

# CARDIOPULMONARY RESUSCITATION



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# Objectives

- *By the end of this lecture, the student will be able to:*
- Define CPR technique
- Identify components of CPR technique



# CPR

- A person whose breathing & heartbeat have stopped may need CPR.
- **Cardiopulmonary Resuscitation-** *is a life-saving first-aid procedure that combines rescue breaths with chest compressions, supplying oxygen to the body until normal body functions can resume.*
- You must be properly trained by a professional and certified before administering CPR.



# CARDIOPULMONARY RESUSCITATION

Cardiopulmonary Resuscitation (CPR) is a first aid technique to help people who suffer a “cardiac arrest” (their heart stops beating).

- It involves doing chest compressions and rescue breaths to keep the patient alive until a defibrillator arrives.
- A defibrillator is an electrical device which can be used to help restart someone’s heart.

**CPR is as easy as**

**C - A - B**



**C**ompressions  
Push hard and fast  
on the center of  
the victim's chest.



**A**irway  
Tilt the victim's head  
back and lift the chin  
to open the airway



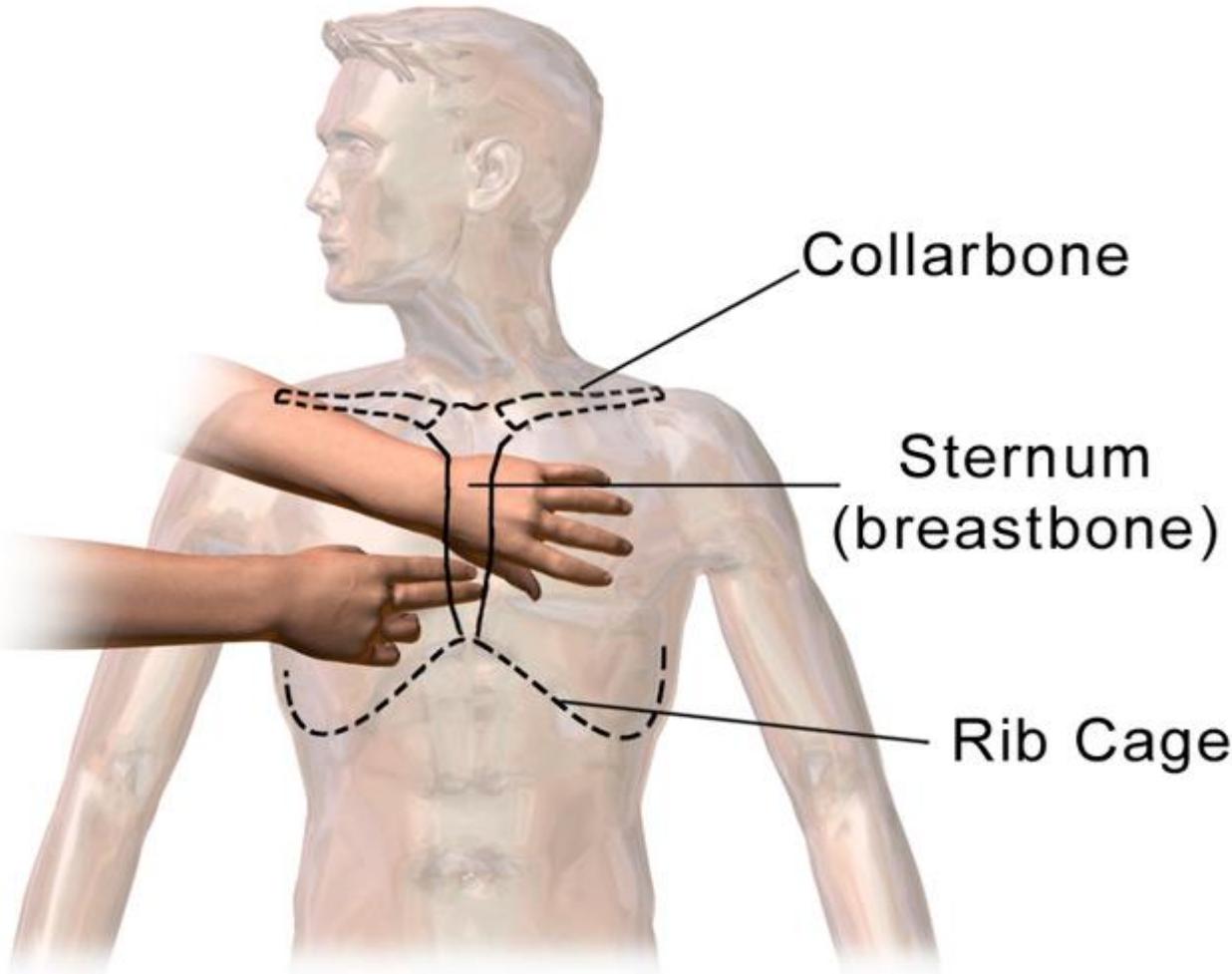
**B**reathing  
Give mouth-to-mouth  
rescue breaths

Early chest compression can  
immediately circulate oxygen that is still in  
the bloodstream. By changing the sequence,  
chest compressions are initiated sooner and  
the delay in ventilation should be minimal.

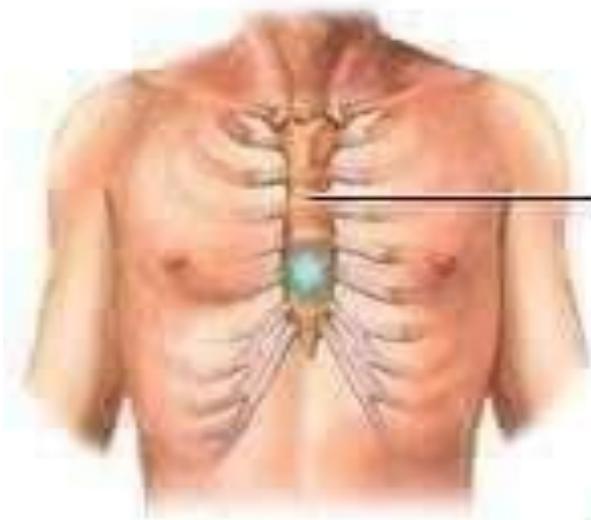
2010 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations

**N.B:** In victim's assessment start with ABC, But in performing CPR, start with CAB

# Commence CPR



**Locate the Sternum**



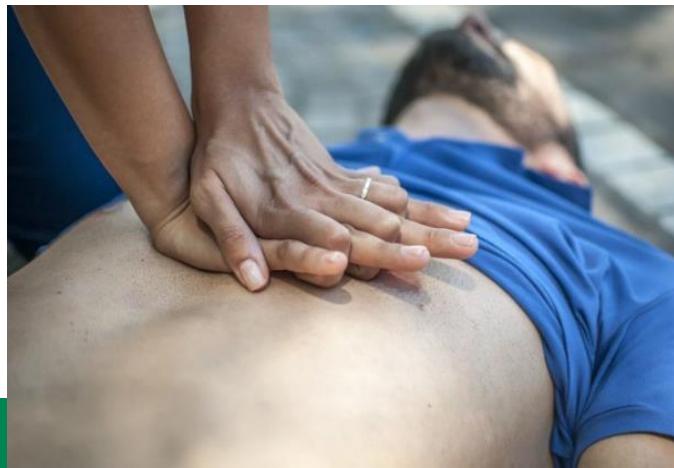
Breast  
bone  
(sternum)



Chest compressions  
are performed  
between the nipples

# CPR: chest compression

1. After an ambulance has been called, you should immediately start CPR.
2. First, you should give 30 chest compressions
3. Place your hands in the centre of the person's chest, over the breastbone (sternum)
4. Interlock your fingers
5. Push down 30 times at a rate of 100 - 120 compressions / minute



# CPR: chest compression

- Ensure your elbows are locked and your shoulders positioned above the chest.
- Push down to a depth of **5 – 6cm**
- Ensure you release fully after each compression. Do not ‘lean’ on the victim’s chest.

## Proper Techniques for Chest Compressions.





**CPR**



# CPR: Rescue Breaths “Ratio”

– rescue breathing...

1. Keeping the victim's head in the proper position, pinch nostrils shut.
2. Place your mouth over the victim's mouth forming a seal. Give 2 slow breaths, each for about 2 seconds long. The victim's chest should rise with each breath.



Place your mouth over the person's mouth and exhale

## CPR: Rescue Breaths “Ratio”

- |□ If you have been trained in CPR and are willing to, give **two rescue breaths after every thirty chest compressions.**
- |□ Tilt the victim's head backwards, lift their chin and then pinch their nose
- |□ Make a seal over their mouth and breath in for approximately **one** second. Do not overinflate the patient's chest – you are not blowing up a balloon!

- ❑ Continue the cycle of 30 chest compressions to 2 rescue breaths until help arrives.
- ❑ If there is more than one first aider, swap over doing chest compressions every two minutes.
- ❑ If a defibrillator جهاز الصدمات الكهربائية arrives it should be used immediately.

## N.B

- The Canadian Red Cross recognizes that **compression-only CPR** is an acceptable alternative for those who are unwilling, unable, untrained, or are no longer able to perform full CPR
  
- **Compression-only CPR** is giving continuous chest compressions of approximately **100 compressions per minute, without giving rescue breaths**

**Once you begin CPR, do not stop except in one  
of these situations:**

1. Return vital signs (breathing)
2. A defibrillator is available and ready to use.
3. You are too exhausted to continue.
4. The scene becomes unsafe.

# Questions