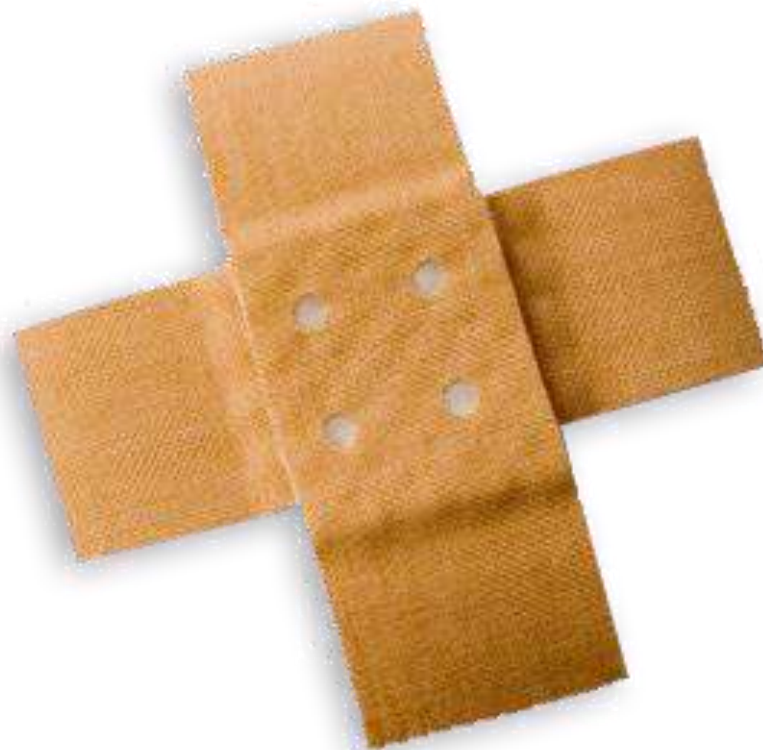


BASIC FIRST AID

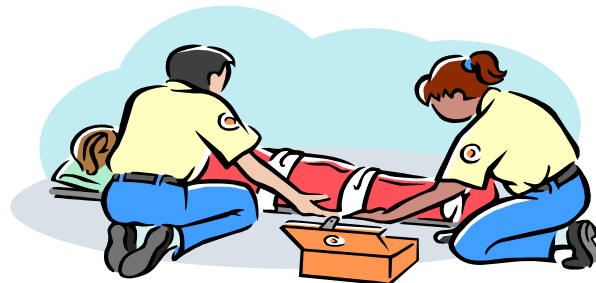


Session Objectives

- Recognize the benefits of obtaining first-aid and CPR certification
- Identify proper procedures for a variety of medical emergencies
- Assist in administering first aid when a co-worker is injured
- Do no further harm

What is First Aid ?

- First aid is the **immediate** and **temporary** treatment of a victim of sudden illness or injury while awaiting the arrival of medical aid.
- Proper early measures may be instrumental in **saving life** and ensuring a better and more **rapid recovery**.



Aim of First Aid

3 'P' s

- Preservation of life
- Prevention of further injury
- Promotion of healing

General principles of First Aid

- Remain **calm**, do not panic
- Act **immediately** and **quickly**
- Ensure **scene safety**
- **Reassure** the patient

- Ask for **help**

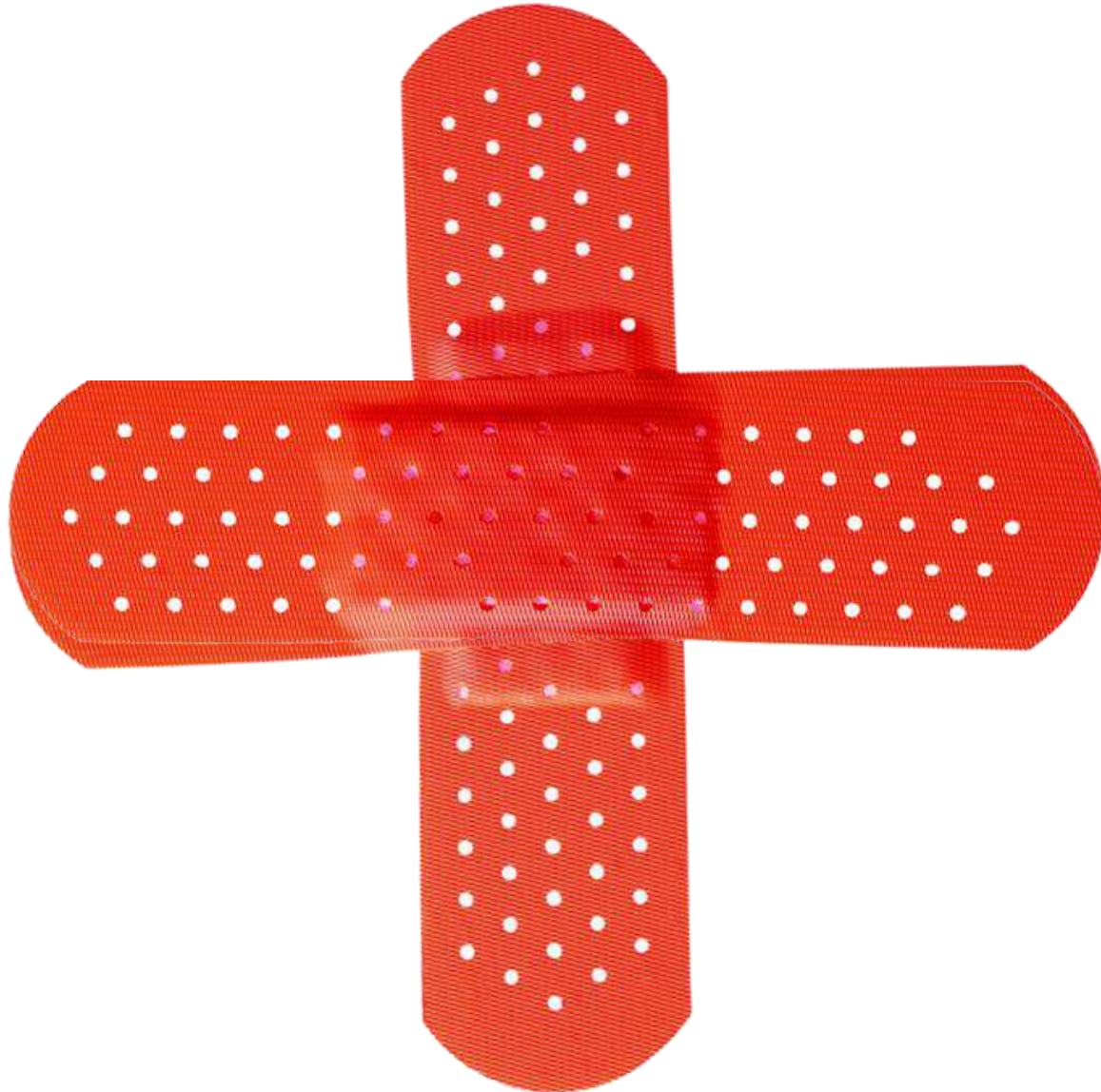


General principles of First Aid

- Check for signs of life (breathing, pulse, consciousness)
- Record observations
- Take patient to a safer place



Four Basic Rules



Assess the Scene

- ✓ Evaluate the scene
- ✓ Assess safety
- ✓ Prioritize care
- ✓ Check for medical alert tags
- ✓ Do head-to-toe check
- ✓ Move only if necessary

Common First Aid Cases inside works

- Injury

- Abrasion, incised wound, laceration
- Bleeding
- Bruise, sprain, fracture
- Fall from height – head, neck and spine injury
- Burn
- Eye – foreign body, arc eye

- Non-injury (Medical)

- CO poisoning
- Heat Disorders
- Heart Attack
- Low blood sugar

An **abrasion** is a destruction of the superficial layers of the skin



Incised wound & Lacerated wound



- An incised wound is a clean cut through the tissues

- Lacerations are tears of skin, mucosae etc. due to application of blunt force

Treating a minor wound

- Wash hands, shake dry



- Wash the wound and adjacent areas with soap and water
- Remove any dirt and foreign material from wound

Treating a minor wound

- Swab the wound and the skin around with an antiseptic solution, like Dettol / Savlon

- Apply a sterile dressing on the wound

How to stop bleeding?

Apply pressure



Elevate limb



Tie a bandage



Bruise

A bruise forms when a **blow** breaks blood vessels near the skin's surface, allowing a small amount of blood to leak into the tissues under the skin. The trapped blood appears as a **black-and-blue** mark.



Bruise - Treatment

- Rest the bruised area, raise it, if possible.
- Apply **ice or a cold pack** several times a day for a day or two after the injury.
- Use **paracetamol** for pain relief.
- If the skin isn't broken, bandage is not needed.

A **sprain** is an injury to a ligament caused by tearing of the fibers of the ligament.

Ankle and **knee** sprains are most common.
The injured area is **swollen** and **painful**.



Sprain - Treatment

- Follow the instructions for **R.I.C.E.**
- **Rest** the injured limb.
- **Ice** the area. Use a ice pack, or an ice bath. Try to ice the area **as soon as possible** after the injury and continue to ice it for **15 to 20 minutes**, four to eight times a day, for the first 48 hours or until swelling improves. **If you use ice, be careful not to use it too long, as this could cause tissue damage.**
- **Compress** the area with an elastic wrap or bandage.
- **Elevate** the injured limb.
- Use **paracetamol** for pain relief.

Sprain - Treatment



A fracture is a broken bone

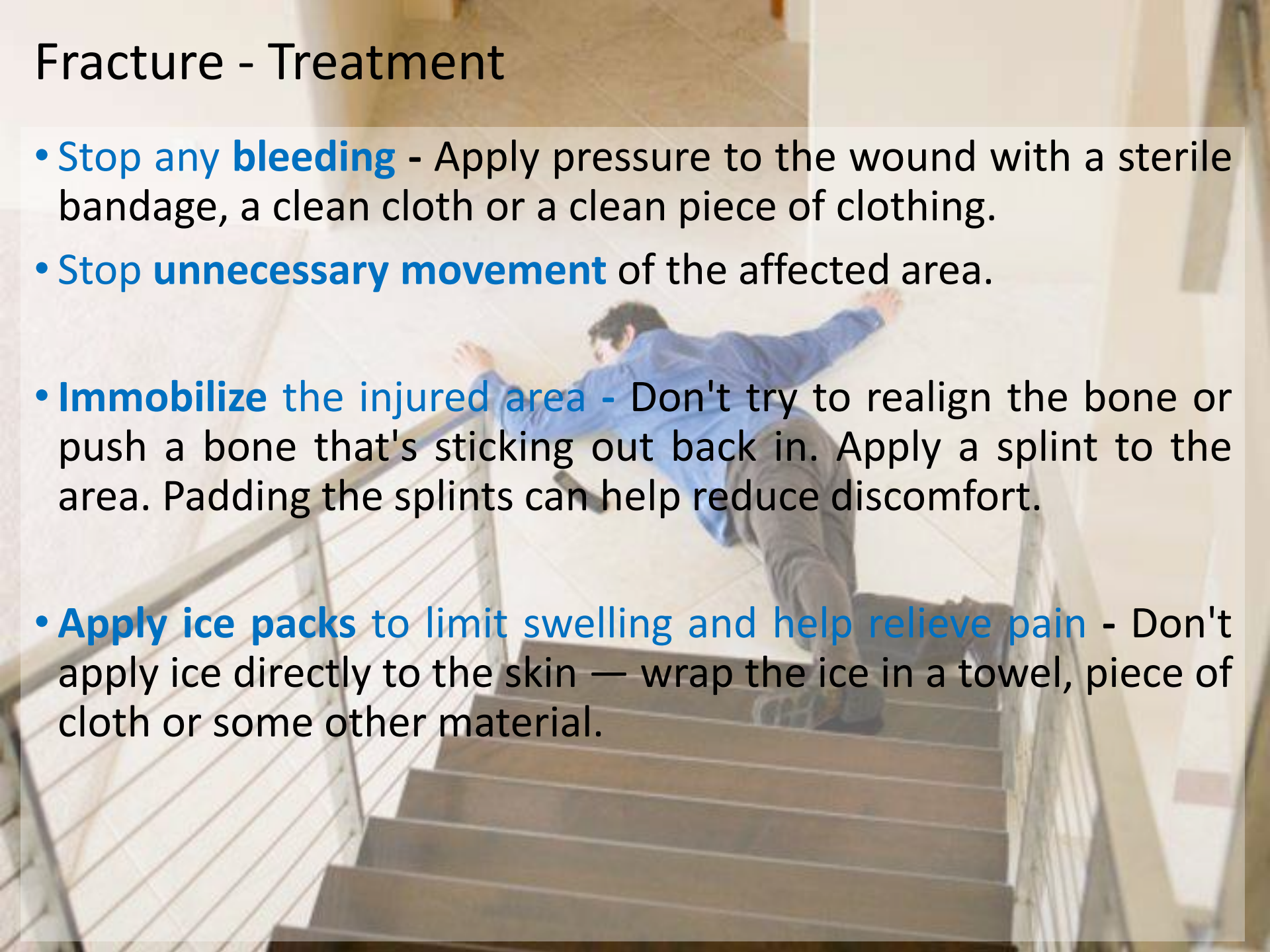
Seek immediate medical help, if:

- There is associated **bleeding**.
- The bone has **pierced the skin** (compound fracture)
- The extremity of the injured arm or leg, such as a toe or finger, is **numb or bluish at the tip**.
- You suspect a bone is broken in the **neck, head or back**.
- You suspect a bone is broken in the **hip, pelvis or upper leg** (for e.g., the leg and foot turn outward abnormally).



Fracture - Treatment

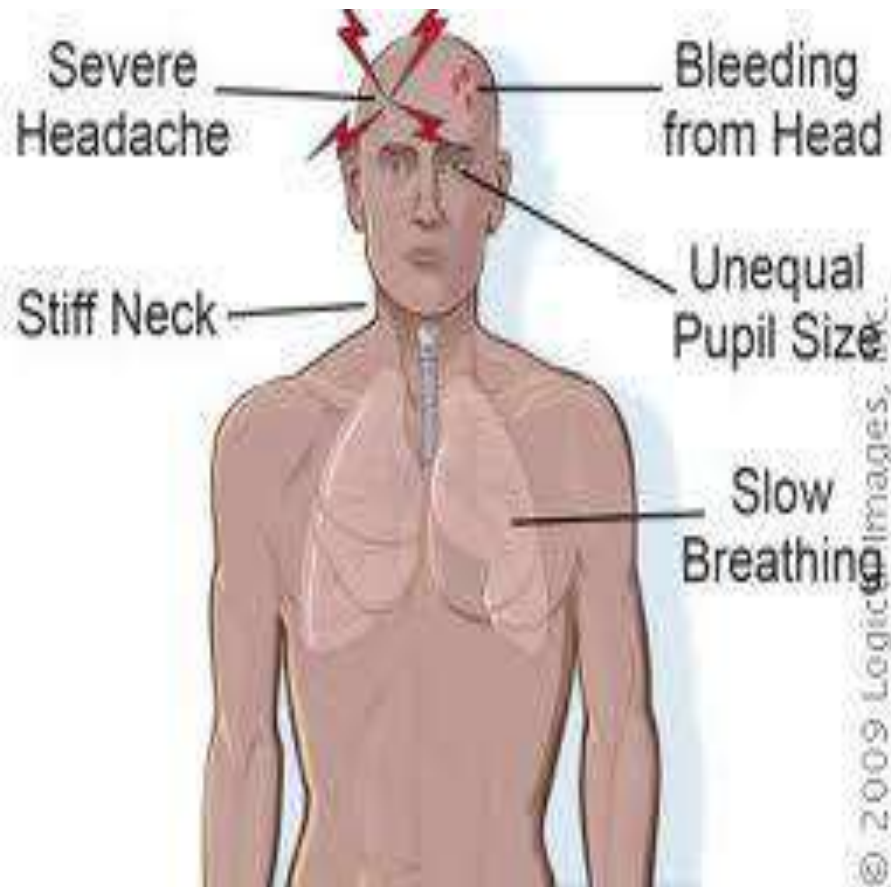
- **Stop any bleeding** - Apply pressure to the wound with a sterile bandage, a clean cloth or a clean piece of clothing.
- **Stop unnecessary movement** of the affected area.
- **Immobilize the injured area** - Don't try to realign the bone or push a bone that's sticking out back in. Apply a splint to the area. Padding the splints can help reduce discomfort.
- **Apply ice packs to limit swelling and help relieve pain** - Don't apply ice directly to the skin — wrap the ice in a towel, piece of cloth or some other material.



Fracture - Treatment



Head Injury



In severe Head Injury -

- Watch for changes in **breathing** and **alertness** - If the person shows no signs of circulation (breathing, coughing or movement), begin **CPR**
- Do not give anything per mouth
- Keep patient in supine position
- No pillow under the head
- Stop any bleeding, cover the wound and transfer to F.A. / hospital quickly. **Avoid moving the patient's neck**

Neck and Spine Injury – Assume, if:

- There's evidence of a head injury with an ongoing **change in the person's level of consciousness**.
- The person complains of **severe pain in** his or her **neck** or **back**.
- The person won't move his or her neck.
- An injury has exerted substantial force on the back or head.
- The person complains of weakness, numbness or paralysis or lacks control of his or her limbs, bladder or bowels.
- The neck or back is **twisted or positioned oddly**.

Neck and Spine Injury – First Aid

- Keep the person **still**. Place heavy towels on both sides of the neck or hold the head and neck to prevent movement.
- Provide as much first aid as possible **without moving the person's head or neck**. If the person shows no signs of circulation (breathing, coughing or movement), begin CPR, but do not tilt the head back to open the airway. If the person has no pulse, begin chest compressions.
- If the person is wearing a helmet, don't remove it.
- If you absolutely must roll the person because he or she is vomiting, choking on blood or in danger of further injury, you need at least one other person. With one of you at the head and another along the side of the injured person, work together to keep the person's head, neck and back aligned while rolling the person onto one side (**log roll**)

Neck Injury

- Neck Immobilization



Spine Injury

- Scoop Stretcher



Log Roll



Burn Injury - Management

Burns

- First-degree burns—Reddened, painful skin
- Second-degree burns—Blistering
- Third-degree burns—Charring, deep tissue damage



Burn Injury - Management



- Immerse / hold the burned area in a bucket of cold water / under a cold tap for at least 10 minutes



- Remove or cut away any clothes that are covering the burnt area, but do not pull off anything that is stuck to a burn

Burn Injury - Management

- Remove any rings, watches, bracelets etc., if needed, before swelling occurs
- Apply silver sulphadiazine (Silverex) ointment
- Cover the area with a clean cotton cloth/gauze and rush to the doctor



Foreign body eye

What to do:

- Rinse eyes with plenty of clean water
- Instill antibiotic eye drop
- Cover eye with clean eye pad

What not to do:

- Do not rub the eyes
- Do not delay in reporting to the Doctor



Arc eye

- caused by welding flash

Precautions:

- Follow SOP while welding
- Do not look at the flash without proper eye protection

Management:

- Give rest to eyes
- Instill one drop of topical antibiotic in the eye
- Attend First Aid



CO exposure – clinical symptoms

- Non-specific symptoms like headache, malaise, weakness, fatigue, nausea, vomiting, dizziness, chest pain, palpitations, breathlessness
- Acute heavy exposures may lead to collapse, unconsciousness, convulsions, coma and death

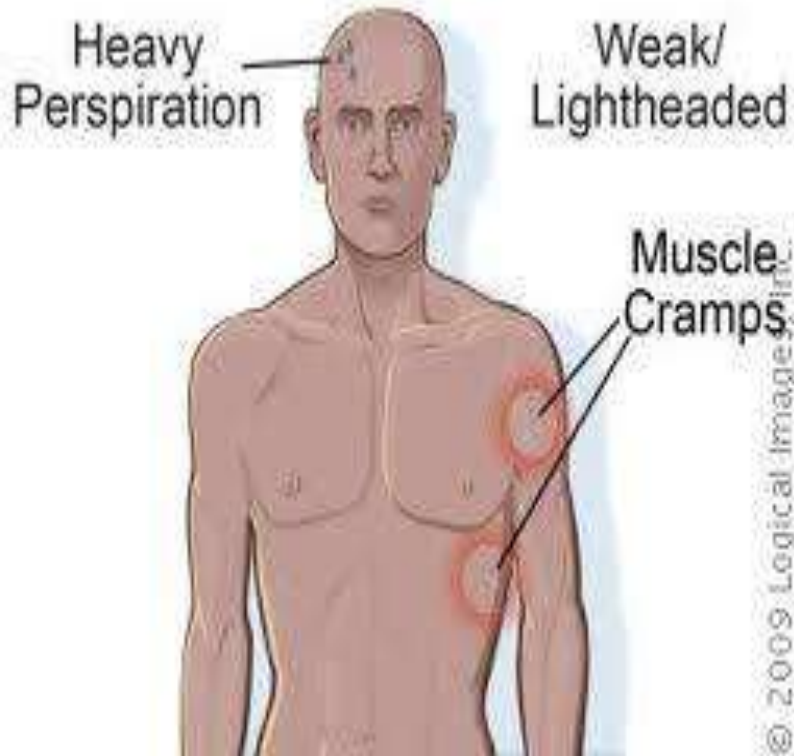
Management of Carbon Monoxide poisoning

- Immediately, move the patient to fresh air
- Give oxygen through mask
- Take patient to First Aid as soon as possible

Heat Disorders



Heat Cramps



Heat Exhaustion



Precautions

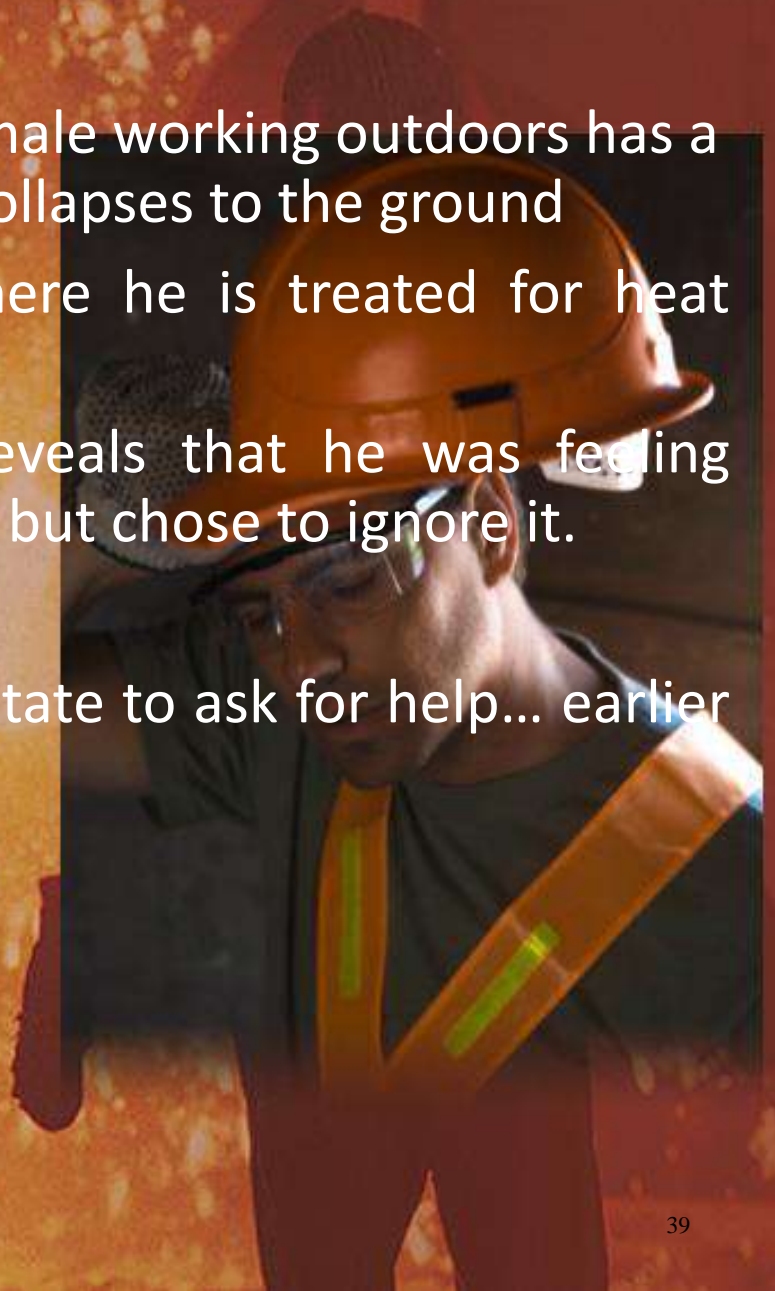
- Wear loose-fitted cotton clothing.
- Drink plenty of fluids.
- Take rest at intervals of 20-30 mins.
- Cover head when working outdoors.
- Ask for early help.



Early help?

- 22 April 2015, noon a middle aged male working outdoors has a reeling sensation while working ... collapses to the ground
- Patient is brought to first aid, where he is treated for heat exhaustion
- History taken from the patient reveals that he was feeling uncomfortable for quite some time, but chose to ignore it.

Moral of the incident – Do not hesitate to ask for help... earlier the better.



Heat Disorders - Treatment

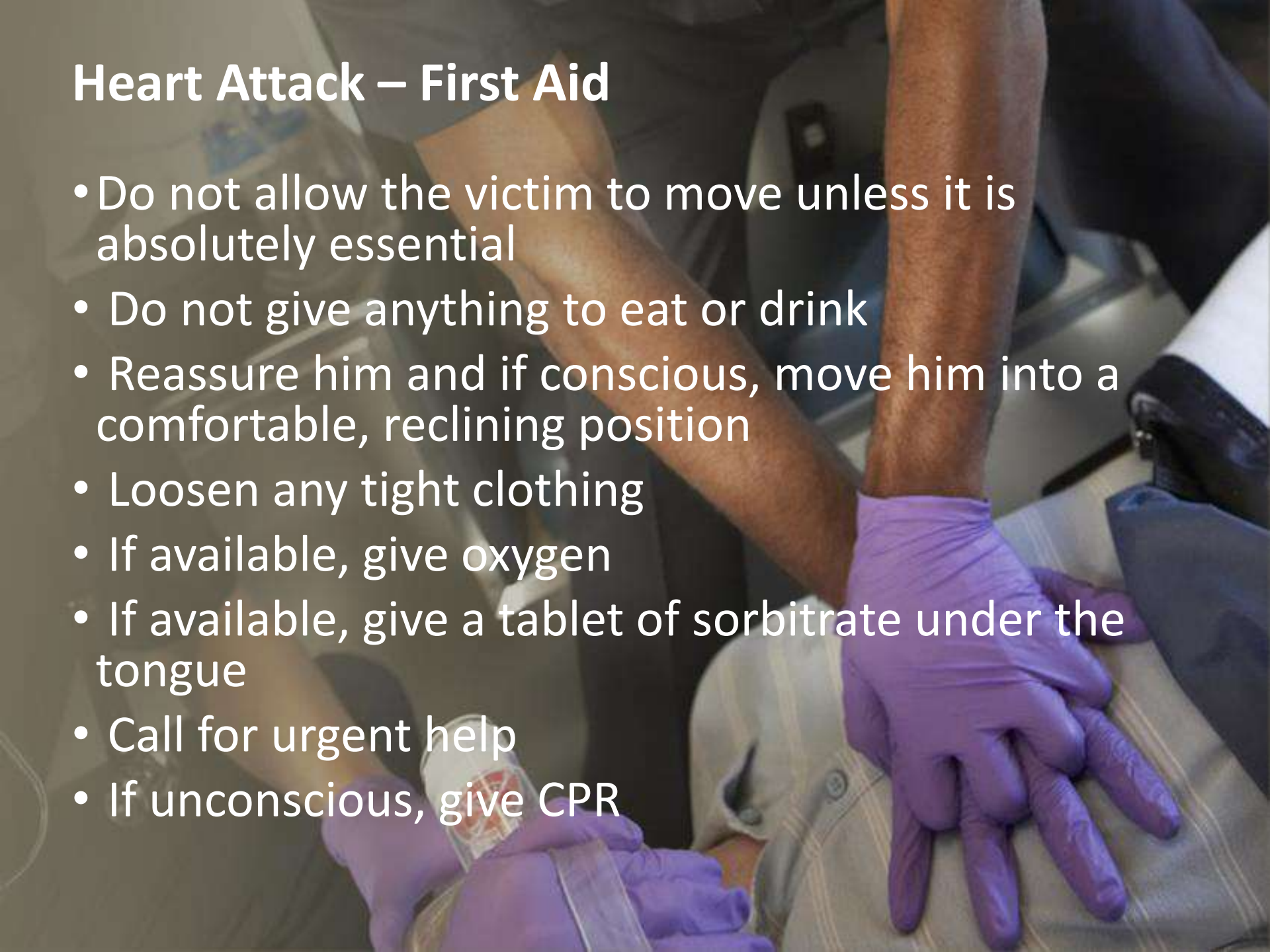


Heart Attack

Classic Heart Attack Symptoms



Heart Attack – First Aid

- Do not allow the victim to move unless it is absolutely essential
 - Do not give anything to eat or drink
 - Reassure him and if conscious, move him into a comfortable, reclining position
 - Loosen any tight clothing
 - If available, give oxygen
 - If available, give a tablet of sorbitrate under the tongue
 - Call for urgent help
 - If unconscious, give CPR
- 

Low Blood Sugar

Symptoms

- Headache
- Sweating
- Dizziness
- Weakness/Fatigue
- Irritability
- Confusion
- Hunger
- Impaired vision
- Shaking/Palpitation

Management

- ✓ Immediately give glucose/ sugar water to drink
- ✓ Take the patient to a cool environment
- ✓ If possible, the patient can have some carbohydrates, like sweets, banana, biscuits etc.
- ✓ Ask for urgent medical help

The unconscious patient



Dangers

- The **tongue may fall back** to block the airway and cut off air supply
- There is a danger of **aspiration** of vomitus / blood / other secretions

So, put the patient in recovery position, **except:**
Conscious patient
Suspected **neck/spine** injury



Cardio Pulmonary Resuscitation (CPR)

Points to remember:

- Now called CP**C**R – Cardio Pulmonary **Cerebral** Resuscitation.
- Is a **lifesaving** technique useful in many emergencies, including heart attack or near drowning, in which someone's **breathing or heartbeat has stopped**.
- **Do not hesitate** fearing that you are untrained.
- The difference between your doing something and doing nothing could be someone's **life**.

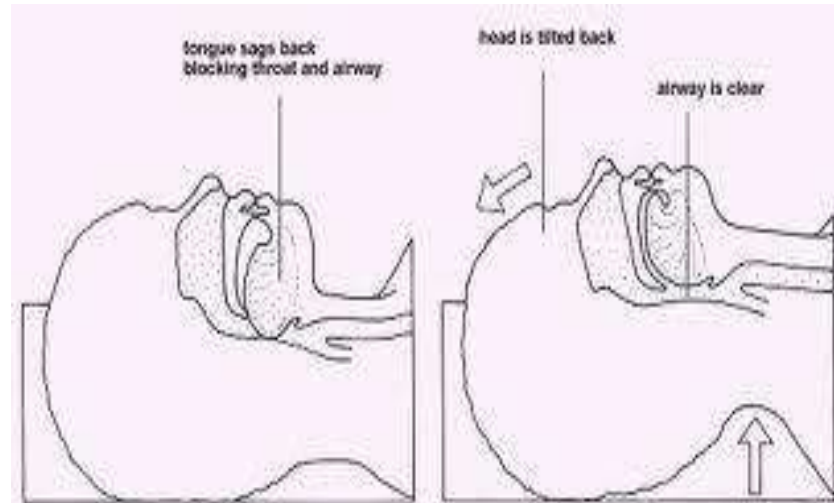
Basic Life Support(BLS)

- Previously (A-B-C)
 - **A** - Airway
 - **B** - Breathing
 - **C** – Circulation/Chest compressions
 - **D** - Defibrillation
- Now, i.e. 2010 onwards (C-A-B)
 - **C** – Circulation/Chest compressions
 - **A** - Airway
 - **B** - Breathing
 - **D** - Defibrillation

Airway Management

Head tilt

Chin lift

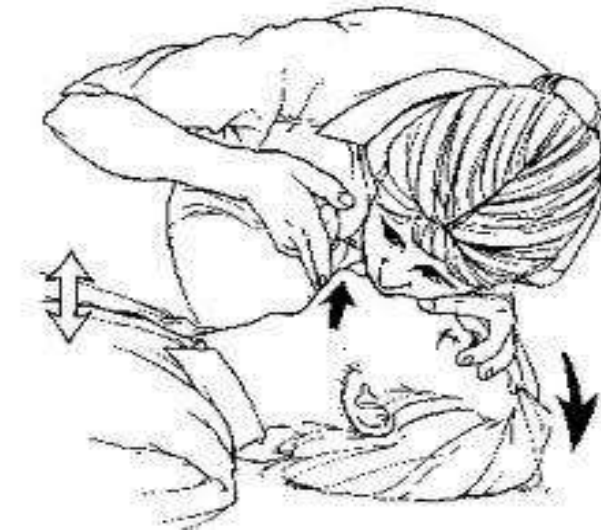


Breathing

Check for normal / abnormal breathing (gaspings)
(look, listen, feel ???)

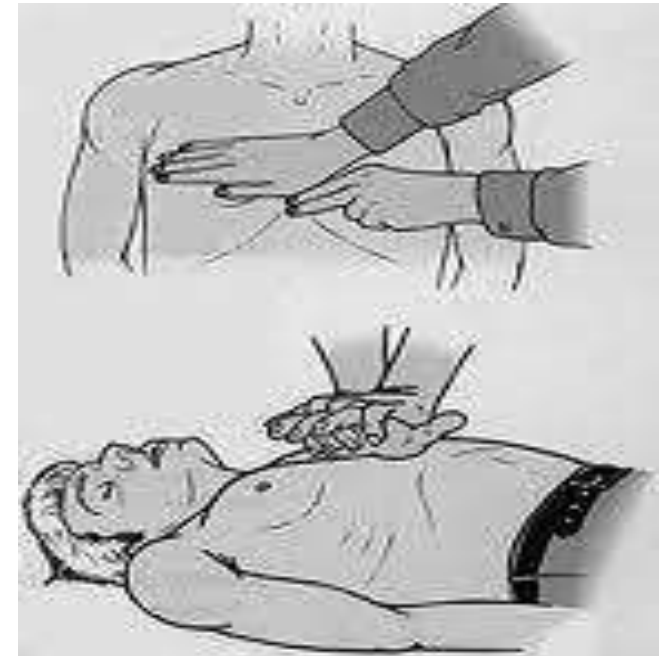
If not:

- Give **O2 rescue?** breaths
- Open airway
- Pinch nostrils **shut**
- Cover the person's mouth with yours, making a **seal**
- Give the first rescue breath - lasting **one second**
- Similarly, give 2nd breath



Circulation

- Check for the carotid pulse in the neck
- Do not take more than 10 seconds
- If you do not definitely feel a pulse, start chest compressions



Steps of chest compressions:

- Push **hard**, push **fast**
- Rate is **at least 100/min.**
- Depth is **at least 5 cm.**
- Compression: ventilation ratio is **30:2 (01 cycle)**

Continue for 05 cycles or until improvement/medical help arrives



Overview of steps of BLS

- Ensure scene **safety**
- Assess the victim for a **response**
- Look for **breathing** – normal/abnormal
- Call for **help**
- Check the victim's **pulse**(take at least 5 but no more than 10 seconds)
- Do not definitely feel a pulse within **10 seconds**, begin CPR, **starting with chest compressions**(C-A-B) sequence

ROLE OF FIRST AIDERS

- Spot a danger
- Know when and whom to call for help
- Help a person in distress
- Save a life
- Update and share knowledge

Role of supervisor

- Ownership of first aid boxes in the departments
 - accessibility
 - labelling
 - stock
 - expiry
- Ensure that there is one trained first aider in every shift
- Refresher training of first aiders
- Ensure team work and cooperation

Prequiz:

True or False?

- F** •After an accident, immediately move the victim to a comfortable position.
- F** •If a person is bleeding, use a tourniquet.
- T** •Signs of a heart attack include shortness of breath, anxiety, and perspiration.
- F** •All burns can be treated with first aid alone; no emergency medical attention is necessary.

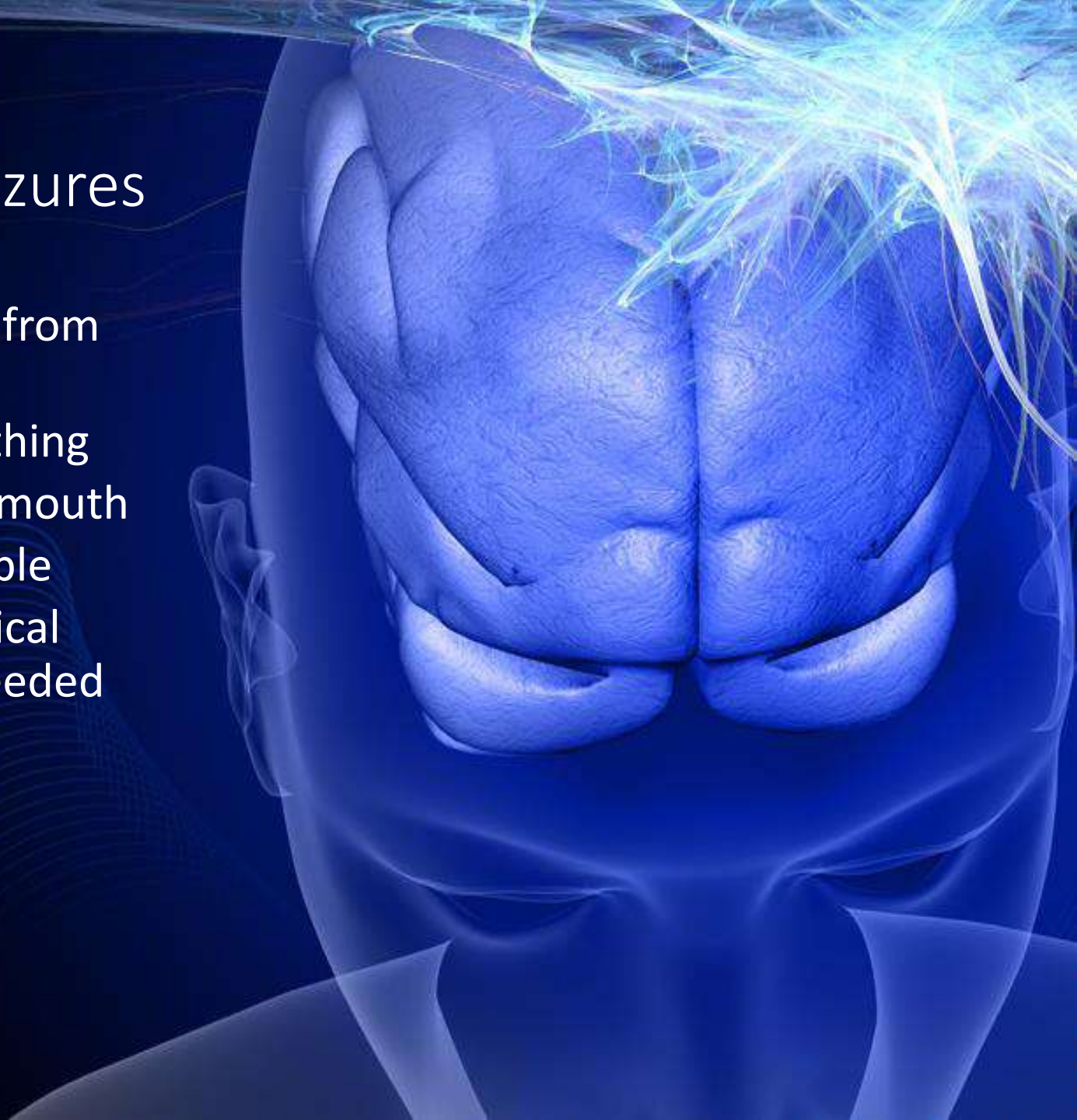
Electrical Shock

- 1.** Don't touch if power cut is not done!
- 2.** Turn power off
- 3.** Call ambulance
- 4.** Remove person from live wire
- 5.** Check for breathing



Epileptic Seizures

- Remove victim from hazards
- Check for breathing
- Nothing in the mouth
- Keep comfortable
- Call 108 if medical assistance is needed



Exercise

Match the problem with the correct first-aid procedure.

Bleeding	CPR
Choking	Elevate feet
No breathing	Keep victim still
Heart attack	Direct pressure
Shock	Abdominal thrusts

KEY POINTS To Remember!

- Medical emergencies can happen anytime.
- Act quickly, calmly, and correctly.
- Consider being certified in first aid and CPR.

THANK YOU !!!

ARE YOU READY FOR A QUICK TEST?