressing in packages
- Cotton 250 gr.
- Adhesive tape width8 cm. in a roll
- Adhesive tape with sterile gauze (Different sizes)
- Big Safety Pin
- Tongue spatulas, wooden or plastic
- Wooden or metal casts length 45 cm. and width 10 cm.
- Small scissors
- Paper or plastic cups
- Toilet soap
- Wrapping paper in sheets
- Greaseproof paper in sheets
- Aspirin pills

RESCUE from IMMEDIATE DANGER

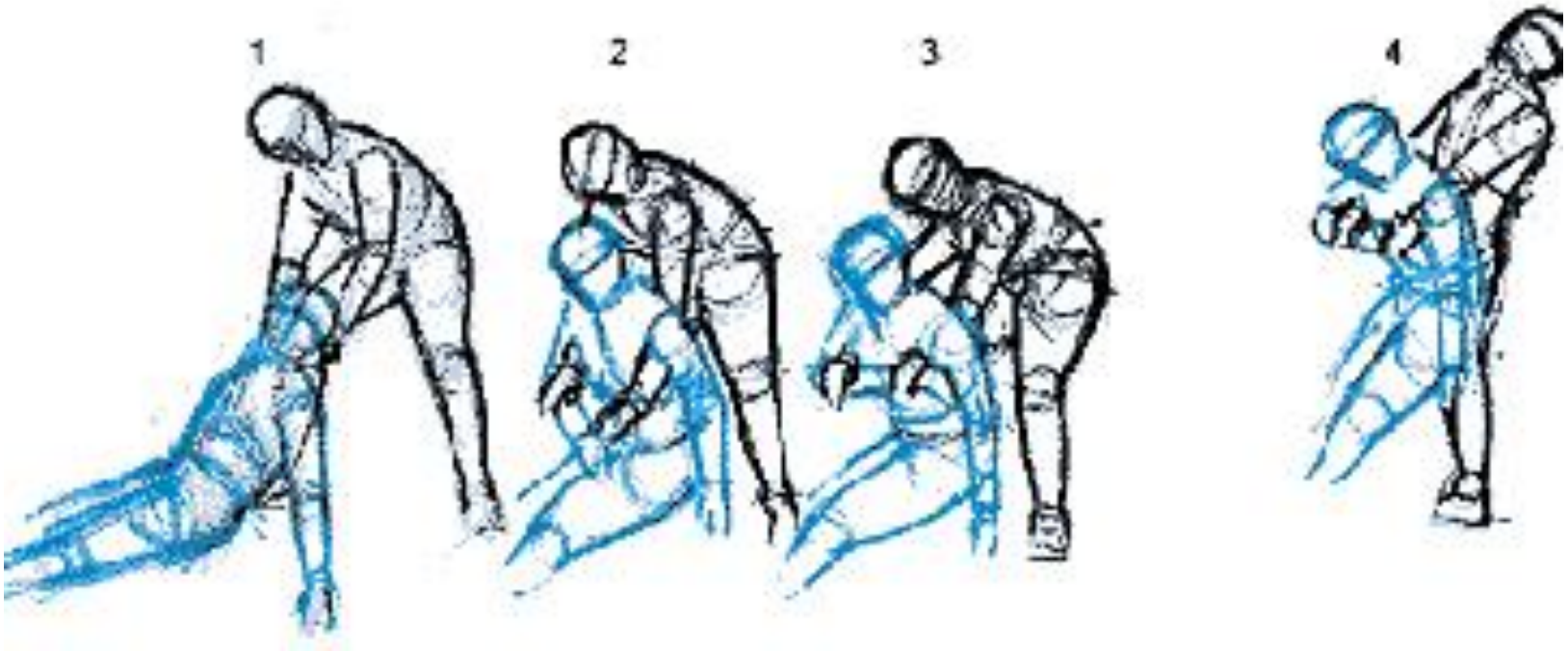
Rautek rescue maneuver should be used only on victims not exhibiting serious injury and only when the victim needs to be moved to due immediate danger.

2

1

RESCUE from IMMEDIATE DANGER

With the help of your instructor you will be trained in the practical application of Rautek rescue maneuver!



Victim Evaluation

Danger	Are you or others in danger?
Response	Is the victim conscious?
Trachea	Is the trachea clear?
Breathing	Is the victim breathing?
Circulation	Is there a pulse?

Actions

Unconscious, without respiration

- Call ambulance
- Commence Cardiopulmonary resuscitation (CPR) and do not stop

Unconscious, pulse present but no respiration

- 10 mouth to mouth ventilations
- Call ambulance
- Continue ventilation

Unconscious, ventilation

- Take care of possible fatal wounds
- Put the victim in recovery position
- Call for help

Conscious, pulse and ventilation present

- Victim should stay motionless if spinal cord injury is suspected
- Call for help if needed

Call for help

Call emergency department- 166

- Give name/phone
- Mention the exact accident site
- Describe the problem with the victim, the age, the gender and anything else known for the situation
- DO NOT hang up before the operator does

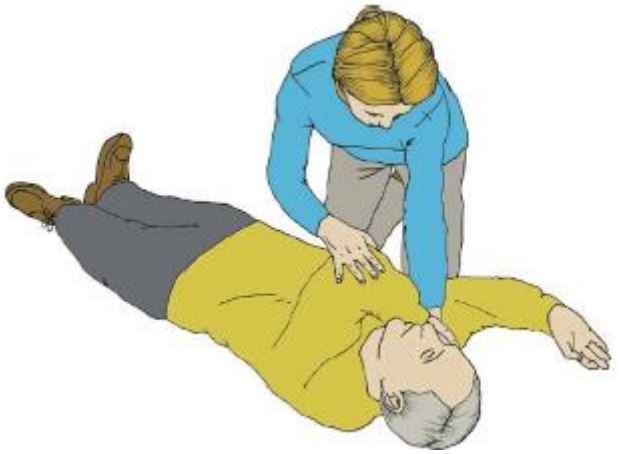
Useful Phone Numbers

PHONE	Service
166	National Emergency center- EKAB
112	International Emergency Center
14944	Hospitals, doctors, pharmacies on duty
2107793777	Poisoning Control Center
199	Fire Brigade
100	Police

Recovery position

- Kneel by the victim, knees should be open at the height of the victims shoulders.
- Clear the trachea
- Carefully straighten victim's legs
- Put the hand on your side in a 90 degrees angle to the victim's body , elbow bent and palm facing upwards

- With one hand grab the victim's hand that is remote and pull it towards us in order to put it on the cheek that is on our side, palm facing outwards.
- Keeping the hand steady, pull victim on our side



- Use the other hand to grab the victim's thigh that is remote and lift the knee to the air keeping the leg earthbound.
- Pull the victim with our both hands so he/she rolls on our side.

- Put his/her hand under the cheek so as to support head.
- Tilt head back so trachea stays clear and open
- Fix the upper leg so the pelvis and knee form a 90 degree angle.
- Call ambulance

First Aid Kit

The First Aid Kit should be in a special box that carries a special label. It should be put away from high temperature, moisture and strong odors.

First Aid Kit Contents

- Thermometer
- Sterilized Gauze
- Elastic Bandages
- Cotton
- Adhesive tape
- Hansaplast
- Alcohol
- Betadine
- Depon
- Cortisone cream
- Bronchodilatory spray
- Ambu (respiratory sack)

Chapter 2

Fainting

- Transient loss of senses due to restricted blood flow to the brain.
- Usually vasovagal bradycardia, vasodilation, (in crowded places, stress, extensive standing, exaustion, hypoglycemia, dehydration)
- After cough, urination, change of position, heart disease, brain disease.
- Transient loss of senses due to restricted blood flow to the brain.
- Very slow pulse although recovery is quick and full.
- Reaction to pain, fear, agitation, exaustion, food shortage.

Causes of fainting

1. **Common fainting** (Perspiration– paleness and coldness of the limbs)
2. **Heart disease**. Heart rhythm anomalies, complete atrioventricular block, sick sinus syndrome, aortic stenosis, primary pulmonary hypertension.
3. **Orthostatic hypotension**
4. **Urination**
5. **Hypoglycemia**
6. **Hysteria**
7. **Carotid sinus syncope**
8. **Unknown causes**

Supporting University Community pathways for REfugees-migrants

Fainting treatment

- Lift limbs above chest level
- Call for help
- Check breathing-pulse
- Keep victim lying down for 20 minutes after recovery of senses
- Sent for full clinical and laboratory evaluation

What to do if someone faints?

- Make the victim lie down on its side in a way that the head lies lower than the rest of the body and the legs.
- Loosen clothes, colar belt and whatever might restrict the victim , make sure breathing is effortless.

- Caution: Do NOT administer fluids to unconscious victims, danger of drowning.
- When senses are regained the victim should lie down until full recovery is achieved

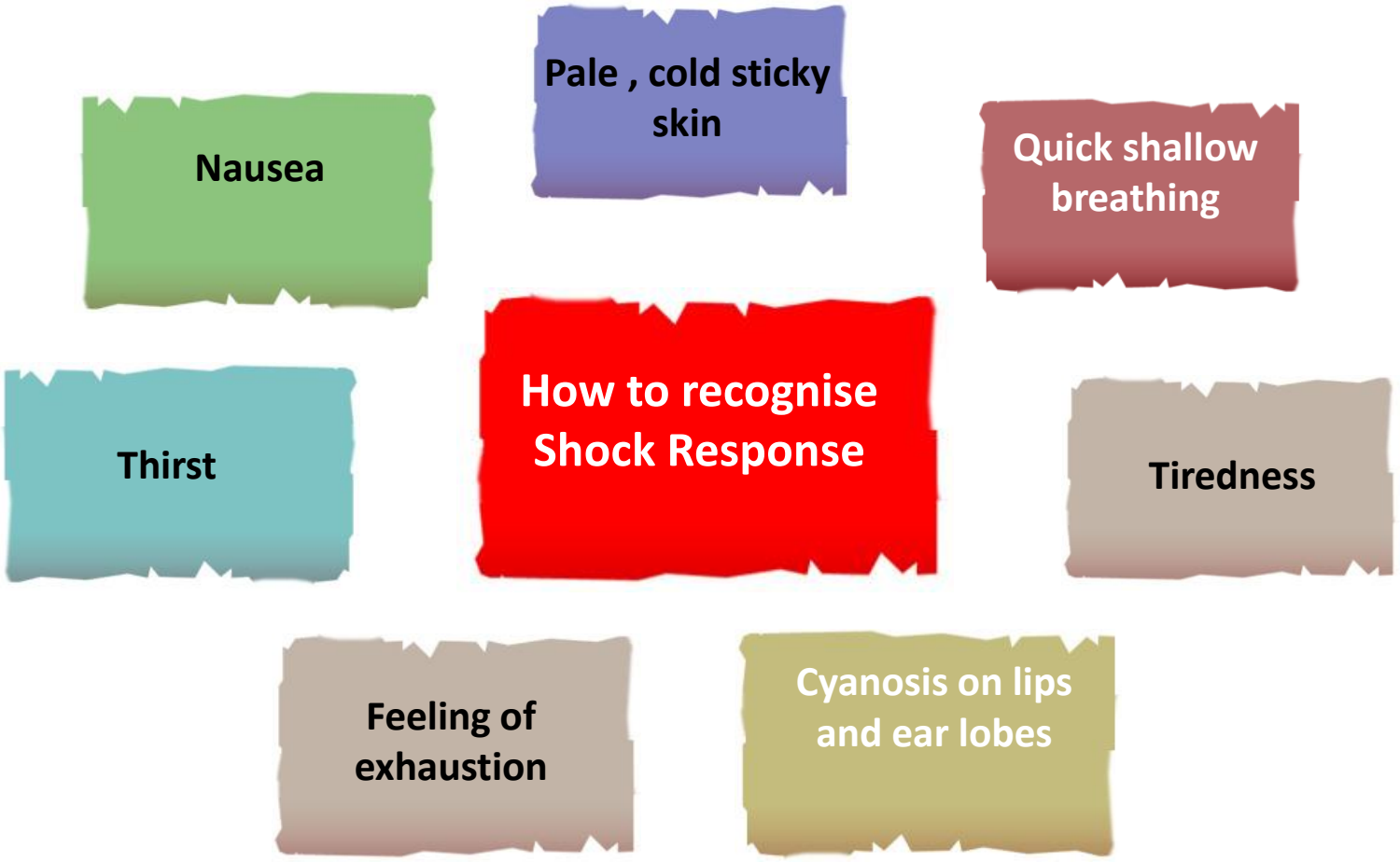
Cataplexy-Shock

Is defined as the condition that leads to insufficient oxygenation of tissues due to cardiovascular or other organ systems implicated in oxygen and blood transport.

Causes:

1. External – internal blood loss
2. Fluid loss (vomiting– diarrhea, perspiration, burns)
3. Allergic reactions

Identifying the Shock Response



Shock – Signs and Symptoms

- Confusion
- Somnolence – loss of senses
- Feeling tired
- Pain or oedema

- Excitation
- Pale, cold, sticky skin
- Quick and weak pulse
- Blood loss
- Nausea - Vomiting

Shock - Treatment

- Keep body temperature steady by covering victim with a blanket.
- Isolate victim – transport to warm place
- Victim should be put to lie down

Blood Loss Cataplexy

- Is attributed to the loss of blood, plasma, water and electrolytes due to blood loss or entrapment in the third space (burns)

Clinical symptoms

Blood Loss	Arterial pressure/pulse	Symptoms
10 – 20 %	AP>80mmHg Pulse:100-120 min	Cold limbs and skin
20 – 40 %	AP>80 mmHg Pulse: 120-150/min	Pale/cyanotic cold limbs, cyanotic lipsl. Disturbances on consciousness level.
>40 %	AP<50 mmHg Pulse: Laminar	Cold, wet, sticky skin. Loss of consciousness.

Treatment

Immediate transport to hospital

Allergic Cataplexy

a) Due to angiokinetic disorder caused by the allergen
b) Clinical image: Collapse– Rash– Dispnea– Edema
c) Treatment: Hospital stay

ShockCataplexy Characteristics

When one goes into shock, paleness, quick pulse, rapid changes in blood presure, nausea and sticky, cold, wet skin are observed (usually on limbs). In the case of septic shock, subcutaneous hemorrhage may be present (due to thrombosis) or worse, if the patient deteriorates, there can be loss of consciousness or disturbances in the consciousness level.

a) We do not move the victim in spinal cord injuries!
b) In traumatic head injury, if there is difficulty in breathing we raise the head and the shoulders.
c) If the victim has lost consciousness or is vomiting put in recovery position
d) Oxygen – Fresh Air

What do we do in Cataplexy?

a) Put the victim to lie down with the head in a lower position than the rest of the body
b) Cover with blanket
c) Stop existing bleeding.
d) If in pain try to aleviate it.
e) Be encouraging.
f) Call doctor quickly.
g) Take care that the victim is administered to a hospital the soonest possible!

ELECTROCUTION EFFECTS

- Coma
- Cessation of breathing
- Cardiovascular cataplexy

If the patient is alive:

- Might be aggressive
- Spasms present
- Loss of the sense of time and space
- Frequent findings:
- Bone fractures
- Joint dislocation
- Spinal cord injuries

ACTIONS

- Cut the electric supply
- Remove victim using an insulator (wood, glass, rubber, plastic)
- Keep in mind: Water is a good conductor so the insulator should be dry
- Do not touch the victim with bare hands
- Do not step on water
- Step on insulators, use paper, plastic etc
- If the victim is unconscious loosen clothes and revive (CRP)
- If no pulse is felt it is mandatory to proceed to CRP. Cover with wet gauges the entry and exit points of the electric current.
- Hit the hand with a wooden stick
- Usually the current reples the victim that falls unconscious on the ground.
- Bradycardia (20-30 pulses per minute) is the most common complication. Cardiac arrest is also common and revival might be needed.

ELECTROCUTION

a) The person offering help should be very carefull since there is the danger of electrocution if he/she comes in contact with the electric current. Step on a dry surface and turn off electricity or remove the plug. If that can not be done safely, remove victim from the electric source using an insulator (glass, rubber, plastic).

b) If there is a pulse, try mouth to mouth vendilation or else proceed to full CRP. It is essential to call for doctor's assistance.

Useful Videos

- Video 1
- Video 2

Chapter 3

BLEEDING

Wound is defined as an irregular cut/opening on the skin or body surface.

Open wound

Blood– fluids flow from the body-EXTERNAL BLEEDING

Closed Wound

Blood escapes circulation but not the body- INTERNAL BLEEDING

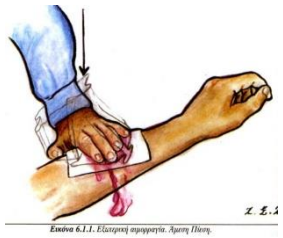
Depending on the damaged blood vessel bleeding can be classified as:

- arterial,
- Capillary or
- venous

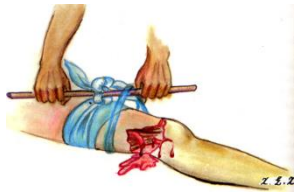
Internal Bleeding

1. Victim exhibits symptoms of hypovolemic shock (rapid heart beat, low arterial pressure,intense prespiration, loss of senses).
2. Difficult to treat on site
3. It is essential for the victim to be administrated to a hospital

- Apply pressure bandage on bleeding site. If none is available use clean cloth, folded multiple times. The cloth is pressed against the bleeding site and it can be tied on the spot with a regular bandage.
- Pressure bandage should never be untied. If the wound is still bleeding use a second or third one on top of the existing ones.



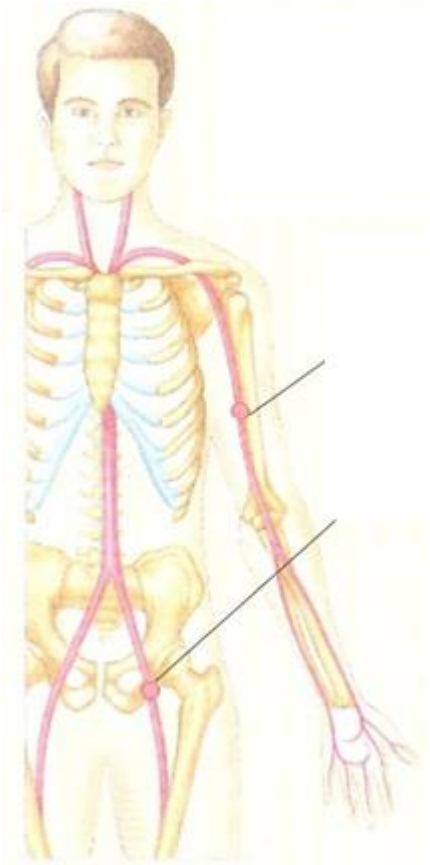
- Arterial bleeding is moredifficult to stop than venous bleeding. In this case the artery should be pressed on a spot between the heart and the bleeding wound or to move the bleeding body part higher than the rest of the body. The bleeding will stop once the artery is pressed at the correct spot. Once bleeding stops use a pressure bandage. A clean cloth folded length wise can be used as well, if the bleeding is contained in one body part.



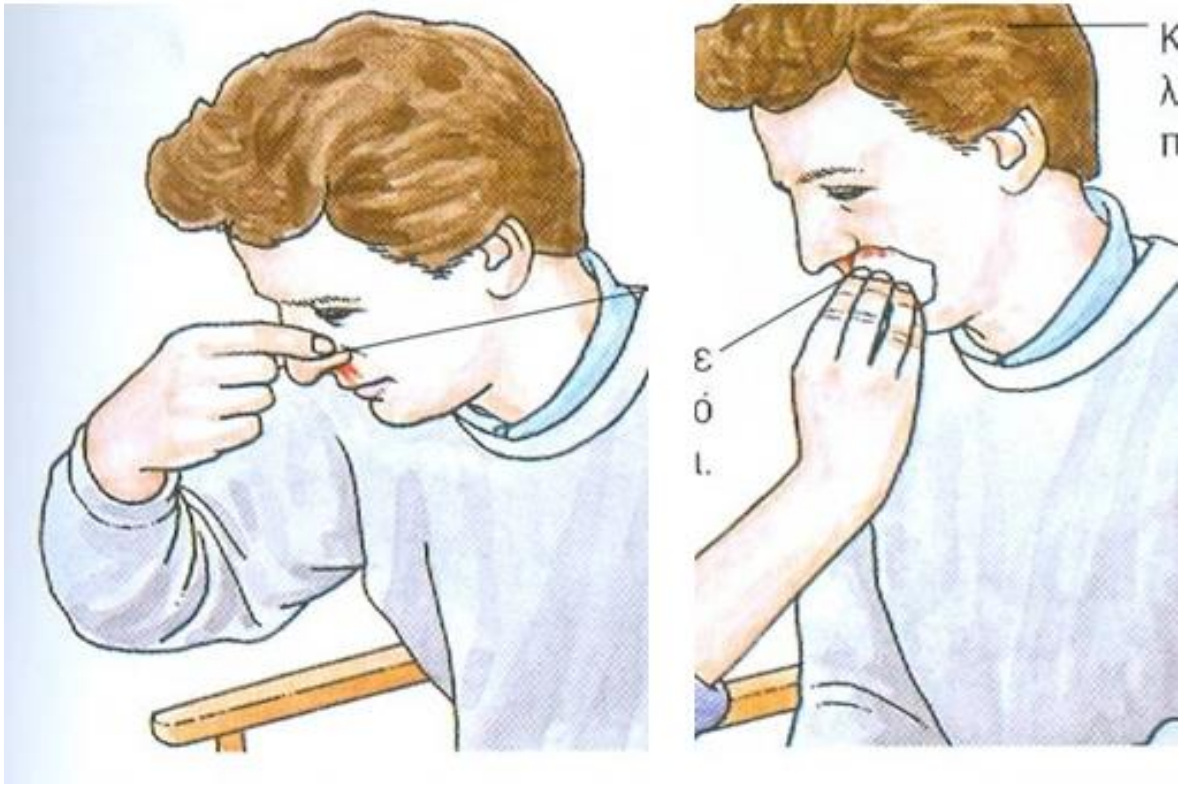
External Bleeding

1. Press the bleeding area with a gauze
2. Press centrally on the limb's blood supplying artery
3. Apply pressure bandage centrally on the bleeding limb
4. Apply tourniquet
5. Apply air inflatable cast
6. Apply special inflatable suit (pants) for lower limbs
7. External bleeding is easy to spot and can be controlled with simple means until the victim is administered to the hospital.

Examples



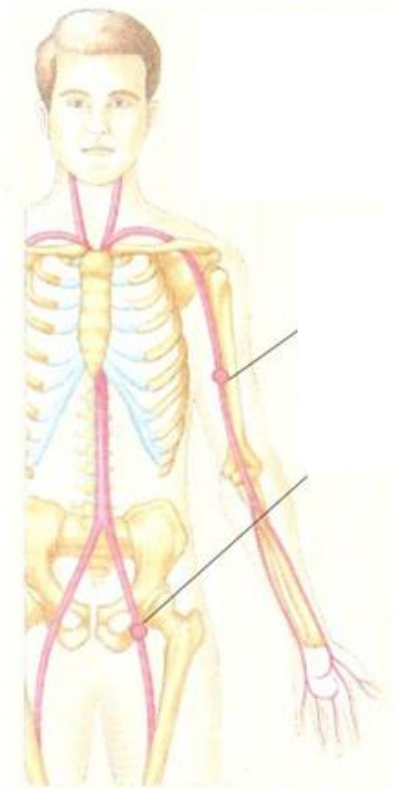
Nose Bleeding



Head Trauma

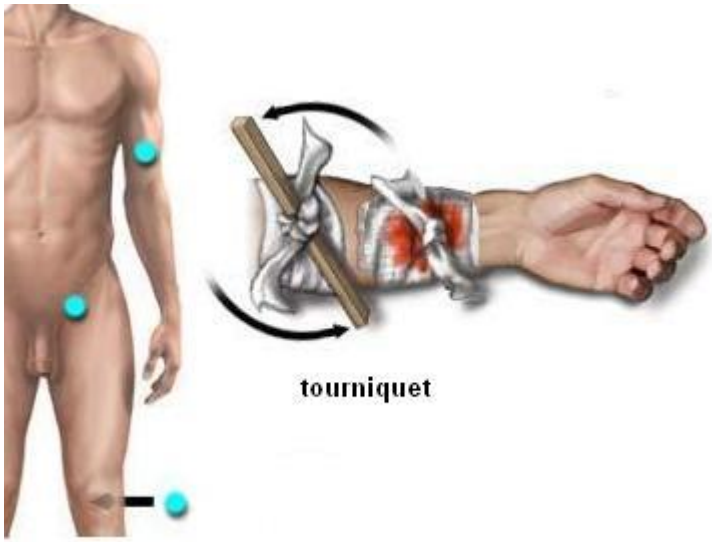
Foot Trauma

Palm Trauma

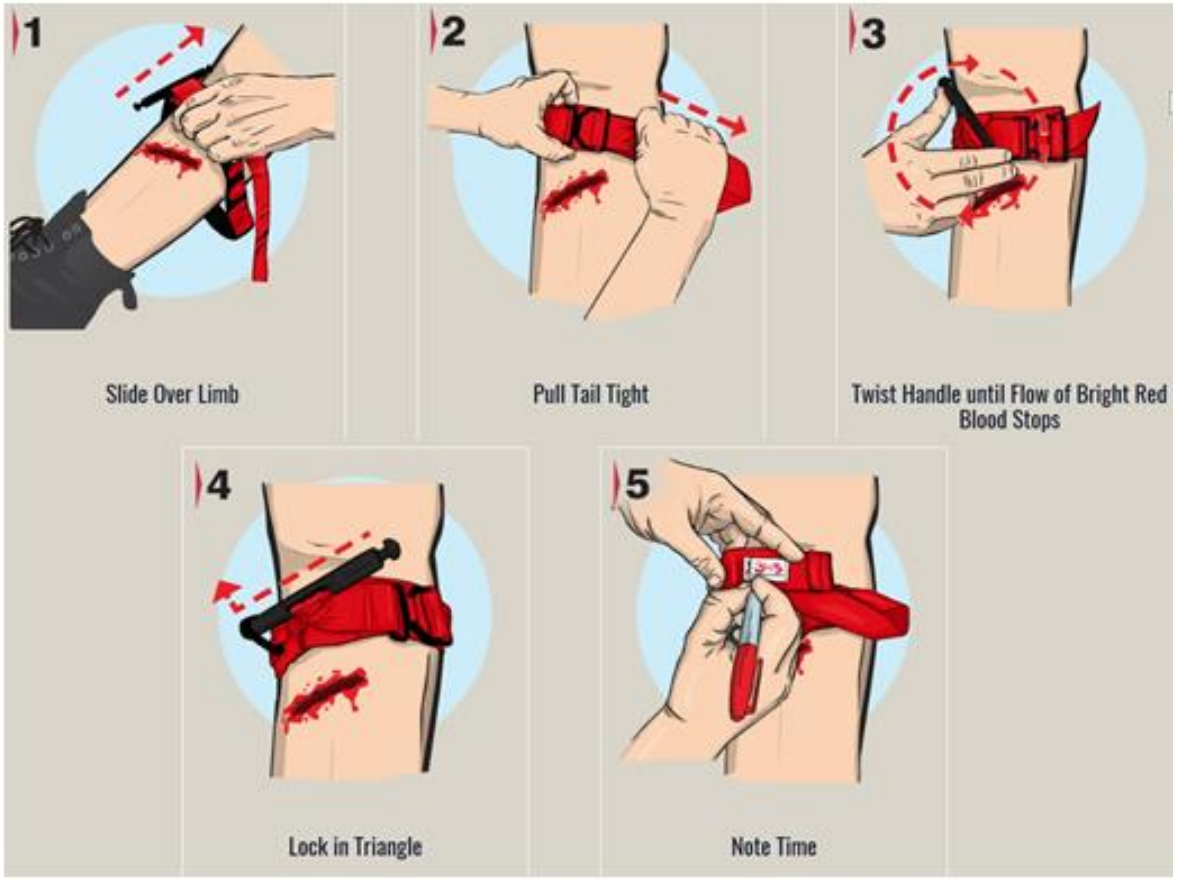


Examples

Tourniquet



Apply only if the bleeding is life-threatening and has not responded to previous treatments as mentioned.



Bleeding Useful Videos

[Video 1]
[Video 2]
[Video 3]

Chapter 4

POISONING

1. **TYPE OF POISON :** SOLID, LIQUID, GAS**.**
2. **ENTRY POINT:** DIGESTIVE TRACT/ PULMONARY/ SKIN (INSECTICIDES)/ BITES(SNAKE BITE)

POISONING CENTER: 2107793777

POISONINGS

If we suspect poisoning we mast act fast and calm. Examine what exactly happened, which poison was taken and in what dosage. Any indicative clue (color of the bottle, smell, shape of pills) is important in order to identify the poison. In the case of poisonous gases (carbon monoxide, natural gas etc.) first move the person from the contaminated room in a place with fresh air. If the victim is not breathing, perform resuscitation. At the same time alert a doctor and/or transfer the victim to the hospital.

- If the poison was taken by mouth (per os), it should be removed from the stomach before it gets into the bloodstream. This can be done by causing emesis (throwing up). In order to do that give to the person water or milk to dilute the poison.
- Then make the person throw up by using a non sharp object (spoon) to trigger the emesis reflex by putting it to the back of the mouth opening where the throat starts. Best way to cause emesis is by using ipecac syrup, a medicine that should be present in every household. Using this medicine should be done after doctor's advice or poison control center advice.

POISONING BY MOUTH/ DIGESTIVE SYSTEM

1. IF IT IS ADVISABLE (CALL POISON CONTROL CENTER) CAUSE EMESIS BY IRRITATING THE THROAT. CONSIDER GIVING ACTIVATED CARBON TO ABSORB THE POISON.
2. GASTRIC LAVAGE CAN TAKE PLACE IN THE HOSPITAL.

- ✓ **POISON CONTROL CENTER: 210-7793777**
- ✓ **Do not cause emesis if the person has ingested caustic substances (acids, caustic soda etc) or if the victim is comatose or has spasms.**
- ✓ **If the victim throws up, we administer 5-15 activated carbon pills that can absorb remaining poison. It can be given even after many hours from the ingestion of the poison.**
- ✓ **If victim is comatose pay attention to the breathing and if needed resuscitate. Keep victim warm, cover with blanket if necessary.**

POISONINGS – "DONTS"

1. DO NOT CAUSE EMESIS IN POISONINGS CAUSED BY STRONG ACIDS (VITRIOL), BASES (CAUSTIC SODA), FUEL, PETROCHEMICALS
2. DO NOT CAUSE EMESIS IN COMATOSE VICTIMS

PROPANE POISONING

IN POISONINGS BY FLAMMABLE GASES SUCH AS PROPANE, WE TAKE THE VICTIM TO A SAFE PLACE, OPEN WINDOWS, NEVER TURN ON THE LIGHTS AND CAL THE FIRE BRIGADE

CARBON MONOXIDE POISONING

1. CARBON MONOXIDE IS ODORLESS TOXIC PRODUCT OF INCOMPLETE COMBUSION OF CARBON BASED PRODUCTS. QUITE COMMON POISONING FROM COAL HEATERS AND COAL STOVES .
2. **SYMPTOMS:** HEADACHE , CHERRY COLORED FACE , CEASATION OF BREATHING.
3. **TREATMENT:** TRANSPORT TO WELL VENTILATED AREA, RESUSCITATE USING AMBU, NO MOUTH TO MOUTη RESUSCITATION ΜΕΤΑΦΟΡΑ ΣΕ ΑΕΡΙΖΟΜΕΝΗ ΠΕΡΙΟΧΗ, ΤΕΧΝΗΤΗ ΑΝΑΠΝΟΗ ΜΕ ΑΜΠΟΥ, ΟΧΙ ΣΤΟΜΑ ΜΕ ΣΤΟΜΑ ΕΜΦΥΣΗΣΕΙΣ.
4. ADMINISTER 100% OXYGEN

POISONOUS SNAKE BITE

1. IN GREECE VIPERS ARE VENOMOUS
2. TREATMENT: KEEP STILL AND LOWER AFFECTED LIMB, USEICE OR COLD WATER ON AFFEXTED AREA. WASH AREA AND TIE ABOVE IT – NOT TOO TIGHT, BE ABLE TO FIT A FINGER BETWEEN THE TOURNIQUET AND ARM. TRANSFER TO HOSPITAL FOR ANTIVENOM SERUM (QUESTIONABLE – MANY PEOPLE DEVELOP ALLERGIC REACTION TO SERUM)

Useful Videos on Poisoning

[Video 1]
[Video 2]
[Video 3]

INSECT BITES

Occurring mostly during fall or summertime. Causes local inflammatory response (pain and swelling). In susceptible individuals it may cause generalized anaphylactic (allergic) response. First aid: apply topical antihistamine cream. If general symptoms appear (difficulty in breathing, swelling, shock), transfer to hospital to receive medical attention.





Intoxication (alcohol)

1. Can lead to coma with cessation of breathing and aspiration of vomit. Danger for injuries especially if the victim drives. Hypoglycemia.
2. **Treatment:** ALWAYS Resuscitation position to avoid aspiration, clean mouth of vomit, transport to hospital.

Shortness of breath

Subjective feeling of elaborated breathing, incapability of performing full respiration resulting from great exertion or changes of breathing status of the person

Clinical presentation

- **Paroxysms**
- Coughing
- Shortness of breath
- Respiratory discomfort
- wheezing

Treatment of shortness of breath

- Calm the patient
- Instruct to sit bowing slightly to the front
- Use spray medication (aerosol) , 2 sprays.
- Evaluate vital signs
- If the crisis continues transport patient to hospital.

Video on Insect Bites

Video 1

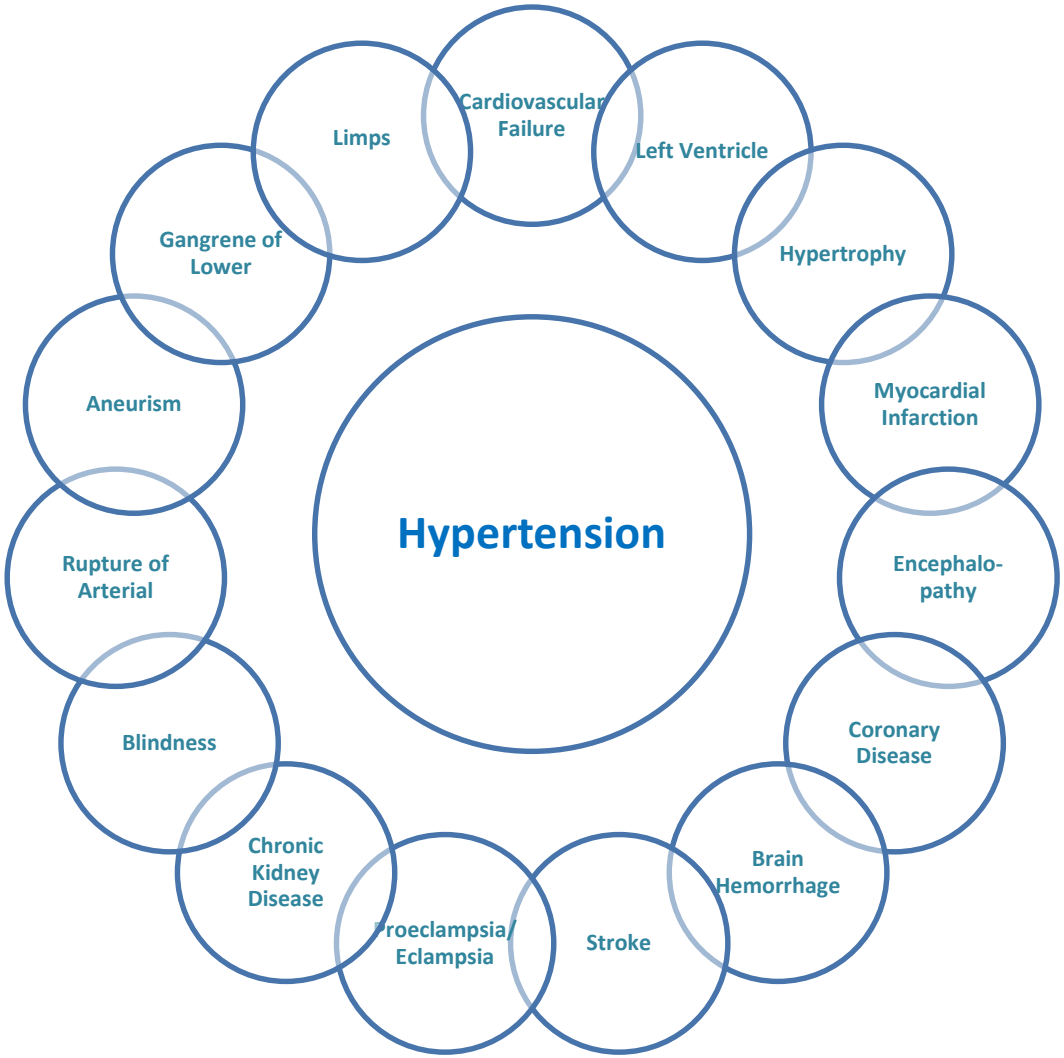
Chapter 5

Acute Hypertensive Crisis

Is the acute and rapid elevation of arterial pressure that is accompanied by malfunction or damage of target organs.

Acute Hypertensive Crisis can be classified as Urgent and Very Urgent

Pathological Conditions attributed to Hypertension



From Dustan HP et al. Arch Intern Med. 1996;156;1926-1935

Hypertensive Crisis

Most hypertensive crisis both urgent and very urgent can be avoided because they are a result of inadequate therapy in patients with mild or moderate hypertension or non conformation to the antihypertensive therapy.

VERY URGENT HYPERTENSIVE CRISIS

1. PRIMARY TARGET OF HYPERTENSIVE TREATMENT IS NOT TO BRING IT TO NORMAL LEVELS
2. BUT TO GRADUALLY LOWER IT AND MINIMIZE ITS EFFECT ON BRAIN, CORONARY AND KIDENY ARTERIES
3. SUDDEN LOWERING OF ARTERIAL PRESSURE HAS BEEN CORRELATED WITH
    a. **ACUTE WORSENING OF KIDNEY FUNCTION**
    b. **MYOCARDIAL ISCHEMY,**
    c. **STROKES**
    d. **OBSTRUCTION OF RETINAL ARTERY**
    e. **AND ACUTE BLINDNESS.**

Urgent Hypertensive Crisis

Patients with urgent hypertensive crisis can be dealt with per os pharmaceutical intervention

If they stabilise they can be sent home with the appropriate treatment after a future visit is arranged to re-evaluate their condition.

Conclusion

Acute hypertensive crisis should be evaluated carefully in order to distinguish between very urgent and urgent. This allows us to take the correct decision for the treatment.

Allergic reactions, Allergic shock, Anaphylaxis

Definition of Allergy

Allergy is defined as the immunological response towards a foreign antigen that causes inflammation of tissues and malfunction of the organs

Allergies

A. Allergy is the most common form of immune diseases.
B. It can be topical of systematic
C. Organs most commonly implicated are:
    a. skin
    b. Respiratory track
    c. Allergic reactions can be found in vasculature and digestive system

Classification of Allergies	Allergens	Treatment
Immune mechanism	Inhaled	Avoidance of allergens
Target organs	Swallowed	Symptomatic relief
Nature and source of allergen	Through skin contact	Immunotherapy
	Injectable	

Anaphylaxis

Acute allergic reaction Οξεία, (type I immune response) that a sensitized host responds upon contact with a foreign substance (antigen or allergen)

Allergens (Drugs –Insect venom) can cause an IgE antibody response with generalised release of mediators from mast cells, resulting in systematic anaphylactic response

Diagnosis

- Usually appears some minutes to an hour after contact with the allergen
- Intense vasodilation
- Skin symptoms (rash-itch)
- Respiratory symptoms (larynx swelling, bronchospasm)
- Less commonly drop in arterial pressure

Clinical manifestations

Manifestations seen within an hour

- **Skin :** reddening, hives, vascular oedema, sweating, itch, urticaria
- **Respiratory :** rinitis, conjuctivitis, swelling of tongue, larynχ ,epiglottis, bronchospasm, asthma asphyxia
- **Cardiovascular :** change in heart rhythm, shock ,fainting, arrhythmia, hypotension, feeling of the pulse
- **Digestive :** nausea, vomiting, diarrhea, abdominal pain, intestinal gas
- **CNS :** Headache, dizziness, loss of consciousness

Anaphylaxis– diagnosis

- Presence of larynx swelling, bronchospasm, hypotension
- Signs or symptoms from other organs: skin, respiratory, digestive
- Recent exposure to allergen
- Proof of IgE production –skin test
- Elimination of other conditions mimicking allergy

Treatment of anaphylactic shock

1. **Secure airways**
2. **Adrenaline**
3. **Fluid administration**

Hives

- Allergic dermatopathy
- Acute if < 3 weeks
- Chronic > 3 weeks

Diagnosis

- Intense itch
- Red or white wheals 1mm – 1cm in size
- History of allergy

Treatment

- Administer cortisone
- Hospital admission

Anaphylactic Shock

- Acute cataplexy episode
- Caused by allergic reaction after contact with antigen (allergen)
- That may lead to respiratory or cardiovascular malfunction (60’ after contact with antigen)

Anaphylactic response - Treatment

- Keys to succesfull treatment:
- Vigilance
- Timely diagnosis – Differential Diagnosis
- Essential Equipment
- Knowing how to treat
- Quick response

Anaphylaxis– prevention

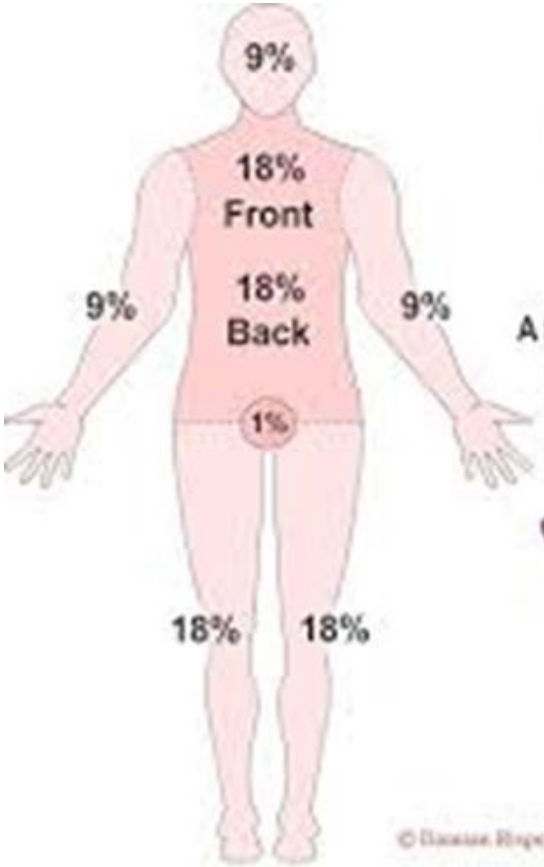
1. Primary
   - Identify causal factors and people in danger
   - Avoidance of known allergens
   - Training of general population
   - Medic alert
2. Secondary
   - Prevention and reversal of dangerous reactions
   - Immediate treatment using adrenaline
   - Desensitization – Immunotherapy

Videos on Anaphylaxis

Video 1

Video 2

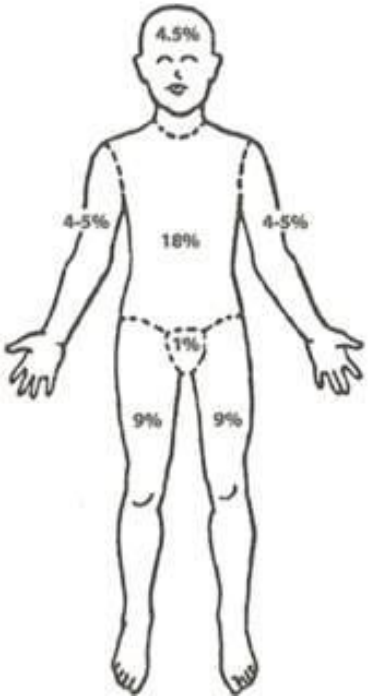
Burns

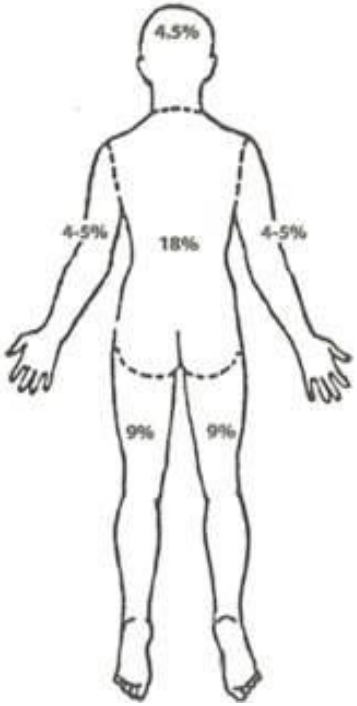


Rule of Nines

Measure 2nd and 3rd Degree Burns

A Patients hand ~ 1% of the total body surface area

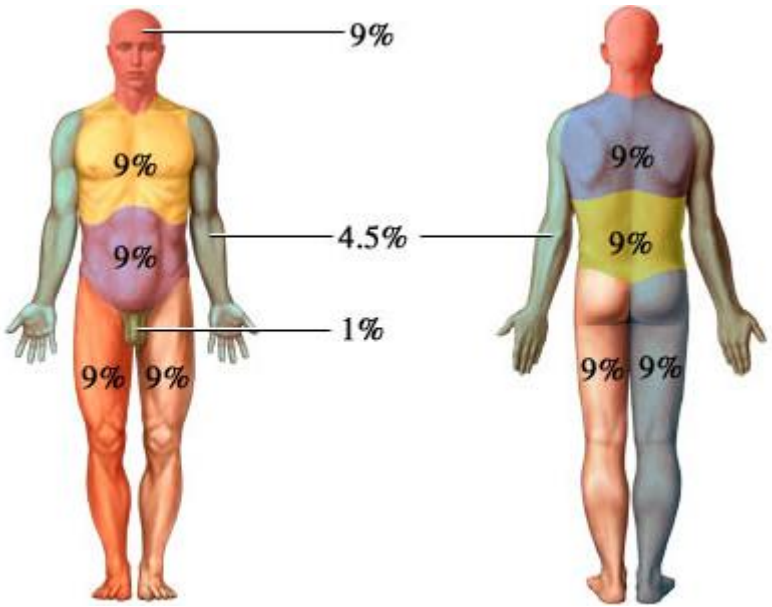


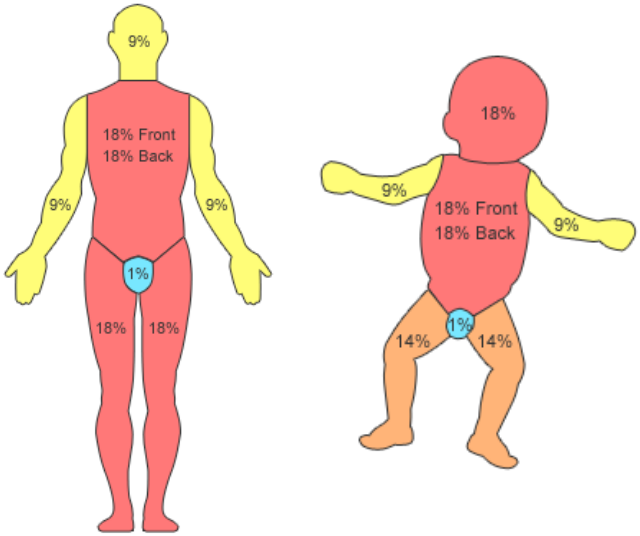


Types of Burns

- Thermal (80,2%)
- Electric(6,2%)
- Chemical (6,18%)

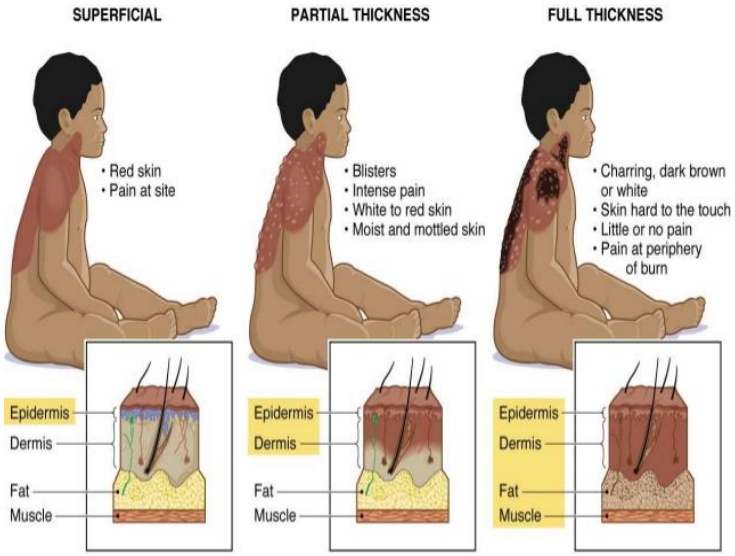
- **Rule of Nine:**
- Head and each of hands: 9%
- Bottom limbs 18% each
- Torso 36%
- Perineum 1%





Type of Burn	Causes
Dry Burn	Flames – Contact with hot objects
Wet Burn	Vapor – hot liquids like coffee, tea, boiling oil
Electric Burn	Low voltage current like the one in household appliances
Cold Burn	Frostbite, contact with frozen metals or frozen vapors such as the ones of liquid oxygen or liquid nitrogen .
Chemical Burn	Industrial chemical products , inhalation of smoke or toxic gases. Household chemicals as solvents, paints, caustic soda, whiteners, insecticides, cleaning products or strong acids/alkali
Radiation	Sun, exposure to radioactive sources

- **Partial Thickness**
  - First and second degree burns
- **Full Thickness**
  - Third degree burns



Treatment of superficial burns

Treatment of burns

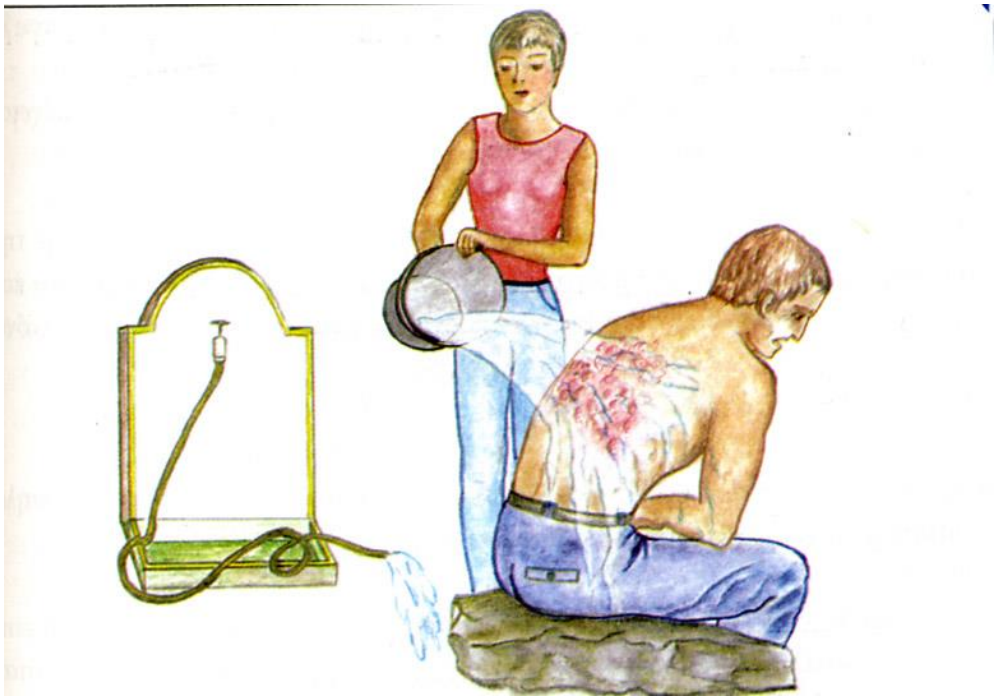
	First	Second (Superficial or Deep)	Third (Full Thickness)
Depth (how deep the burn is)	Epithelium	Epithelium and top aspects of the dermis	Epithelium and dermis
How the wound looks	No blisters; dry pink	Moist, oozing blisters; Moist, white, pink, to red	Leathery, dry, no elasticity; charred appearance
Causes	Sunburn, scald, flash flame	Scalds, flash burns, chemicals	Contact with flame, hot surface, hot liquids, chemical, electric
Level of Pain (sensation)	Painful, tender, and sore	Very painful	Very little pain, or no pain
Healing Time	Two to five days; peeling	Superficial: five to 21 days. Deep: 21-35 days	Small areas may take months to heal; large areas need grafting.
Scarring	No scarring; may have discoloration	Minimal to no scarring; may have discoloration	Scarring present

Chemical Burns

Burn Treatment

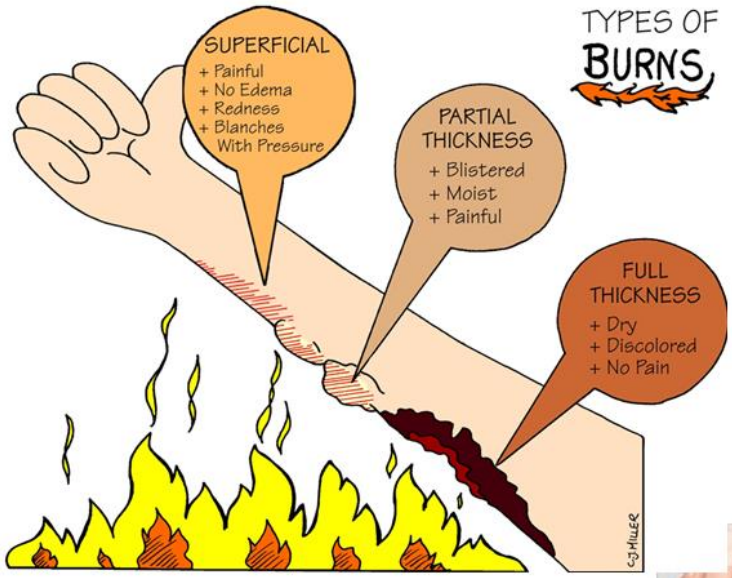
1. Treat pain with a painkiller
2. Treat shock
3. Keep burn uncovered
4. If there is need for covering use clean cloth
5. Do not cover with bandages or gauze. Do not apply oil, creams, alcohol or iodine. Do not burst possible blisters. Do not remove clothing that is melt/attached on burn area.
6. If the burn area is aseptically covered do no remove covers before 2 or 3 days. 7. If the victim can swallow administer slowly (with a spoon) salt water. Add a teaspoon worth of salt and a teaspoon worth of cooking soda in 4 glasses of water and administer one big spoonfull of the solution every 15 minutes
7. Burns arising from contact with caustic and corrosive substances should be washed quickly with ample amount of water
8. Resuscitate if needed.
9. The victim should be seen by a doctor the soonest possible.

Wash or submerge affected area in ample cold water for 10-20 minutes. This will inhibit the spread of the afterburn, will limit swelling and alleviate the pain



If the victim is on fire, put it out by laying the person on the ground and covering her/him with a blanket, showering with water or rolling on the ground when nothing else is available.

Αντιμετώπιση φλεγόμενου εγκαυματία


TYPES OF
BURNS
SUPERFICIAL
+ Painful
+ No Edema
+ Redness
+ Blanches
With Pressure
PARTIAL
THICKNESS
+ Blistered
+ Moist
+ Painful
FULL
THICKNESS
+ Dry
+ Discolored
+ No Pain
C.J. HILLER


Types of Burns
First Degree
Burn
Second Degree
Burn
ThirdDegree
Burn

Protect affected area from contamination. Cover it with a sterilized gauze or with clean cloth (avoid fuzzy materials)

Videos on Burn

[Video 1]

Choking

Universal sign of choking

A.D.A.M.

Airway obstruction - Choking

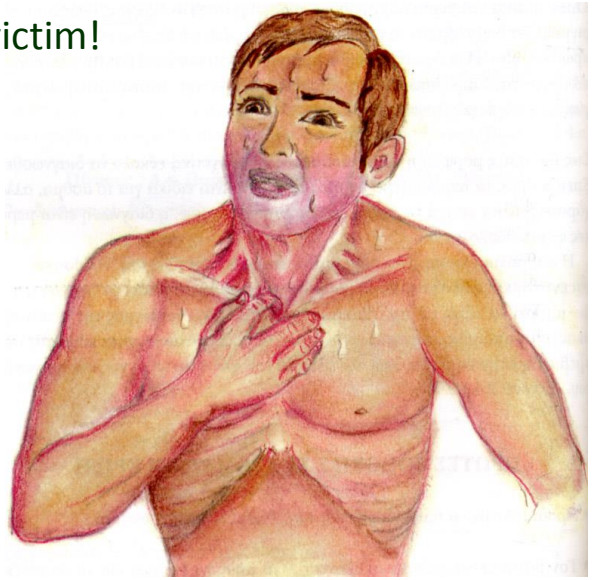
- Food (bone,meat) –
- Foreign object (coins, toys)
- 16.000/year
- Fatality < 1%
- 24 deaths/year (>50% children < 1 year old)

Chocking - Asphyxia

- If the victim is not breathing, is cyanotic, eye pupils are dilated and is unconscious this means that no air can enter the lungs because something is obstructing the airways. This can be the tongue that has been pulled back, blood, water, aspirated stomach content, dentures or other foreign objects

- Beware! Brain can survive 4-6 minutes without oxygen. Time is critical!

- Resuscitation can be employed – secure breathing of the victim!



Course of action in choking victims

Mild obstruction — Conscious

- Urge to cough

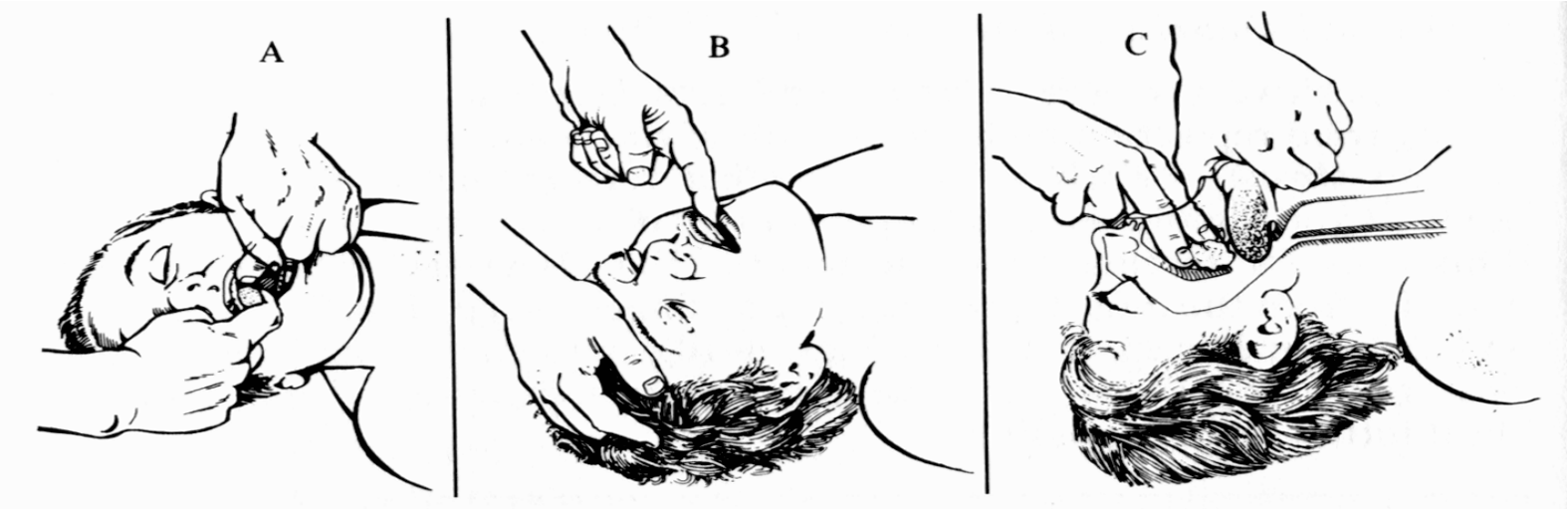
Serious obstruction — Conscious

- Strike on the back
- Abdominal compression
- Alternate

Serious obstruction — Unconscious

- Call ambulance
- Start basic CPR

Removal of Foreign Body



Crossed fingers maneuver that can be employed in semi relaxed victims
Maneuver with finger behind teeth that can be employed in non relaxed victims
Lifting of the tongue and jaw maneuver that can be employed in fully relaxed victims

Conscious Victim

Urge victim to cough

5 hits on the back

+5 abdominal or thoracic compressions

Heimlich Maneuver


Chocking?
Ask victim 'Are you choking?'
If victim can speak, encourage coughing until obstruction is removed - Monitor for deterioration.
Back Blows
If the victim has an ineffective cough or shows signs of severe airway obstruction and is conscious:
Give up to five back blows:-
Stand to the side and slightly behind the victim.
Support the chest with one hand and lean the victim well forwards so that when the obstructing object is dislodged it comes out of the mouth rather than goes further down the airway.
Give up to five sharp blows between the shoulder blades with the heel of your other hand.
Fist Location Detail
Clench your fist and place it between the umbilicus (navel) and the bottom end of the sternum (breastbone).
Pull sharply inwards and upwards
Abdominal Thrusts
Stand behind the victim and put both arms round the upper part of their abdomen.
Lean the victim forwards.
Clench your fist and place it between the umbilicus (navel) and the bottom end of the sternum (breastbone).
Grasp this hand with your other hand and pull sharply inwards and upwards.
Repeat up to five times.
If the obstruction is still not relieved, continue alternating five back blows with five abdominal thrusts.
If the victim becomes unconscious:
Support the victim carefully to the ground.
Call an ambulance immediately (999/112)
Begin CPR.
First Aid Information
Adult Choking
The Association of First Aiders www.AoFA.org

1
The universal sign of choking. Ask the patient, "Can you speak?"

2
Administering back blows with the patient sitting.

3
Administering the manual thrust.

4
Positioning of the fist, thumb side in, for the manual thrust.

5
Administering the manual thrust on a standing patient.

6
The choking victim performing a manual thrust on self.

7
Remove an unconscious, sitting patient from the chair and lie him face-up on the floor.

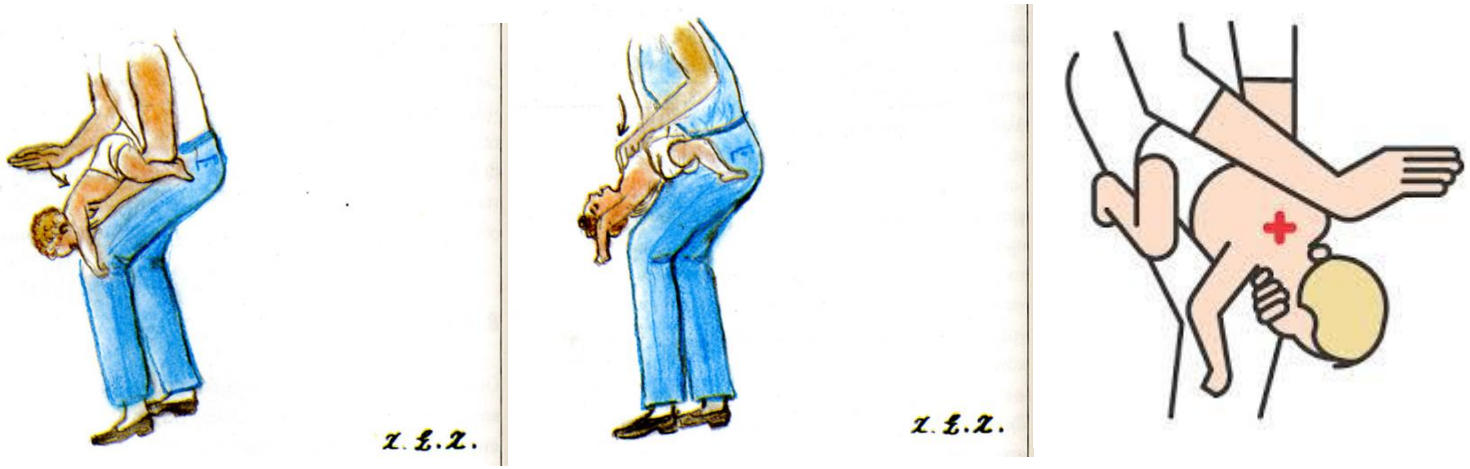
8
Performing back blows on an unconscious patient.

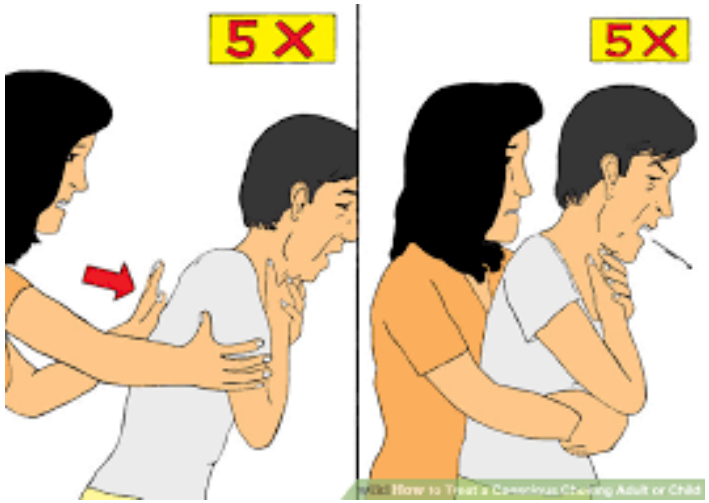
9
Performing manual thrusts on an unconscious patient.

Heimlich Maneuver

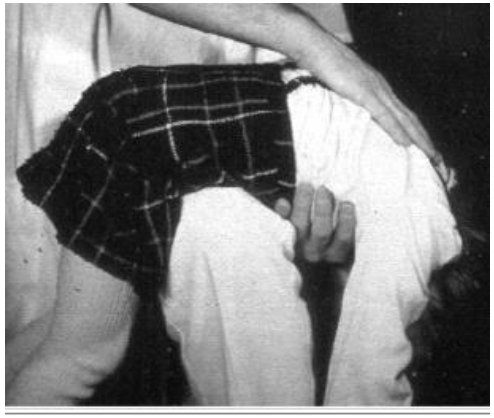
- Unconscious victim
- 5 blows while victim is sideways+
- 5 abdominal compressions
- If breathing is absent perform CPR

Chocking in infants due to food intake





Can not talk or breath, panics, someone must act quick and perform a certain maneuver



Videos on Heimlich Maneuver

Video 1

Video 2

Video 3

Drowning during swimming

Lie the victim on its back and bring its body on the right

Massage chest and give CPR

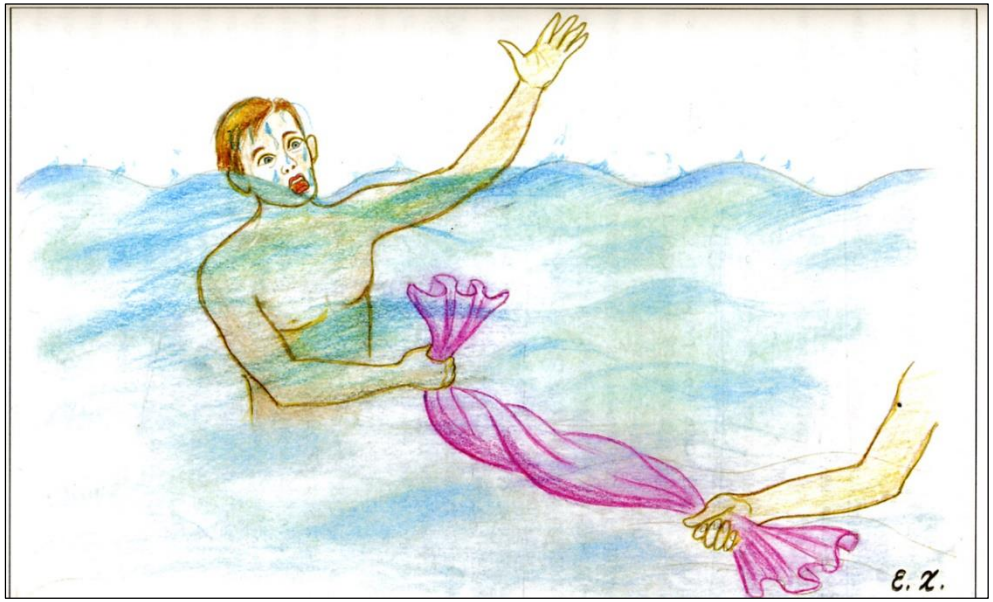
If the water is calm and shallow enough (no higher than chest) you can get into the water to reach the victim

General Measures

The general measures / first aid of drowning includes three steps

- Reaching the victim
- Stabilization of the victim
- Resuscitation

Drowning



If we pull the victim out of the water early chances are we have a survivor! If there is pulse, perform mouth to mouth resuscitation after we remove seaweed, mud or sand. If there is no pulse perform full CPR

Videos on Drowning

Video 1

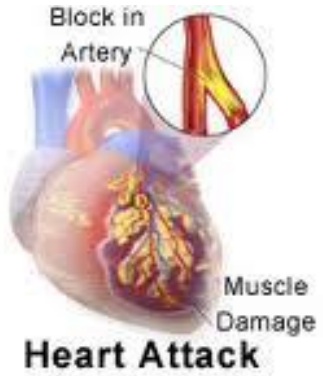
Video 2

Video 3

Myocardial infarction

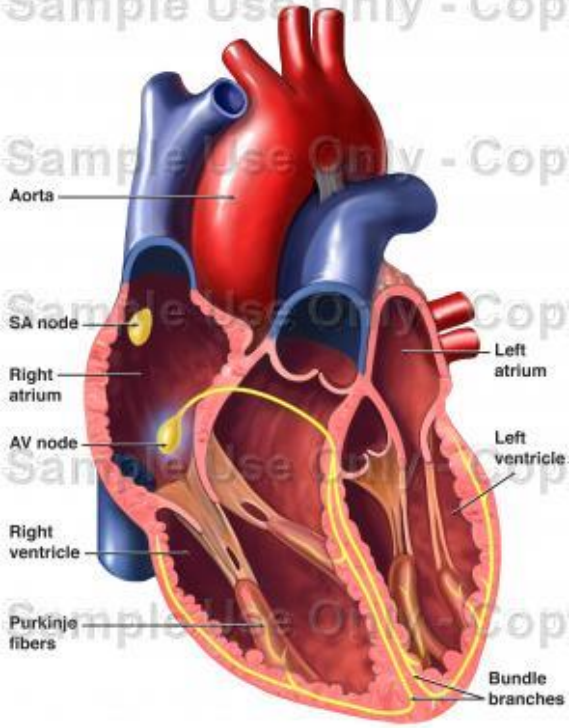
Myocardial infarction, known as **heart attack**, is caused by acute disruption of **blood** flow to the **heart.**

Most common cause of myocardial infarction is the obstruction of the artery that supplies blood to the heart. When this obstruction happens to one of the coronary arteries the cells of the heart muscle can not receive adequate oxygen

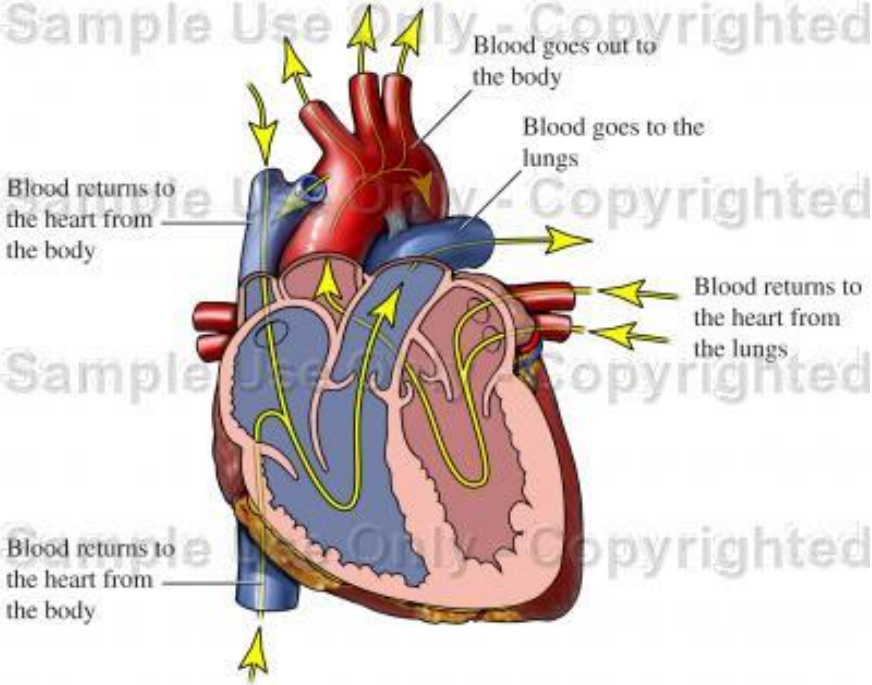


Heart attack – angina pectoris

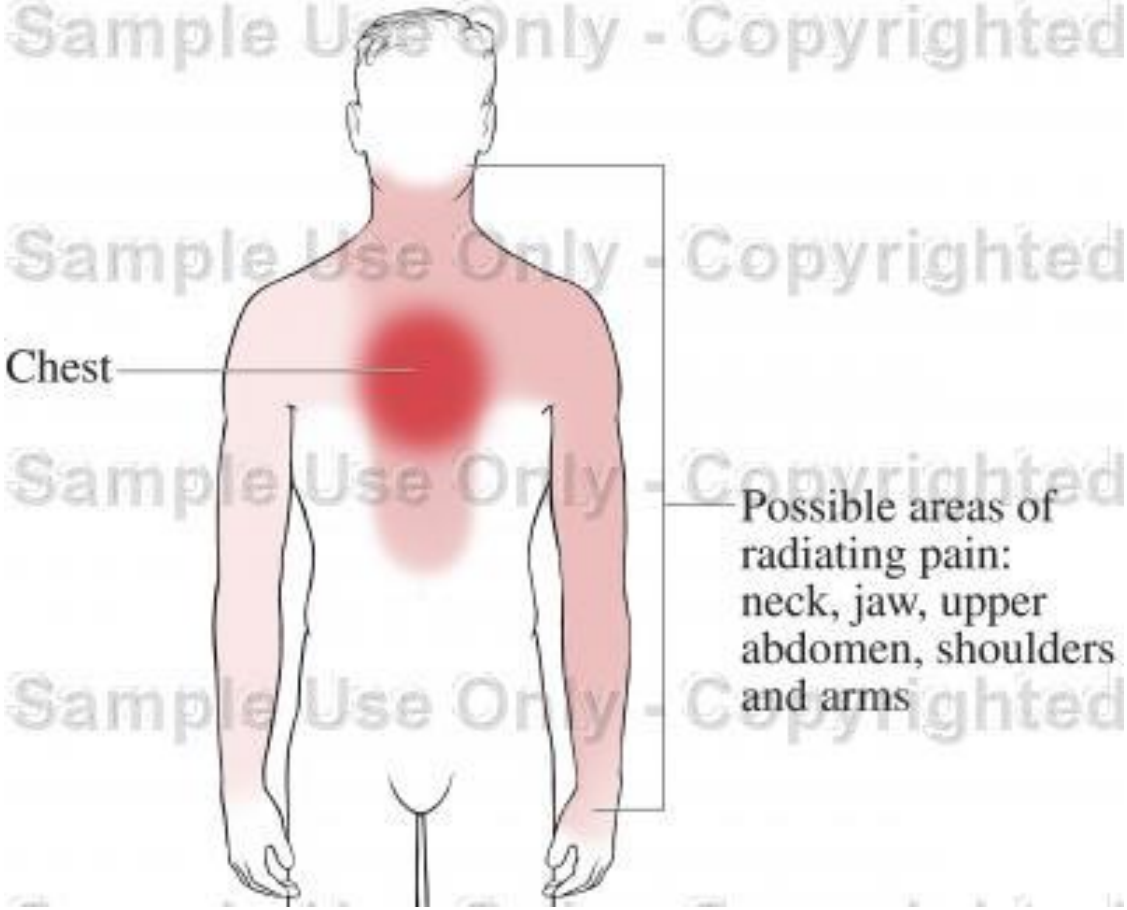
Internal of the heart



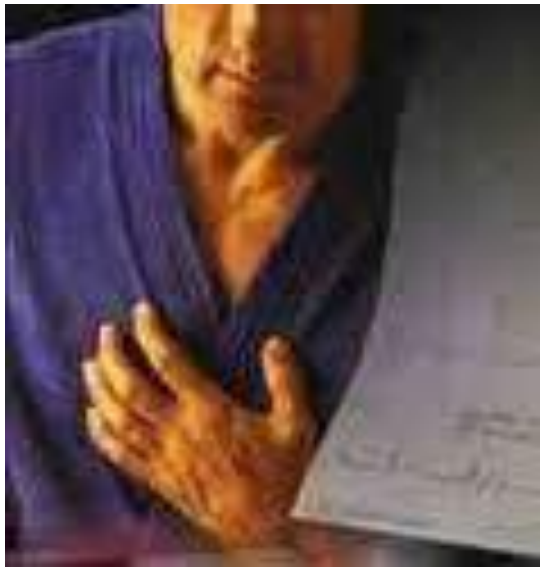
Heart Blood flow



Distribution of Angina Pain



Myocardial infarction



- Sudden pain in upper abdominal area accompanied by vomiting
- Perspiration
- Difficulty in breathing
- Arrhythmia that appears for the first time

- Put patient in comfortable position
- Medicines if…
- Check breathing
- If not CPR

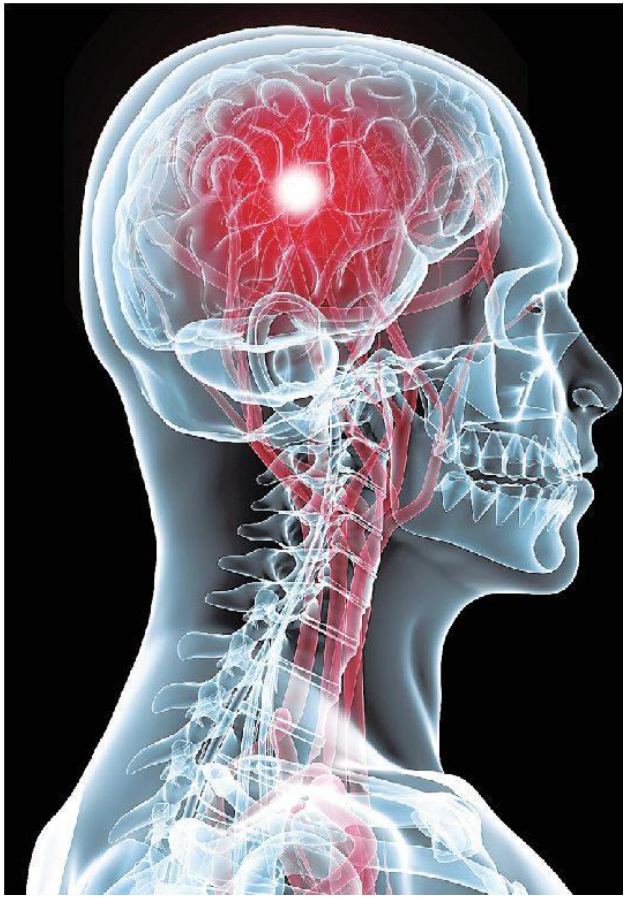
Videos on Myocardial Infraction

Video 1

Video 2

Video 3

Stroke



Stroke is the damaged caused when blood flow to a region of the brain stops, so the cells that do not receive oxygen start to die.

Main causes of Stroke:

- Hypertensiong
- Cardiovascular disease
- History of transient ischemic episode
- Diabetes
- Cholesterole
- Smokinh

- Communication - Support
- Afflicted area
- Airways
- No comments..

Vascular Brain Stroke

- Headache: new, sharp, off different character
- Saliva escaping mouth
- Unilateral loss of muscle strength/control
- Difficulty speaking
- Communication-contact disruption

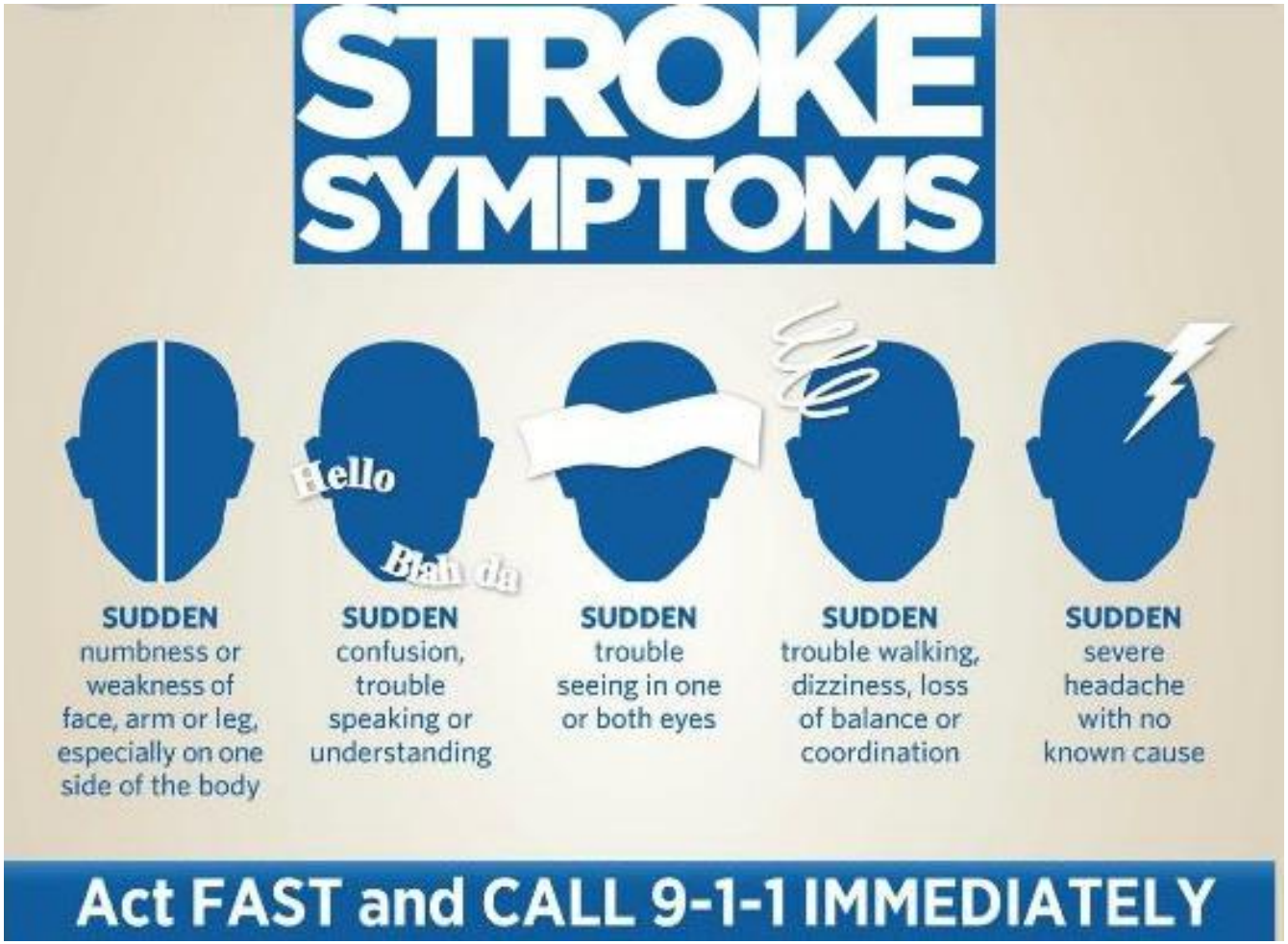
Types of stroke

- **Transient :** Symptoms do not persist more than 24 hours.Full recovery
- **Reversible :** Symptoms last more than 24 hours . Full recovery
- **Developing :** Deterioration of clinical condition the following days
- **Permanent :** leaves permanent neurological deficits

Symptoms

- Loss of strength, numbness, paralysis (hand, face, legs)
- Difficulty in speech, recognition of speech and confusion
- Difficulty in eyesight (loss of sight in one or both eyes)
- Dizziness, loss of balance, difficulty in walking, loss of movement coordination
- Intense headache appearing suddenly
- Hemiplegia (paralysis on one half of the body)
- Difficulty in moving tongue
- Intense smell of burning

Can strokes be prevented?



Risk factors for intracranial bleeding

- Age
- Hypertension
- Anticoagulants
- Alcohol Abuse
- Smoking

Risk factor for subarachnoid hemorrhage

- Sex
- Smoking
- Hypertension
- Anticoagulants

- Communication - Support
- Afflicted Side
- Airways
- No comments..

Spasms

SPASM is the non voluntary quick shaking of the body. During spasms, the muscles of the person contract and relax in a repeating fashion.

Spasms can be attributed to :

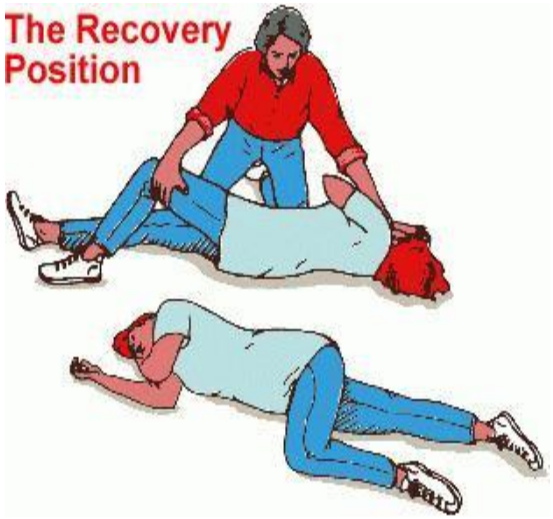
- **Alcohol abuse**
- **brain disease or damage**
- **Choking**
- **Electroshock**
- **Epilepsy**
- **Fever (small children)**
- **Menengitis**
- **Poisoning**
- **Vascular brain episode (stroke)**

In the case of epilepsy watch out for…

- Head injury
- Tongue-lip biting
- Vomiting
- Airway obstruction

- Something soft….
- Protection YES
- Restriction NO…
- Remove objects
- Support..

- Do not place anything in the mouth
- Recovery position
- Afflicted ared
- Evaluate if victim falls



How to treat an epileptic patient

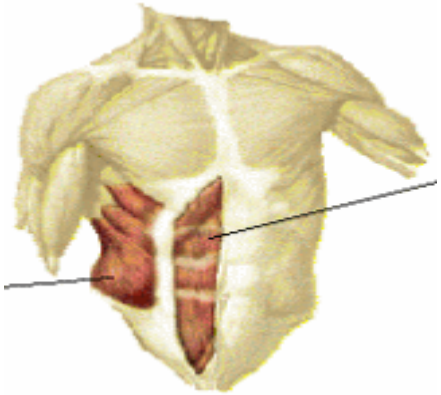
- Keep Calm!
- Protect patient from dangerous objects
- Do not move patient during spasms
- Evaluate vital signs
- Put patient in recovery position after spasms.
- Keep an eye on patients condition.
- Administer O_2
- Ensure transportation to hospital.

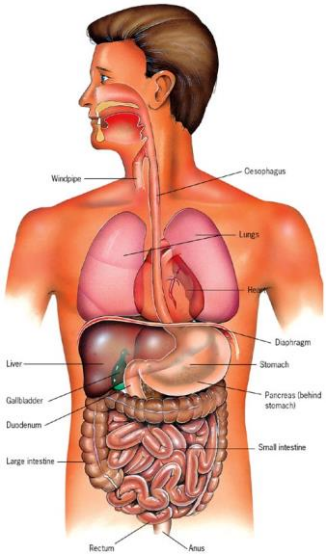
Videos on Spasm

Video 1

Abdominal pain

A) abdominal wall





B) dilatation of hollow organ, intestine - stomach– ureters, in females also uterus and Fallopian tubes

Pain from intestine: Intermittent with spikes lasting 15-20 minutes after which they resolve and move.

Pain from stomach: Steadier, localized above navel

Uterus: Steady and localized below navel, radiating to the back.

Pain from ureter: Peaks and resolutions, usually intense localized at the side abdominal areas and the waist

Pain killers like Depon can help but if pain does not subside after the is taken and if it is accompanied by fever then the patient should leave school.

Vomiting and nausea

Vomiting and nausea are intense symptoms. Children are incapable of tolerating them so if they present those symptoms they should be referred to the doctor

They can be caused by sunstroke alongside with headache and fever.

Frequent urination

- Urogenital infection
- Excitation
- Child might want to avoid school
- Diabetes mellitus
- Diabetes insipidus
- (rare endocrinological disorder)

Chapter 6

Bone Fracture

Bone fracture is when the continuity of the bone is broken
Distinguished in open and closed fractures
Should be immobilized in order to manage patients pain and limit tissue damage.

Closed fractures

Without skin rupture
Serious bleeding from rupture of big blood vessels (fractures in long bones)

Open fractures

Rupture of the skin either directly or indirectly from bone fragments

Evaluation

Overview
Palpatation
Possible findings in the site of injury
Position of the victim
Bleeding
Open fractures and revelation of fracture ends
Obvious deformities
Presence or absence of movement capability and capability to feel

Treatment

Immobilization and stabilization of the fracture
Check peripheral pulse before and after immobilization
Bandaging
Use cold compress
Call Orthopedic

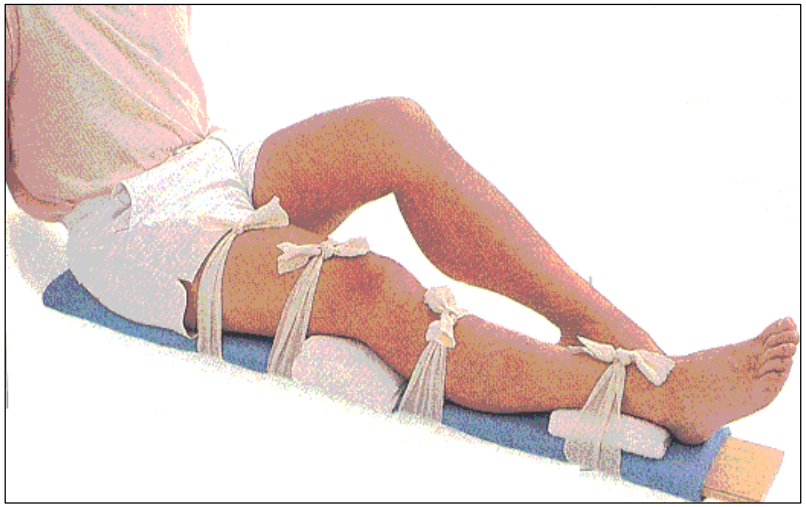
Bandages should be tied in a way not obstructing blood flow.

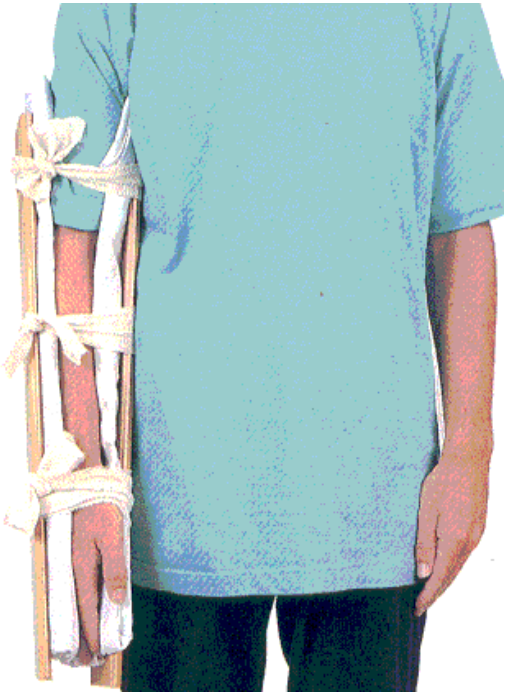
The knots of the bandages should face the anterior part of the body in order not to cause discomfort to the patient.

Check blood flow in the periphery of the bandaging

If we suspect bone fracture

Immobilise the area using a cast. This minimizes pain and helps avoid cataplexy





Immobilisation

- To make an effective cast one can use newspapers magazines or even an umbrella after wrapping with a bandage.
- Put the cast around the afflicted area and tie it gently with a stip of cloth.
- The general rule is to tie the cast above and below the fracture
- Or you can tie the lower limb with a tape to the other end filling the in between space with cloth or other material.
- Tie the injured arm with tape on the chest if you
- For arm fractures prepare a cast from a triangular piece of cloth that you can tie its ends around the neck in order to keep the limb on a 90 degrees angle

After immobilization

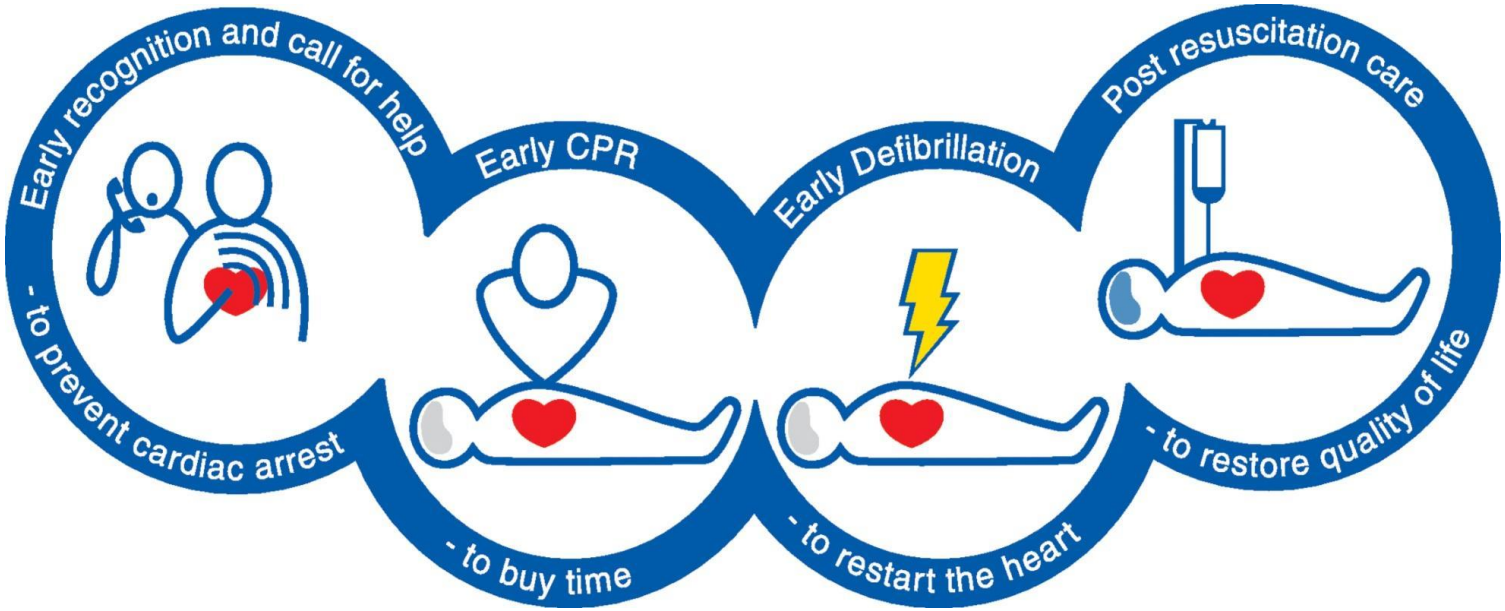
- Check the pulse. If you can not feel it, its too tight! Loosen it immediately
- Check the limb for swelling, numbness , or bruising.
- Any such sign is indicative of tight bandaging that can lead to further damage. Loosen it immediately!!!

Videos on Bone Fracture

Video 1

Chapter 7

Chain of Rescue



- Approach with caution
- Check for response
- Call for help
- Clear airways
- Check for breathing
- Call 112 (166/199)
- 30 Chest compressions
- 2 rescue breaths

Approach with caution

Place

Rescuer

Victim

Bystanders

Approach with caution
Check for response
Call for help
Clear airways
Check for breathing
Call 112 (166/199)
30 Chest compressions
2 rescue breaths

Check Response

- Shake shoulders
- Ask: Are you ok
- If victim responds
- Leave the victim in its position
- Find out what happened
- Re-evaluate condition often

Approach with caution

Check for response

Call for help

Clear airways

Check for breathing

Call 112 (166/199)

30 Chest compressions

2 rescue breaths

Call for help

- Approach with caution
- Check for response
- **Call for help**
- Clear airways
- Check for breathing
- Call 112 (166/199)
- 30 Chest compressions
- 2 rescue breaths

Clear Airways

- Approach with caution
- Check for response
- Call for help
- **Clear airways**
- Check for breathing
- Call 112 (166/199)
- 30 Chest compressions
- 2 rescue breaths

Check Breathing

- Hear, see , feel if the victim breathes NORMALLY
- Do not confuse the death rattle for NORMAL breathing

Approach with caution

Check for response

Call for help

Clear airways

Check for breathing

Call 112 (166/199)

30 Chest compressions

2 rescue breaths

- Approach with caution
- Check for response
- Call for help
- Clear airways
- Check for breathing
- **Call 112 (166/199)**
- 30 Chest compressions
- 2 rescue breaths

Careful !!

When you call 166, NEVER forget 2W2H:

WHo you are

WHere you are

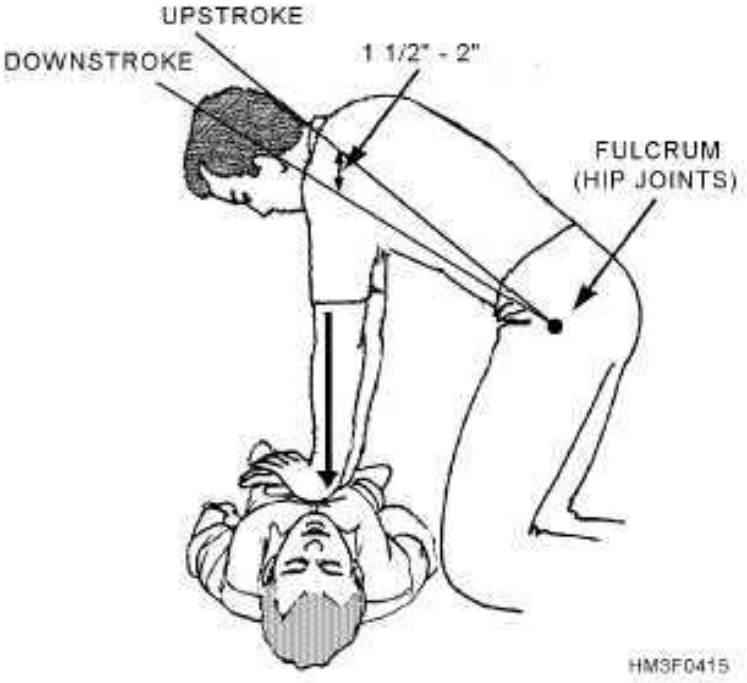
HOw many are the victims

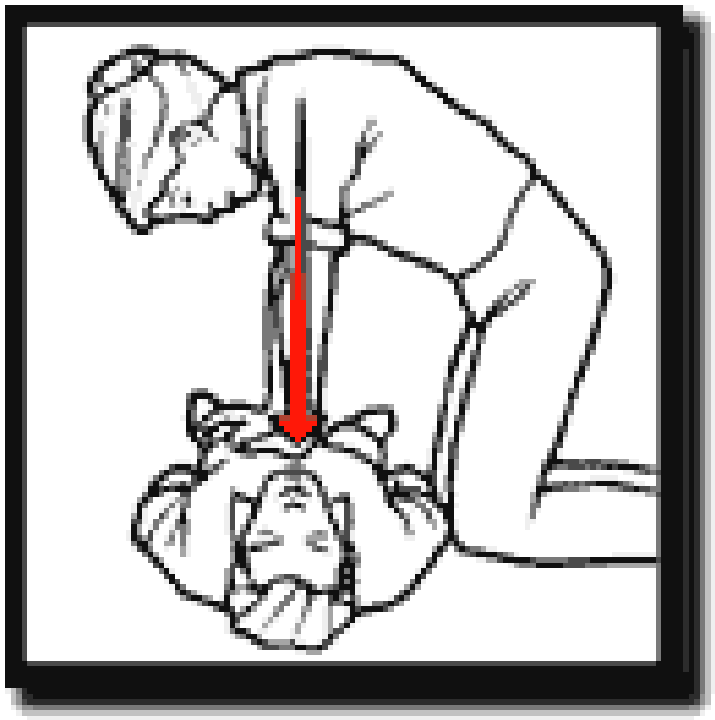
HOw are they doing

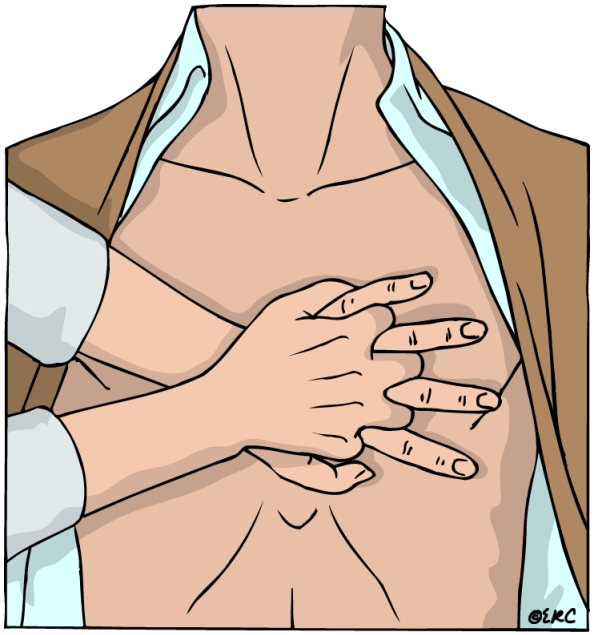
30 Chest Compressions

- Approach with caution
- Check for response
- Call for help
- Clear airways
- Check for breathing
- Call 112 (166/199)
- **30 Chest compressions**
- 2 rescue breaths

Performing chest compressions

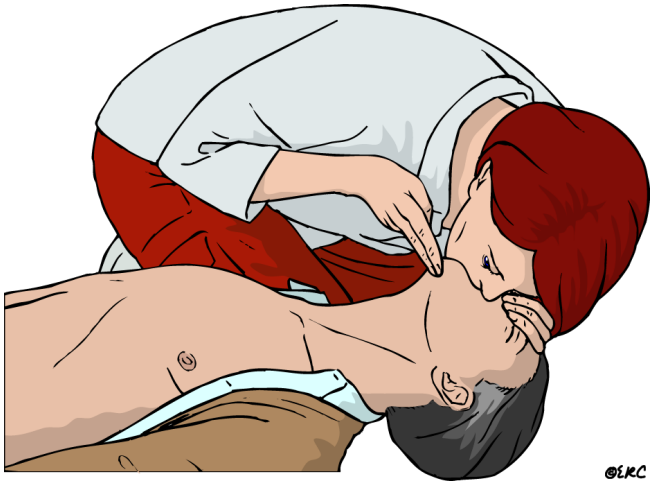




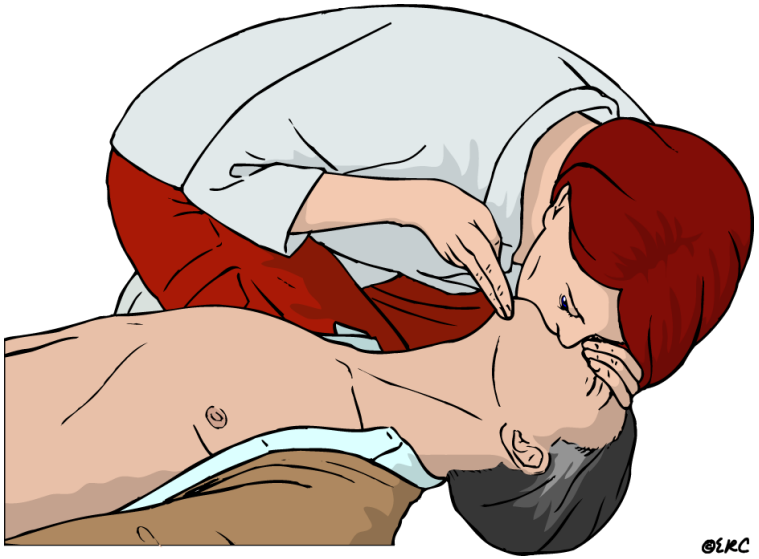


- Place the palm of one hand on the center of the chest
- Place the other hand on top
- Weave your fingers
- Compress the chest
  - Rythm 100/min
  - Depth 4-5 cm
  - Equal time compression-relaxation
- Replace person giving CPR every two minutes if possible

Rescue Breaths

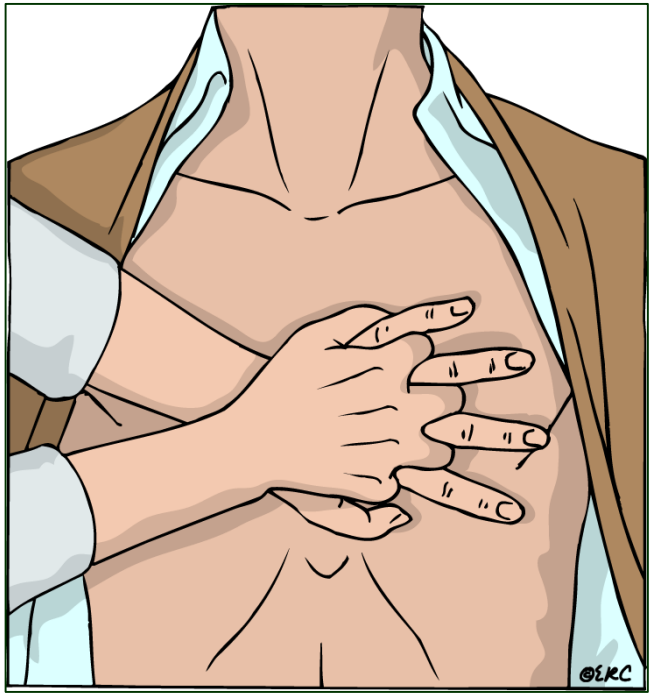


- Approach with caution
- Check for response
- Call for help
- Clear airways
- Check for breathing
- Call 112 (166/199)
- 30 Chest compressions
- **2 rescue breaths**



- Close the nose of the victim
- Inhale
- Seal your lips around the lips of the victim
- Breath out until the victim´s chest rises
- Duration: 1 second
- Let the victim´s chest deflate
- Repeat

Continue CPR



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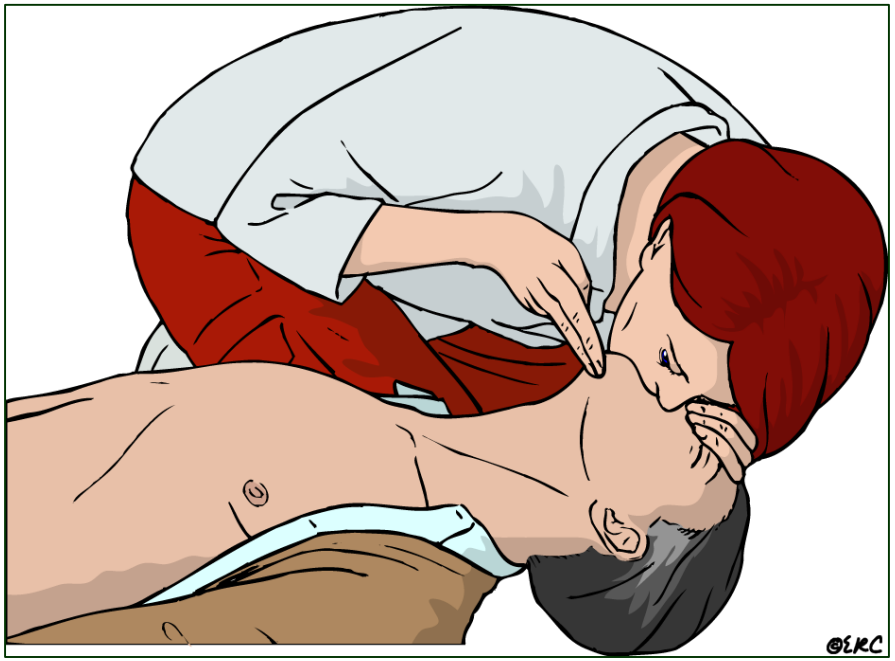
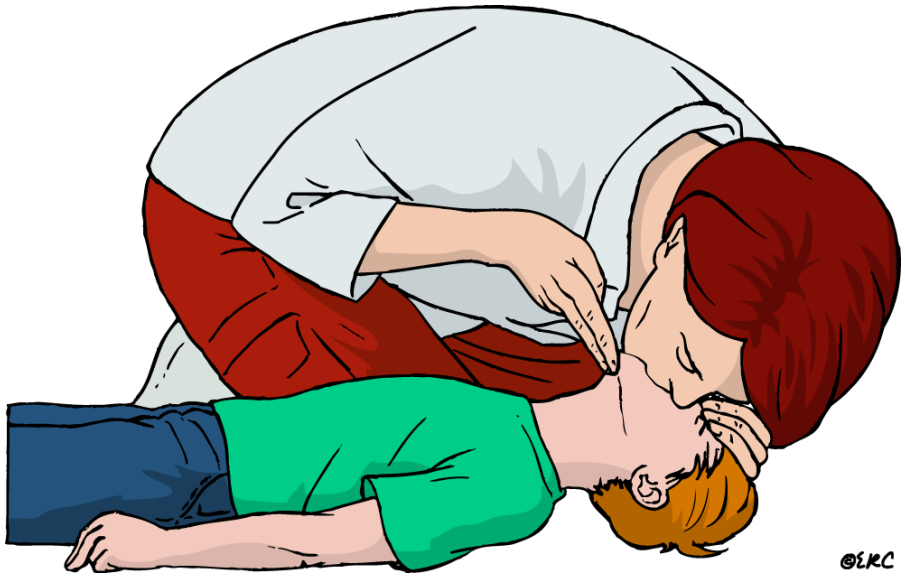


2

- Approach with caution
- Check for response
- Call for help
- Clear airways
- Check for breathing
- Call 112 (166/199)
- 30 Chest compressions
- 2 rescue breaths

CPR in Children

- CPR as administered in adults can be also administered in children
- Modify the depth of compression to 1/3 of that of an adult



Recovery Position

- OPEN AIRWAYS
- BETTER BLOODFLOW TO THE BRAIN
- FLOW OF LIQUID OR VOMIT OUTSIDE OF THE BODY
- COMFORTABLE-SAGE

✓Open airways
✓Align patients body
✓Put the proximal hand in a 90 degree angle


D R A B C D
Repeat CPR if victim is not breathing normally
Danger - Before approaching the victim make sure the scene is safe. Check there are no hazards, such as gas, electricity, traffic etc. before attending to the victim.
Response - Check the victim for any response. Gently shake the victim's shoulders and ask loudly 'Are you all right?' If there is no response...
Note: Seizure-like episodes can occur which may be confused with epilepsy.
Airway - Ensure the victim's airway is open by tilting their head gently back and lifting the chin up by placing your fingertips under the point of the victim's chin.
Breathing - After you have opened the airway check for normal breathing for no more than 10 seconds.
Do this by looking for chest movements, listen for normal breathing sounds and feel for air on your cheek. If breathing, place the victim in the recovery position.
Call - Ask a helper to call the emergency services 999/112. If this is not possible, call them yourself. Try to stay with the victim. Activate the speaker function on your phone to communicate with the dispatcher.
CPR - Begin CPR if the victim's breathing is not normal. To start compressions, place the heel of your hand in the centre of the victim's chest then place your other hand on top and interlock your fingers. Give 30 chest compressions at a rate of 100 to 120 per minute. Then give 2 rescue breaths by pinching their nose firmly closed and blowing into their mouth until their chest rises. Keep repeating the CPR cycle until emergency help arrives or the victim starts to show signs of regaining consciousness such as coughing, opening eyes, speaking, or moving purposefully AND starts to breathe normally.
Defibrillator
Where an AED is available:-
If more than one rescuer is present, continue CPR while the AED is switched on. Follow voice / visual prompts. Where NO shock is indicated resume CPR immediately.
Continue as instructed by voice / visual prompts.
The Association of First Aiders www.AoFA.org
AoFA
AoFA Qualifications
First Aid Information
Resuscitation
This resuscitation chart does not replace training with an AoFA or AoFAQ accredited training organisation.
Training provided by an AoFA registered training provider.
Sia Qualifications
SIAQ.co.uk
Books
FirstAidBooks.co.uk
Insurance
FirstAidInsurance.co.uk
Additional Information
Adult
Child
Infant
Use 2 hands
Use 1 or 2 hands
Use 2 fingers
Compress chest 5-6cm
Compress > 1/3 chest or 5cm
Compress > 1/3 chest or 4cm
-
Shout for help as soon as Child / Infant is found to be unresponsive
Further free copies can be obtained from the AoFA or your Training Provider: www.AoFA.org Tel: 01908 610093
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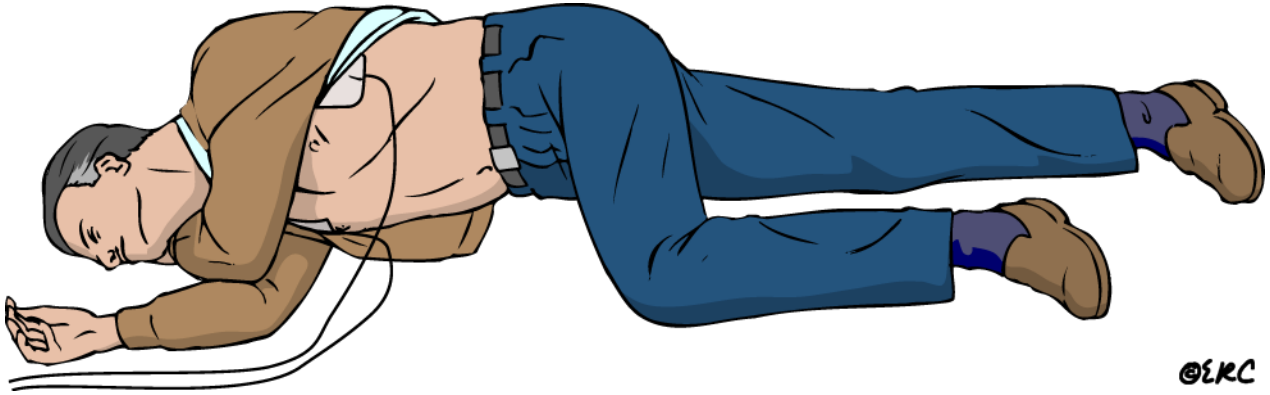
If the victim breaths normally put in recovery position

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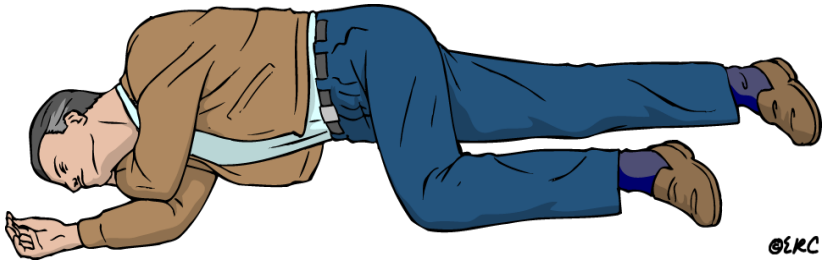
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Videos on CPR

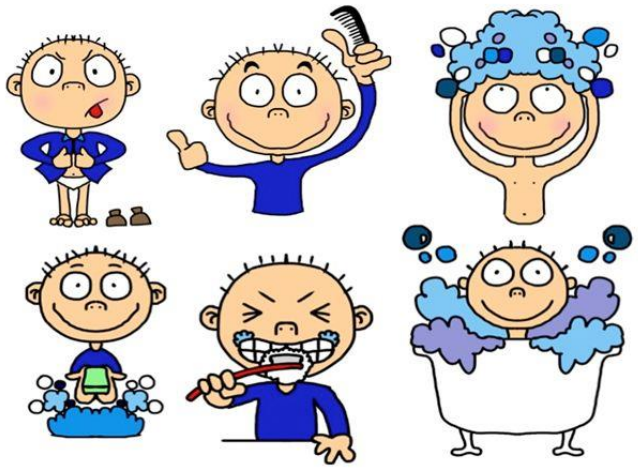
Video 1

Video 2

Chapter 8

Personal Hygiene

Taking Good Care of Ourselves: Personal Hygiene



- **Aims of personal hygiene rules are:**

  -Prevention of personal infection

  -Minimizing risk of infectious diseases spreading

What is included in personal hygiene?

- **Proper handwashing techniques**
- **Proper teeth washing techniques**
- **Proper bathing techniques**
- **How to minimize spread of infectious agents when coughing or sneezing**

Hand Washing

When is hand washing needed?

- **Before coming in contact with other people**
- **Before and mainly after using toilet facilities**
- **Before preparing food**
- **Before tending to wounds**

Hand Hygiene

- Before commencing work/after leaving work area
- Before preparing or eating food
- Before handling medicines
- Before wearing & after removing gloves*
- After handling contaminated laundry & waste
- After using the toilet
- After contact with patients in isolation
- After cleaning equipment or the environment

Choice of cleansing agent

- Risk Assessment:
- Likelihood that micro-organisms have been acquired or transmitted
- Whether the hands are visibly soiled
- What procedure is about to take place
- Wash hands with soap & water following contact with *Clostridium difficile* diarrhoea/infective diarrhoea

Alcohol rubs/gels

- Use on visibly clean hands only
- Rub into hands using same technique as for hand washing
- Continue rubbing until dry (emollient will condition hands).
- Not suitable for use following contact with *Clostridium difficile* or suspected infectious diarrhoea.

Routine Hand Washing

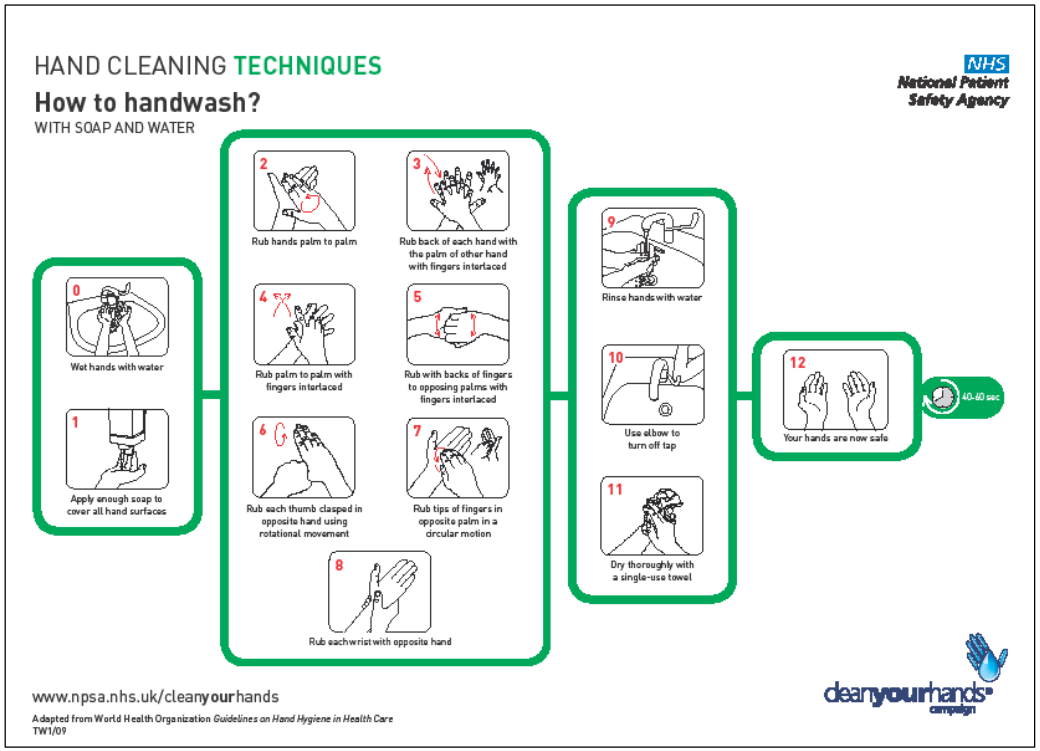
Duration

Routine hand wash = 40 – 60 seconds

Technique

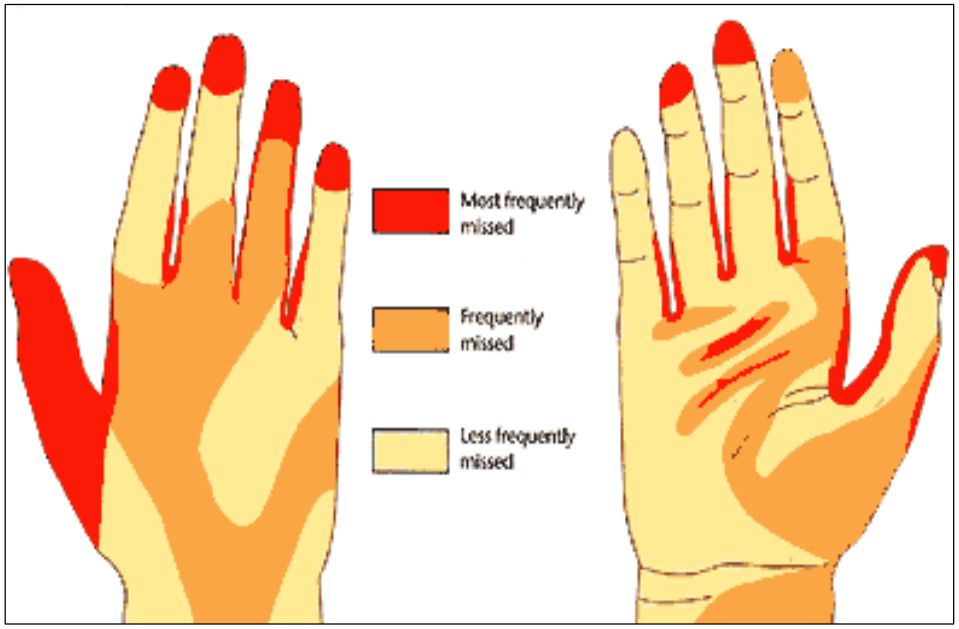
Wash systematically, rubbing all parts of hands and wrists with soap and water – careful to include areas of hands that are most frequently missed

Technique



- palm to palm
- backs of hands
- interdigital spaces
- fingertips
- thumbs and wrists
- nails

Areas most frequently missed:



- Webs of fingers
- Thumbs
- Palms
- Nails
- Backs of fingers & hands
- Wrists

Drying

- CRUCIAL – micro-organisms thrive in a warm, moist environment
- Use paper hand towels
- When you dry your hands:
  - Work from fingertips to wrists
  - Dispose of used towel correctly (foot operated bin)
  - Repeat until both hands are completely dry.

Tips

- Remove jewellery, roll up sleeves & remove wrist watches (should already be compliant with NBE)
- Always use running water at a comfortable temperature
- Wet hands thoroughly before applying any soap (forms a protective barrier)
- Use enough soap to get a visible lather

MAKE SURE THAT YOU:

- Clean all parts of both hands
- Pay attention to thumbs, fingertips, palms
- Clean and dry beneath wedding rings (& Kara if worn)
- Pay equal attention to dominant and non-dominant hands
- Rinse your hands thoroughly under running water to ensure that all micro-organisms and soap are washed away.
- Leaving soap on your hands or failing to dry properly will make them sore.
- The only time you should use soap & water followed by alcohol hand gel, is when you are about to don a pair of sterile gloves prior to performing a (non-operative) aseptic technique

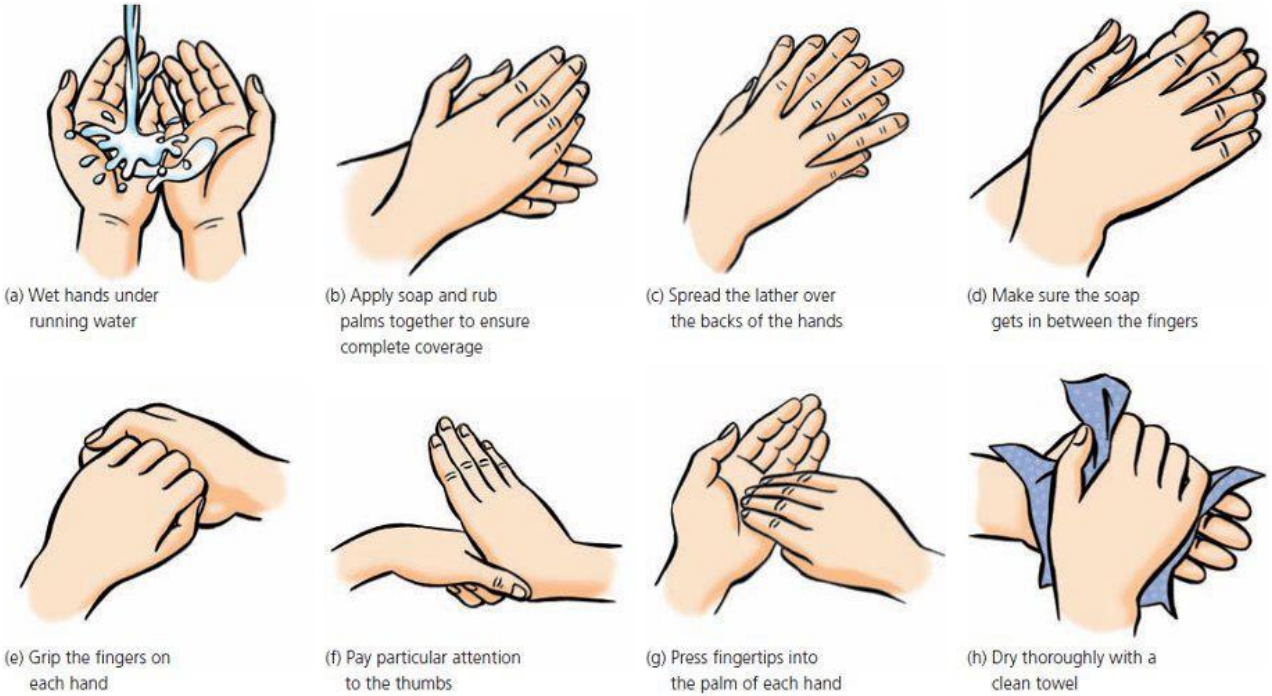
Looking after your hands

- Risk of skin problems (dermatitis) may increase with frequent hand washing.
- Bacterial counts increase when skin is damaged.
- Risk reduced by:
  - Using alcohol gel instead of washing if appropriate
  - Always apply soap to wet hands.
  - Thorough rinsing & drying
  - Moisturise (should be available in all clinical areas)
  - Only using gloves when necessary
  - Always cover cuts and grazes
- Report any skin rashes immediately to Occupational Health (ext 4156)

Hand Care

- Important to look after the skin & fingernails
- Damaged skin leads to loss of a smooth skin surface & increases the risk of skin colonisation with resistant micro organisms
- Continuing to work with damaged, cracked or weeping skin may expose the healthcare worker to increased infection risk, which could ultimately lead to sickness absence due to dermatitis

How are hands properly washed?



(a) Wet hands under running water

(b) Apply soap and rub palms together to ensure complete coverage

(c) Spread the lather over the backs of the hands

(d) Make sure the soap gets in between the fingers

(e) Grip the fingers on each hand

(f) Pay particular attention to the thumbs

(g) Press fingertips into the palm of each hand

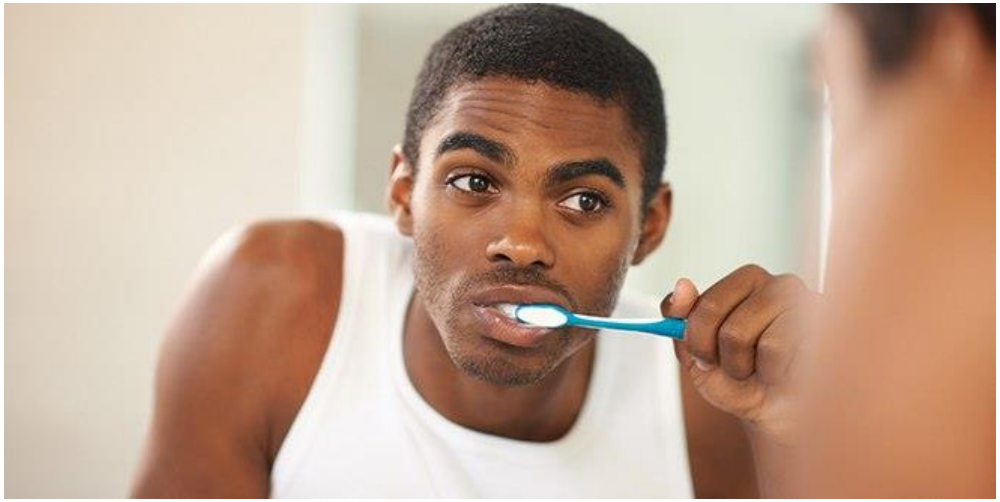
(h) Dry thoroughly with a clean towel

Points to pay attention to

- **Be sure to use soap and ample, flowing water**
- **Pay special attention to wash each finger individually, palms and back of the hands**
- **Wash underneath the fingernails. Germs can develop there and go unnoticed**
- **Dry hands thoroughly. If possible use a hand sanitizer when washing is not an option (alcohol gel, alcohol based lotion, disinfection wipes)**

How to use personal sanitizer

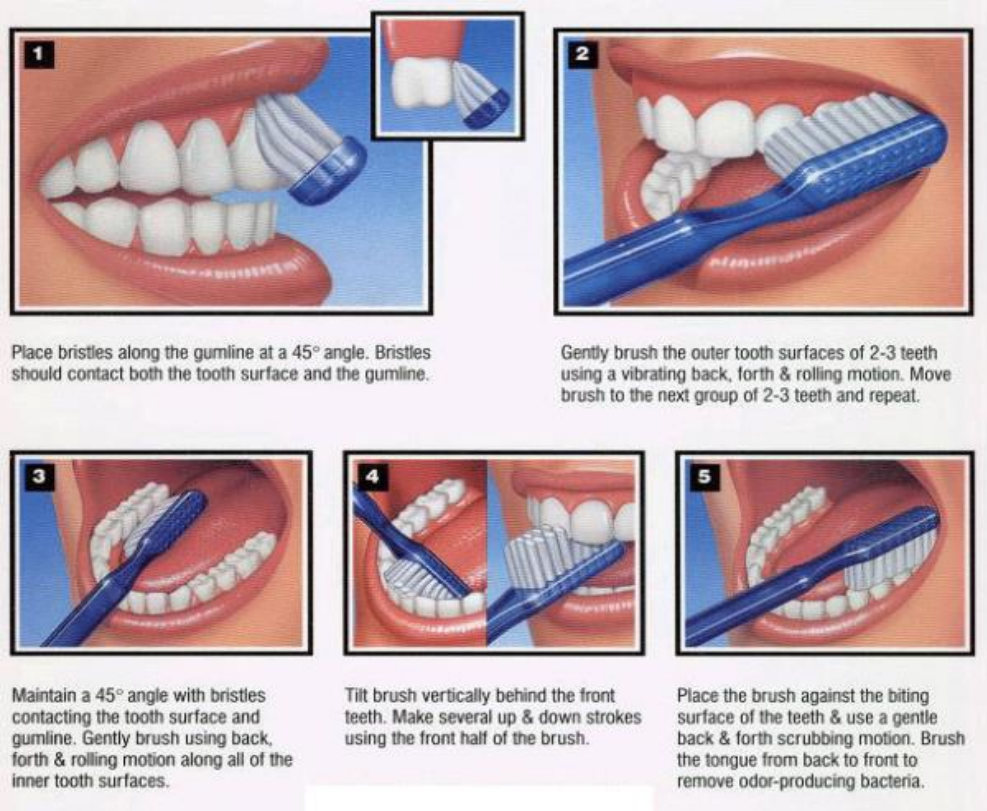
Teeth Brushing



When and why teeth brushing is needed?

- **Needed:**
  - **-Each morning**
  - **-Before bedtime**
  - **-After food consumption**
- **Teeth washing ensures**
  - **-Good health of the gums**
  - **-Prevention of caries**
  - **-Prevention of odors**

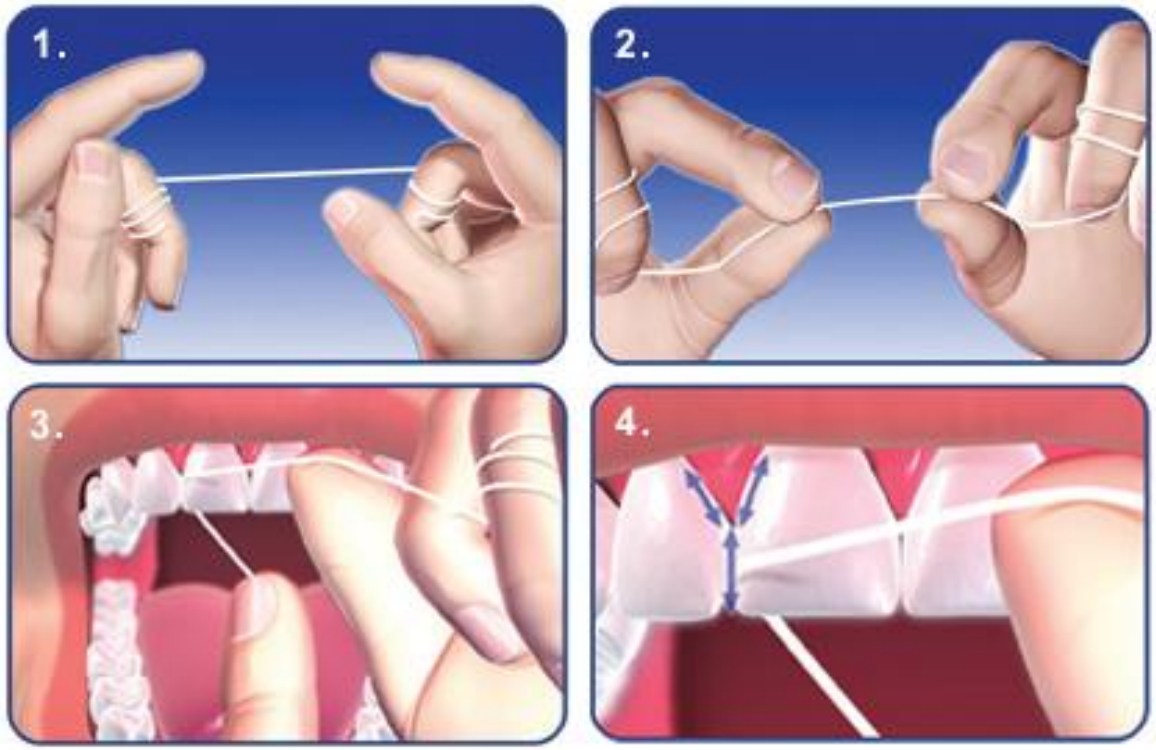
How to properly wash teeth



Points to pay attention to

- **It is best to use fluoride containing toothpastes as they are better at preventing carries**
- **Pay special attention to brushing the whole mouth area including tongue**
- **Pay extra attention to areas between teeth as food particles can get lodged there**
- **If available use dental floss to clean areas between teeth**

How to use dental floss



Bathing

When is bathing is needed and how to bathe?

- **Ideally bathing can be done everyday, as it ensures a fresh , comfortable start of the day**
- **Be sure to bathe the whole body using soap of shampoo, the hair, the finger nails, etc**
- **Care should be given for proper bathing in difficult areas to wash such as joints, armpits etc**
- **Wash soap or shampoo away using ample water**

Minimizing spread of infectious agents

Preventing disease spread can

- **Protect ourselves**
- **Protect others especially in crowded places, while traveling or under substandard living conditions**
- **Can be adequately achieved by preventing spread of infectious agents in aerosol form (coughing,sneezing)**
- **Complements hand washing, teeth brushing and bathing in maintaining a health environment for all!**

How to prevent infection through sneezing or coughing

How to prevent infection through sneezing or coughing

Cover your mouth and nose with a tissue when coughing and sneezing

Dispose of the tissue afterwards

After coughing or sneezing, wash your hands with soap and water

Wear a mask if you are coughing or sneezing

Helpful tips

- **Cough/sneeze on the inside of the elbow or on a handkerchief. The palms of the hands are the last choice!**
- **If you cough/sneeze on your hands be sure to wash them afterwards**
- **It is better to avoid social contact when sick**
- **If you can not , be sure to wear a disposable mask**

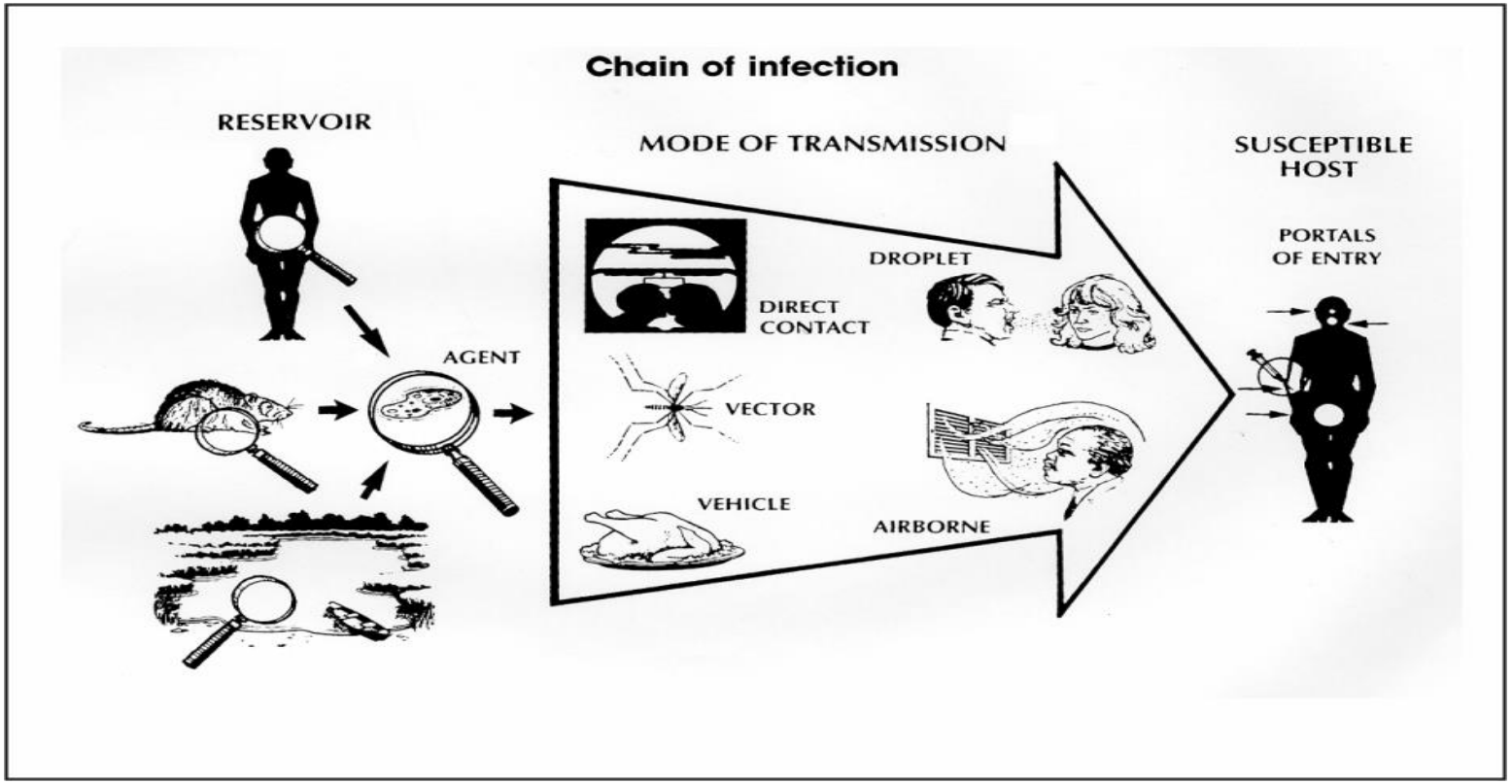
Videos on Hygiene and Washing

Video 1

Video 2

Isolation precaution from bacteria - sources of infection

Chain of infection



Mode of transmission

A microorganism may be spread by a single or multiple routes.

- Contact, direct or indirect
- Droplet
- Airborne
- Vector-borne (usually arthropod) and
- Common environmental sources or vehicles - includes food-borne and waterborne, medications e.g., contaminated IV fluids

Contact transmission

Direct-contact

- Direct body surface-to-body surface contact and
- Physical transfer of microorganisms between a susceptible host and an infected or colonized person

Indirect-contact

- Contact of a susceptible host with a contaminated intermediate object, usually inanimate, such as contaminated instruments, needles, or dressings, or contaminated hands or gloves

Droplet transmission

Droplet generation

- coughing,
- sneezing,
- talking,
- procedures such as suctioning and bronchoscopy

Droplet transmission

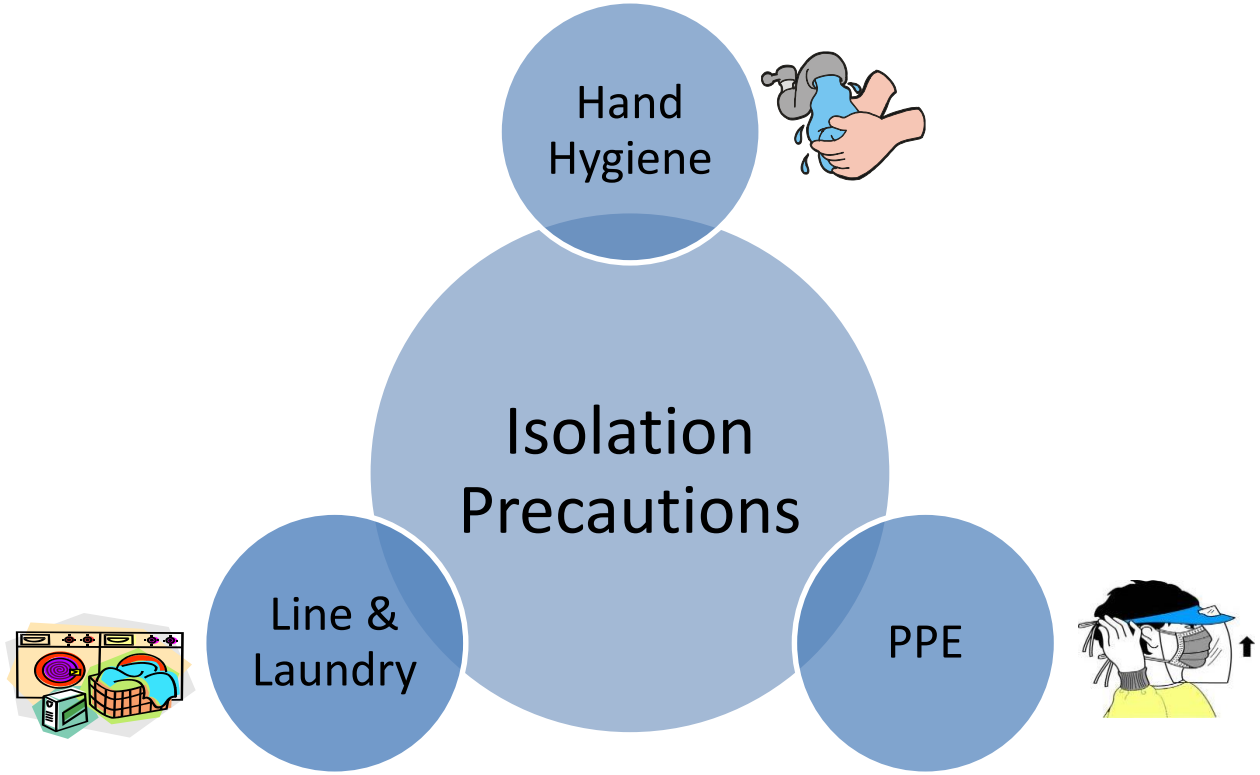
Droplet deposited on the host's conjunctivae, nasal mucosa, or mouth

Airborne transmission

- Small-particle residue {5µm or smaller} of evaporated droplets containing microorganisms
- Suspended in the air for long periods of time
- Dispersed by air currents
- Inhaled by a susceptible host within the same room or over a longer distance

Definition of Isolation Precautions

Special precautionary measures, practices, and procedures used in the care of patients with contagious or communicable diseases



Types of Isolation Precautions

Standard precautions

Transmission-based precautions

- Contact precautions
- Airborne precautions
- Droplet precautions

Definition of standard precautions

Apply to (1) blood; (2) all body fluids, secretions, and excretions *except sweat,* regardless of whether or not they contain blood; (3) no intact skin; and (4) mucous membranes.

Standard Precaution - Hand hygiene

Hand washing with either plain or antiseptic containing soap and water, and use of alcohol-based products (gels, rinses, foams) that do not requre the use of water

Perform hand hygiene:

- Before and after patient contact
- After removing gloves or any other PPE item
- After touching blood, body fluids, secretions, excretions, and contaminated items, whether or not gloves are worn

Standard precautions - personal protective equipment (PPE)

The selection of PPE based on

- the nature of the interaction between people
- The likely mode(s) of transmission

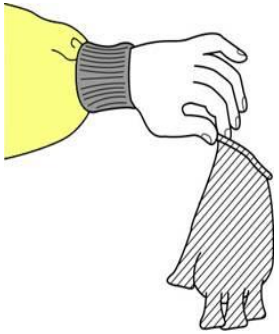
Designated containers for used disposable or reusable PPE should be placed in a convenient to the site of removal

Hand hygiene is always the final step after removing and disposing of PPE

Standard precautions – Gloves (PPE)

1. Exposure to blood, body fluids, secretions, excretions, mucous membranes and non-intact skin, and contaminated items

2. Change gloves when heavily contaminated



3. Perform hand hygiene immediately after glove removal

4. Disposable glove should not be reused

Standard precautions – Mask and eye protection (PPE)

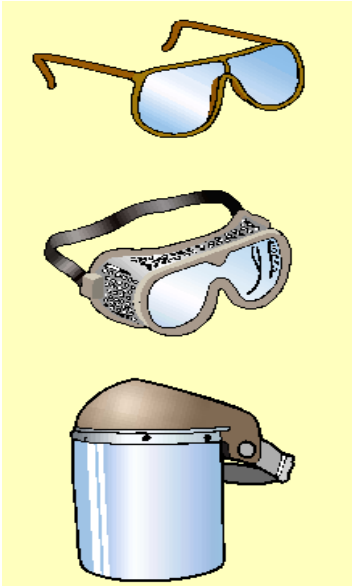
Surgical masks and eye protection:

When splashes or sprays of blood and body fluid, secretions and excretion are likely

Sterile technique

Respiratory etiquette

Change PPE promptly if heavily contaminated during the procedure



Standard precautions - prevent hcws exposure to bloodborne pathogens

- Prevent needles and other sharps instrument injuries
- Prevent mucous membrane exposure
- Safe work practices and PPE to protect mucous membranes and non-intact skin

Standard precautions: Environmental measures

- Clean and disinfect non-critical surfaces in areas are part of SP.
- Clean and disinfect all frequently touched surfaces areas
- EPA-registered disinfectants or detergents

Standard precautions: Textile and laundry

Key principles for handling of soiled laundry:

- Don’t shaking items or handle them in any way that may aerosolize infectious agents
- Avoid contact with one’s body and personal clothing
- Contain soiled items in a laundry bag or designated bin

Guidelines for isolation precautions
Respiratory hygiene and cough etiquette

Three elements include:

- Educate healthcare workers, patients, and visitors
- Post signs in appropriate language(s)
- Source control measures:
  - Cover the nose/mouth when coughing or sneezing
  - Use tissue paper respiratory secretions and dispose in the waste receptacle
  - Perform hand hygiene after contact with respiratory secretions and contaminated objects
  - Place a surgical mask on the coughing person when tolerated and appropriate
  - Spatial separation, ideally >3 feet

Masks for special lumbar puncture procedures or central line placement

Face masks limit dispersal of oro-pharyngeal droplets during:

Transmission-based Precautions

Contact Precautions cont.

GLOVES

- Use gloves when entering the room.
- Change gloves after contact with infective material.
- Remove gloves before leaving the room.
- Wash hands or use appropriate gel after glove removal.
- Do not touch infective material or surfaces with hands.
- Clean, non-sterile gloves are usually adequate.

GOWN

- Use protective gown when entering the room if direct contact with patient or potentially contaminated surfaces or equipment near patient is anticipated or if the people have diarrhea

Droplet Precautions

- Reduce the risk of transmission by large particle droplets (larger than 5 m in size).
- Requires close contact between the source person and the recipient
- Droplets usually travel 3 feet or less
- E.g., influenza, rubella, parvovirus B19, mumps, *H. influenzae*, and *N. meningitidis*

Airborne Precautions

- Isolation precautions is important in all healthcare settings to prevention transmission of infections
- 2 types of isolation precautions
- Usage of each type of precautions

Chapter 9

Prevention of Sexually Transmitted Diseases (STDs) is common

If you are not in a monogamous relationship make sure:

- ✓ Always use latex condoms with great care, since they do not provide 100% protection.
- ✓ More sexual partners means bigger exposure risk. Do not forget that a negative laboratory test for some STDs (For example AIDS virus) does not exclude it since in some cases it needs months to become positive.
- ✓ As a specialist doctor if you think you have been exposed to an STD. Nowadays many STDs can be treated successfully.
- ✓ Timely treatment is of great importance in order to avoid complications and permanent damage.

Diseases transmitted mainly during sexual activity are labeled as “STDs”. The more the sexual partners, the bigger the exposure risk!

The type of sexual contact can also modify the danger of infection.

Those have been classified as following:

- ✓ **High risk:** Vaginal and/or anal sex WITHOUT condom.
- ✓ **Medium risk:** Vaginal and/or anal sex WITH condom, as well as oral sex WITHOUT condom.
- ✓ **Low risk:** Genital caressing and “French kissing” as well as oral sex WITH condom.
- ✓ **No risk:** Massage, masturbation and celibacy

Nowadays many STDs can be treated and cured. Early diagnosis and treatment is of prime importance to avoid permanent injury and/or complications. Unfortunately symptoms of STDs are not readily recognizable, especially in women, until complications arise. That is why when a partner proves to be infected, the other partner should be informed and visit a specialist.

The most common STDs are the following:

Hepatitis B and C
Genital herpes
Human papillomas (HPV)
Gonorrhea
Chlamydia
Mycoplasma
Syphilis
Bacterial vaginosis
Moniliasis/Candidiasis-Funghi
Trichomoniasis
Genital lice

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- ✓ Mycoplasma
- ✓ Syphilis
- ✓ Bacterial vaginosis
- ✓ Moniliasis/Candidiasis-Funghi
- ✓ Trichomoniasis
- ✓ Genital lice
- ✓ Acquired Immune Deficiency Syndrome (AIDS)

Prevention Guide

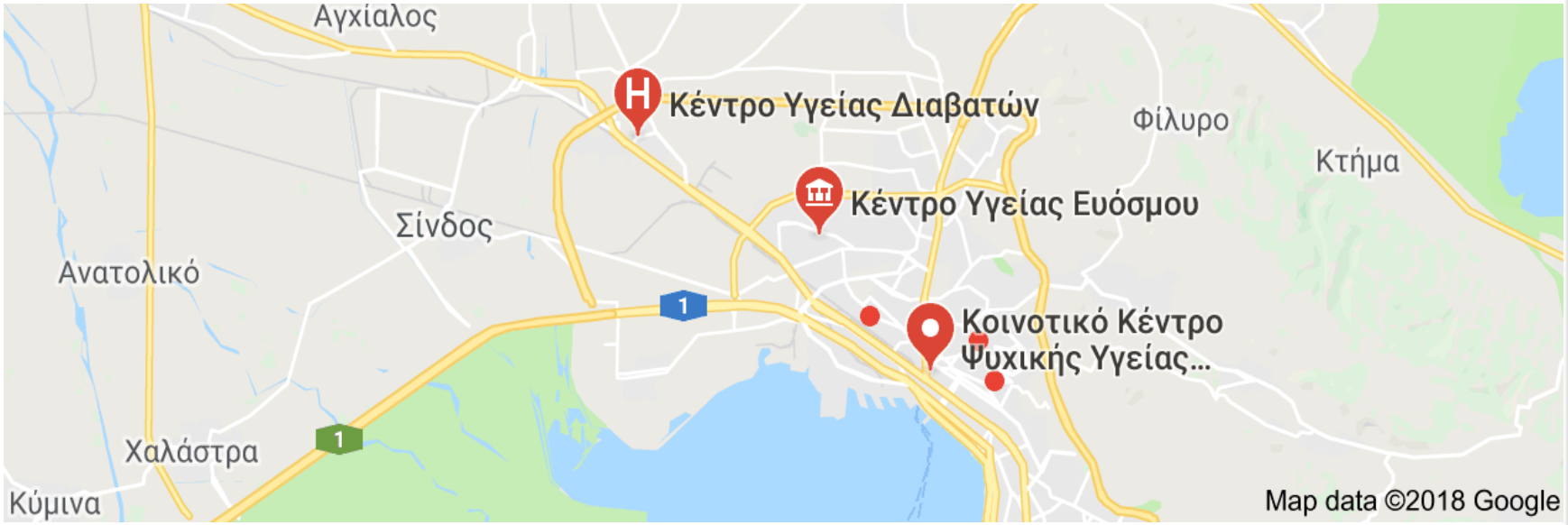
1. Learn proper condom use.
2. If you choose to use lubricant make sure its water based (oil based ones can damage latex condoms).
3. Avoid common towel use and common underwear use.
4. Urinate after sexual contact.
5. Wash with water before and after sexual contact.
6. Get informed on Hepatitis B vaccine (three doses).
7. Avoid excessive alcohol use before sex or sex with people under the influence of alcohol or other psychoactive substances. Those people usually fail to have safe sexual encounters.
8. If you think you have been exposed to HIV, get the test. Do not forget that a negative laboratory test for some STDs (For example AIDS virus) does not exclude it since in some cases it needs months to become positive. As a specialist doctor if you think you have been exposed to an STD. Nowadays many STDs can be treated successfully.

Chapter 10

Structure of the Greek Health System

Healthcare system in Greece is subdivided in three sectors:

- National Health System (Ε.Σ.Υ.) which includes Hospitals, Primary Care centers, National System of Emergency Help (E.K.A.B).
- Social Insurance Institute (I.K.A) and other insurance funds
- The private sector that includes private hospitals, diagnostic centers, clinics, maternity clinics, independet doctor's offices and dentists


Αγχίαλος
Κέντρο Υγείας Διαβατών
Φίλυρο
Κτήμα
Κέντρο Υγείας Ευόσμου
Σίνδος
Ανατολικό
1
Κοινοτικό Κέντρο
Ψυχικής Υγείας...
Χαλάστρα
1
Κύμινα
Map data ©2018 Google


ΚΕΝΤΡΟ ΥΓΕΙΑΣ


Κέντρο Υγείας
Health Centre

Vaccinations

Vaccinations are a simple and most effect strategy to promote health. Vaccines and clean water are the two biggest interventions to diminish mortality and increase survival expectancy

Plotkin S. Vaccines, 4th ed; 2004: 1-15

Vaccine combinations for basic vaccinations as recommended by Greek Pediatric Society

- DTaP-IPV-Hib-HeB :Hexavalent
- DTaP-IPV-Hib :Pentavalent
- DTaP-IPV-HeB :Pentavalent
- DTaP-IPV :Tetravalent
- MMR
- MMR-VAR

Concurrent Immunization

Combinations of concurrent administration that have been tried, proven and safe are the following:

- DTP and Sabin,
- DTP, Sabin and MMR,
- DTP or DTaP and ,
- DTP, Sabin, MMR, Hib and HBV,
- Flu and polysaccharide vaccine against pneumococcus.

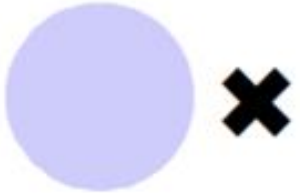
Vaccination Contradictions

- Acute infection with or without fever
- Recent administration of gamma-globulin, plasma or blood. Malignancies.
- In the case of immunodeficiency due to chemotherapy, vaccines containing live attenuated viruses are postponed and can take place 3 months after ceasation of chemotherapy
- There are no contradictions in short-term corticosteroid therapy, utilizing small doses.
- Allergy (anaphylaxis) towards ingredients of the vaccines

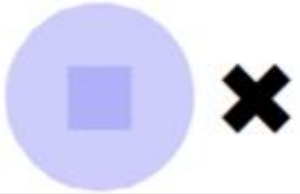
Vaccine Vial Monitor

The inner square is lighter than outer circle. If the expiry date has not passed, **USE** the vaccine.

As time passes the inner square is still lighter than the outer circle.
If the expiry date has not passed, **USE** the vaccine.



Discard point: the colour of the inner square matches that of the outer circle.
DO NOT use the vaccine.



Beyond the discard point: inner square is darker than the outer circle.
DO NOT use the vaccine.

Routine services: Ensuring that all children receive the WHO recommended vaccination schedule

Age	EPI visit	Vaccine	Hepatitis B - options		
			Option1	Option2	Option3
Birth	0	BCG (OPV)		Hep B	Hep B
6 weeks	1	OPV1, DTP1, Hib1	Hep B1 monovalent or in combo		**DTP-Hep B1**
10 weeks	2	OPV2, DTP2, Hib2	Hep B2 monovalent or in combo	Hep B2 (monovalent)	**DTP-Hep B2**
14 weeks	3	OPV3, DTP3, Hib3	Hep B3 monovalent or in combo	Hep B3 (monovalent)	**DTP-Hep B3**
9-12 months	4	Measles (Rubella)			

Special Vaccination Programs

- National Immunization Days (NID's).
- Mopping up vaccinations ("Door to Door").
- Mass vaccinations (Wide age range)
- Catch up vaccinations.(Every 4-5 years/non-responsiveness/missed doses)
- *Vaccination of High Risk Groups*

Legal status of Vaccinations

In many other countries vaccinations are not legaly mandatory, but “advised”, although many times basic vaccination is referred to as “mandatory vaccination”

Vaccination Cost – International cooperation

- Health services constantly face the problem of vaccination costs, given the development of many new technology vaccines

National Vaccination Program

In order for a common vaccination policy to exist, a country specifies a timeplan of vaccinations that satisfies the population's needs and conforms to the international directives (National Vaccination Program).

Vaccinations in Greece

- Greece follows WHO directives for the vaccinations included in the National Vaccination Program.
- Those vaccines are free of charge from healthcare services or covered by insurance funds since 1999.
- New vaccines are incorporated in the program under the guidance of the National Vaccination Committee housed in the Health Ministry.

Children Vaccination Program

	Birth	Months								Years										
		1	2	4	6	12	15	18	19	2	3	4	5	6	7	10	11-12	13	14	18
tuberculosis	BCG[5]																			
rotavirus infection[1]			ROTA	ROTA	ROTA															
diphtheria			D	D	D	D	D		D			D			d		d		d	
tetanus			TT	TT	TT	TT	TT		TT			TT			TT		TT		TT	
pertussis			acP	acP	acP	acP	acp		acp			acP			acp		acp		acp	
poliomyelitis			IPV	IPV	IPV				IPV			IPV			IPV					
Haemophilus influenzae type b infection			Hib	Hib	Hib	Hib	Hib		Hib						Hib					
hepatitis B	HepB[6]	HepB		HepB	HepB															
pneumococcal disease[2]			PCV13	PCV13	PCV13	PCV13		PCV13							PCV13+PPSV23					
meningococcal disease[3]						MenC	MenC										MCV4	MCV4		
measles[4]						MEAS		MEAS				MEAS			MEAS					
mumps						MUMPS		MUMPS				MUMPS			MUMPS					
rubella						RUBE		RUBE				RUBE			RUBE					
varicella						VAR		VAR				VAR			VAR					
human papillomavirus infection																	HPV[7]		HPV[8]	
influenza					IIV3															
hepatitis A						HepA[9]						HepA[9]								

Version:

23-05-2017: National Vaccination Programme 2017

Footnotes:

1. 2 doses of RV1 (month 2 and 4) OR 3 doses of RV5 (month 2, 4 and 6)
2. PPSV23 for risk groups is recommended from 2 years of age.
3. MenB vaccination recommended but not funded for at-risk groups from 2 months of age. Please refer to national recommendatons for details on schedule.
4. 21 Sept. 2017: temporary recommendation for measles vaccination in Greece. First Dose at 12 months of age, Second dose 3 months later or 4 weeks after Dose 1 in specific groups
5. Vaccination at birth and catch-up to 5 years in high-risk groups. Mantoux test at school between 4 and 6 years.
6. Babies born to a mother infected with hepatitis B and those whose immune status is unkown will be offered a first vaccine dose at birth simultaneously with HB immunoglobulin in the case of HbsAg mother.
7. Females only. 2 doses within a 6-month interval.
8. Females only. 3 doses
9. Two doses

Adult Vaccination Program

	Years							
	18	19	26	59	60	64	65	≥ 66
diphtheria	d	d[4]						
tetanus	TT	TT[4]						
pertussis	acp	acp[5]						
poliomyelitis	IPV							
Haemophilus influenzae type b infection	Hib	Hib						
hepatitis B	HepB[6]							
pneumococcal disease[1]	PCV13+PPSV23	PCV13+PPSV23					PCV13+PPSV23	
meningococcal disease[2]	MCV4	MCV4						
measles[3]	MEAS	MEAS[7]						
mumps	MUMPS	MUMPS[7]						
rubella	RUBE	RUBE[7]						
varicella	VAR	VAR[7]						
human papillomavirus infection	HPV[8]	HPV[8]						
influenza	IIV3	IIV3						
herpes zoster					ZOS			
hepatitis A	HepA[9]	HepA[9]						

Footnotes:

1. PPSV23 for risk groups is recommended from 2 years of age.
2. MenB vaccination recommended but not funded for at-risk groups from 2 months of age. Please refer to national recommendatons for details on schedule.
3. 21 Sept. 2017: temporary recommendation for measles vaccination in Greece. First Dose at 12 months of age, Second dose 3 months later or 4 weeks after Dose 1 in specific groups
4. Td booster every 10 year. One of the booster dose should be with Tdacp or Tdacp-IPV. Td from 65 years of age
5. Pertussis vaccination recommended during pregnancy (27-36 weeks) or immediately after delivery in unvaccinated women. For all adults, one of the Td booster doses before 65 years should be with acp.
6. Three doses catch-up for unvaccinated adults
7. Two doses recommended to people belonging to specific occupational categories , please refer to official recommendations. Women found to be seronegative during pregnancy should be vaccinated with 2 doses in the postpartum period.
8. Females only. 3 doses
9. Two doses

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