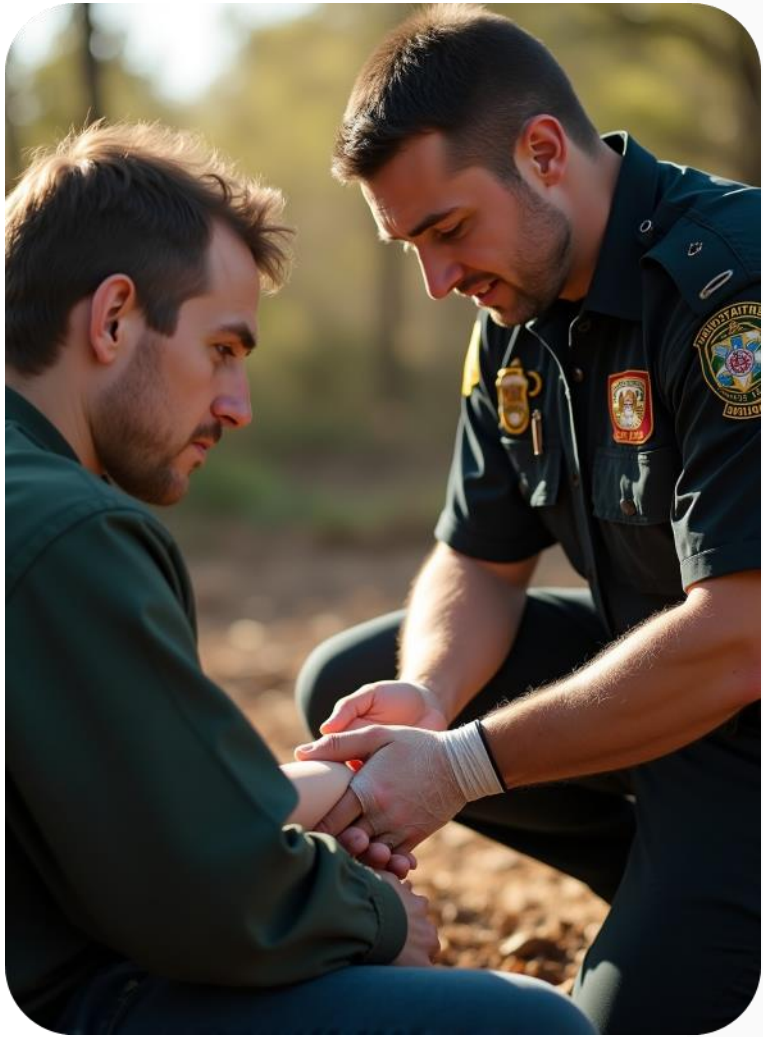
First Aid

IS AN IMMEDIATE CARE GIVEN TO A PERSON WHO HAS BEEN INJURED OR SUDDENLY TAKEN ILL. IT INCLUDES SELF HELP AND HOME CARE IF MEDICAL ASSISTANCE IS NOT AVAILABLE OR DELAYED.

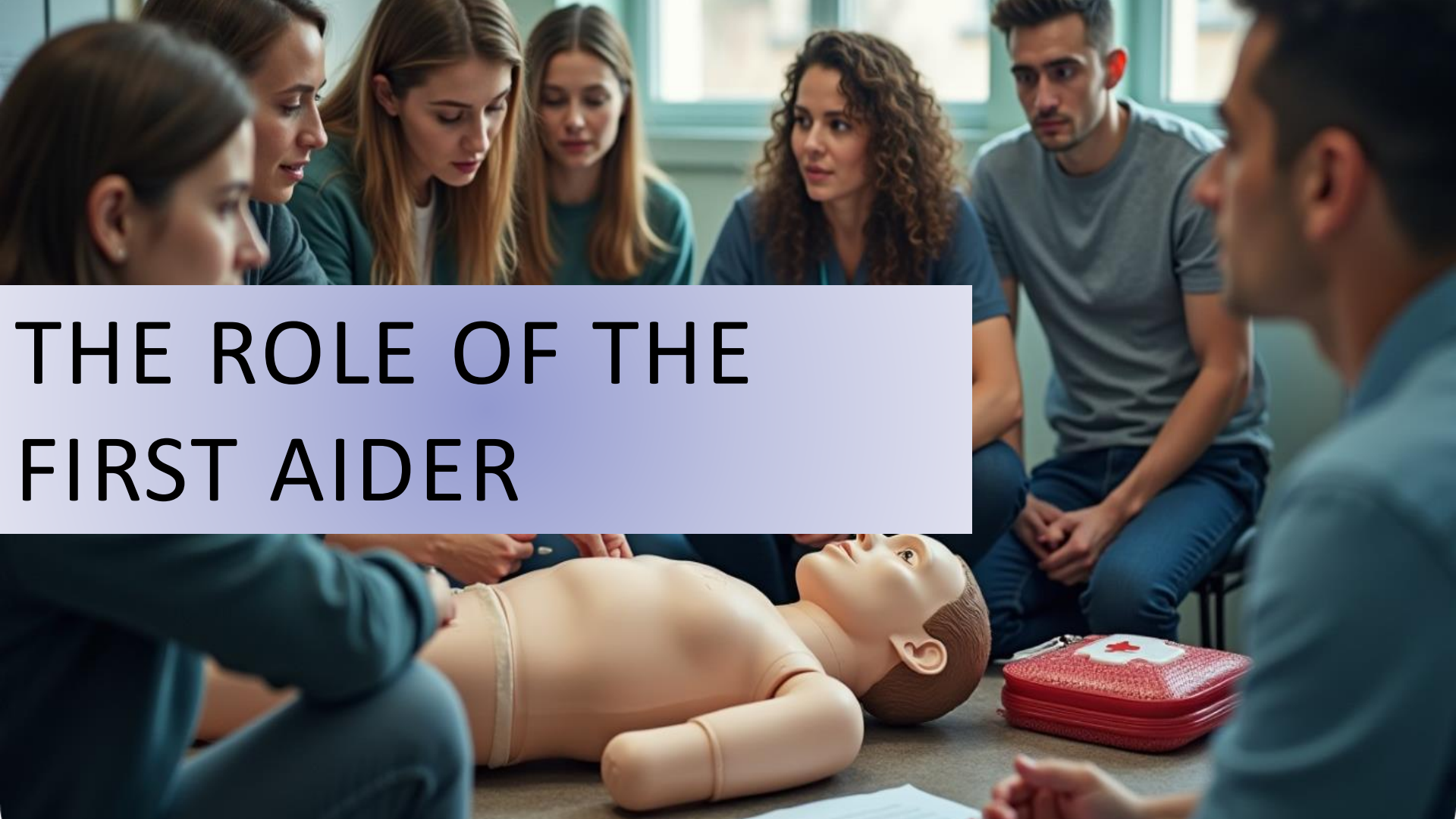
DEFINITION

AIMS OF FIRST AID

- P Preserve Life
- P Prevent Worsening
- P Promote Recovery




drown
bleed
choke
a sprained ankle
burn/fire
Accident
cut
a broken arm
a nosebleed
a broken arm



THE ROLE OF THE FIRST AIDER

Assessing the situation

What happened
Number of casualties
History, signs, symptoms

Protecting from dangers

Assess for further danger
Protect yourself first

Getting help

Ask bystanders
Which emergency services?
Recognise your limitations

Prioritising treatment

Most urgent thing first
Most urgent person first
Offer support and comfort

Minimising infection risks

Wash hands before and after giving help
Wear disposable gloves
Wear protective clothing if needed
Cover your own cuts with a plaster
Dispose of contaminated waste carefully
Use sterile, undamaged, in-date dressings

safe+sound

FIRST AID KIT

BASIC EQUIPMENT:

SPINE BOARD

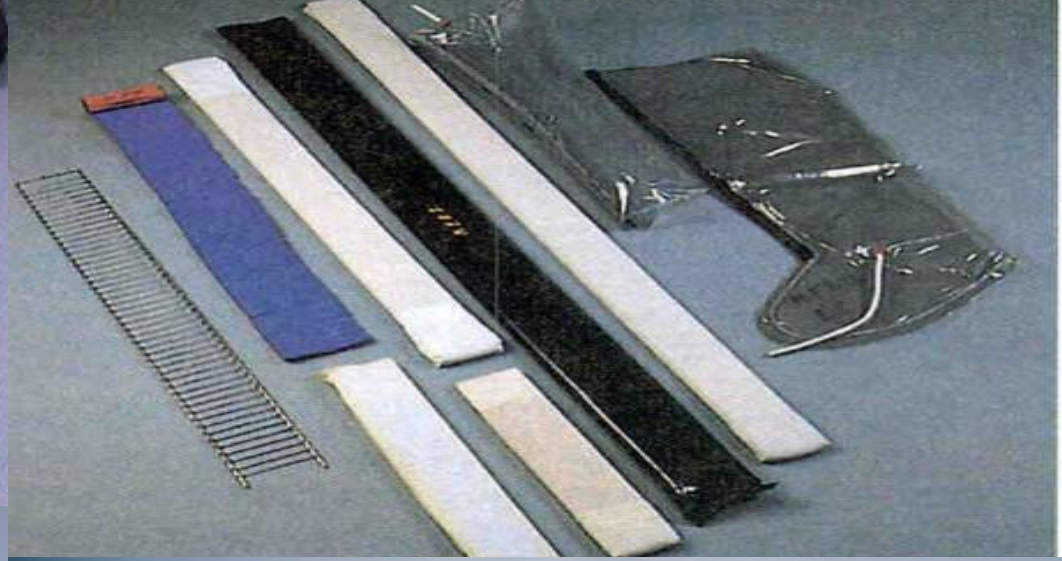
SET OF SPLINTS

POLES/BLANKETS

SHORT BOARDS

SUGGESTED FIRST AID KIT (BASIC)

- RUBBING ALCOHOL
- POVIDONE IODINE
- GAUGE PADS
- PLASTER
- DRESSINGS
- BANDAGES
- GLOVES
- SCISSORS
- FORCEPS
- TONGUE DEPRESSOR
- COTTON
- PLASTIC STRIPS (BAND AID)




trauma
dressing
sterile*
10" x 30"
(25.4cm x 76.2cm)
STERI-PAD

CONCLUSIONS

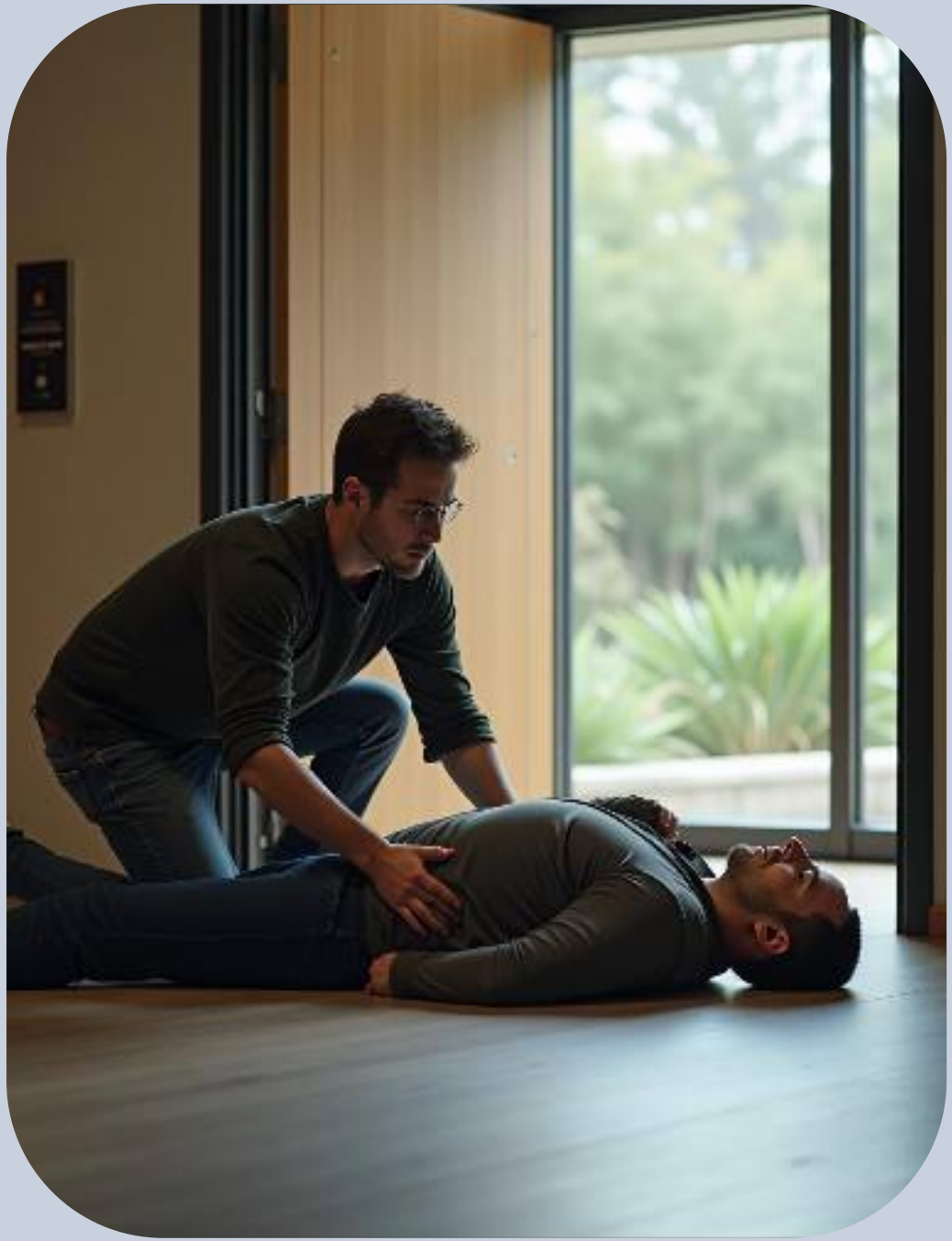
EFFECTIVE FIRST AID SAVES LIVES AND REDUCES COMPLICATIONS. MASTERING KEY SKILLS AND UNDERSTANDING EMERGENCY PROTOCOLS IS ESSENTIAL FOR TIMELY AND CONFIDENT RESPONSE.


THANK YOU

Basic Life Support

Prepared by:

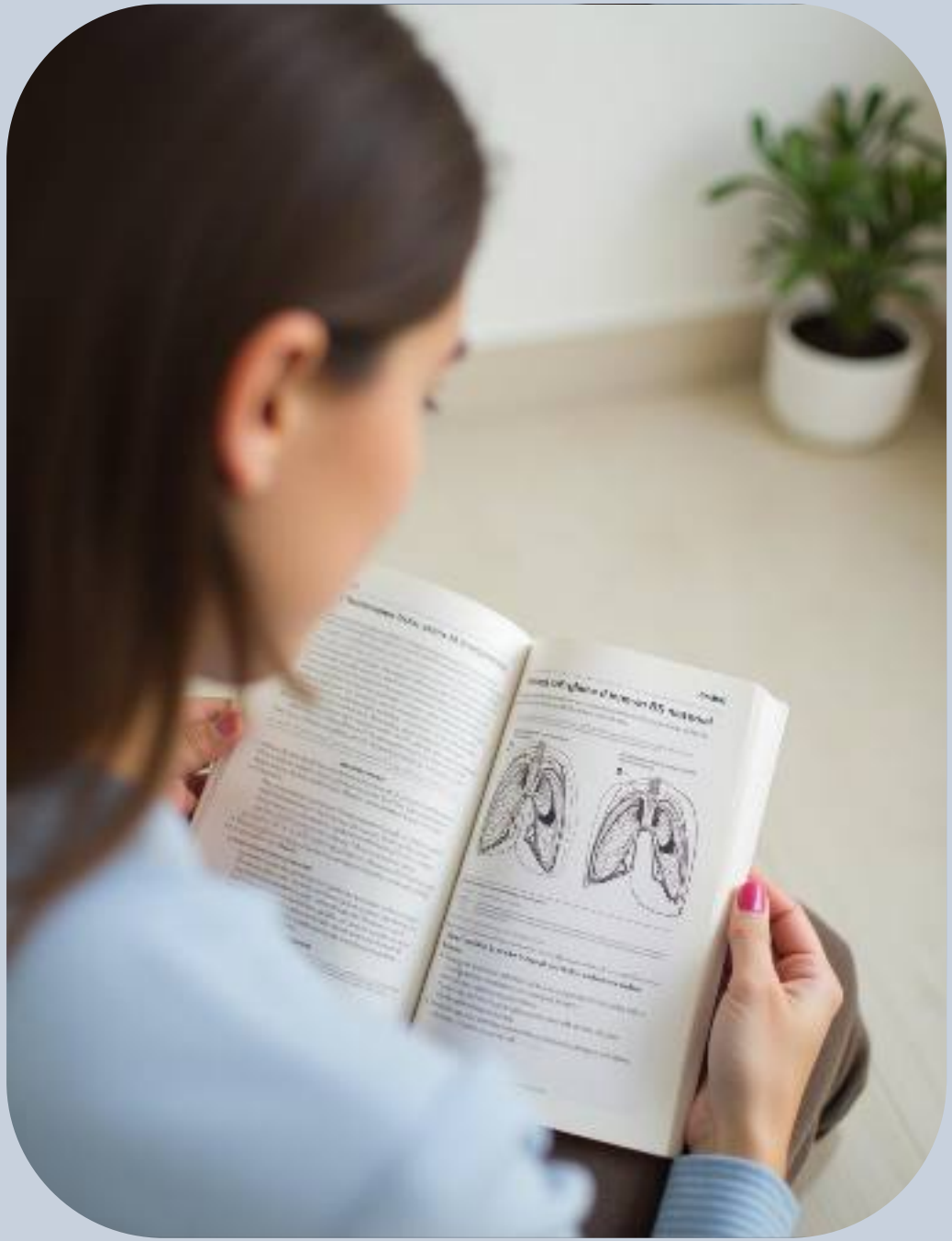
Dr. Hali Abu Alaish



BLS

You are alone on your lunch break, and as you get ready to enter the elevator to go to the lunch room, you observe a middle-aged man standing near you clutch his chest in pain and collapse. The man is now laying on the ground.

What should be your first intervention with this type of emergency and with any cardiac arrest emergency?



Basic Life Support (BLS)

- defines sequences of procedures performed to restore the circulation of oxygenated blood after a sudden pulmonary or cardiac arrest until they can be given full medical care at a hospital.
- BLS does not include the use of drugs or invasive skills.

GLOBAL BURDEN OF SUDDEN CARDIAC ARREST

- Approximately 700,000 cardiac arrests per year.
- Bystander CPR before arrival of emergency services – doubles the survival from sudden cardiac arrest.
- Early resuscitation can result in 60%

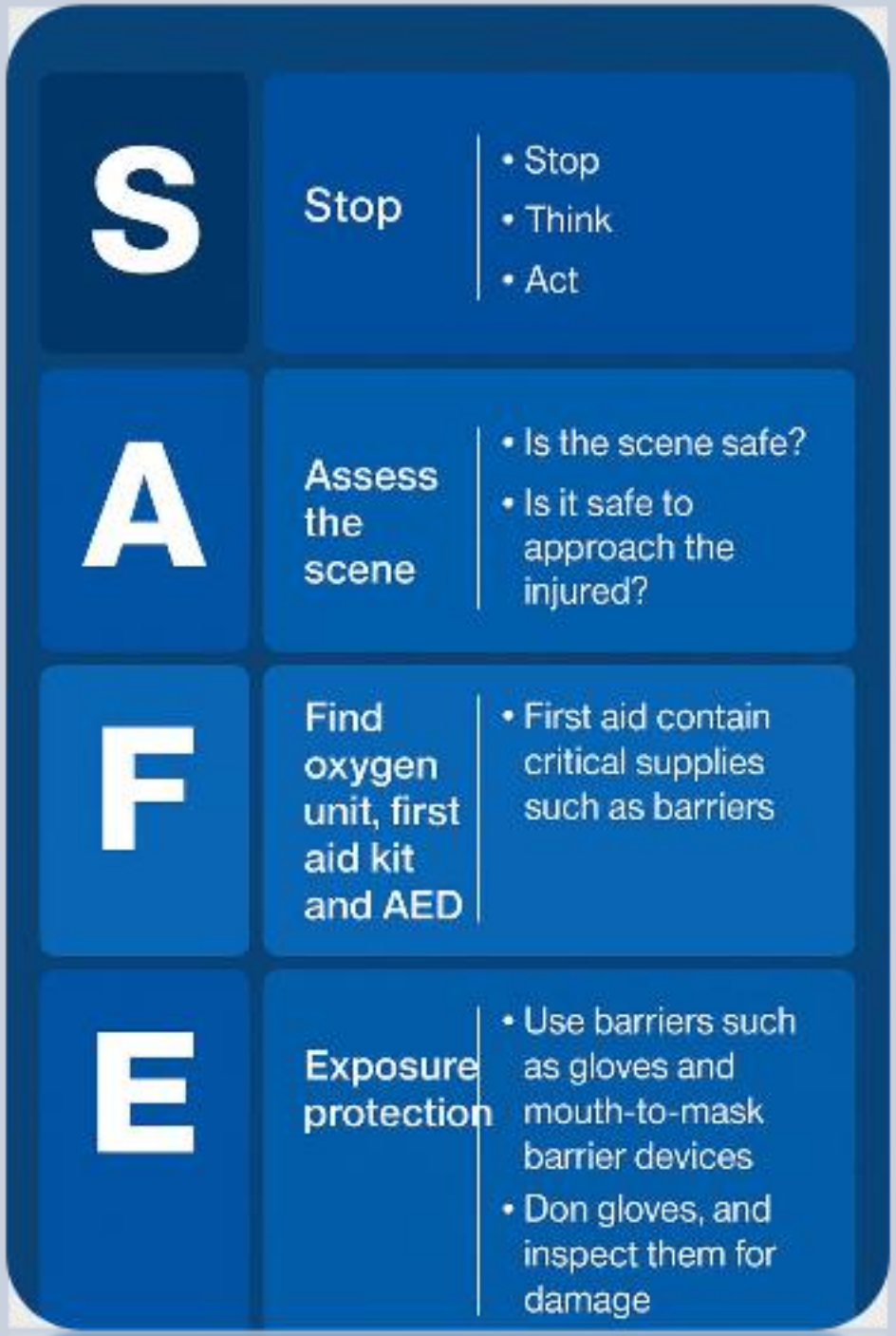
Chain of survival concept

- FIVE LINKS OF ADULT CHAIN OF SURVIVAL
- Early recognition of cardiac arrest.
- Activation of the Emergency Response System.
- Early CPR, to provide blood supply to vital organs.
- Early defibrillation to restart the heart.
- Comprehensive post-cardiac arrest care to

Chain of survival

DRSABCD

DRSABCD



D=Danger

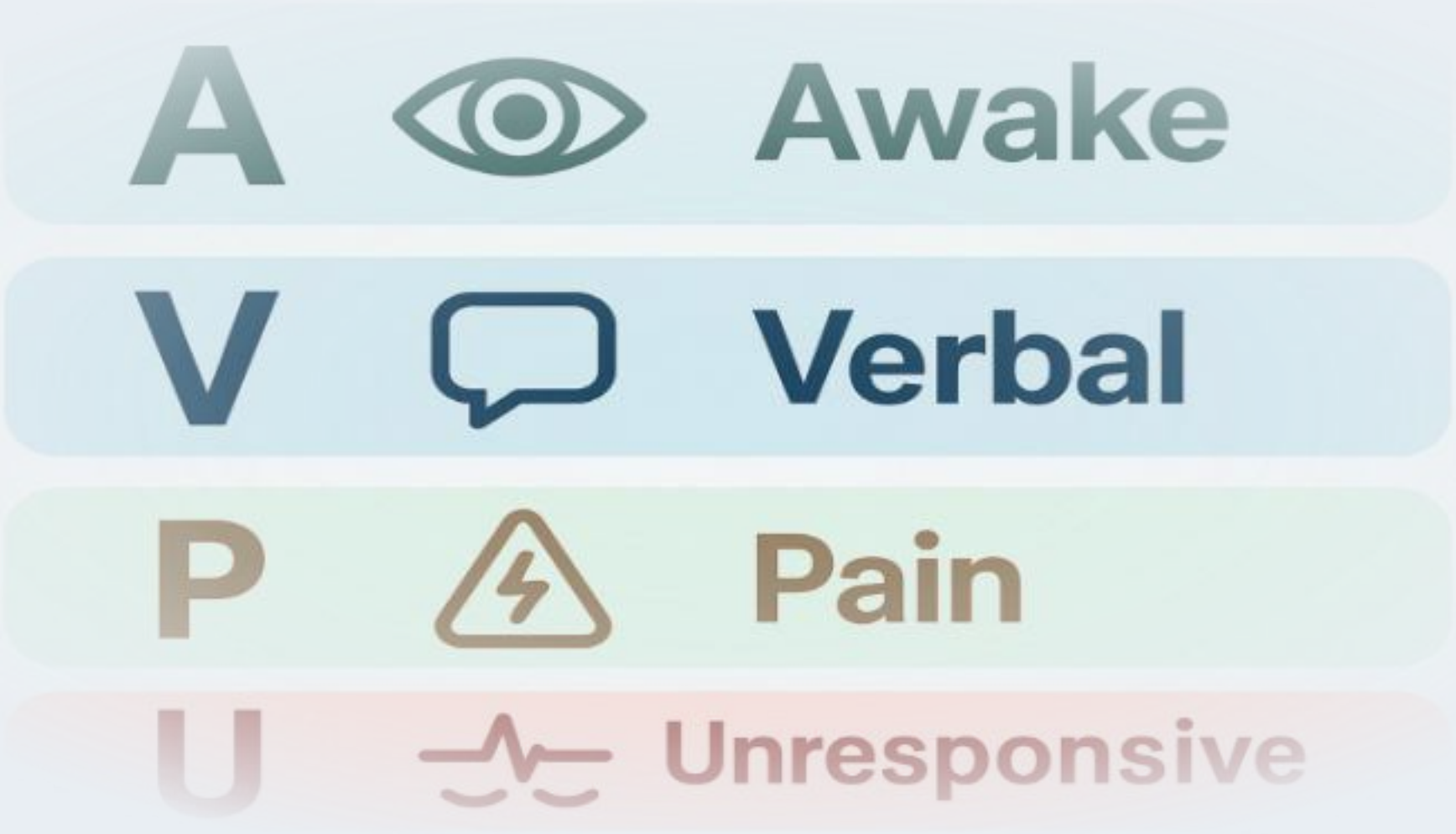
- Always check the danger to you, any bystanders and then the injured or ill person.
- Make sure you do not put yourself in danger when going to the assistance of another person.

R=Response

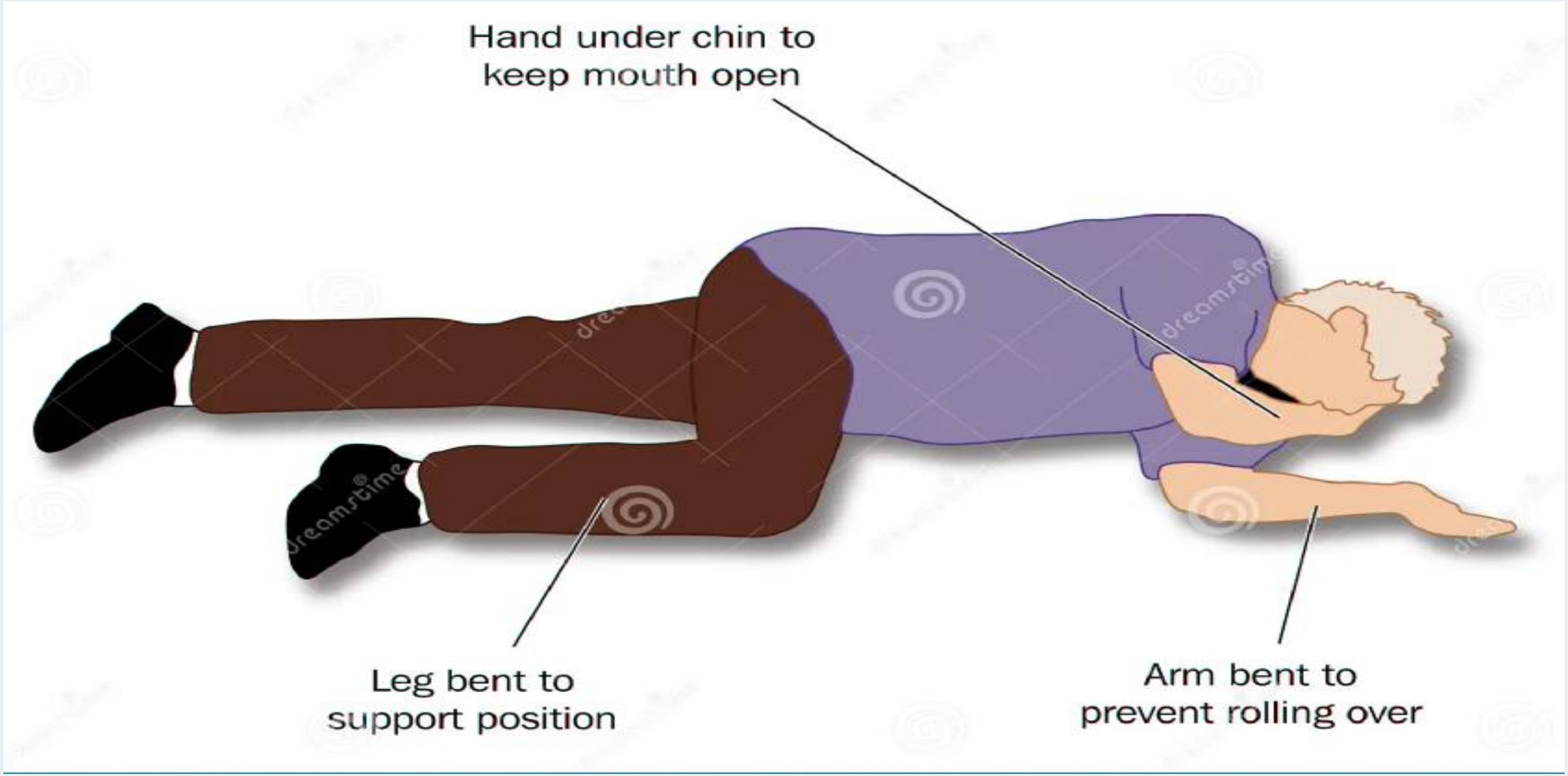
- Is the person conscious?
- How do we check??

- Resp check for injuries, bleeding, breaks, bites etc ask the patient and stay with them

AVPU Scoring



Recovery Position



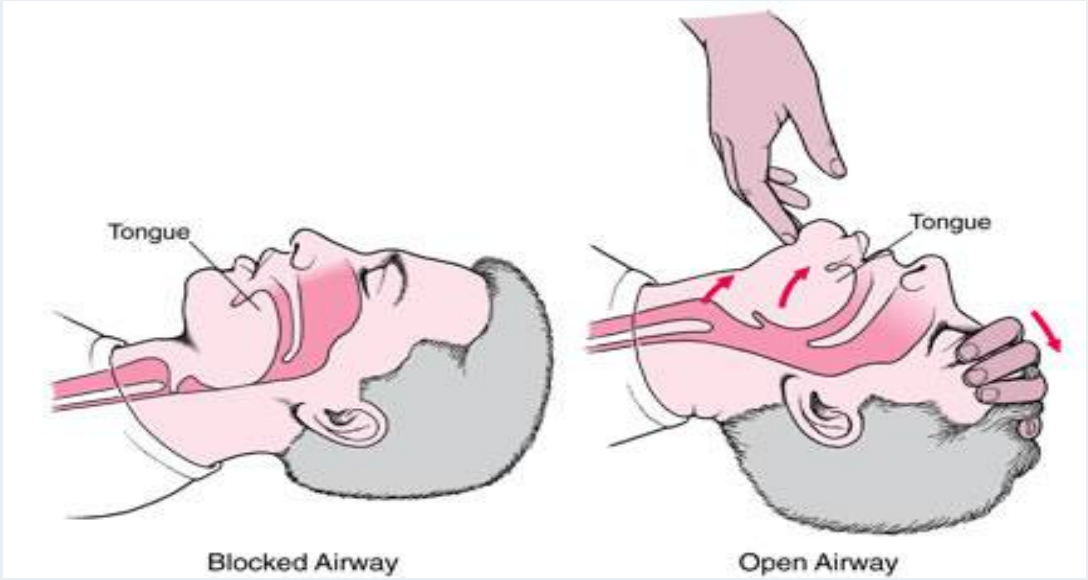
S=Send For Help

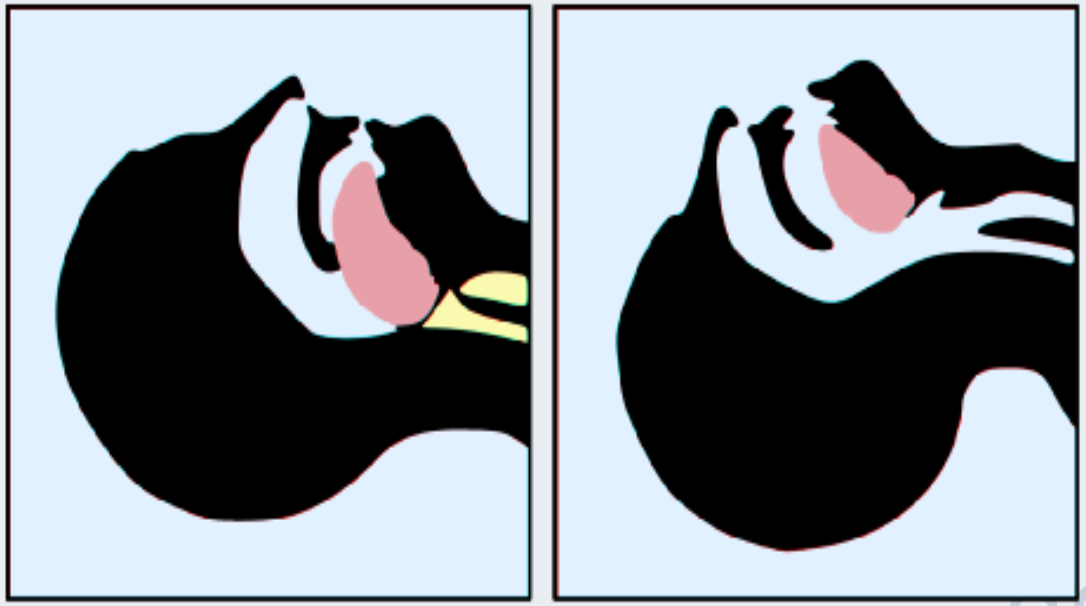
- If you have help available, ask them to call 000If you do not have help, call 000 and remain next to the casualty to continue DRSABCD

A=Airway

Causes:

- Foreign body
- Jaw or Basal Skull Fracture
- Tongue





Head Tilt Chine Lift VS. Jaw Thrust

B=Breathing

To check if someone is breathing:

Look for rise and fall of the chest

Listen for the sound of regular breathing

Feel air escaping their mouth or nose with your cheek

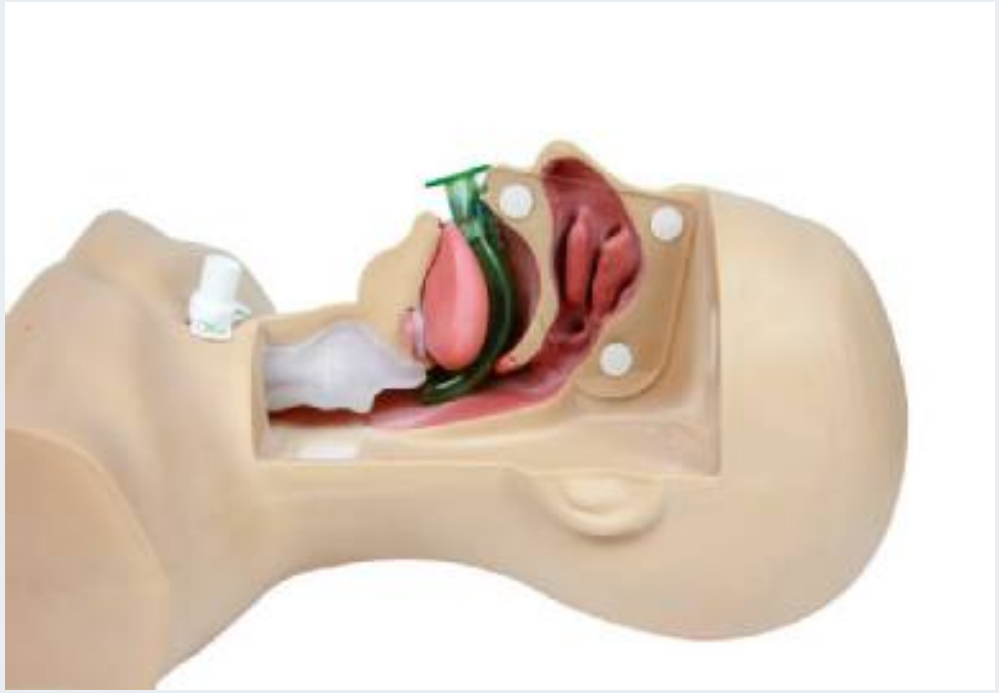
Management of Breathing Problems

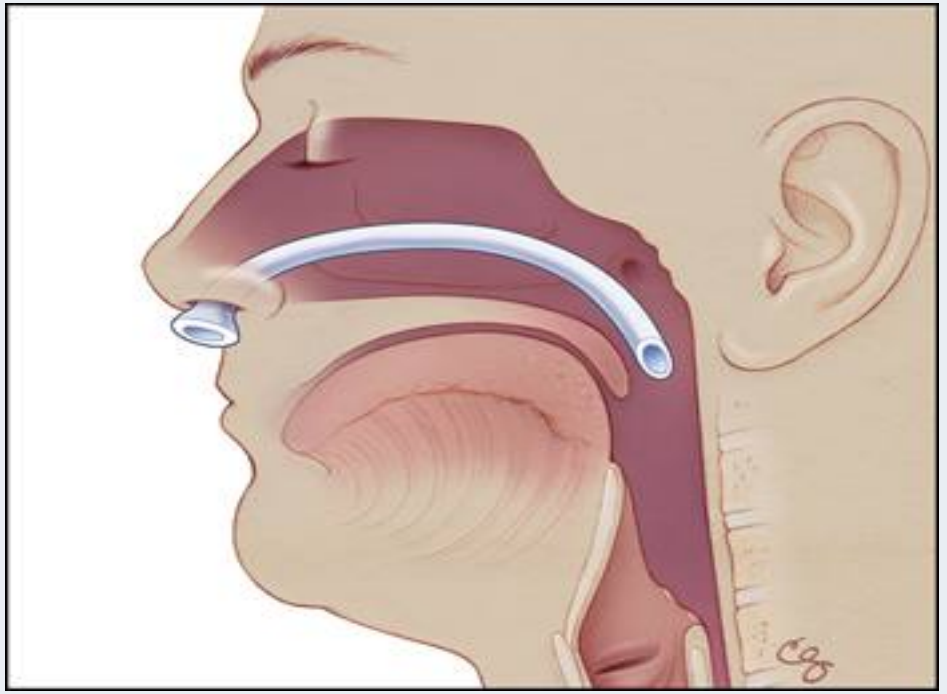
- mouth-to-mouth,
- mouth-to-nose.
- Ventilate with Bag and Mask
- Give oxygen

Ventilate with Bag and Mask

Essential treatment in a patient who is not breathing or is gasping

- Check bags in good working order regularly and before use
- Choose correct mask size
- Ensure good seal around mouth/nose and open airway (may need two people)
- Squeeze bag slowly and evenly

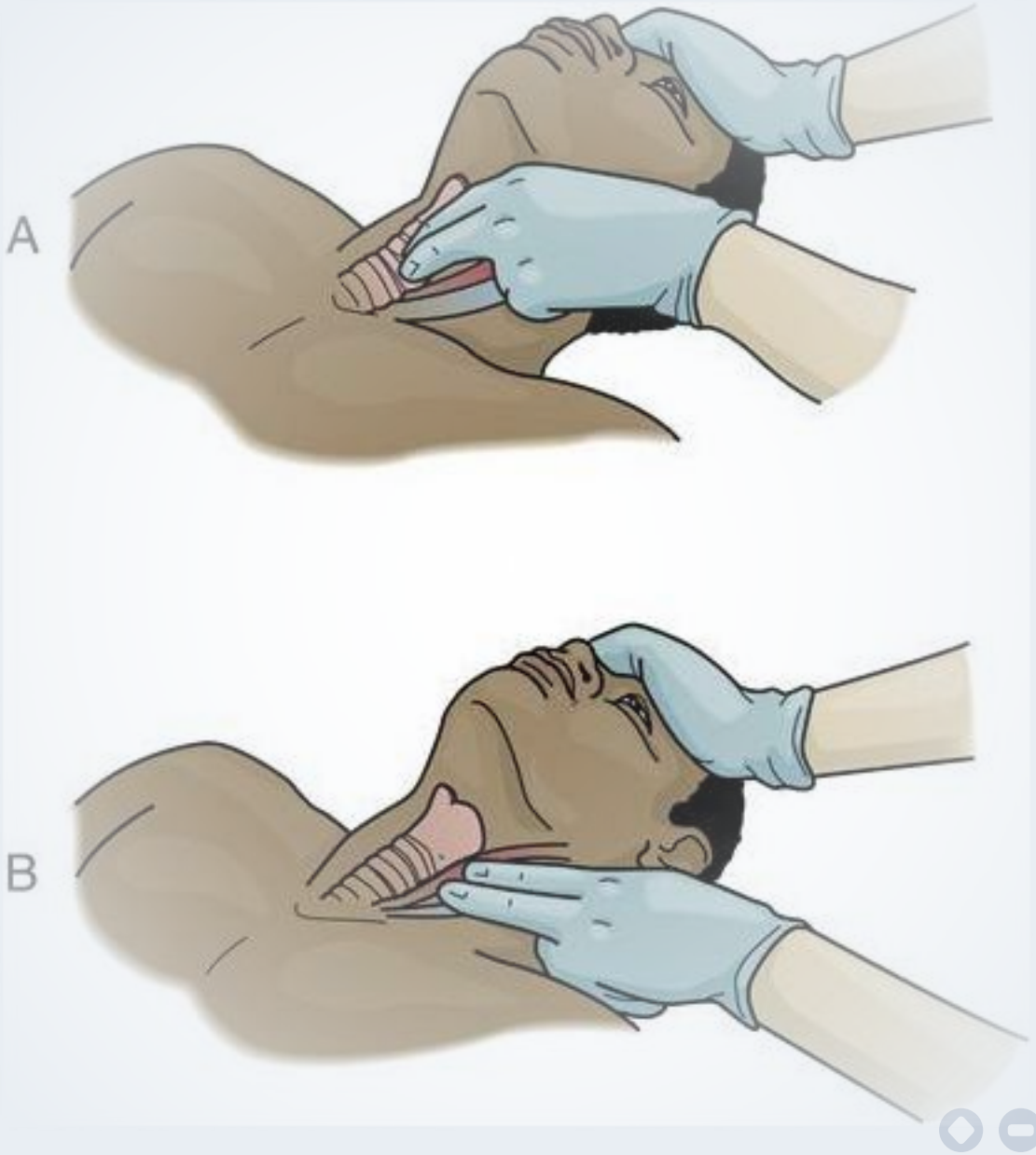




C=Circulation\Compression

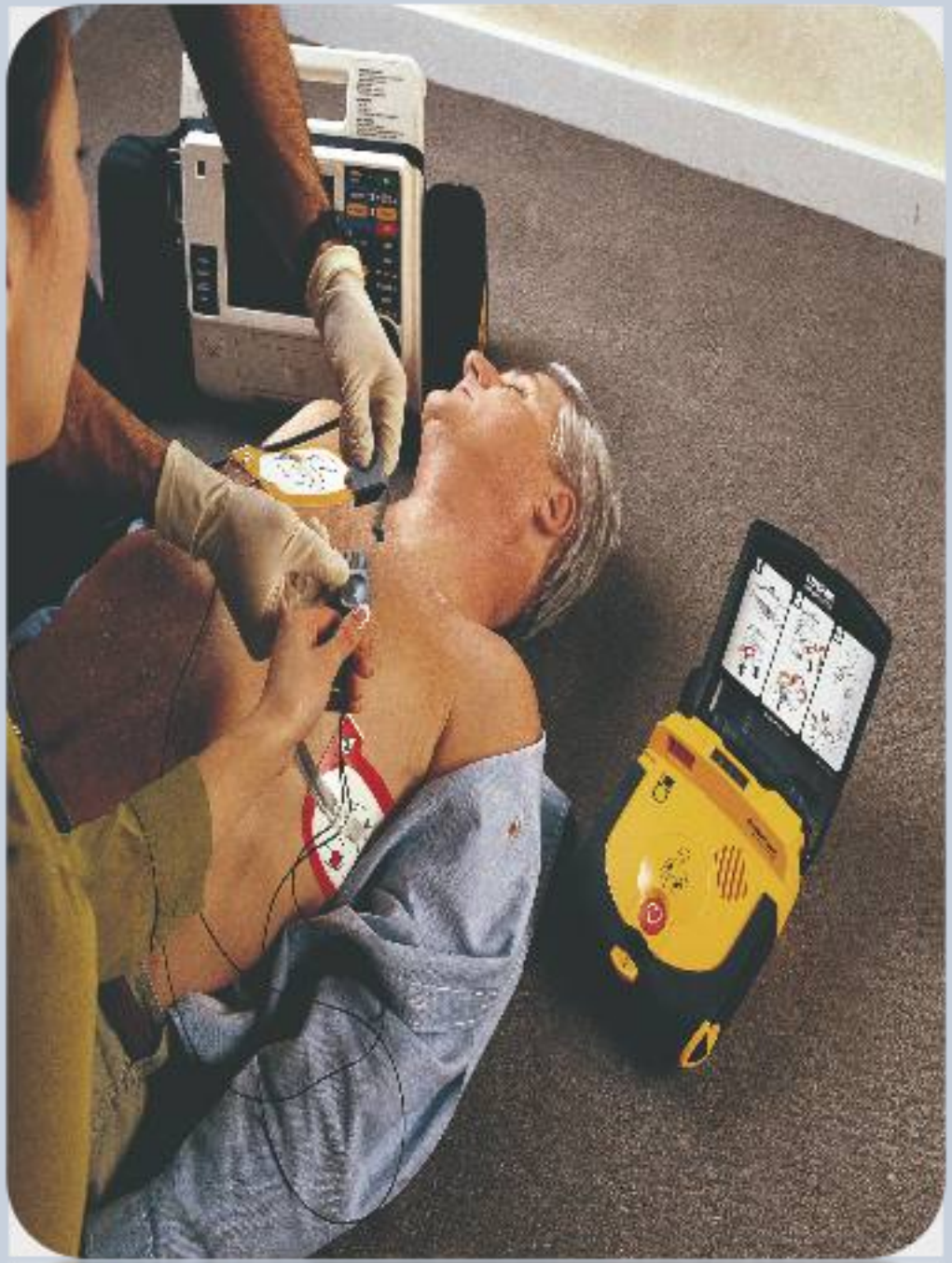
Check the patient for a palpable carotid pulse for 5-10 seconds.

(Do not check for more than 10 seconds.)



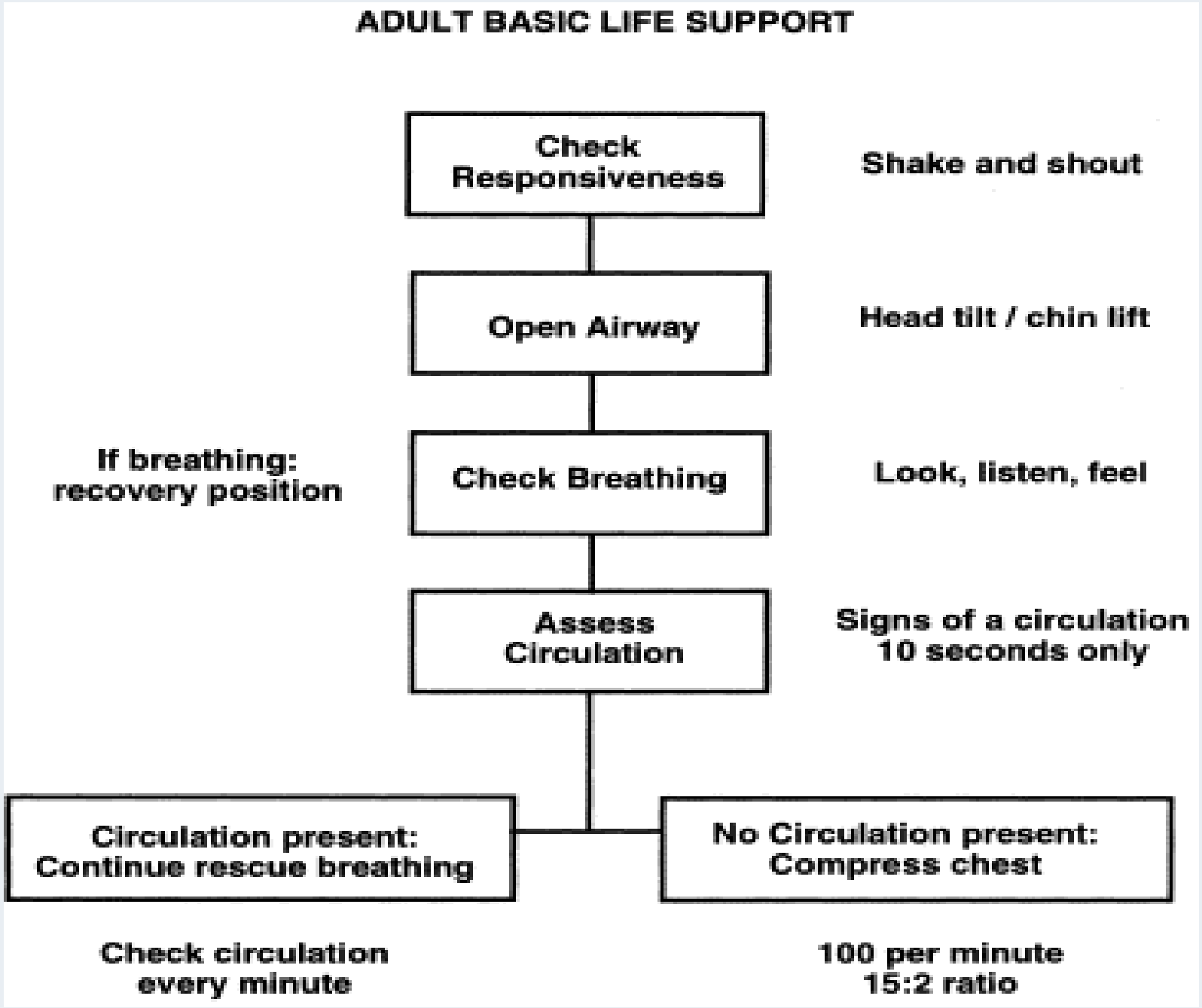
C=Circulation\Compression

No pulse = chest compressions



D=DEFIBRILLATION

A Defibrillator is a device used to restore normal heart rhythm to someone who's heart has stopped


ADULT BASIC LIFE SUPPORT
Check Responsiveness
Shake and shout
Open Airway
Head tilt / chin lift
If breathing: recovery position
Check Breathing
Look, listen, feel
Assess Circulation
Signs of a circulation 10 seconds only
Circulation present: Continue rescue breathing
No Circulation present: Compress chest
Check circulation every minute
100 per minute 15:2 ratio

Thank You

Do you have any questions?
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Cardiopulmonary Resuscitation

Prepared by:
Dr. Hali Zaki AbuAlaish

Introduction

- Statistics indicate that 70%-80% of cardiac arrest cases occur either in the home or at public places.
- Resuscitation in hospital and health care facilities refers to prompt actions aimed at preventing death and providing the best possible chances for human survival.
- The immediate action by the healthcare workers can make the difference between life and death.

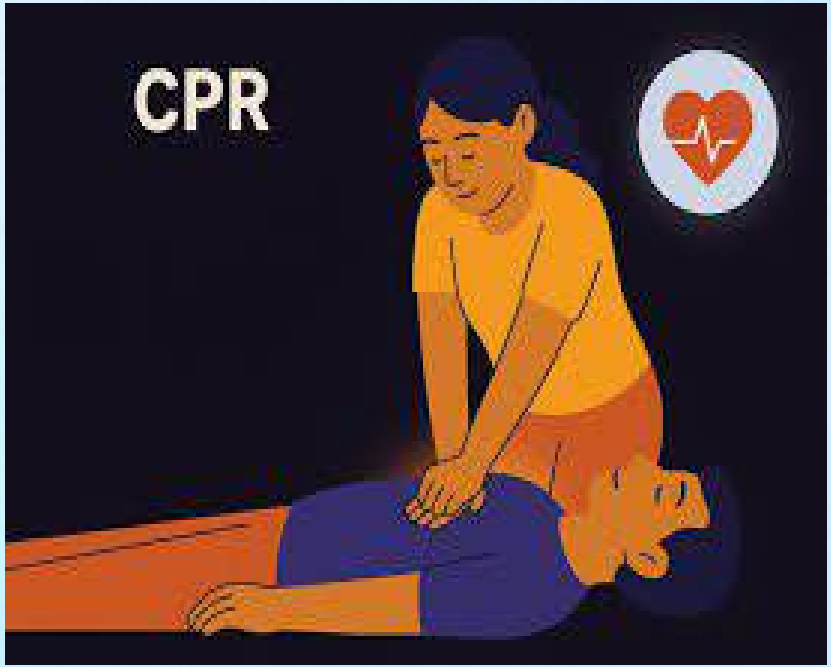
What is CPR?

Understanding Cardiopulmonary Resuscitation

Cardiopulmonary resuscitation (CPR) is an emergency procedure that involves providing manual chest compressions, artificial respiration, and defibrillation to maintain blood circulation and oxygen supply to the vital organs in a person’s body, especially the brain, during a cardiac arrest or respiratory arrest.

Indications Of CPR

- Cardiac arrest
- Respiratory arrest
  - *Accident
  - *Drowning
  - *Stroke
  - *Foreign body in throat
  - *Smoke inhalation
  - *Suffocation



Cardiac Arrest

Cardiac arrest is a sudden and unexpected loss of heart function. It can occur due to several reasons, such as heart disease, trauma. drowning, drug overdose, and respiratory failure. Understanding the causes of cardiac arrest is essential in identifying the signs a providing early intervention

Cardiac Arrest

– Signs of Cardiac Arrest

- Sudden loss of responsiveness
- Absence of breathing or abnormal breathing patterns
- Absence of pulse or signs of circulation

Purposes of CPR

I. To maintain an open and clear airway.

II. To maintain breathing by external ventilation

III. To maintain Blood circulation by external cardiac massages

IV. To save life of the Patient.

V. To provide basic life support till medical and advanced life support arrives.

Components of CPR

CPR combines rescue breathing, chest compressions and Defibrillation.

- Rescue breathing: provides oxygen to the persons lungs.
- Chest compressions: keep oxygen-rich blood flowing until the heartbeat and breathing can be restored.
- Defibrillation: restore normal heart beat.

Basic Steps of CPR

DRSABCD

- Always make sure the environment is safe first.
- Then check if the person is responsive by gently tapping and shouting.
- If there is no response and no normal breathing, its time to call emergency services and start CPR immediately.

Performing Chest Compressions

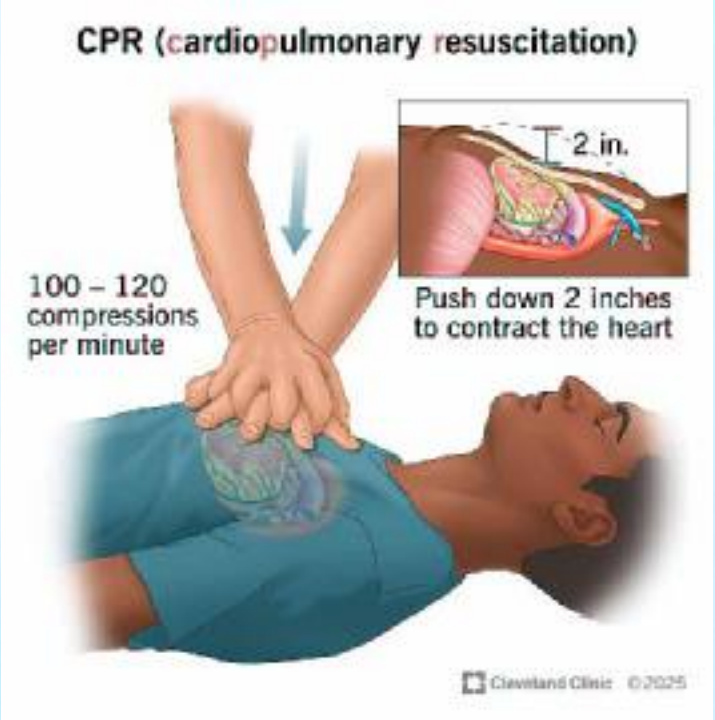
Place the heel of one hand on the center of the chest

Place the other hand on top of the first hand Interlock the fingers and straighten the arms

Press down hard and fast on the chest (about 2 inches)

Perform compressions at a rate of 100 to 120 per minute

Allow the chest to fully recoil between compressions



Giving Rescue Breaths

Tilt the head back and lift the chin

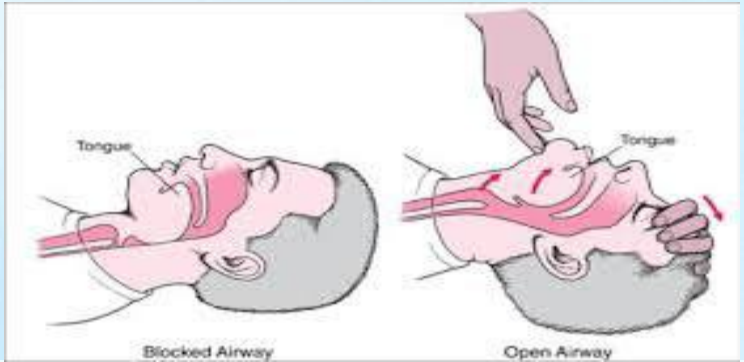
Pinch the nose shut and give 2 breaths into the mouth

Watch for chest rise and fall

If the chest doesn't rise, re-tilt the head and try again

Rate= 30:2 (2 rescue breathes after every 30 chest compressions)

Recheck pulse every two minutes.



High quality CPR

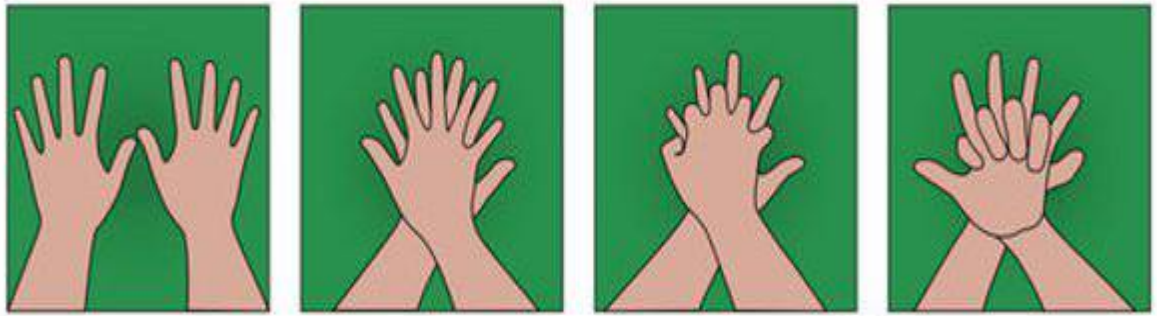
1. Proper Hand Placement

- Position the patient on their back on a firm, flat surface.

- Place the heel of one hand on the center of the patient's chest, between the nipples.

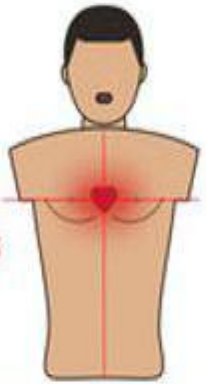
- Place your other hand on top of the first hand, with fingers interlaced.

- Keep your elbows straight and shoulders directly over your hands.



CPR TRAINING

For Adults
Between Nipples



Hand Position

100-120 Compressions
Per Minute

Press Down 2 inches

Chest Compressions

2. Depth of Compressions

- Press down firmly and quickly, compressing the chest by at least 2 inches for an adult, and 1.5 inches for a child.

- Allow the chest to return to its normal position after each compression.

3. Compression Rate

- Perform compressions at a rate of 100-120 compressions per minute.

- This means compressing the chest at a rate of 2 compressions per second.

4. Duration of Chest Compressions

- Continue performing chest compressions until medical help arrives, or until the patient begins breathing on their own.

- If you become exhausted, switch with another person trained in CPR.

5. Minimizing Interruptions

-Interruptions to chest compressions can significantly reduce their effectiveness.

- Minimize interruptions as much as possible, such as during AED analysis or rescue breathing.

- However, it's crucial to make sure all steps are done quickly and safely, and that no time is wasted in calling for medical help.

- By following these guidelines, you can effectively perform chest compressions to maintain circulation and increase the chances of a successful CPR outcome.

Amoul
We Innovate to Save Lives

5 critical components to ensure high-quality CPR

Chest Compression Fraction (CCF) **>80%**

Compression Depth **5-6cm**

Compression Rate **100-120/min**

Full chest Recoil

Avoid excessive ventilation

info@amoulmed.com www.amoulmed.com

Using an AED (Automated External Defibrillator)

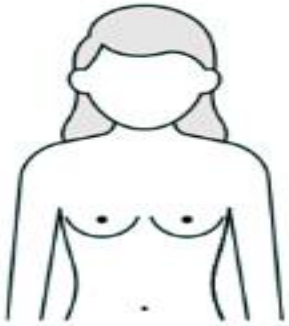
An Automated External Defibrillator (AED) is a portable electronic device that can analyze the hearts rhythm and provide an electric shock to restore normal heartbeat in a person experiencing sudden cardiac arrest. It is a crucial tool in the management of cardiac arrest and can increase the chances of survival.

Using an AED (Automated External Defibrillator)

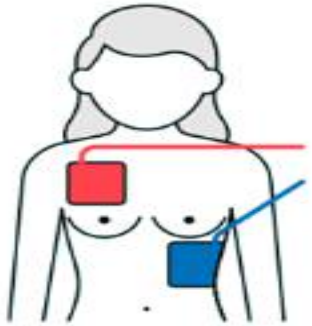
1. Turn on the AED and follow the voice prompts
2. Remove clothing and jewelry from the chest area
3. Attach the electrode pads to the bare chest as shown on the pads
4. Stand clear of the person and let the AED analyze the heart rhythm
5. Follow the voice prompts to deliver a shock needed
6. Immediately resume CPR for 2 minutes before using the AED again if no shock is advised

How to Use an AED

1. Turn on device & follow audio instructions.



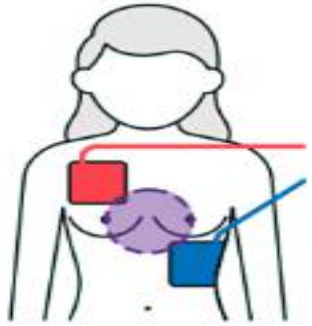
2. Expose the person's bare chest, including bra.



3. Apply the electrode pads to the person's dry skin.

4. Allow the AED to analyze the person's heart rhythm.

5. Make sure no one touches the person as the AED delivers a defibrillation shock.



6. The AED will instruct you when it is safe to continue Hands-Only CPR after the shock has been delivered.


AED

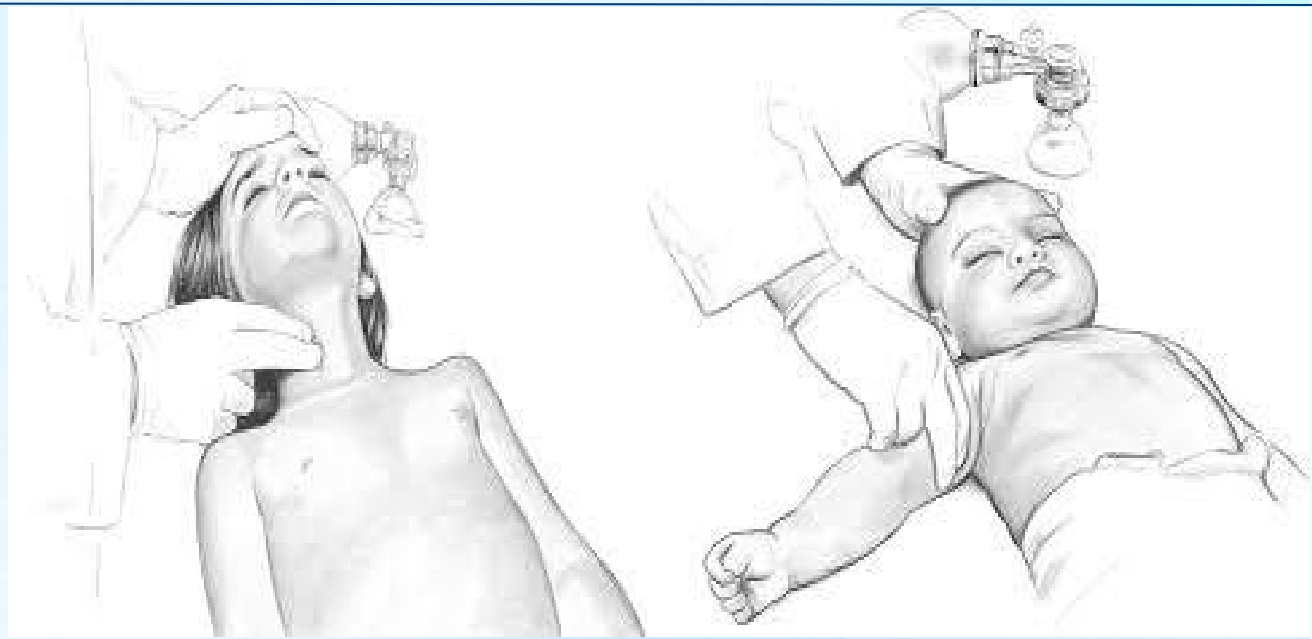
Bad CPR is better than no CPR

- Don't worry about doing it wrong
- After calling 911 begin CPR.
- A bystander who witnesses someone collapse and is ready to perform CPR, can double or triple a person's chances of surviving.
- If nothing else, put your hands in the middle of the person's chest, push and relax, push and relax. Keep repeating the same rhythm, and do not stop until help arrives

Pediatric CPR

Circulation

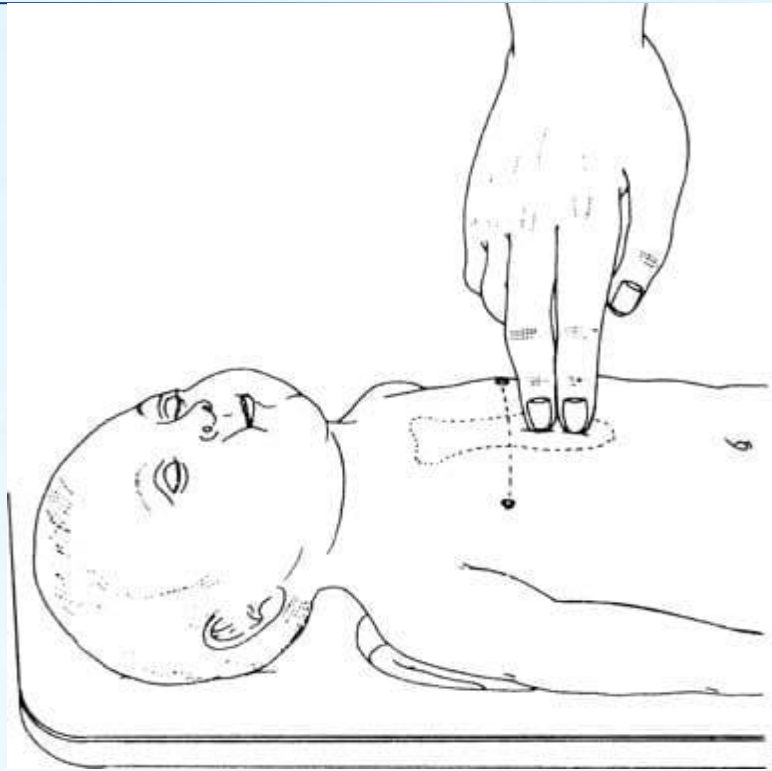
- Infants: check brachial.
- Children: check carotid.

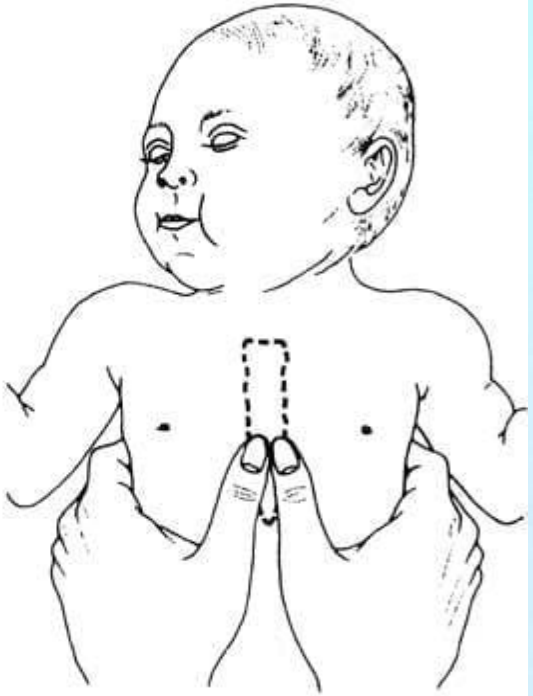


Infant Chest Compression

- 2 fingers
- 1 finger width below nipple line
- 1/2 - 1 inches
- At least 100/minute
- Chest compressions: 30:2 one responder, with two responders15:2.
- Ensure adequate chest recoil atter compression

Infant Chest Compression





Child Chest Compression

- One hand
- Lower half of sternum
- 1 - 1.5 inches
- 100/minute
- For older/adult size children 30:2 ratio, even with 2 responders.
- Ensure adequate chest recoil after compressions

Child Chest Compression

Potential Complication of CPR

Potential Complication of CPR

- Rib fractures:

Chest compressions during CPR can cause rib fractures

Elderly patients or patients with osteoporosis are at higher risk for rib fractures during CPR

The incidence of rib fractures during CPR is reported to be as high as 30-40%

Rib fractures are generally not life-threatening

It can be managed with pain medications.

- Pneumothorax:

Pneumothorax is a potential complication of chest compressions during CPR.

It occurs when air leaks into the space between the lung and chest wall, causing the lung to collapse.

The risk of pneumothorax is higher in patients with pre-existing lung conditions.

If a pneumothorax occurs during CPR, it may require immediate medical attention

Potential Complication of CPR

- Lung contusion

Chest compressions can also cause lung contusion, which can impair lung function and oxygenation and may require further medical treatment.

- Gastric distension

Rescue breathing during CPR can cause gastric distension, which is the abnormal accumulation of air in the stomach. Gastric distension can cause discomfort, nausea, vomiting, and in severe cases, aspiration of stomach contents into the lungs, causing respiratory distress.

To avoid gastric distension, proper technique during rescue breathing is essential.

Despite these potential complications, the benefits of CPR outweigh the risks, and it is crucial to act quickly and efficiently in case of cardiac arrest.

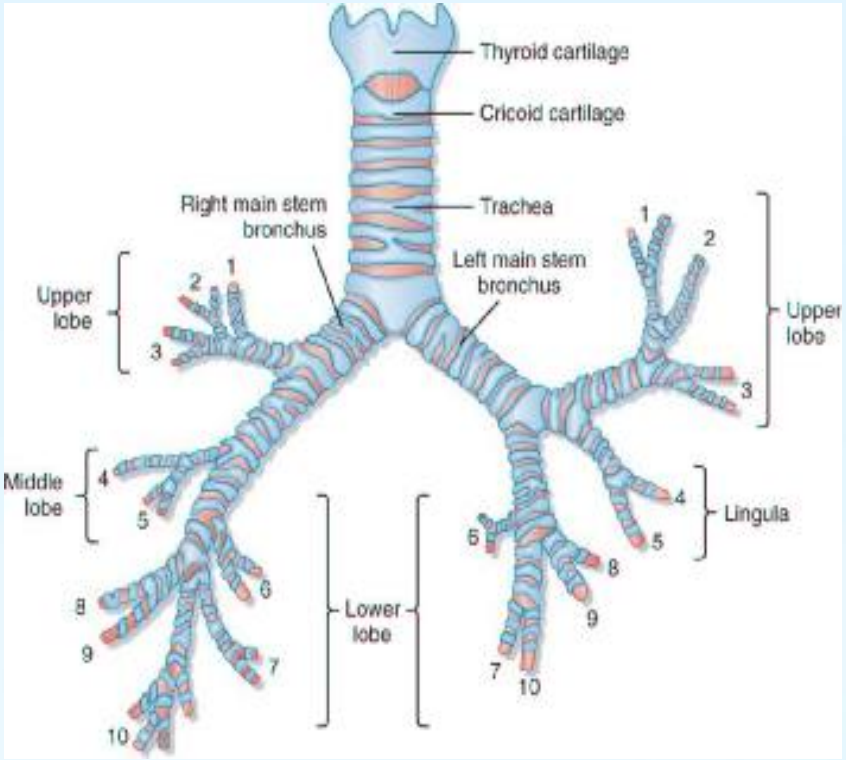
THANK YOU

Airway Obstruction

Prepared by:
Dr. Hali Zaki Abu Alaish.

Introduction

- In order for oxygen from the air to flow and return from the lungs, the upper airway must be unobstructed.
- Choking occurs when an object gets stuck in the throat and partly or completely blocks the airway.


Thyroid cartilage
Cricoid cartilage
Trachea
Right main stem bronchus
Left main stem bronchus
Upper lobe
Middle lobe
Lower lobe
Lingula
Upper lobe
1
2
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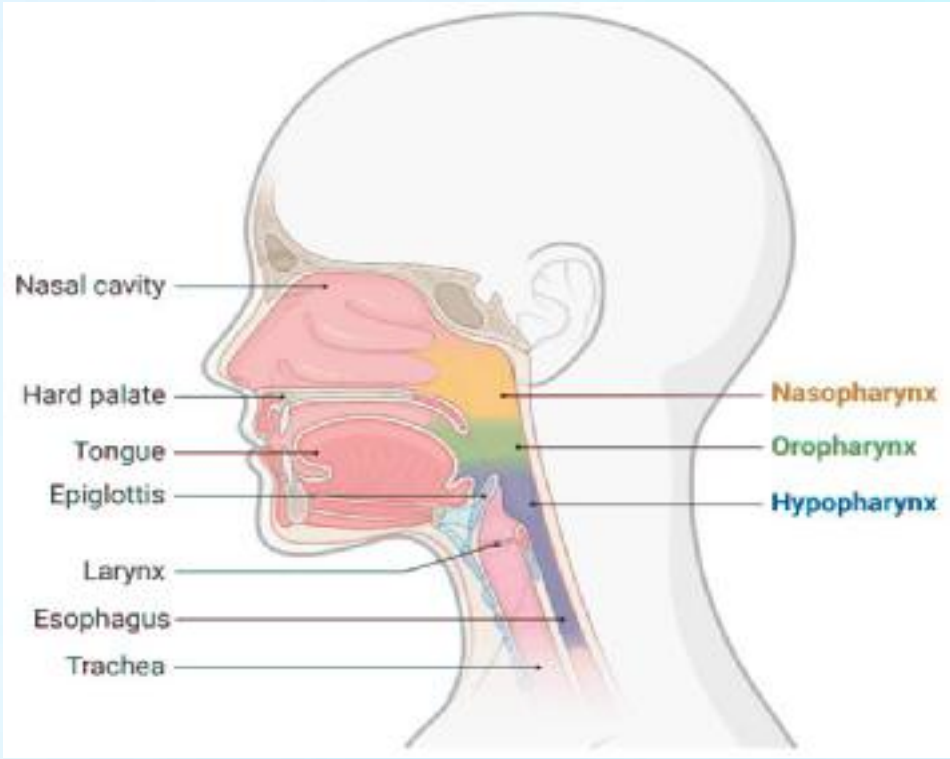

Nasal cavity
Hard palate
Tongue
Epiglottis
Larynx
Esophagus
Trachea
Nasopharynx
Oropharynx
Hypopharynx

Definition

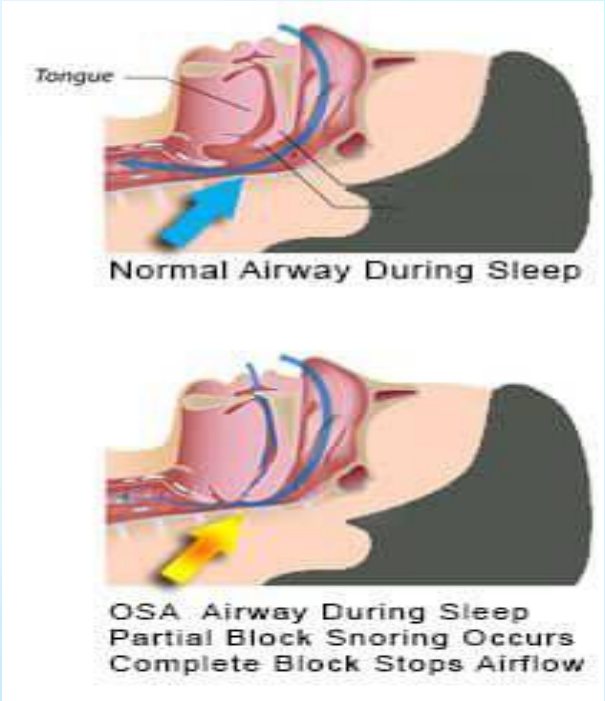
Choking is the mechanical obstruction of the flow of air from the environment into the lungs.

Causes of Airway Obstruction

Causes

1. Tongue:

The most common cause of airway obstruction is the tongue. The casualty's tongue falls back into his throat while he is unconscious

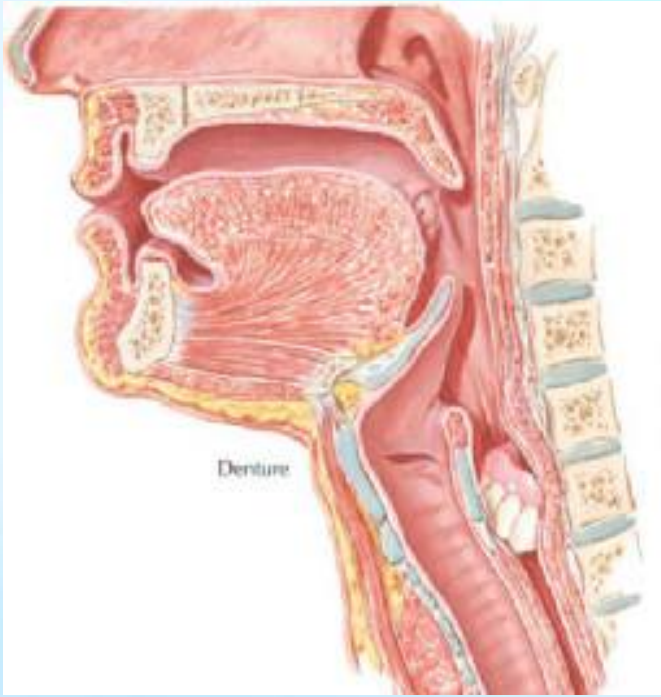


Causes

2. Foreign Bodies:

Foreign bodies become stuck in the throat.

These obstructions usually occur while eating.



Causes

- Eating too fast, not chewing food well, or eating with dentures that do not fit well
- Fluid consistency - (thin vs thick fluids)
- Swallowing problems - related to diagnosis (ex Stroke, Alzheimer)
- Enlarged tonsils or tumors of the neck and throat
- Injury to the head and face (for example, swelling, bleeding, or a deformity can cause choking)

Partial and Complete Obstruction

Partial Airway Obstruction

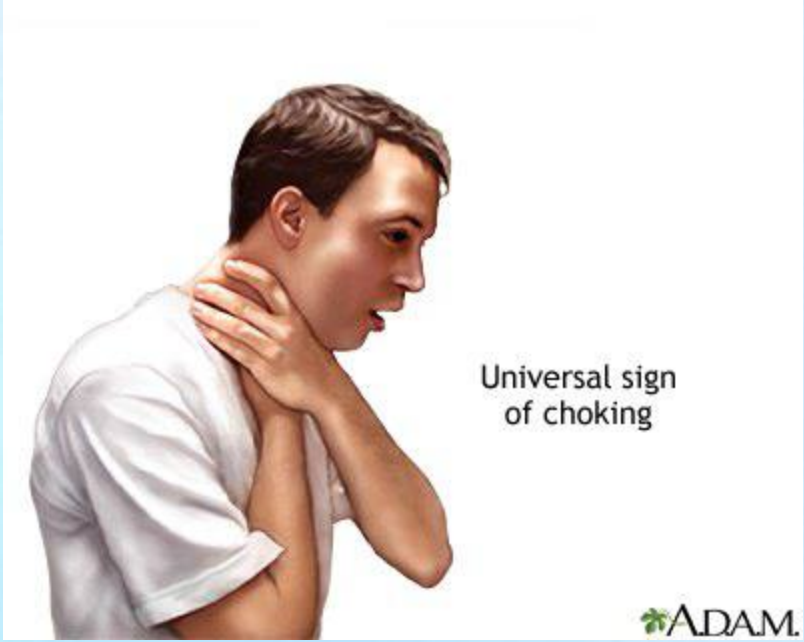
- The casualty may still have an air exchange.
- Able to speak.
- The casualty can cough forcefully.
- Wheezing and gagging between coughs.
- Reddish Face.

Complete Airway Obstruction

- No air exchange.
- Not able to speak.
- weak or no coughing.
- High-pitched noise or no noise when trying to breathe.
- He may be grasping his neck and moving irregularly.
- Greyish face bluish lips.

Signs and Symptoms of Choking

- Universal Signa (Victim wrapped Hands around the neck)
- Gasping for breath
- Coughing
- Wheezing
- Reddish-purple coloration
- Bulging eyes
- Inability to speak
- Panic



Management and Prevention

Immediate first aid response techniques

More than one technique may be needed in removing a severe obstruction include:

1. Back blows.
2. Abdominal thrust

- Clearing a conscious casualty's airway obstruction can be performed with the casualty either standing or sitting

Important Notes

- Do not interfere or treat with any choking victim who is able to cough or speak.
- Coughing is the most effective way to clear a foreign body from the airway, and the ability to speak indicates that adequate ventilation is still occurring.
- You, the rescuer, should encourage the casualty to cough up the object obstructing his airway on his own.

1. Back blows

- Give five back blows.
- Stand to the side and just behind a choking adult.
- Place your arm across the person's chest to support the person's body.
- Bend the person over at the waist to face the ground.
- Strike five separate times between the person's shoulder blades with the heel of your hand.

2. Abdominal thrusts (Heimlich maneuver)

- Heimlich Maneuver: using the air inside the lungs to forcefully push the choking object out of the airway.
- (Upward thrust into the diaphragm.)
- Kids to adults age 1 and up.

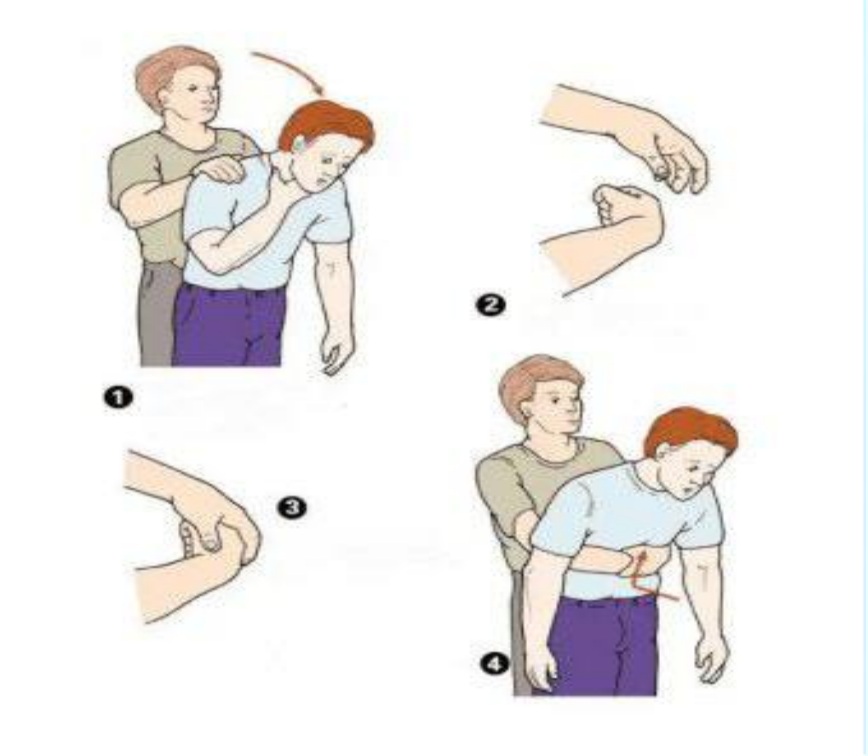
2. Abdominal thrusts (Heimlich maneuver)

** Conscious Patient

1. Standing behind the casualty with one leg back and the other between the casualty's legs and put both arms around the upper part of her abdomen. And tip the person slightly forward.

2. Abdominal thrusts (Heimlich maneuver)

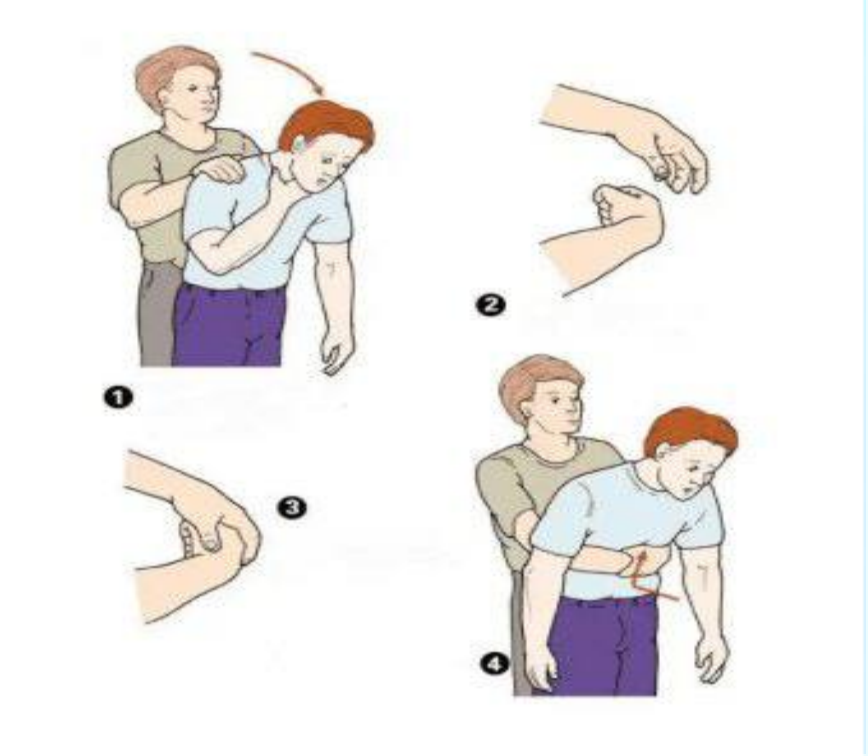
2. Make a fist with one hand and grasp it with the other. The fist should be touching the casualty's abdomen, slightly above the casualty's navel, below the tip of the breastbone



2. Abdominal thrusts (Heimlich maneuver)

3. Press the fists into the abdomen, thrust sharply inward and upward.

4. Continue thrust until the object is removed the casualty becomes unconscious



2. Abdominal thrusts (Heimlich maneuver)

- If the blockage is still not dislodged, continue cycles of 5 back blows and 5 abdominal thrusts until the object is coughed up or the person starts to breathe or cough.
- Take the object out of his mouth only if you can see it.
- Never do a finger sweep unless you can see the object in the person's mouth


FIRST AID FOR CHOKING
1
GIVE 5
BACK BLOWS
2
GIVE 5
ABDOMINAL THRUSTS
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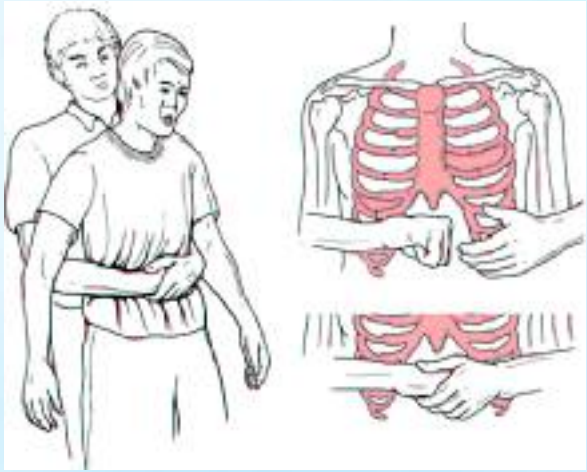


2. Abdominal thrusts (Heimlich maneuver)

** Unconscious Patient

1. Lower the person onto the floor, with the back on the floor and arms to the sides.
2. Clear the airway. If you can see the object, reach a finger into the mouth to sweep out the object.

2. Abdominal thrusts (Heimlich maneuver)

** Unconscious Patient

3. Begin CPR if the person still doesn't respond. If the airway is still blocked, use chest compressions such as those that are used in CPR to remove the stuck object. Only use two rescue breaths per cycle. Recheck the mouth regularly for the object.

2. Abdominal thrusts (Heimlich maneuver)

** In Infants:

1. Give up to five back blows:

hold the baby face-down along your thigh with their head lower than their bottom. Hit them firmly on their back between the shoulder blades up to five times.

2. Abdominal thrusts (Heimlich maneuver)

** In Infants:

2. If they are still choking, give up to five chest thrusts:

turn the baby over so they are facing upwards. Place two fingers in the middle of their chest just below the nipples. Push sharply downwards up to five times

2. Abdominal thrusts (Heimlich maneuver)

** In Infants:

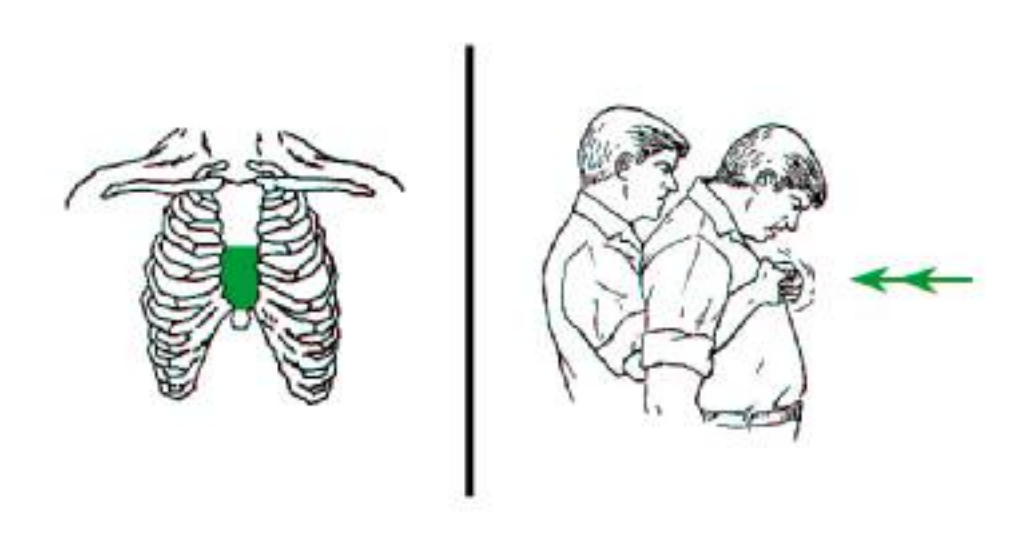
3. If they are still choking call 999.

4. Repeat the steps until they can breathe again or help arrives.

Special Situation

** Chest Thrusts:

This technique is useful when the casualty has an abdominal wound, when the casualty is pregnant, or when the casualty is so obese



Special Situation

** Chest Thrusts:

1.Stand behind the casualty and wrap your arms around his chest with your arms under his armpits.

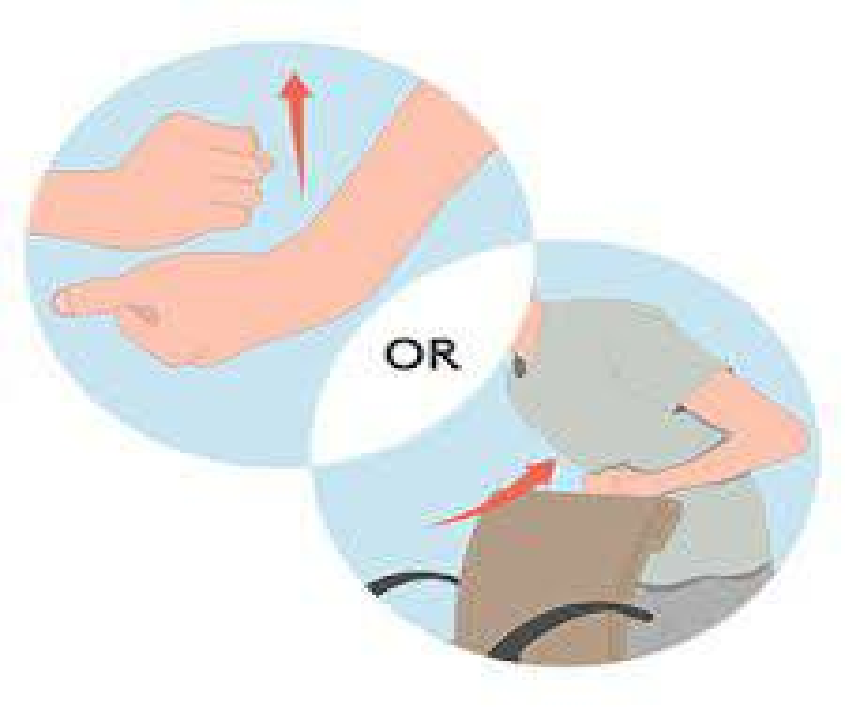
2. Make a fist with one hand and place the thumb side of the fist in the middle of the breastbone.

3. Grasp the fist with the other hand and apply thrusts. Use a straight thrust.

Special Situation

** Self Thrusts:

1. Make a fist with one hand and place it above the belly button and below the ribcage
2. Grab your fist with the other hand
3. Give yourself quick abdominal thrusts, by applying pressure inward and up
4. Repeat until the object is dislodged



Prevention

- Cut food into small pieces.
- Chew food slowly and thoroughly, especially if wearing dentures.
- Don't laugh and talk while chewing and swallowing.
- Keep marbles, beads, thumbtacks, latex balloons, coins, and other small toys and objects out of reach, particularly in children younger than 4 years old.
- Prevent children from walking, running, or playing when they have food and toys in their mouth.

THANK YOU

Circulation & Bleeding Control

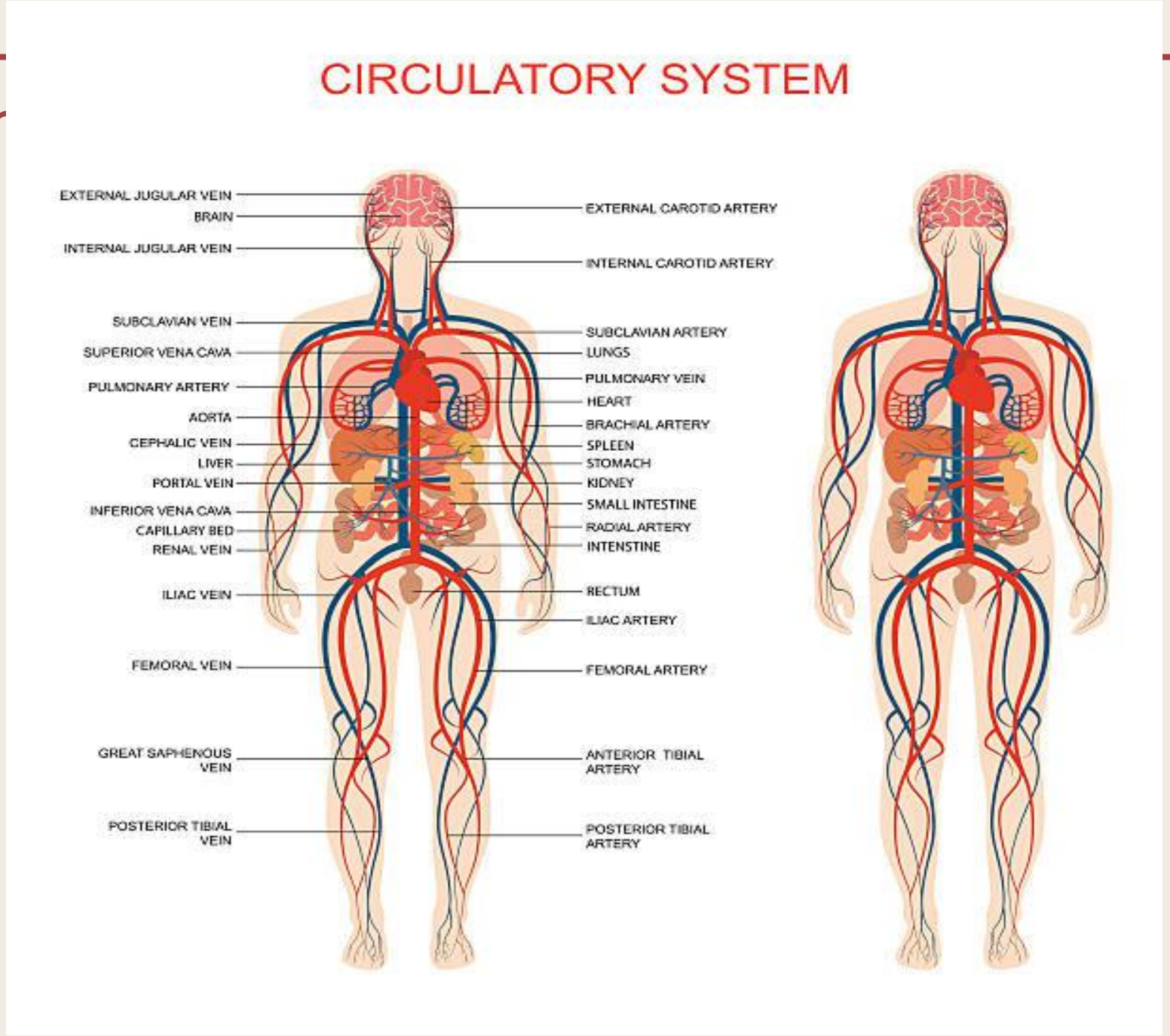
Prepared by:

Dr. Hali Zaki Abualaish

Introduction

- Blood is the vital fluid present in the body, carries oxygen and nutrients to the tissues.
- Loss of blood due to any reason beyond a certain point is potentially life threatening and may lead to exsanguination.
- The word hemorrhage is synonymous with bleeding.

Circulatory Syster Basics



Definition

- **Hemorrhage** refers to excessive blood loss due to rupture of blood vessel associated with an absolute reduction in circulatory blood volume.
- **OR** Hemorrhage or bleeding is defined as abnormal flow of blood from an artery, vein and capillary due to injury or rupture

Types of Bleeding

According to:

- Body Surface
- Source

HEMORRHAGE ACCORDING TO BODY SURFACE

REVEALED OR EXTERNAL:

- Bleeding can be seen by naked eye
- From an open wound e.g. (abrasion, laceration, avulsion, amputation)

CONCEALED OR INTERNAL:

- Bleeding can't be seen by naked eye.
- Occurs in one of the body cavities such as abdomen or in skull.

External Bleeding

Types

Abrasions that don't penetrate below the skin

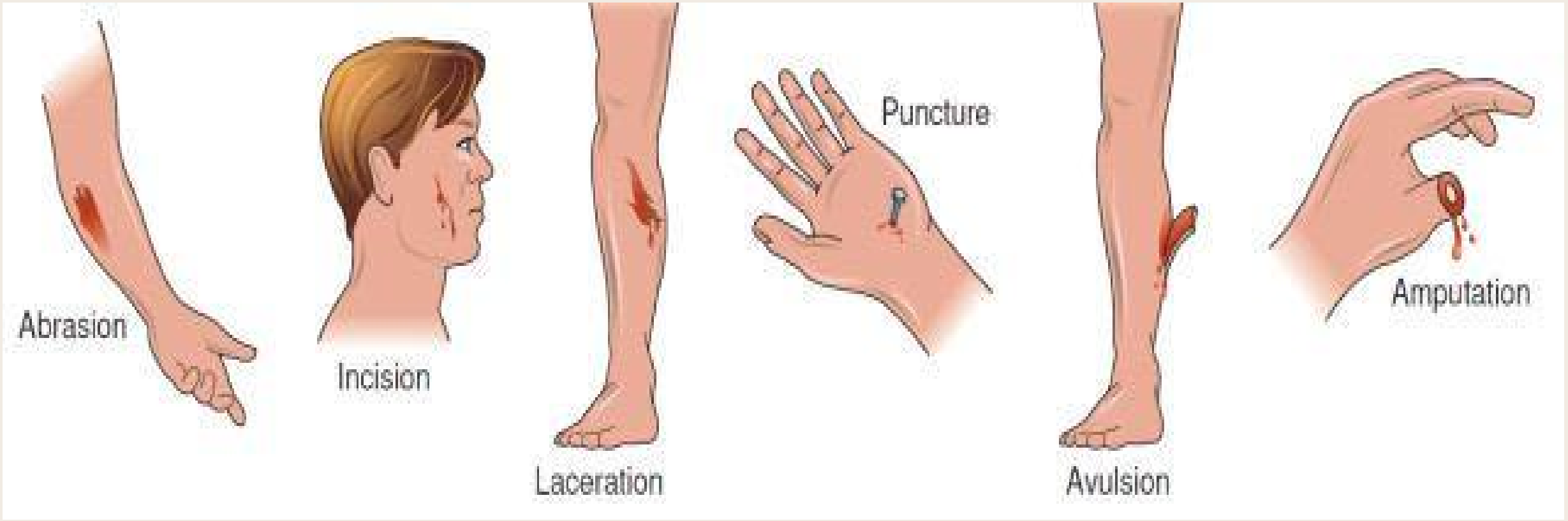
Hematoma or bruises - collection of blood outside of a blood vessel giving the skin a spongy, rubbery, lumpy feel

Crushing injuries

Lacerations or incisions

Puncture wounds (needles or knives)

External Bleeding



Internal Bleeding

- You should always suspect internal bleeding when a casualty shows signs and symptoms of shock or has been involved in an incident that may have caused internal injuries.

Shock

- Dangerous condition- Not enough oxygen-rich blood reaching vital organs such as brain and heart.
- Caused by anything that significantly reduces blood flow.
- Life-threatening emergency.
- May develop quickly or gradually.
- Always call medical emergency number for victim in shock.

HEMORRHAGE ACCORDING TO SOURCE

- Arterial Bleeding
- Venous Bleeding
- Capillary Bleeding

Arterial Bleeding Characteristics

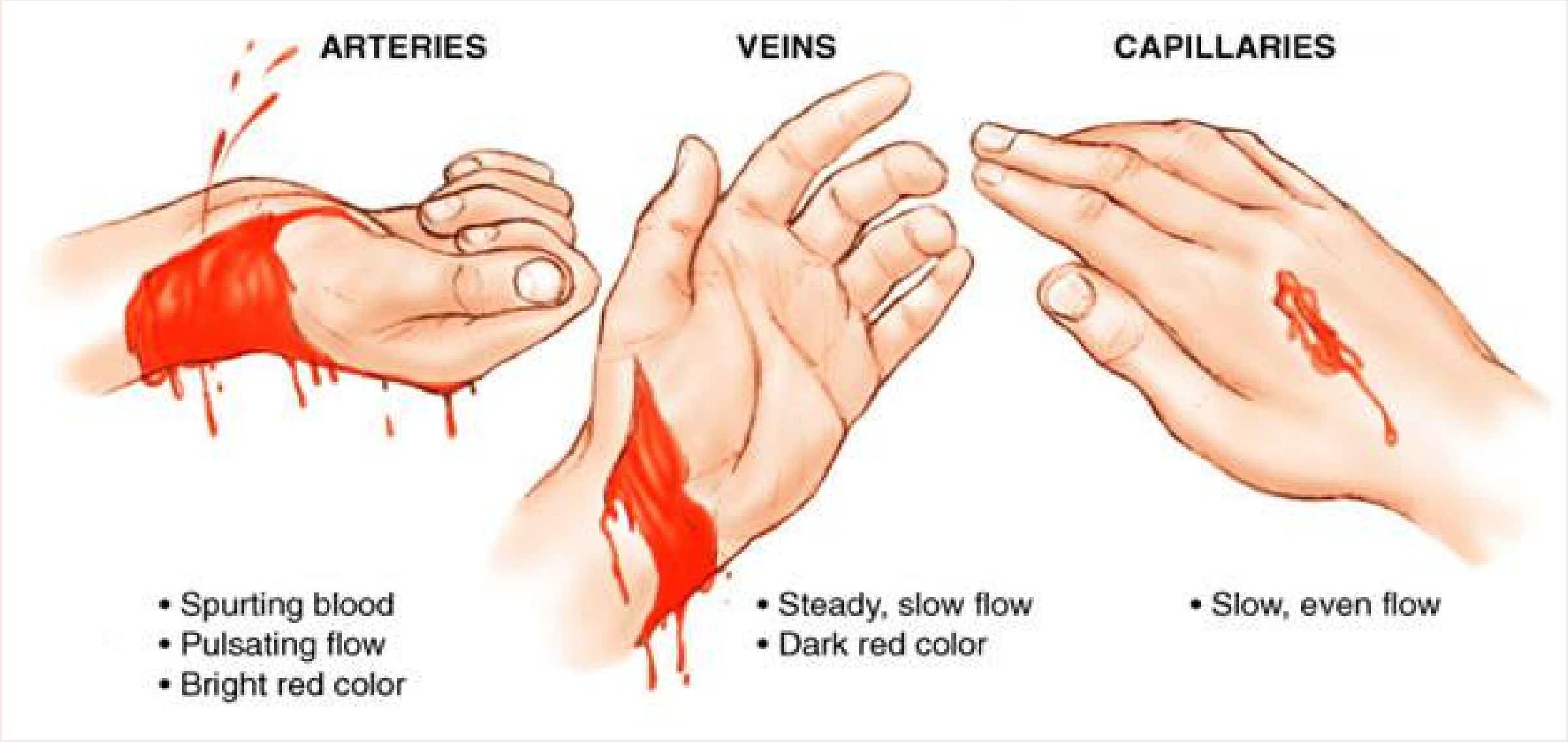
- This is usually the most severe. Blood may 'spurt' from a damaged artery in rhythm with the victim's heartbeat. This is because the blood is under direct pressure from the heart's pumping action.
- Arterial bleeding is an emergency and typically results in the most blood volume lost out of the 3 types of bleeding.
- Healthy arterial blood is often a bright red color, due to its high oxygen content

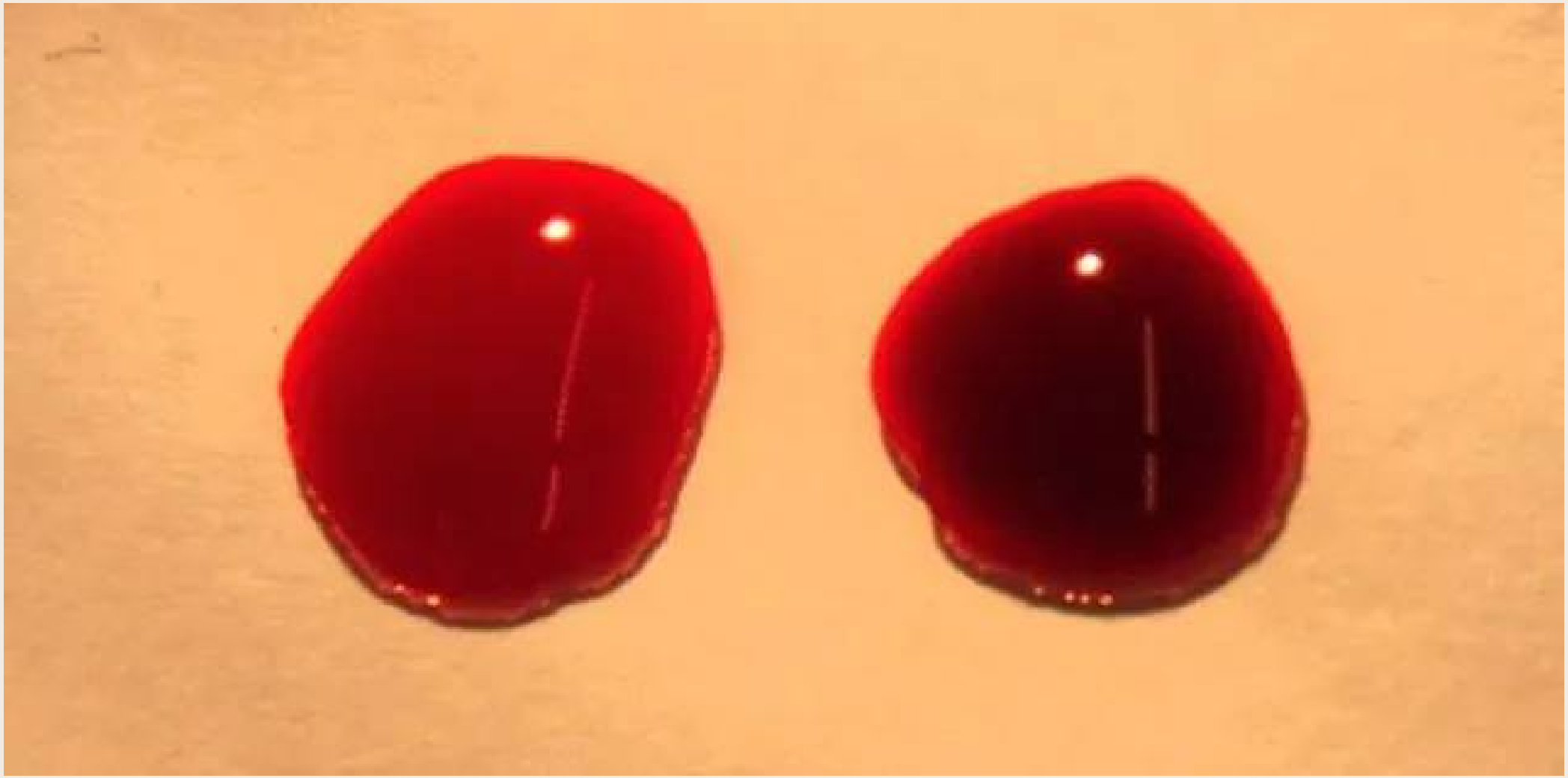
Venous Bleeding Features

- This can also be serious, as the veins also carry a high volume of blood. Unlike arterial bleeding, blood will not usually 'spurt' from a damaged vein. Instead, blood will flow out consistently. This is because the veins are not under direct pressure from the heart's action. Despite this, venous injuries can still result in rapid blood loss.
- Since venous blood doesn't have as much oxygen, it has a dark red appearance.

Capillary Bleeding Details

- This type of bleeding occurs in all wounds. It is the least serious of the 3 types of bleeding, since it is the easiest to control and results in the least blood loss. Blood 'trickles' out of capillaries for a short while before the bleeding stops.


ARTERIES
VEINS
CAPILLARIES
• Spurting blood
• Pulsating flow
• Bright red color
• Steady, slow flow
• Dark red color
• Slow, even flow



SIGN & SYMPTOMS OF HEMORRHAGE

SIGN & SYMPTOMS OF SEVEREHEMORRHAGE

- Extreme pallor
- Air hunger
- Rapid thready pulse
- Extremely low blood pressure
- Extreme thirst
- Diminished urine output
- Blindness, tinnitus & coma occur prior to death

EARLY SIGN & SYMPTOMS

- Restless &anxiety
- Fainting
- Cool extremities
- Pallor
- Patient feels thirsty

Action

Bleeding

Severe Bleeding is a life-threatening condition, therefore the bleeding must be controlled quickly. There are 4 procedures to follow;

Apply Pressure → Elevate → Dress the Wound → Monitor

1. Apply Direct Pressure
This is to try and stop the flow of blood and encourage a clot to form.

2. Apply a Dressing
Applying a sterile non-fluffy dressing covers the wound protecting it and preventing the spread of infection.

3. Elevation
Elevate the bleeding limb or area above player's heart (if practicable). This will reduce the amount of blood flow to the wound.

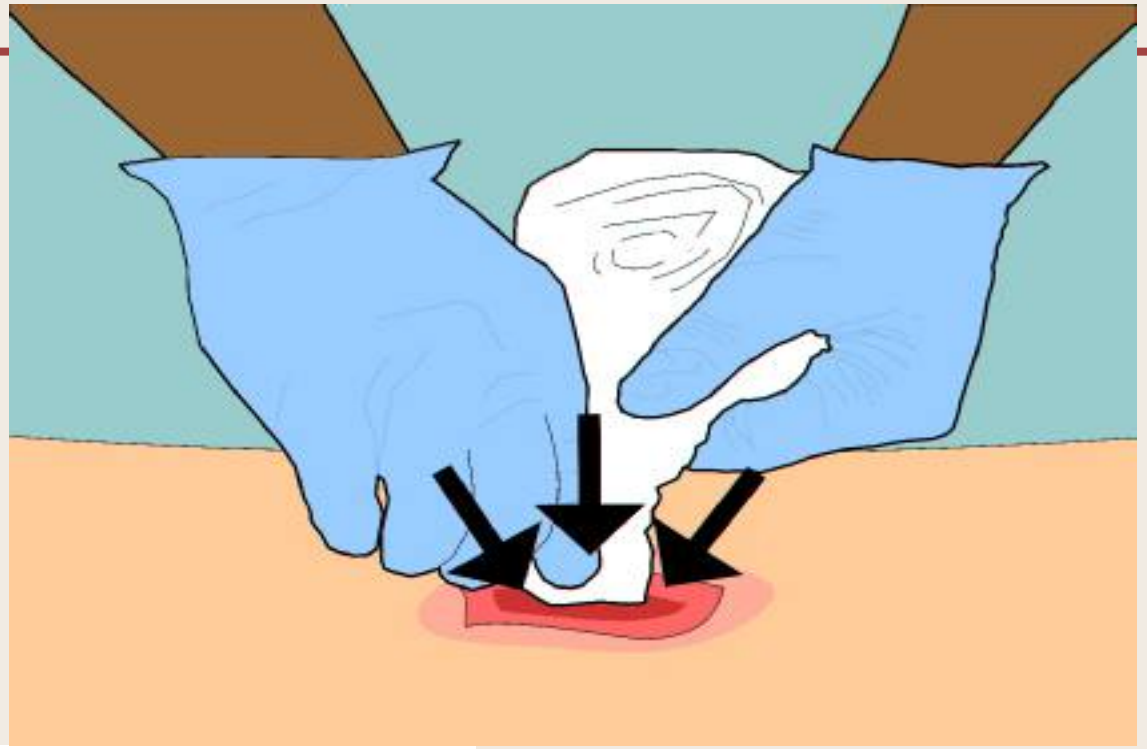
4. Monitor
If the wound is severe you may need to monitor the player as they may go into shock due to blood loss. You may also want to check that the dressing isn't too tight and restricting circulation.

Direct Pressure Application

- Apply direct pressure to the wound using a sterile dressing if possible or a clean non-fluffy cloth, to stop the bleeding. If you don't have a dressing, you can ask the casualty to do this themselves.
- If the wound is covered by the casualty's clothing, remove or cut the clothes to uncover the wound.
- If there’s an object in the wound, don’t pull it out. It may be acting as a plug to reduce the bleeding. Instead apply

Apply Dressing

- Firmly secure the dressing with a bandage to maintain pressure on the wound. Make it firm enough to maintain pressure but not so tight that it restricts their circulation.
- If blood soaks through the material, don’t remove it. Put more cloth or gauze on top of it and continue to apply pressure.
- Check their circulation beyond the bandage. Press one of the nails or the skin beyond the bandage for five seconds until it turns pale, then release the pressure. If the color does not return within two seconds, the bandage is too tight. If necessary, loosen and reapply the



Use of Tourniquets

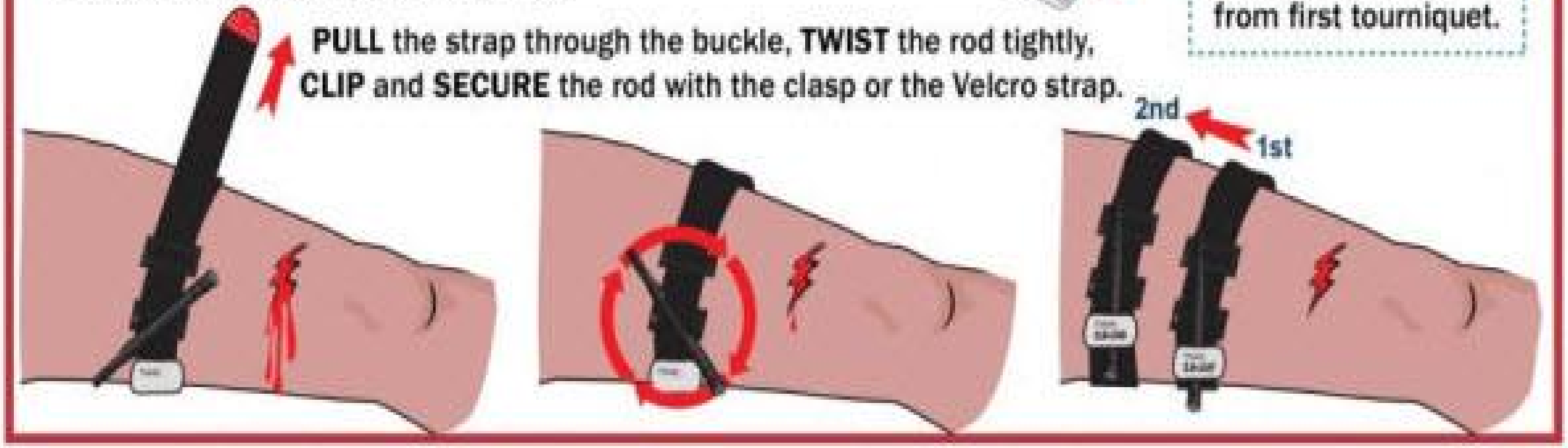
- Tourniquets are used for severe arterial bleeding when direct pressure is insufficient. Applied above the injury site, they temporarily stop blood flow to prevent rapid blood loss. Their use requires caution and proper training to avoid tissue damage.
- Do not apply a tourniquet unless the bleeding is severe and not stopped with direct pressure.

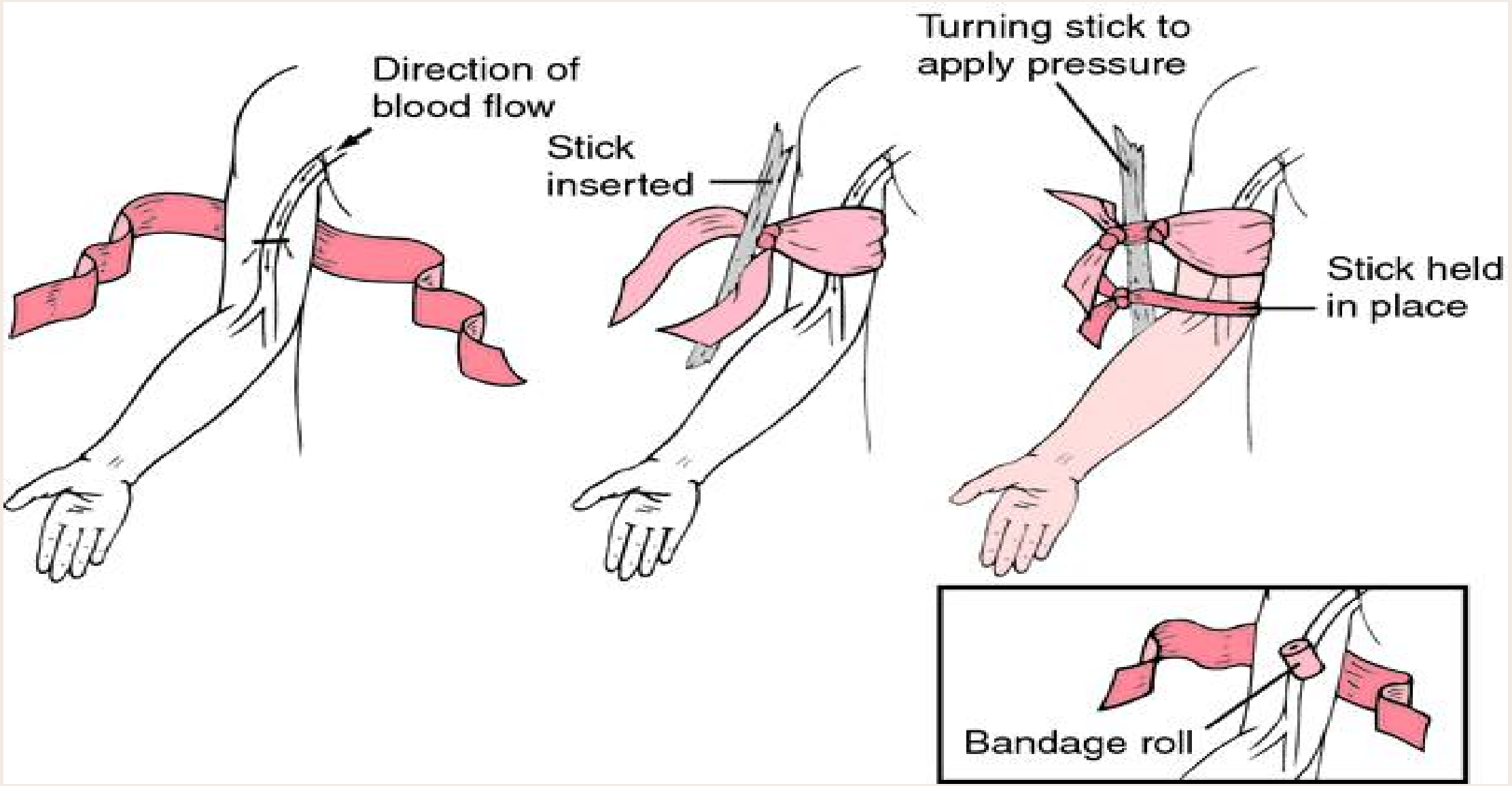
3. Apply Tourniquet(s)

If the bleeding doesn't stop, place a tourniquet 2-3 inches closer to the torso from the bleeding. The tourniquet may be applied and secured over clothing.

If the bleeding still doesn't stop, place a second tourniquet closer to the torso from first tourniquet.

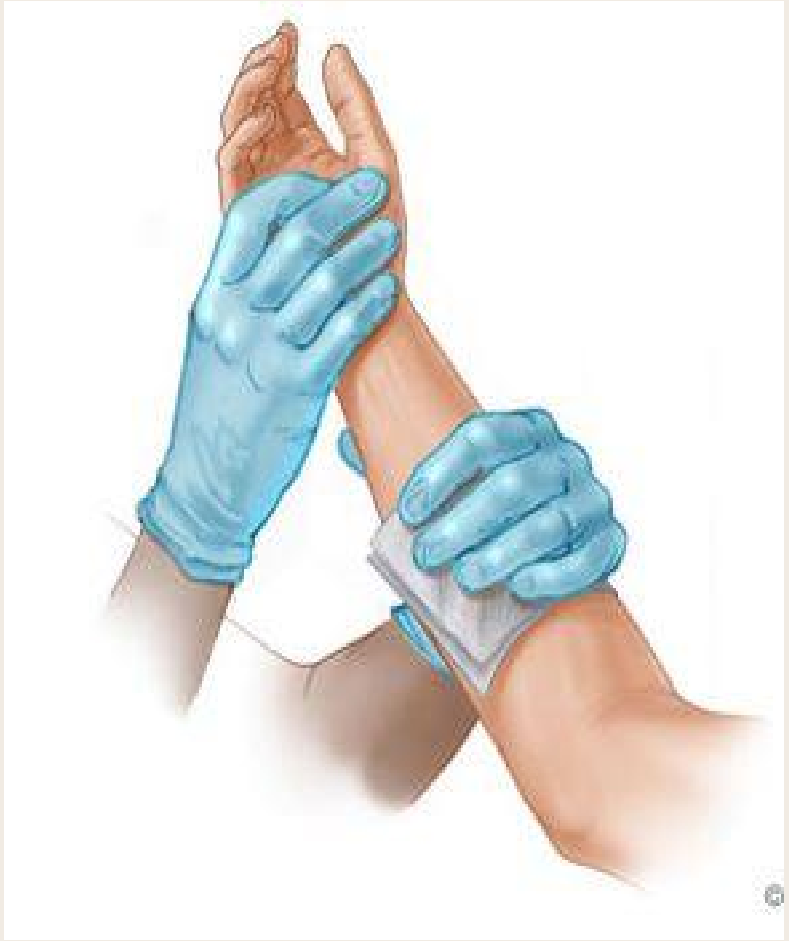
PULL the strap through the buckle, **TWIST** the rod tightly, **CLIP** and **SECURE** the rod with the clasp or the Velcro strap.

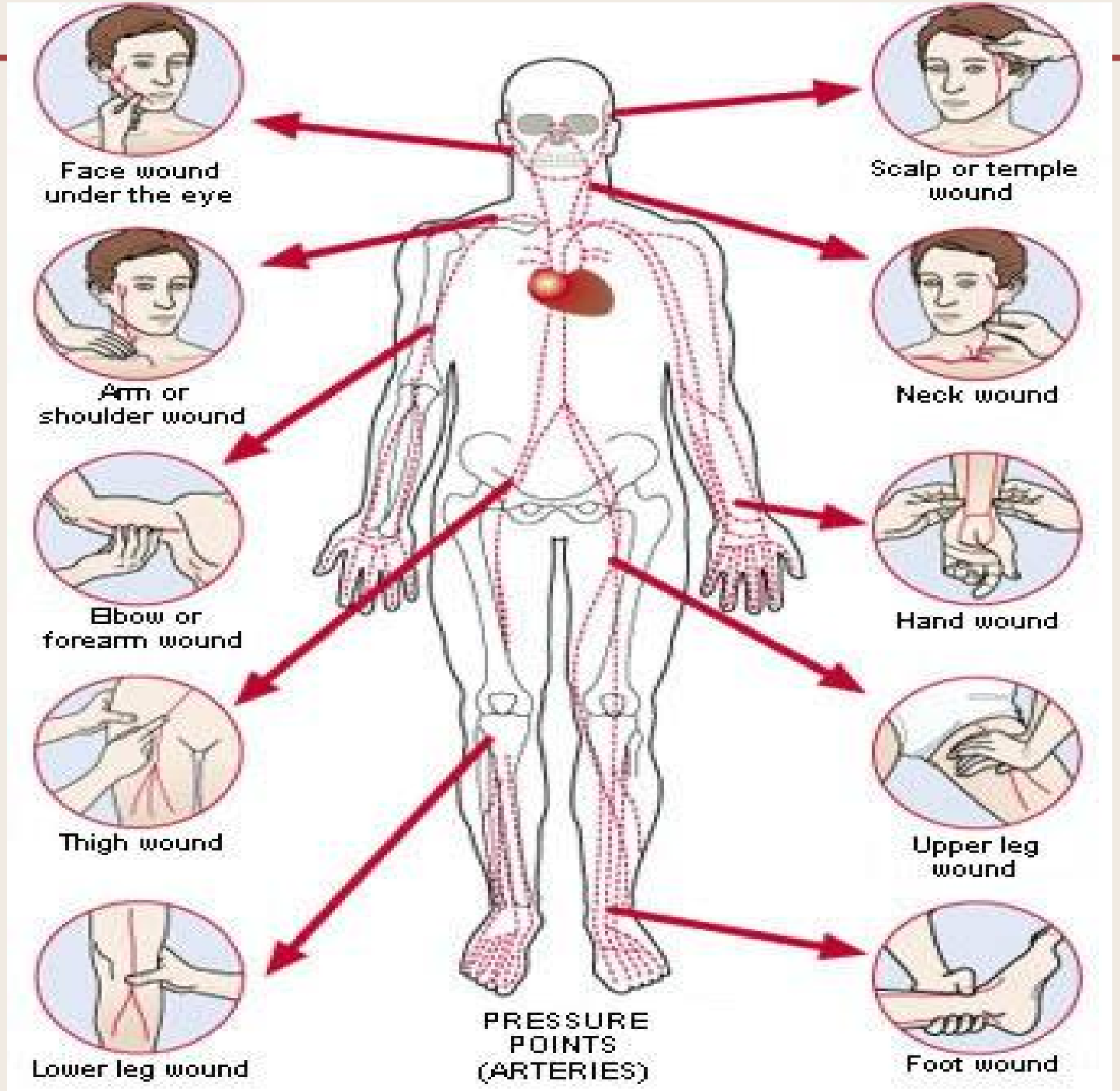



Direction of
blood flow
Stick
inserted
Turning stick to
apply pressure
Stick held
in place
Bandage roll

Elevation and Pressure Points

- Elevation of the injured limb above heart level can reduce blood flow to the wound.
- Applying pressure to arterial pressure points near the injury can help control bleeding by limiting blood supply, complementing direct pressure techniques in first aid.




Face wound under the eye
Arm or shoulder wound
Elbow or forearm wound
Thigh wound
Lower leg wound
Scalp or temple wound
Neck wound
Hand wound
Upper leg wound
Foot wound
PRESSURE POINTS (ARTERIES)

Monitor

- The loss of blood could cause the casualty to develop shock. Treat them for this by helping them to lie down, on a rug or blanket.
- Raise and support their legs, so they are above the level of their heart. You should then loosen any tight clothing around their neck, chest and waist and cover the casualty with a blanket to keep them warm.
- Keep monitoring their level of response until help arrives. If they become unresponsive at any point, prepare to start CPR.
- Re-check circulation beyond the injury

Nose Bleed

Immediate First Aid Steps

1. Sit & Lean Forward: Sit down and tilt your head forward, not back, to keep blood from going down your throat.

2. Breathe Through Mouth: Keep your mouth open and breathe through it.

3. Pinch Nostrils: Use your thumb and forefinger to firmly pinch the soft, fleshy part of your nose (both nostrils) for 10-15 minutes. Don't release to check if it stopped.

4. Spit Blood: Spit out any blood that collects in your mouth or throat.

Tilt Forward

Do Not Tilt Back

St John

THANK YOU

Burns First Aid

Prepared by:
Dr. Hali Zaki Abu Alaish

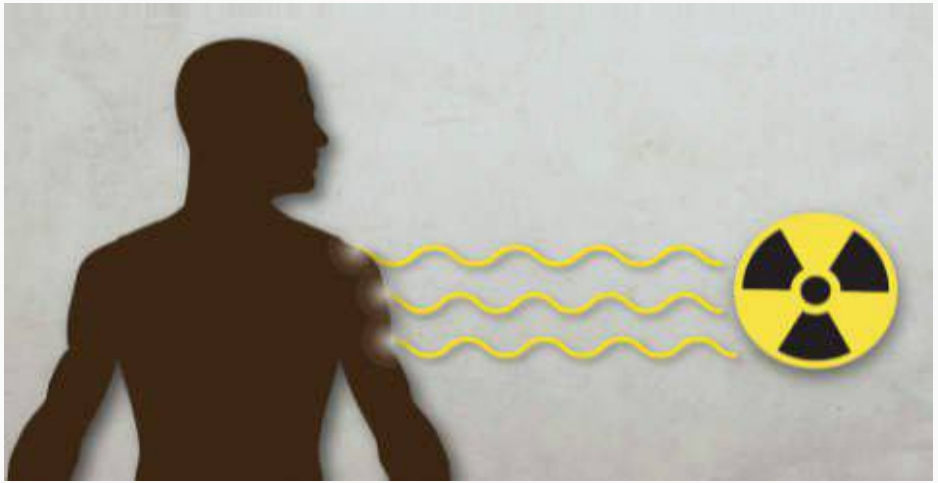
Introduction

Burns and scalds are damage to the skin usually caused by heat (thermal), radiation, chemical, and electrical cause.

Types of Burns

According To Cause:

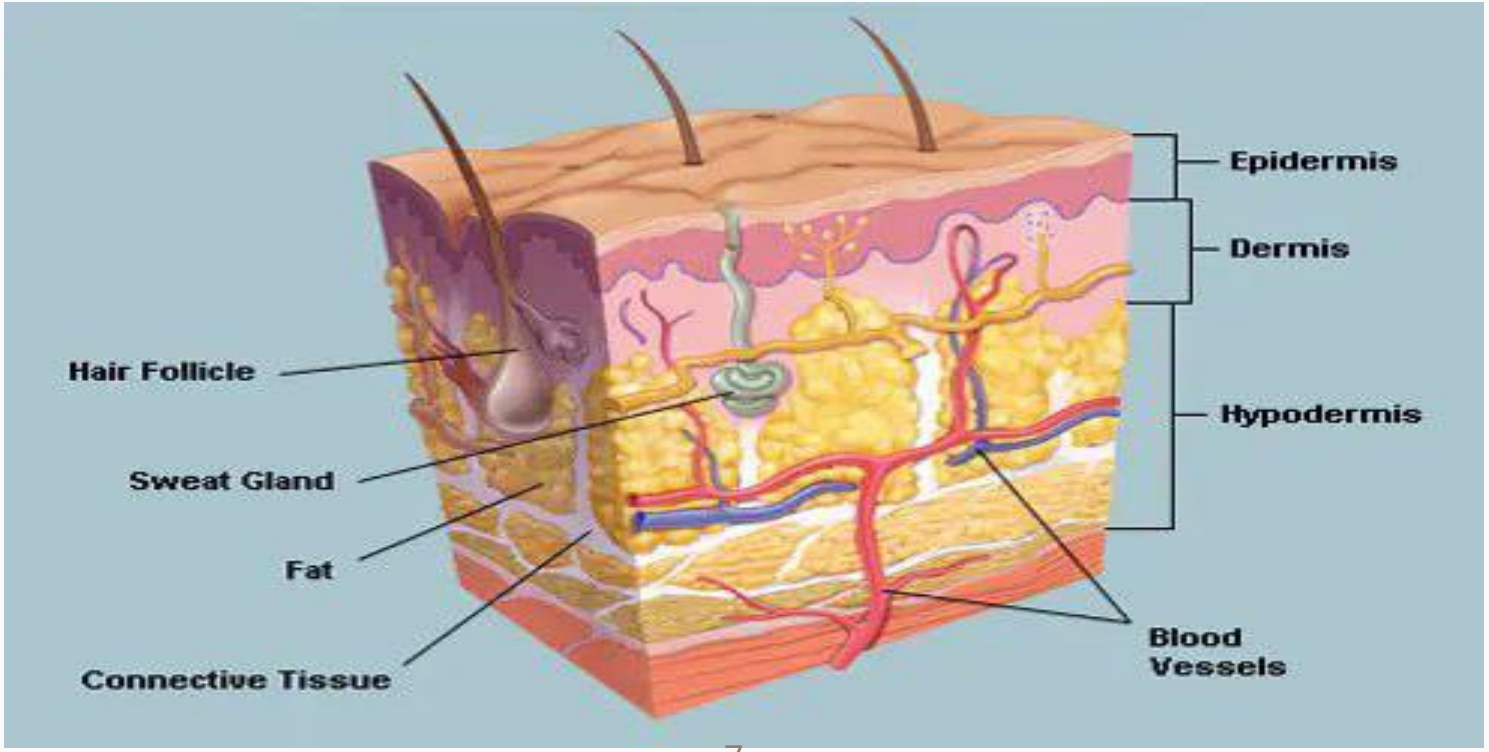
1. Thermal (heat) burns: caused by fire, steam, hot objects or hoy liquids.
2. Electrical burns: caused by contact with lightning or electrical energy source.
3. Chemical burns: caused by contact with industrial or household chemicals in either solid, liquid or gaseous forms.
4. Radiation burns: caused by the sun, tanning, x-rays or during radiotherapy.



According To Depth:

- 1st degree: Superficial burn.
- 2nd degree: Partial burn.
- 3rd degree: Partial thickness burn.
- 4th degree: Full thickness burn.

Layers of the Skin:



First Degree Burn

- Superficial burn
- burns that affects the outer layer of skin (epidermis)
- Redness of the skin is the main feature of first degree.
- Most common cause is sunburn!
- Painful.

Second Degree Burn

- Partial thickness
- a burn that involves the top layers of the skin (epidermis and dermis)
- The skin becomes swollen, puffy, weepy, or blistered.
- Very Painful.

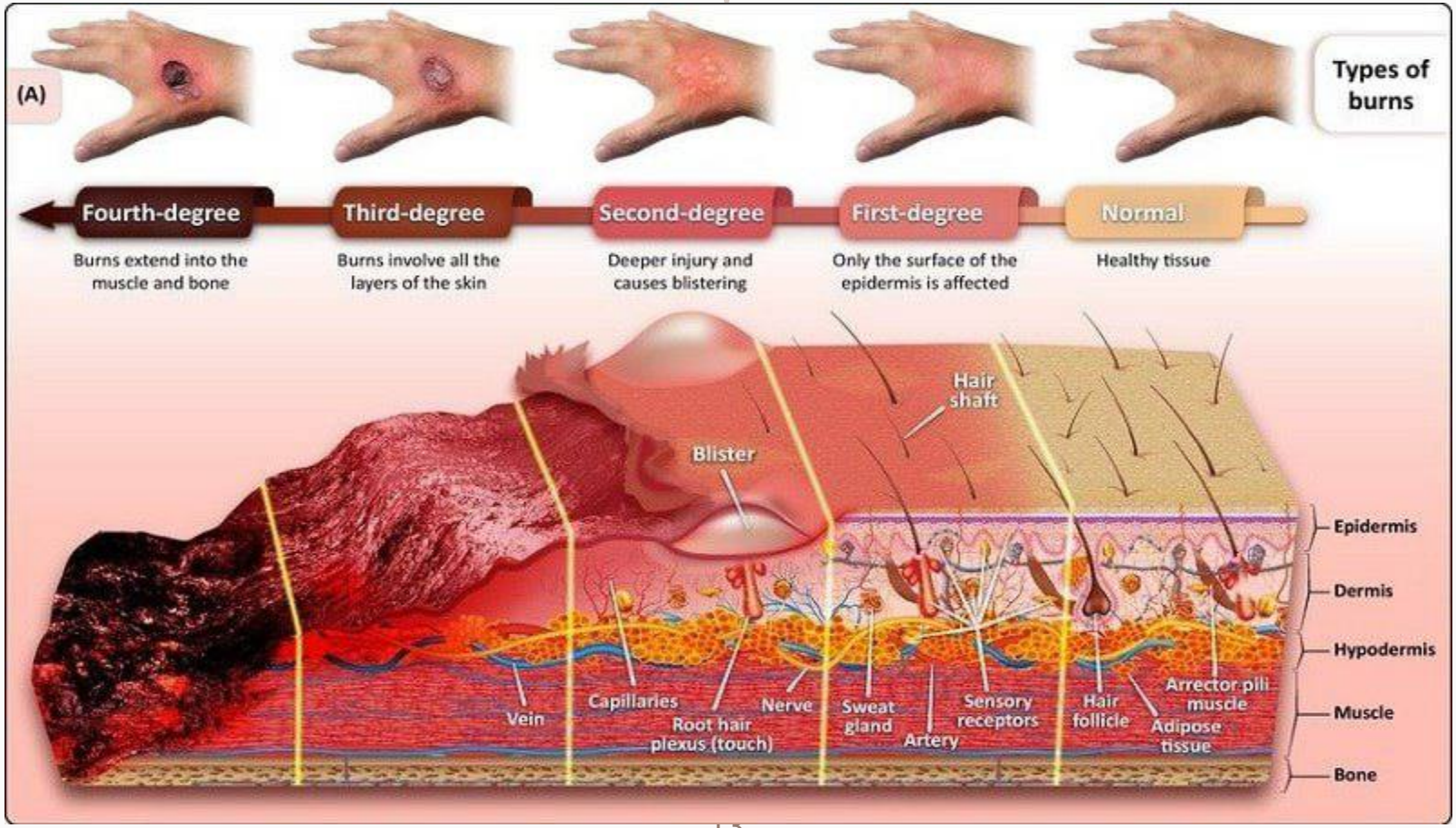
Third Degree Burn

- Partial thickness burn.
- involves all layers of skin and may include any underlying tissue.
- the skin is dry, pale white or charred black, swollen and sometimes breaks open.
- The area is numb, Not Painful.

Fourth Degree Burn

- Full thickness burn.
- The most severe type of burn injury.
- extending beyond all layers of the skin (epidermis and dermis) and subcutaneous fat to damage underlying muscles, tendons, ligaments, and bones.
- These burns are characterized by charred, blackened, or white, leathery skin.
- painless at the site of the injury.


Burn
I degree
II degree
III degree
IV degree
shutterstock.com · 2556488087


(A)
Types of burns
Fourth-degree
Third-degree
Second-degree
First-degree
Normal
Burns extend into the muscle and bone
Burns involve all the layers of the skin
Deeper injury and causes blistering
Only the surface of the epidermis is affected
Healthy tissue
Hair shaft
Blister
Epidermis
Dermis
Hypodermis
Muscle
Bone
Vein
Capillaries
Root hair plexus (touch)
Nerve
Sweat gland
Artery
Sensory receptors
Hair follicle
Arrector pili muscle
Adipose tissue

Immediate First Aid Steps

First Aid For First Degree Burns

- Stop the burning- remove the victim from the source of the burn
- Remove tight clothing, jewelry, watches, belt, shoes, and rings from injured area.
- Cool with running water for at least 10 minutes or until pain is less severe.

** Use sheets towels soaked in water to cool a burn on the face or other areas that cannot be soaked.

First Aid For First Degree Burns

- wearing gloves, loosely cover the area with dry, sterile bandages
- Over the counter pain reliever.
- Apply Burn cream or Aloe vera gel for minor burns

First Aid For First Degree Burns

- Drink plenty of water if you feel dehydrated.
- Visit a doctor if you have persistent redness, pain, or fever.
- Remove the dressing everyday and clean the wound, cover it again.

Hurak
www.hurak.com

First Aid Tips for Burns

Stop the Burning

Cool the Burn

Cover the Burn

First Aid For Second Degree Burns

- If small area is burned, use measures as listed above, and visit a doctor.

First Aid For Second Degree Burns

- Obtain medical care immediately if burns are larger than 2- 3 inches or are on the face/hands
- Cool the burned area with cool water/clothes
- Do not break blisters or remove tissues
- Loosely cover with dry, sterile bandages
- Elevate the burned area above heart level

First Aid For Second Degree Burns

- If burns cover a large area of the body cover victim with clean/ dry sheets to prevent infection and reduce pain
- Do not break blisters that may develop. If blisters break, clean the area by running tap water over it. Apply an antibiotic

First Aid For Third and Forth Degree Burns

- require immediate medical treatment. Call for medical help and apply medical treatment.

First Aid For Third and Forth Degree Burns

- Have the patient lie down.
- Give Sympathy to victim
- Determine if the victim is breathing, give rescue breaths if necessary.

First Aid For Third and Forth Degree Burns

- Do not remove clothing stuck to the burn, break blisters, or remove tissue.
- Do not apply anything cold to the burn.
- Loosely cover the area with sterile/ dry bandages or clean cloth.
- Take patient to hospital as soon as possible

THINGS YOU SHOULD NEVER DOIN CASE OF BURNS

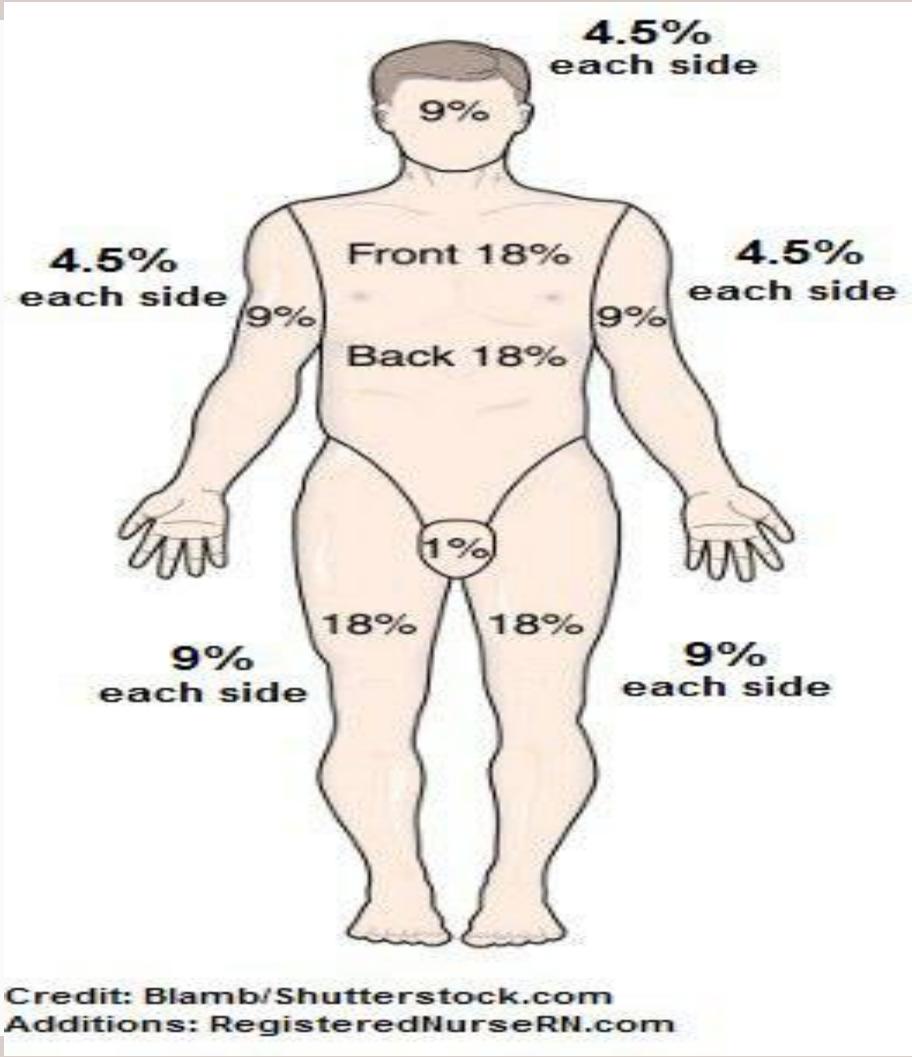
- Don't assume the burn injury is minor, see a doctor.
- Don't apply ice don't apply creams or ointments to the burns.
- Don't remove clothing that may be stuck to the burn.
- Don't pick at skin or peel away any blisters.

Rule Of Nines For Burns

The size of a burn can be quickly estimated by using the "rule of nines.“

This method divides the body's surface area into percentages:

- The front and back of the head and neck equal 9% of the body's surface area.
- The front and back of each arm and hand equal 9% of the body's surface area.
- The chest equals 9% and the Abdomen equals 9% of the body's surface area.
- The upper back equals 9% and the lower back equals 9% of the body's surface area.
- The front and back of each leg and foot equal 18% of the body's surface area.
- The genital area equals 1% of the body's surface area.


4.5%
each side
9%
4.5%
each side
Front 18%
4.5%
each side
9%
9%
Back 18%
1%
18%
18%
9%
each side
9%
each side
Credit: Blamb/Shutterstock.com
Additions: RegisteredNurseRN.com

PREVENTION

- Don't smoke in bed.
- To avoid kitchen burns:
  *Use caution when handling hot foods.
  *Turn pot handles toward the back of the stove.
  *Smother burning food or grease with a lid or pot.
- Never run if your clothing catches fire: Running will fan the flames.
  STOP, DROP, and ROLL on the ground to smother the flames.
- Smother the flames with a blanket, rug, or coat.
- Use water to douse the fire and cool skin.

Fire Safety

THANK YOU