Cardiopulmonary resuscitation (CPR)

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CPR

- Is a technique of basic life support for oxygenating the brain and heart until appropriate, definitive medical treatment can restore normal heart and ventilatory action.

CPR

- The most common cause of death from a heart attack in adults is ventricular fibrillation
- Ventricular fibrillation:
  - A disturbance in the electrical rhythm of the heart
  - Can be treated with defibrillation (applying an electrical shock to the chest)
  - If a defibrillator is not readily available, brain death will occur in less than 10 minutes

CPR

- During cardiac arrest, the heart stops pumping blood.
- CPR is one way of buying time until normal heart function is restored or a defibrillator becomes available.
- CPR provides artificial breathing and circulation, keeping oxygenated blood flowing to the heart and brain.
- The earlier you give CPR, the greater the chance of success.
- CPR is a combination of rescue breathing and chest compressions

When to give CPR

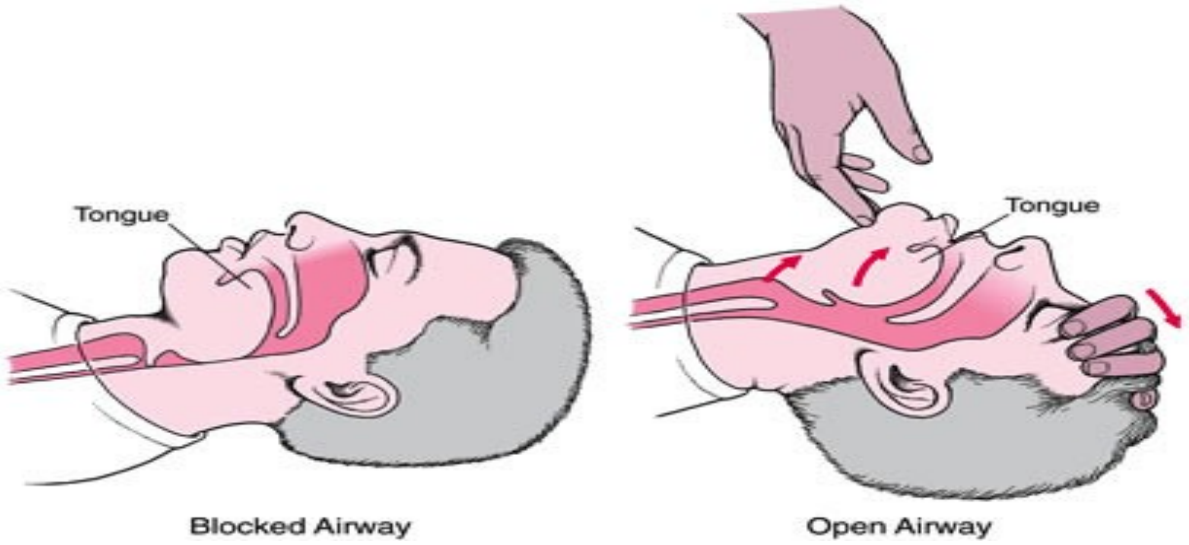
- Someone is not breathing and has no pulse
- If someone is not breathing, but has a pulse, perform rescue breathing

CPR - BLS

- Check the ABCs:
  - Airway
  - Breathing
  - Circulation

A -Airway

- Check their mouth or throat for blockage
- Sweep the inside of the mouth with your fingers, if necessary



B - Breathing

- Put your ear to the mouth and nose
- Listen to see if they are breathing
- Observe if the chest is rising
- Feel for breaths on your cheek

C - Circulation

- Feel for a pulse
  - Put your fingers on the side of the neck or on the top of the underside of the wrist
  - Do NOT use your thumb. Your own pulse may be felt, and this could lead to confusion

Rescue Breathing

- Perform if a person has a pulse but is NOT breathing
- Make sure they are lying on their back

Rescue Breathing

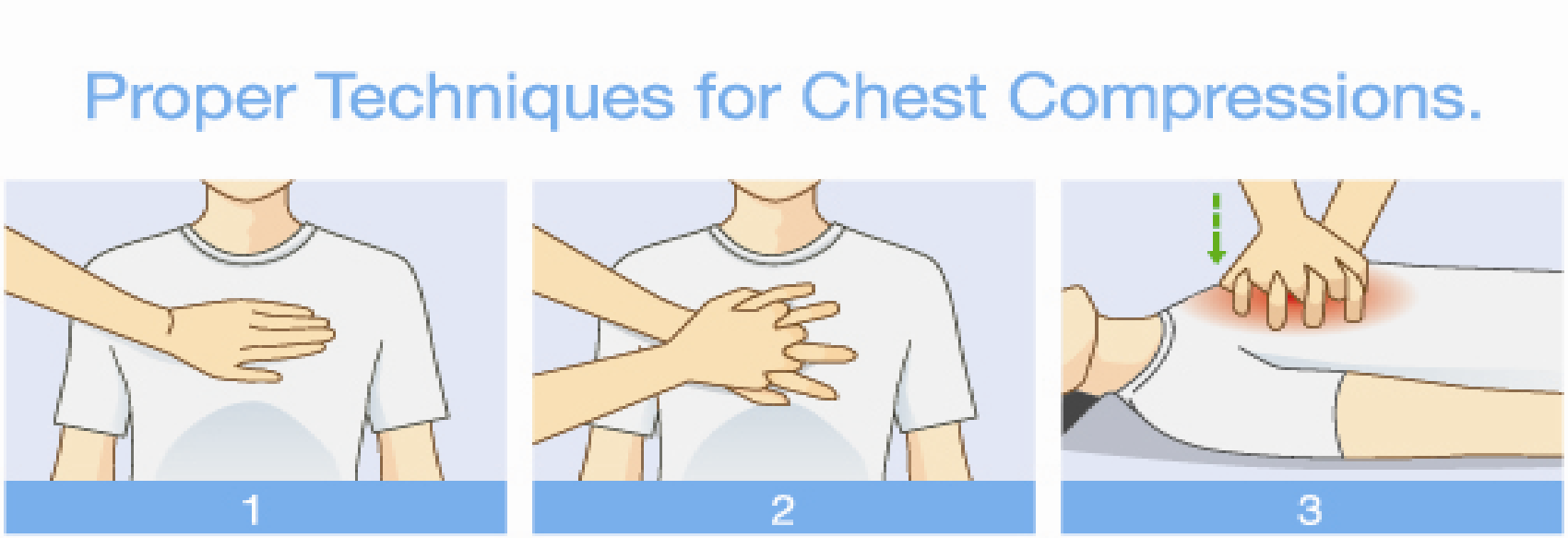
- Tilt the head back
  - Lift the chin with one hand
  - Press the forehead back with the other
- Close the airway through the nose by pinching it

Rescue Breathing

- Give 1 breath every 5 seconds
- Take a normal breath
- Cover the victim's mouth with yours to create an airtight seal
- Watch for the chest to rise as you give each breath

CPR Procedure

- If a person's airway is clear but they are NOT breathing and do NOT have a pulse
- CPR involves giving compressions which pump blood to the brain and heart.



CPR Procedure

To give compressions:

- Put the heel of one hand on the center of the chest between the nipples
- Put the other hand on top of the first hand
- Push hard and push fast
- Push at a rate of 100 times a minute
- After each compression, release pressure on the chest to let it come back to its normal position.
- Keep your elbows **locked** so you do not get tired quickly

CPR Procedure

- Give 2 breaths, 1 second each
- Give 30 compressions at a rate of 100 per minute and then give 2 breaths.
- Remember to release pressure after every compression
- Keep giving sets of 30 to 2 until:
  - The automated external defibrillator (AED) arrives
  - Victim starts to move or
  - Trained help arrives

CPR - ALS

A – airway
B – breathing
C – circulation
D – drugs
E – ECG
F – fibrilation treatment

Complication

- Rib fractures
- Sternal fracture
- Pneumothorax
- Haemothorax
- Myocardial injury

Thank you for your attention!