



# **Basic Life Support & Automated External Defibrillation Course**



## ■■■ OBJECTIVES

- At the end of this course participants should be able to demonstrate:
  - How to assess the collapsed victim.
  - How to perform chest compression and rescue breathing.
  - How to operate an automated external defibrillator safely.
  - How to place an unconscious breathing victim in the recovery position.

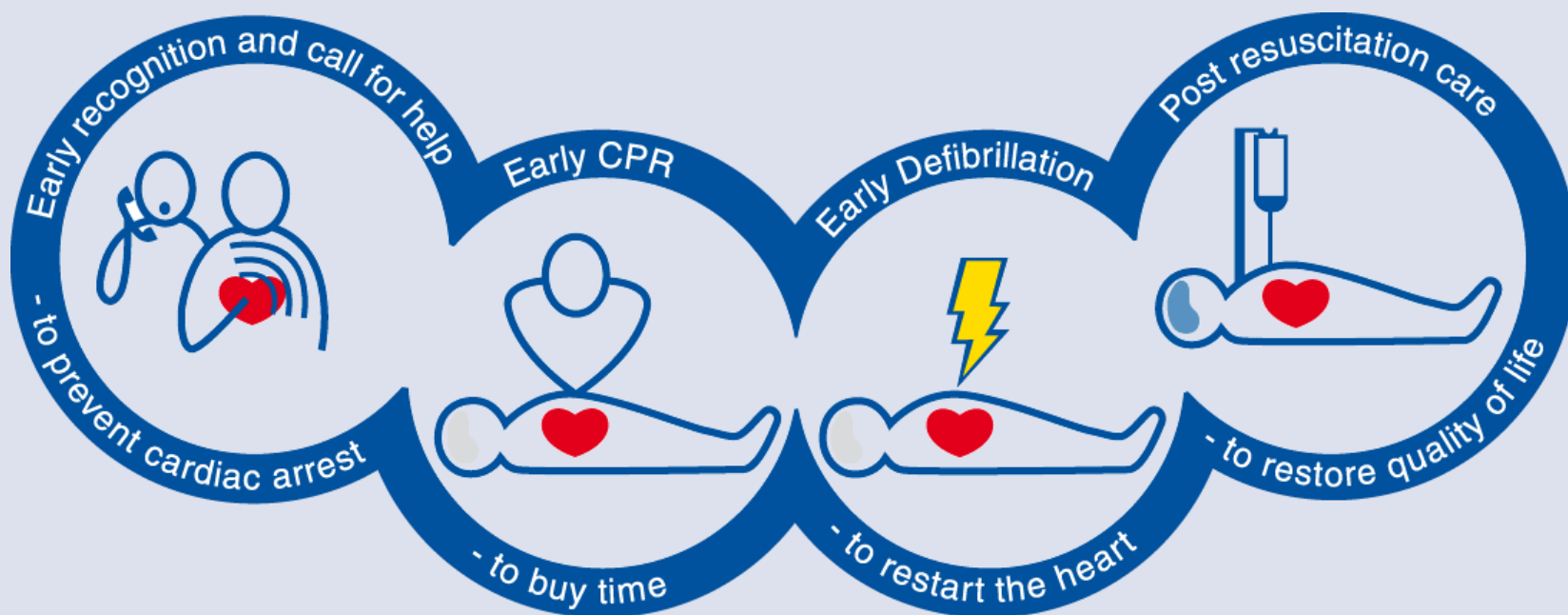


## BACKGROUND

- Approximately 700,000 cardiac arrests per year in Europe
- Survival to hospital discharge presently approximately 5-10%
- Bystander CPR vital intervention before arrival of emergency services
- Early resuscitation and prompt defibrillation (within 1-2 minutes) can result in >60% survival



# CHAIN OF SURVIVAL





**Approach safely**

**Check response**

**Shout for help**

**Open airway**

**Check breathing**

**Call 112**

**30 chest compressions**

**2 rescue breaths**





## ■ ■ ■ **APPROACH SAFELY!**

Scene  
Rescuer  
Victim  
Bystanders

**Approach safely**

**Check response**

**Shout for help**

**Open airway**

**Check breathing**

**Call 112**

**30 chest compressions**

**2 rescue breaths**



## ■ ■ ■ CHECK RESPONSE



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Approach safely

**Check response**

Shout for help

Open airway

Check breathing

Call 112

30 chest compressions

2 rescue breaths



## ■ ■ ■ CHECK RESPONSE



Shake shoulders gently  
Ask “Are you all right?”

If he responds

- Leave as you find him.
- Find out what is wrong.
- Reassess regularly.





## ■■■ SHOUT FOR HELP



Approach safely

Check response

**Shout for help**

Open airway

Check breathing

Call 112

30 chest compressions

2 rescue breaths



## ■■■ OPEN AIRWAY



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Approach safely

Check response

Shout for help

**Open airway**

Check breathing

Call 112

30 chest compressions

2 rescue breaths



## ■ ■ ■ CHECK BREATHING



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Approach safely

Check response

Shout for help

Open airway

**Check breathing**

Call 112

30 chest compressions

2 rescue breaths



## ■ ■ ■ CHECK BREATHING



- Look, listen and feel for **NORMAL** breathing
- Do not confuse agonal breathing with **NORMAL** breathing



## ■■■ AGONAL BREATHING

- Occurs shortly after the heart stops in up to 40% of cardiac arrests
- Described as barely, heavy, noisy or gasping breathing
- Recognise as a sign of cardiac arrest



**Approach safely**

**Check response**

**Shout for help**

**Open airway**

**Check breathing**

**Call 112**

**30 chest compressions**

**2 rescue breaths**



## 30 CHEST COMPRESSIONS



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Approach safely

Check response

Shout for help

Open airway

Check breathing

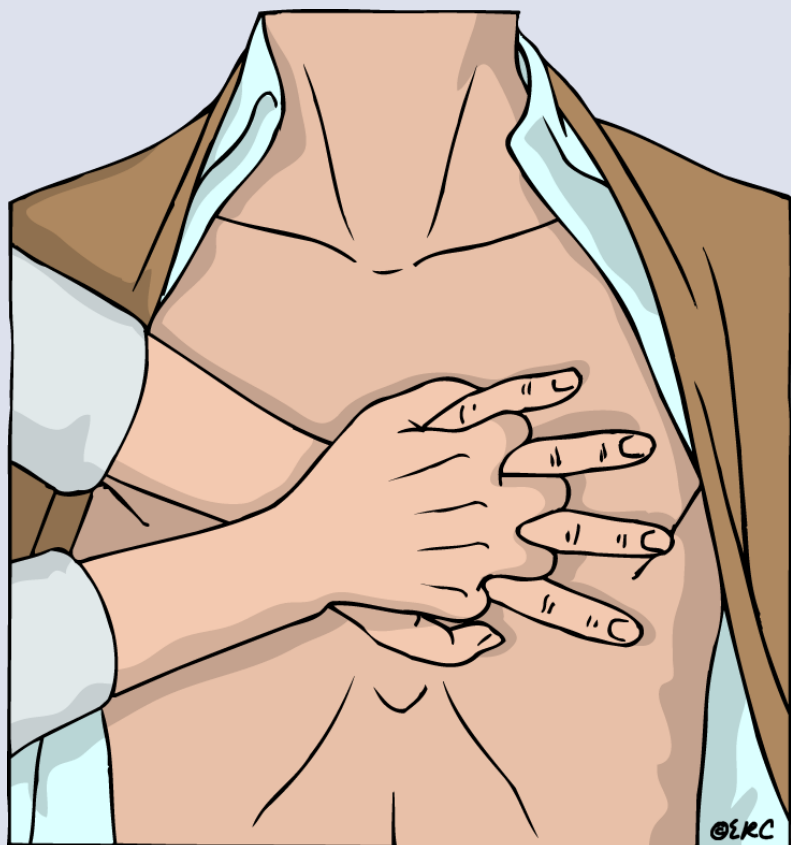
Call 112

**30 chest compressions**

2 rescue breaths



## CHEST COMPRESSIONS

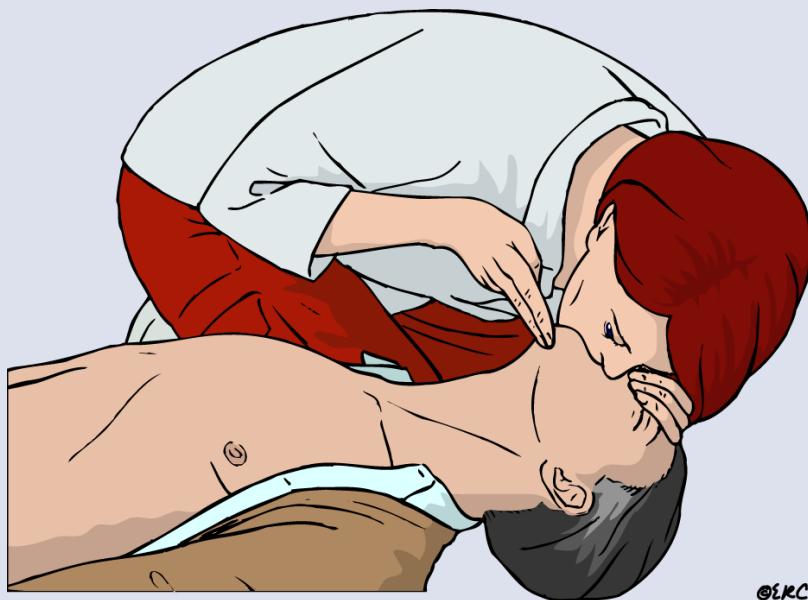


- Place the heel of one hand in the centre of the chest
- Place other hand on top
- Interlock fingers
- Compress the chest
  - Rate 100 min<sup>-1</sup>
  - Depth 4-5 cm
  - Equal compression : relaxation
- When possible change CPR operator every 2 min





## RESCUE BREATHS



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Approach safely

Check response

Shout for help

Open airway

Check breathing

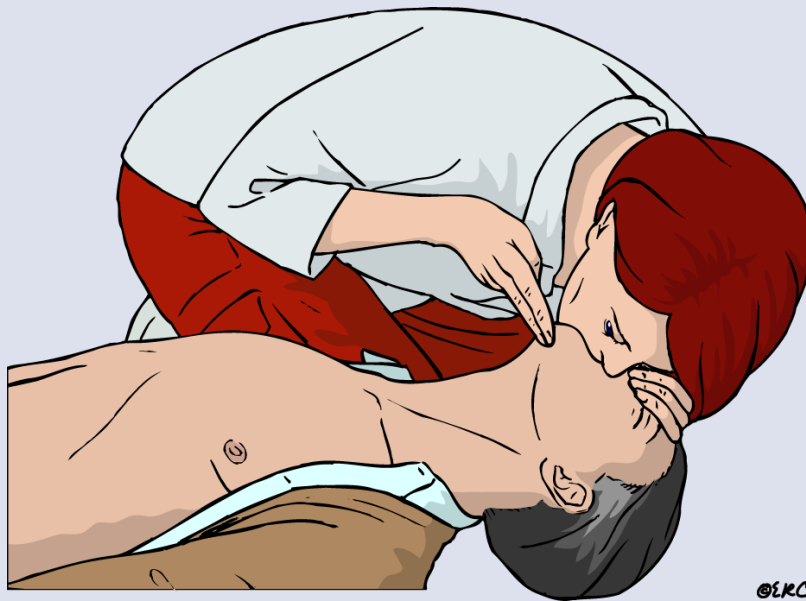
Call 112

30 chest compressions

2 rescue breaths



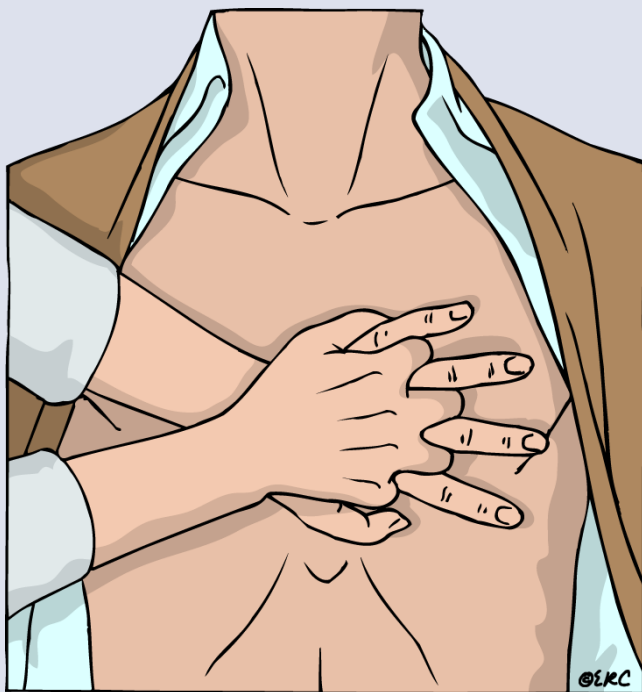
## RESCUE BREATHS



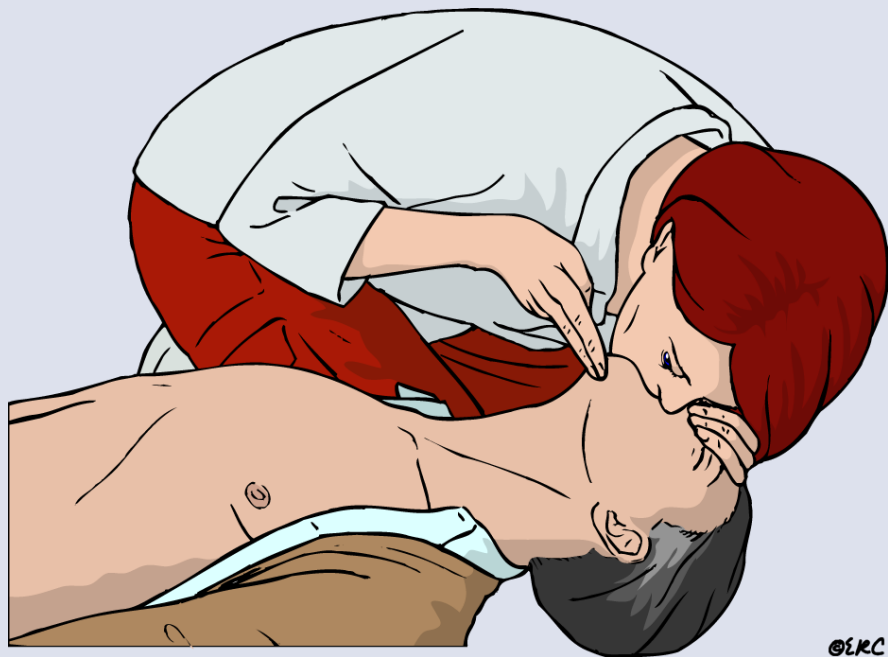
- Pinch the nose
- Take a normal breath
- Place lips over mouth
- Blow until the chest rises
- Take about 1 second
- Allow chest to fall
- Repeat



**CONTINUE CPR**



**30**



**2**



**Approach safely**

**Check response**

**Shout for help**

**Open airway**

**Check breathing**

**Call 112**

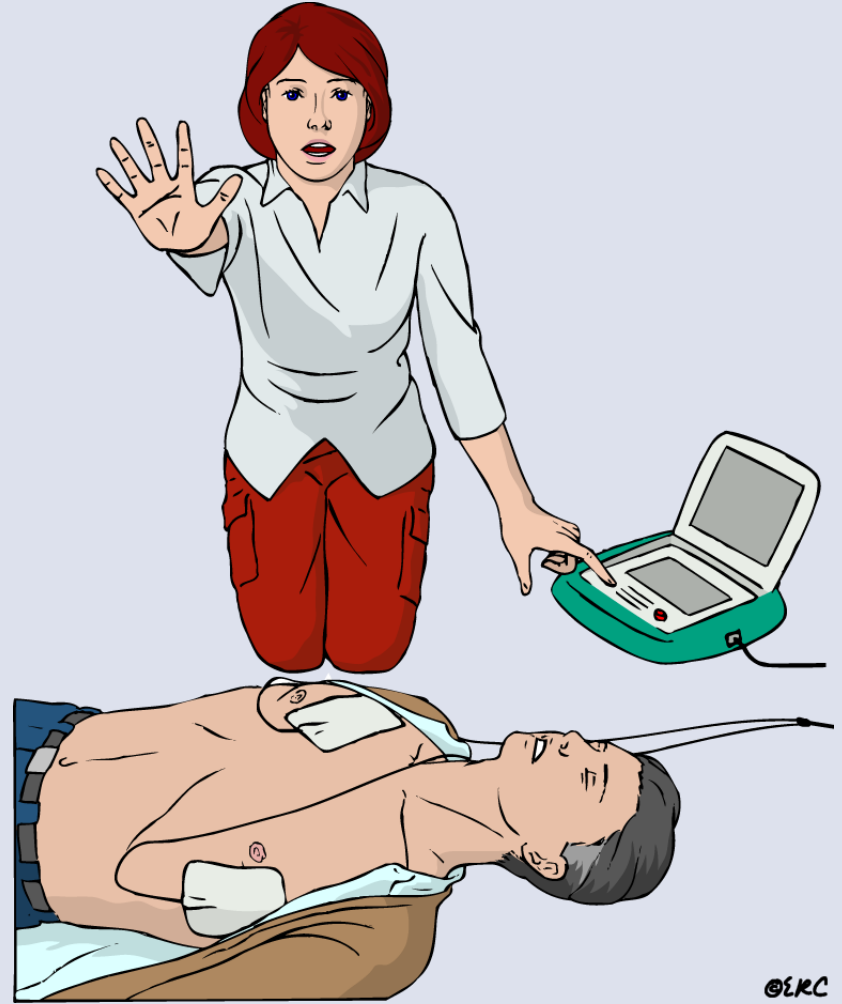
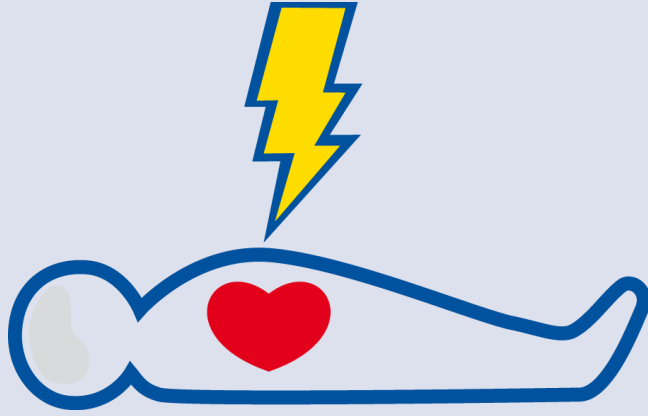
**30 chest compressions**

**2 rescue breaths**





# DEFIBRILLATION





**Approach safely**

**Check response**

**Shout for help**

**Open airway**

**Check breathing**

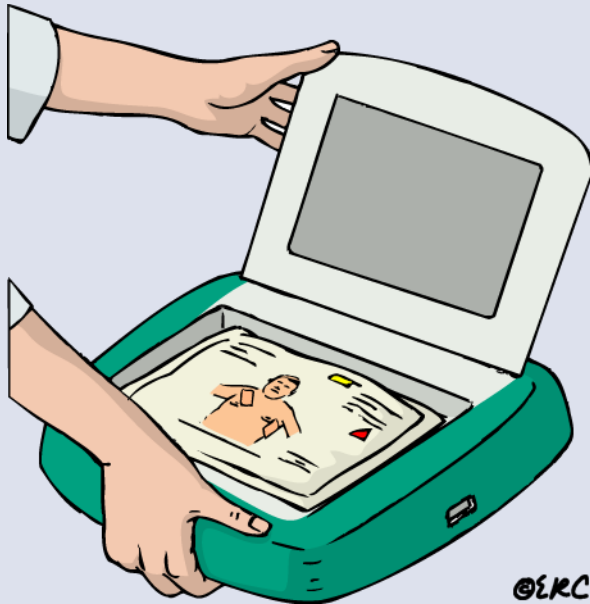
**Call 112**

**Attach AED**

**Follow voice prompts**



## SWITCH ON AED



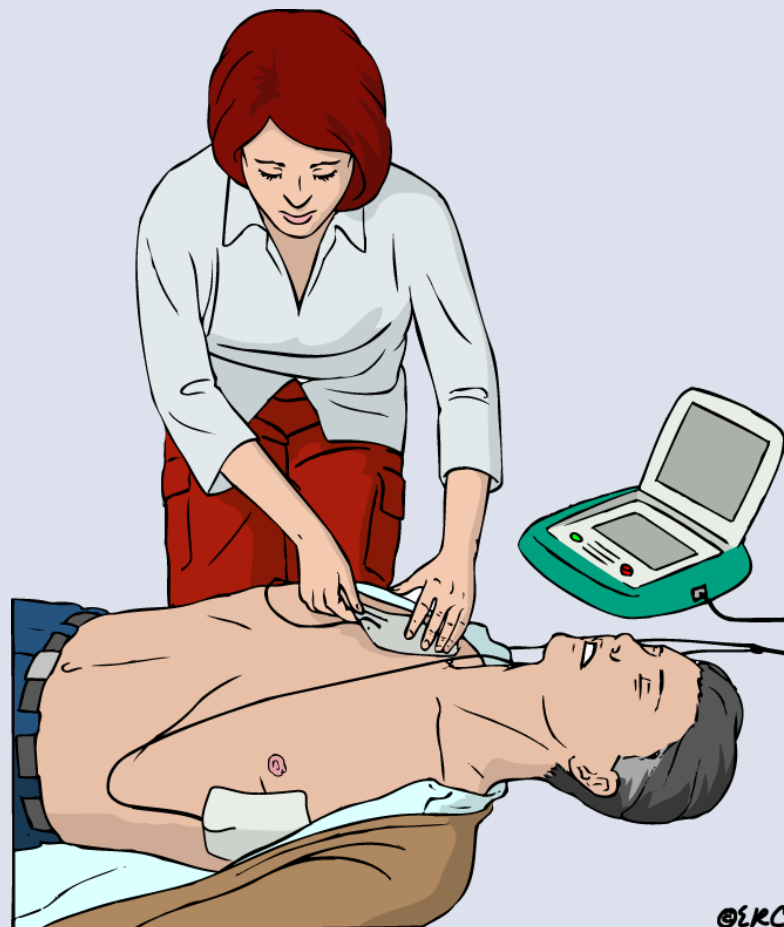
- Some AEDs will automatically switch themselves on when the lid is opened



## ATTACH PADS TO CASUALTY'S BARE CHEST



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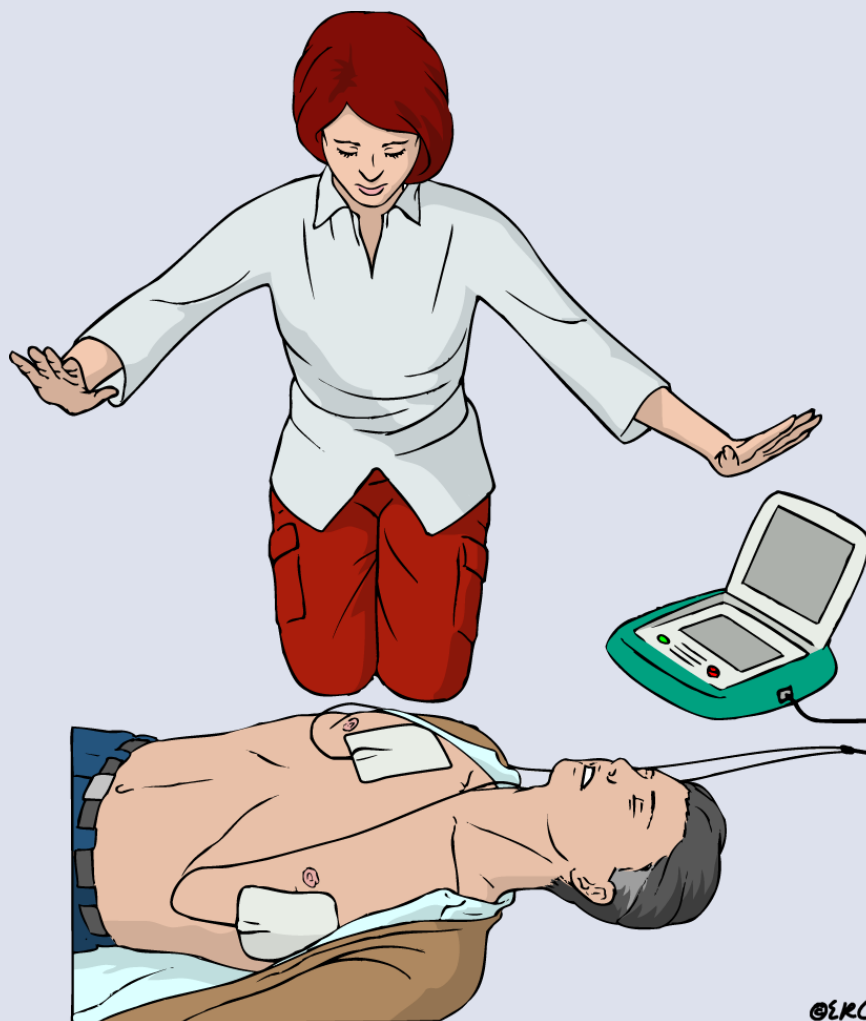


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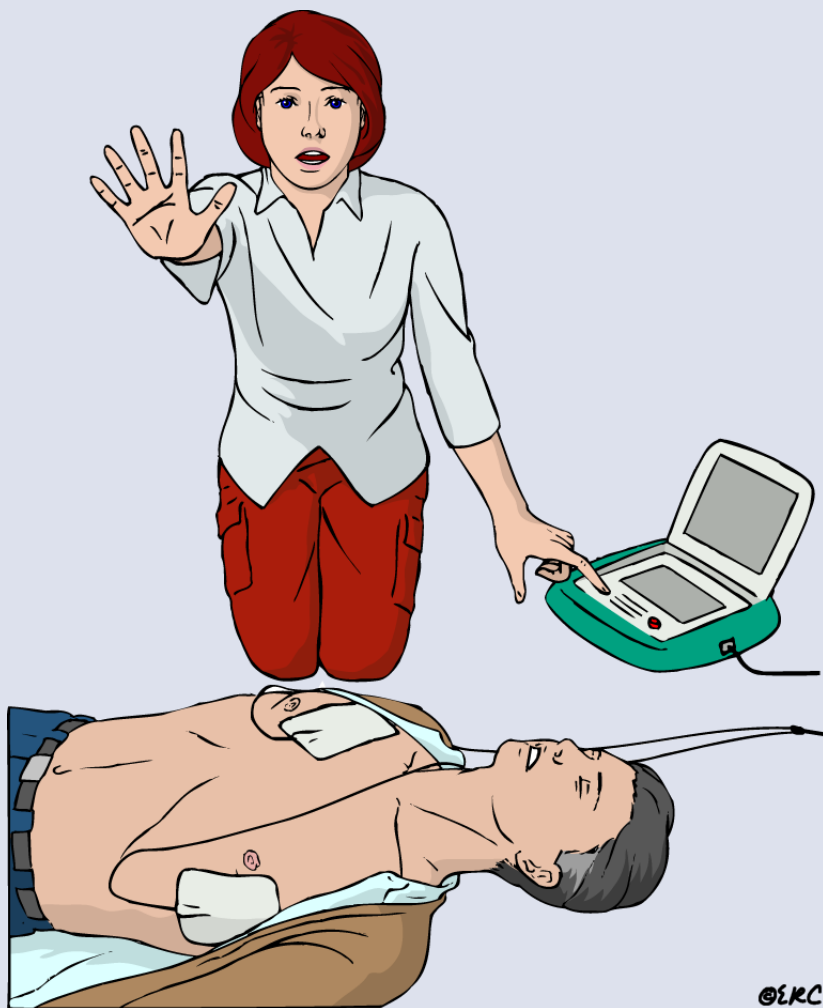


## ANALYSING RHYTHM DO NOT TOUCH VICTIM





## SHOCK INDICATED



- Stand clear
- Deliver shock

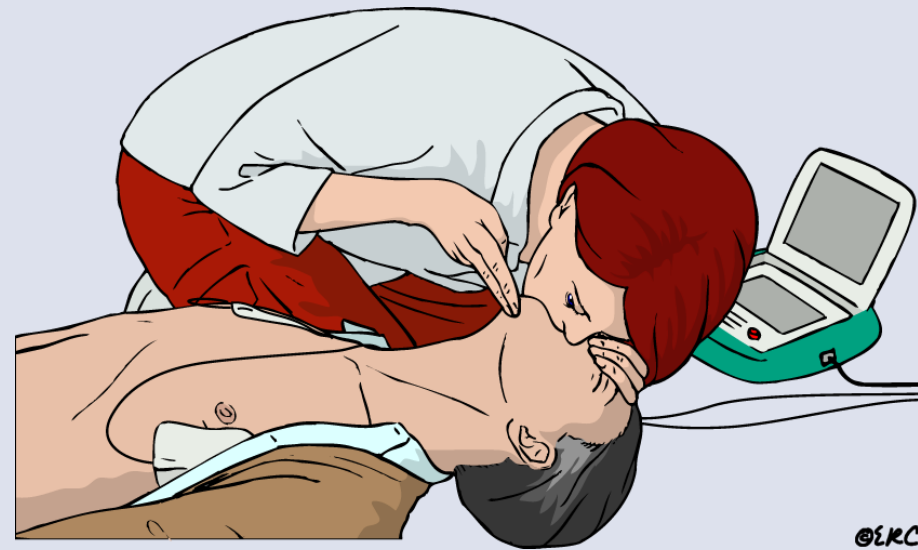


## SHOCK DELIVERED FOLLOW AED INSTRUCTIONS



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30



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NO SHOCK ADVISED  
FOLLOW AED INSTRUCTIONS



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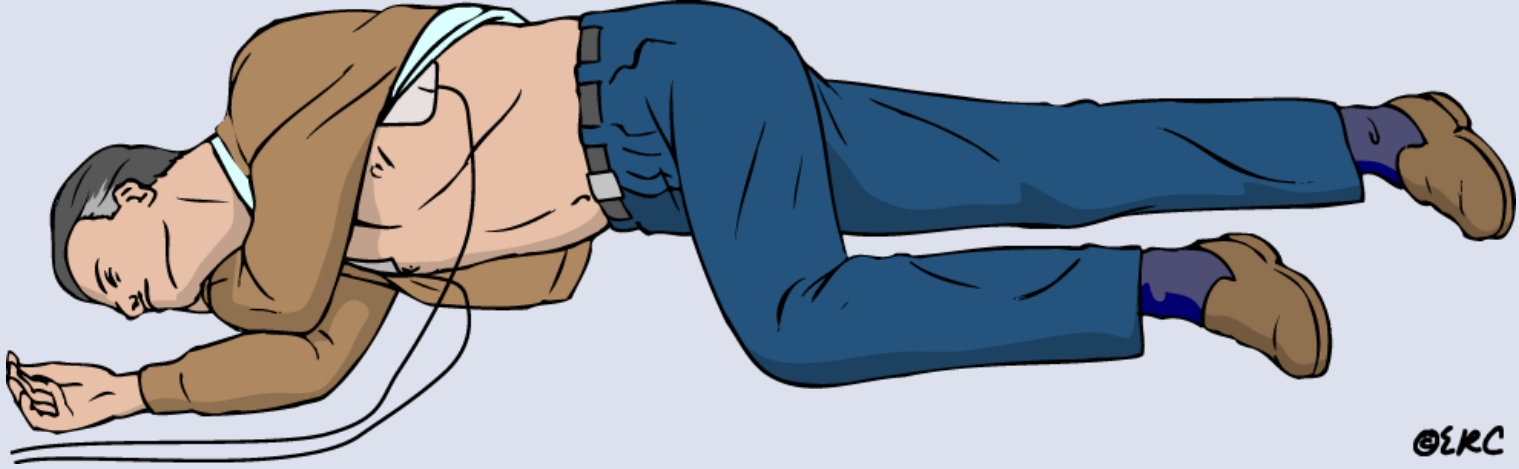


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■ ■ ■ IF VICTIM STARTS TO  
BREATHE NORMALLY PLACE  
IN RECOVERY POSITION



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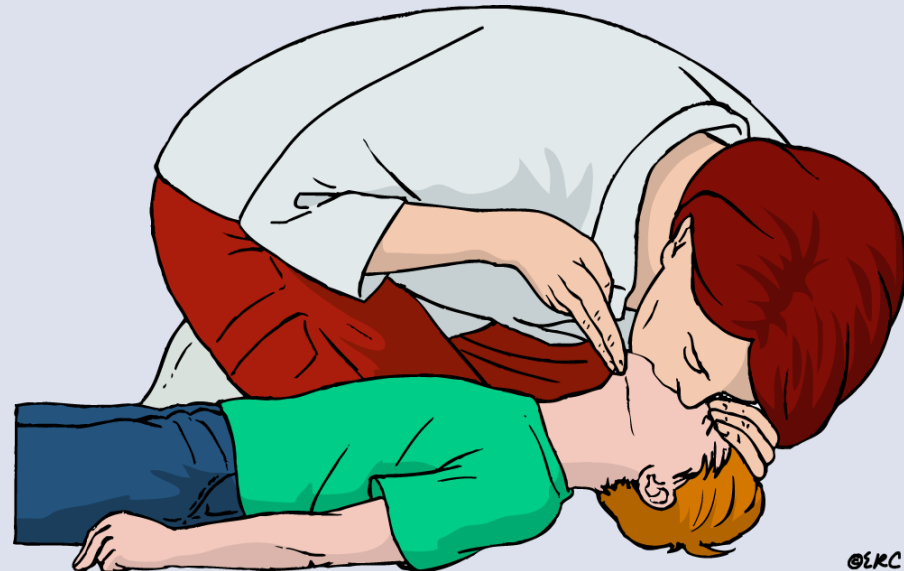


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## ■ ■ ■ CPR IN CHILDREN

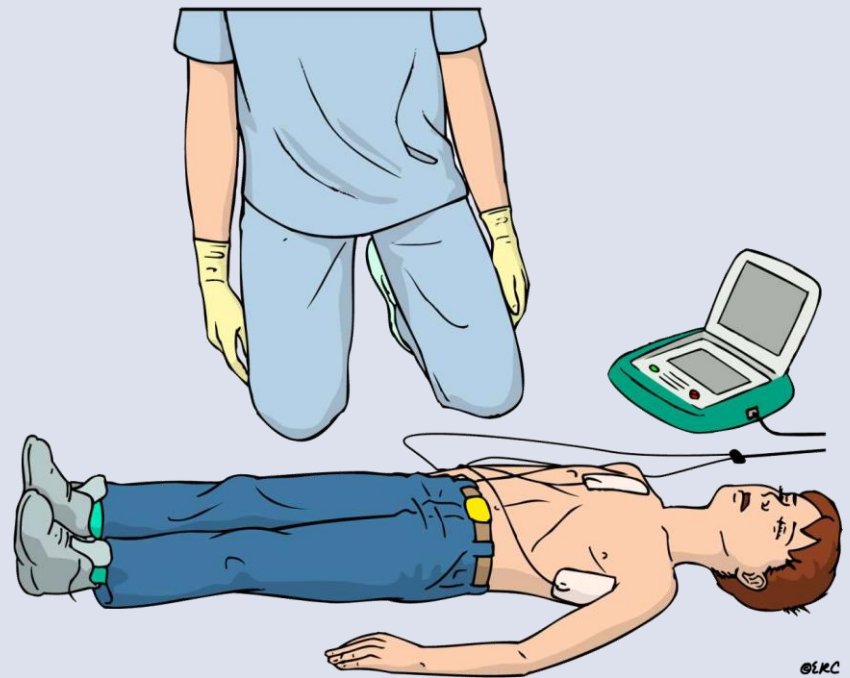
- Adult CPR techniques can be used on children
- Compressions 1/3 of the depth of the chest





## AED IN CHILDREN

- Age > 8 years
  - use adult AED
- Age 1-8 years
  - use paediatric pads / settings if available (otherwise use adult mode)
- Age < 1 year
  - use only if manufacturer instructions indicate it is safe







**ANY QUESTIONS?**



**Approach safely**

**Check response**

**Shout for help**

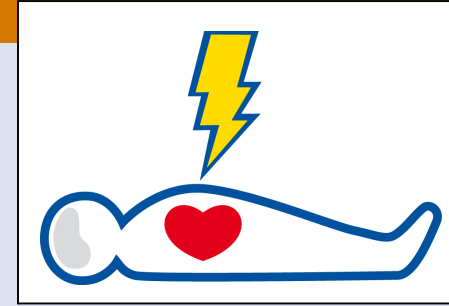
**Open airway**

**Check breathing**

**Call 112**

**30 chest compressions**

**2 rescue breaths**



**Approach safely**

**Check response**

**Shout for help**

**Open airway**

**Check breathing**

**Call 112**

**Attach AED**

**Follow voice prompts**