

# TRAUMA AND EMERGENCY

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# OUTLINE

- ⊠ How to perform Basic life support
- ⊠ Management of patient following trauma
- ⊠ Applying principles of trauma in providing emergency care to casualties of mass accidents.

# Basic life support

## Objectives

- ⊠ Definition of basic life support
- ⊠ How to assess the collapsed victim
- ⊠ How to perform chest compression and rescue breathing

# BASIC LIFE SUPPORT

- ⊠ Sequence of procedures performed to restore the circulation of oxygenated blood after sudden pulmonary and/or cardiac arrest
- ⊠ Basic life support does not include the use of drugs or invasive skills

# WHAT TO DO...

☒ APPROACH SAFETY

☒ CHECK RESPONSE

☒ SHOUT OUT FOR HELP

☒ OPEN AIRWAY

☒ CHECK BREATHING

☒ CIRCULATION;

30 COMPRESSION AND 2 RESCUE

BREATHING

# APPROACH SAFETY

- ⊠ SCENE
- ⊠ VICTIM
- ⊠ RESCUER

# CHECK RESPONSE

- ⊠ Gently shake his/her shoulder and ask loudly ,are you all right?
- ⊠ If he/she responds;
- ⊠                    -leave him/her in the position which you found him/her provided there is no further danger
- ⊠                    -try to find out what is wrong and get help if needed.

⊠ If he/she does not respond;

-shout for help

-turn the victim supine aligned

position or stable sided position



# OPEN AIRWAY

- ⊠ Establishing an airway may be as simple as repositioning the patient's head to prevent the tongue from obstructing the pharynx. Alternatively, other maneuvers, such as the **head-tilt–chin-lift** maneuver, **the jaw-thrust** maneuver, or insertion of specialized equipment may be needed to open the airway, **remove a foreign body**, or maintain the airway. In all maneuvers, the cervical spine must be protected from injury

# OPEN AIRWAY

## Head tilt-Chin lift maneuver;

In the head-tilt–chin-lift maneuver, one hand is placed on the victim’s forehead, and firm backward pressure is applied with the palm to tilt the head back. The fingers of the other hand are placed under the bony part of the lower jaw near the chin and lifted up. The chin and the teeth are brought forward almost to occlusion to support the jaw. The head-tilt–chin-lift maneuver, which helps to tilt the head back, should be used only if it is determined that the patient’s cervical spine is not injured.

# HEAD-TILT/CHIN LIFT



***Head-Tilt/Chin Lift***  
maneuver in an infant.  
***Do not overextend  
the head & neck.***

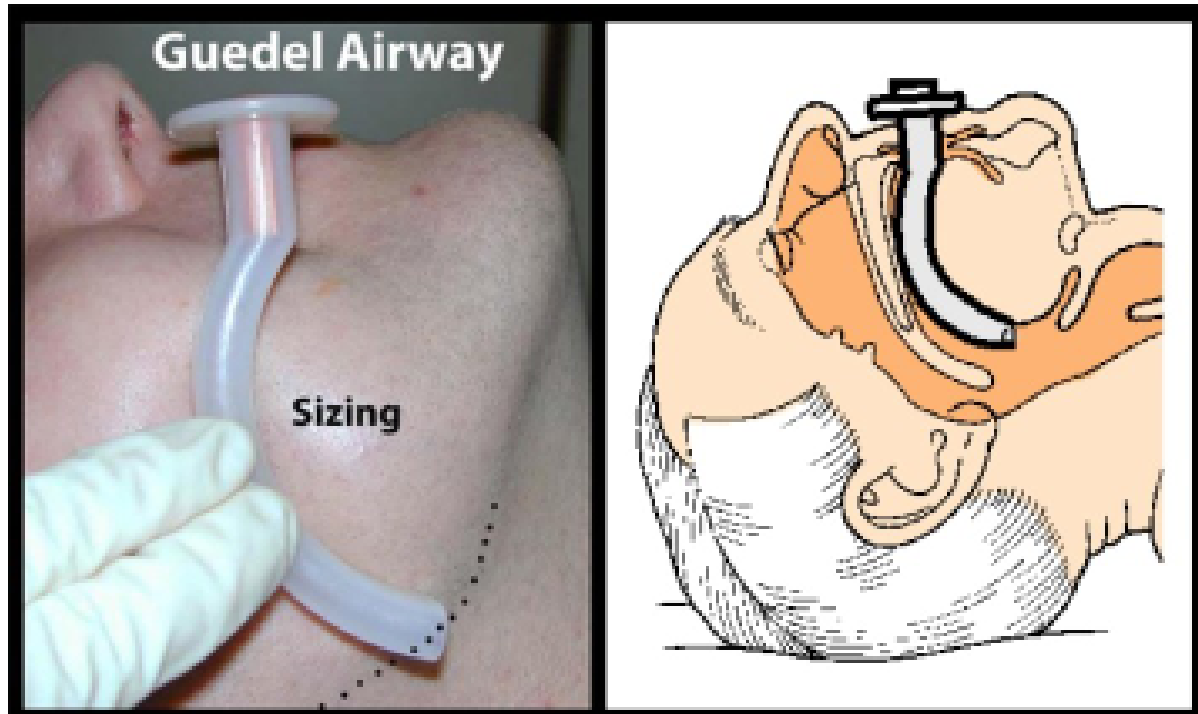
# JAW THRUST MANEUVER

Jaw thrust maneuver; After one hand is placed on each side of the patient's jaw, the angles of the victim's lower jaw are grasped and lifted, displacing the mandible forward. This is a safe approach to opening the airway of a victim with suspected neck injury because it can be accomplished without extending the neck

# JAW THRUST



# OROPHARYNGEAL AIRWAY



Oropharyngeal airway is an airway adjunct used to maintain or open airway by stopping the tongue from covering the epiglottis. In this position, the tongue may prevent an individual from breathing.

✘ Cricothyroidotomy is the opening of the cricothyroid membrane to establish an airway. This procedure is used in emergency situations in which endotracheal intubation is either not possible or contraindicated, as in airway obstruction from extensive maxillofacial trauma, cervical spine injuries, laryngospasm, laryngeal edema (after an allergic reaction), and hemorrhage into neck tissue.

# Foreign body airway obstruction

| signs              | Mild obstruction          | Severe obstruction  |
|--------------------|---------------------------|---|
| 'are you choking?' | 'Yes'                     | Unable to speak, may nod  |
| Other signs        | Can cough, speak, breathe | Cannot breathe/<br>wheezy breathing/<br>silent attempt to cough/<br>unconsciousness |



### BACK BLOWS



### ABDOMINAL THRUSTS



Back blows and abdominal thrust; all increase intrathoracic pressure and can expel foreign bodies from the airway

# Foreign body airway obstruction-infants

1. **Look inside the mouth;** never put your finger in a choking baby's mouth until you visually check for an obstructing object
2. **Five back blows;** if the object is too far back in throat to see or easily remove with a finger, support the baby's head under his chin and lie him face down along your forearms with head lower than the rest of the body

Using the heel of your hand give 5 blows between shoulder blades. Visually check for an object in the baby's mouth and remove if possible.

**3. Chest thrust;** if his airway is still blocked after 5 back flows turn the baby onto his back on a firm surface and give him upto 5 chest thrusts

Place two fingers on his breastbone about 1 finger width below the nipple line. Push downward and upward

After each chest thrust ; visually check for an object in the mouth and remove if possible

**4. Repeat cycle;** continue cycle until airway clears



Look inside the mouth



Five back blows



Chest thrusts

# CHECK BREATHING

- ⊠ Look, listen and feel for normal breathing for not over 10 seconds



# CIRCULATION

- ⊠ Check pulse. If pulse is not definitely felt within 10 seconds, proceed with chest compressions.

## Position of victim

- ⊠ Must be supine on a firm flat surface for CPR to be effective

# Cardiopulmonary resuscitation(CPR)

- ⊠ Combines rescue breathing and chest compressions
- ⊠ Revives heart(**cardio**) and lung(**pulmonary**) functioning
- ⊠ Is done when there is no breathing and no pulse
- ⊠ **CHEST COMPRESSION**
- ⊠ Place the heel of one hand in the center of the chest
- ⊠ Place the other hand on top
- ⊠ Interlock fingers
- ⊠ Compress the chest; Rate 100/min  
Depth 5cm

# CPR





# Infant CPR differences

- ⌘ Tap a baby's foot to check responsiveness
- ⌘ Two finger on the center of the chest
- ⌘ Compress about 1.5 inches
- ⌘ The compression to ventilation ratio for infant is **30:2** for one rescuer and **15:2** if there is two rescuer, one provider should perform chest compressions while the other keeps the airway open.

# CPR ON AN INFANT



# Rescue breath

- ✘ Use a barrier device while giving breaths or use a bag valve mask(Ambu bag mask) if available

## HOW TO GIVE RESCUE BREATHS

- ✘ Pinch the nose
- ✘ Take a normal breath
- ✘ Place lips over mouth
- ✘ Blow until the chest rises
- ✘ Take about 1 second

# WHEN TO STOP CPR

- ⊠ Victim revives
- ⊠ Unsafe scene
- ⊠ Physician directed
- ⊠ Cardiac arrest for more than 30 minutes