



# 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.

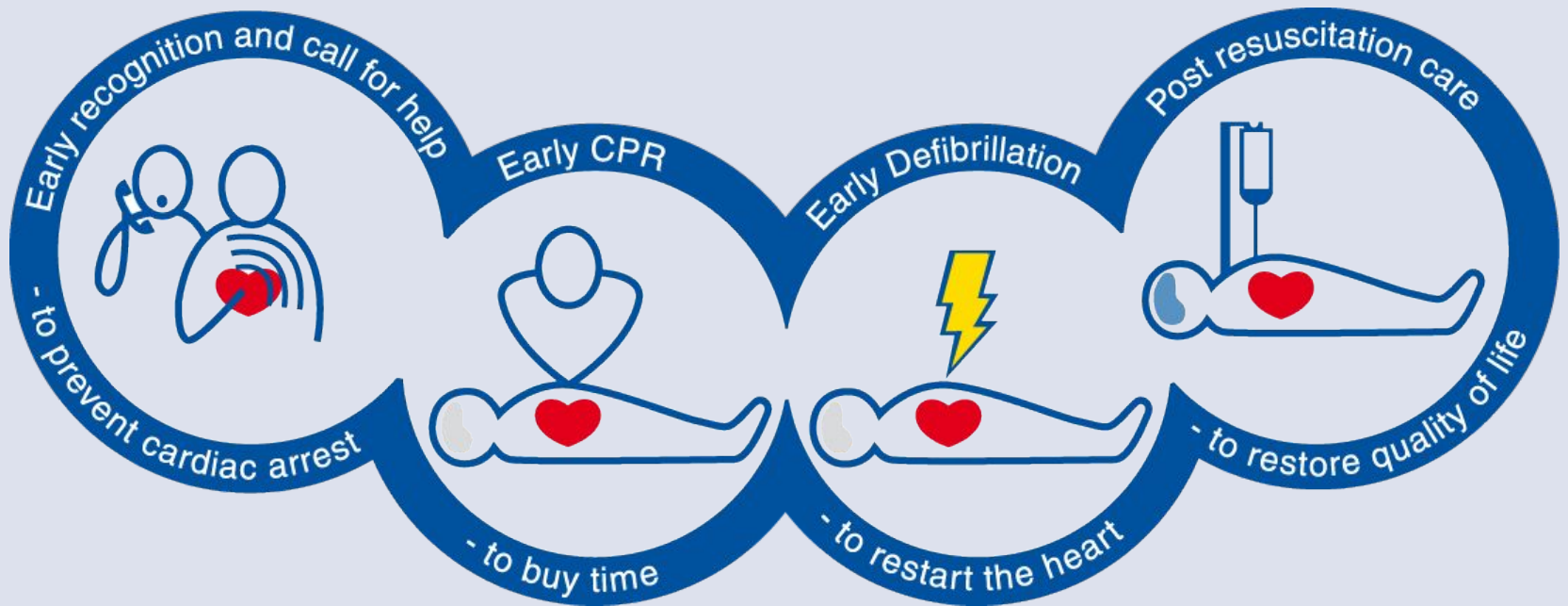


## BACKGROUND

- 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



©ERC

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



Approach safely

Check response

Shout for help

**Open airway**

Check breathing

Call 112

30 chest compressions

2 rescue breaths



## ■ ■ ■ CHECK BREATHING



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



Approach safely

Check response

Shout for help

Open airway

Check breathing

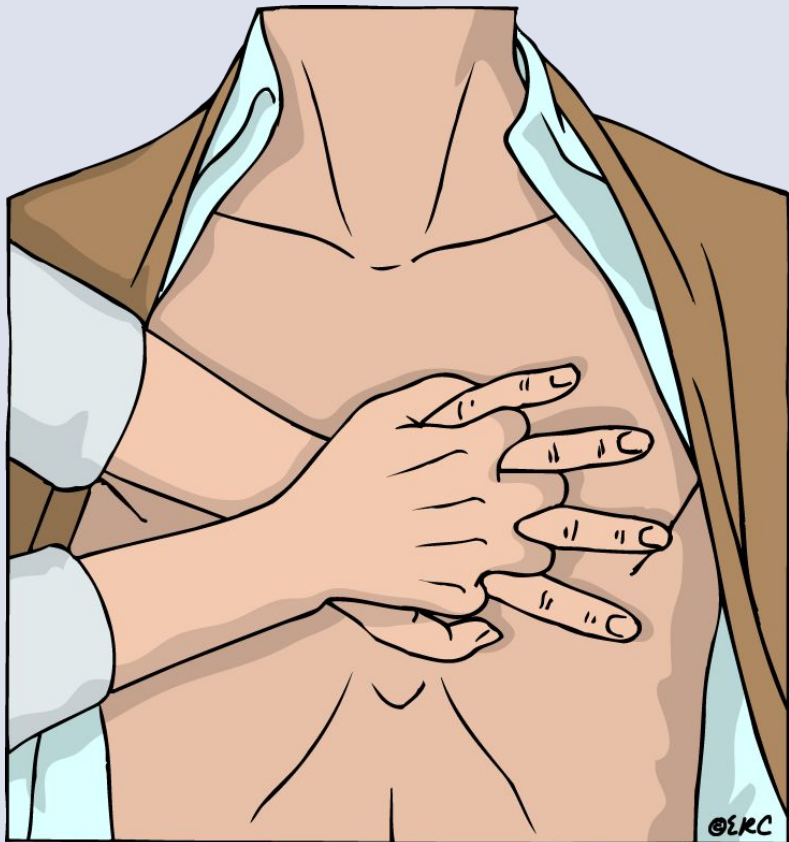
Call 112

**30 chest compressions**

2 rescue breaths



## CHEST COMPRESSIONS

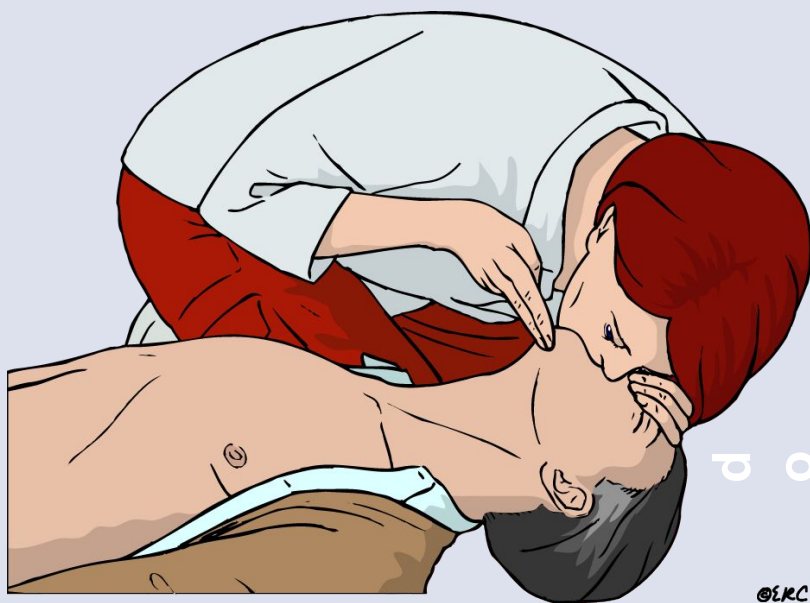


- Place the heel of one hand in the centre of the chest
- Place other hand on top
- Interlock fingers
- Compress the chest
  - Rate  $100 \text{ min}^{-1}$
  - Depth 4-5 cm
  - Equal compression : relaxation
- When possible change CPR operator every 2 min





## RESCUE BREATHS



Approach safely

Check response

Shout for help

Open airway

Check breathing

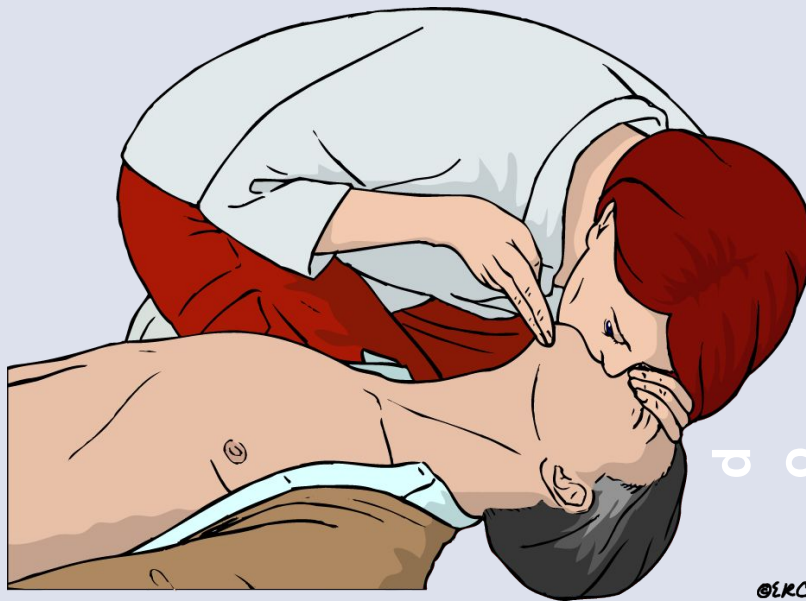
Call 112

30 chest compressions

2 rescue breaths



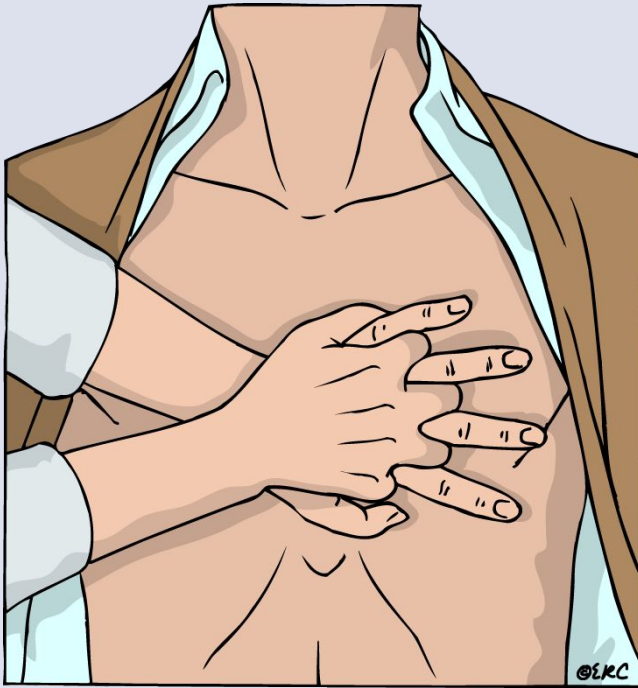
## RESCUE BREATHS



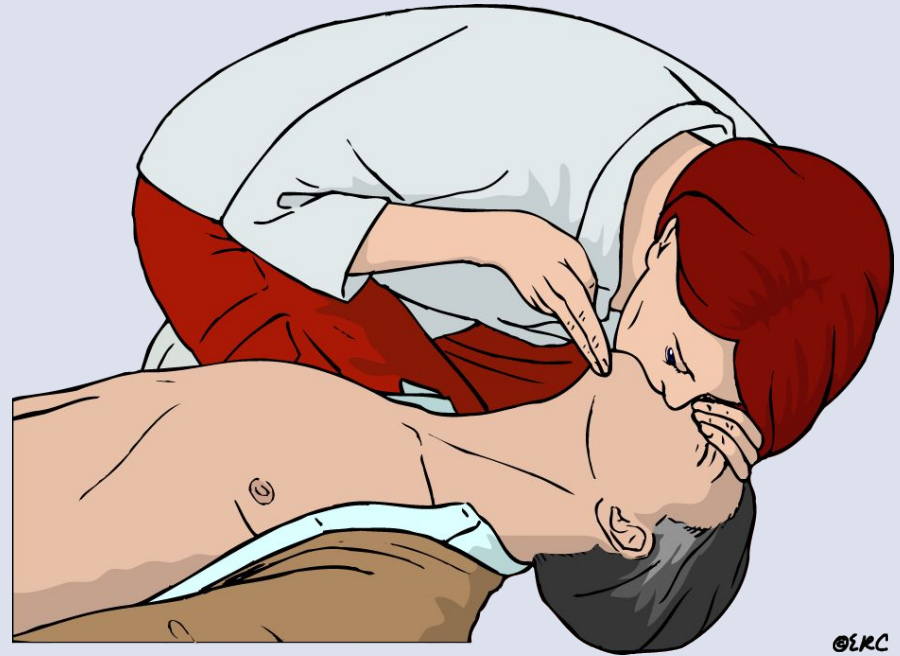
- Pinch the nose
- Take a normal breath
- Place lips over mouth
- Blow until the chest rises
- Take about 1 second
- Allow chest to fall
- Repeat



# CONTINUE CPR



30



2



**Approach safely**

**Check response**

**Shout for help**

**Open airway**

**Check breathing**

**Call 112**

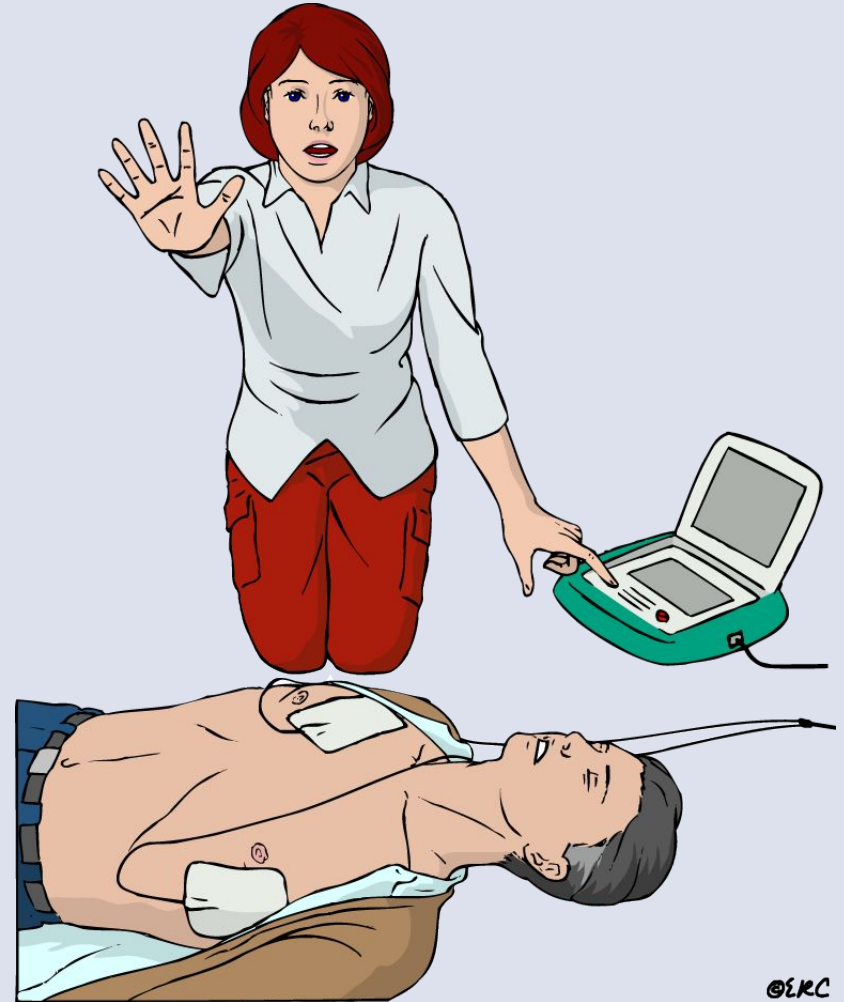
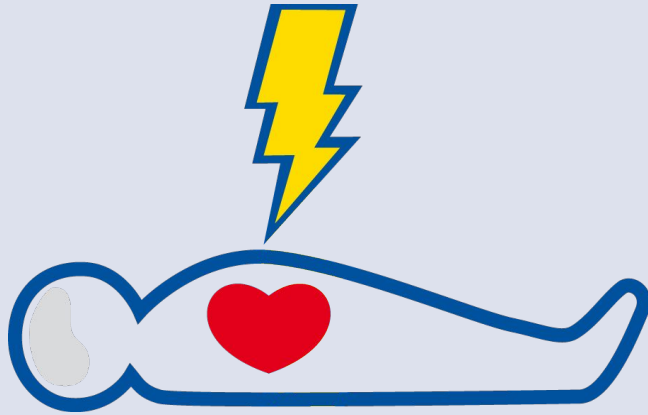
**30 chest compressions**

**2 rescue breaths**





# DEFIBRILLATION



OPERATIONAL COURSE



**Approach safely**

**Check response**

**Shout for help**

**Open airway**

**Check breathing**

**Call 112**

**Attach AED**

**Follow voice prompts**



## SWITCH ON AED

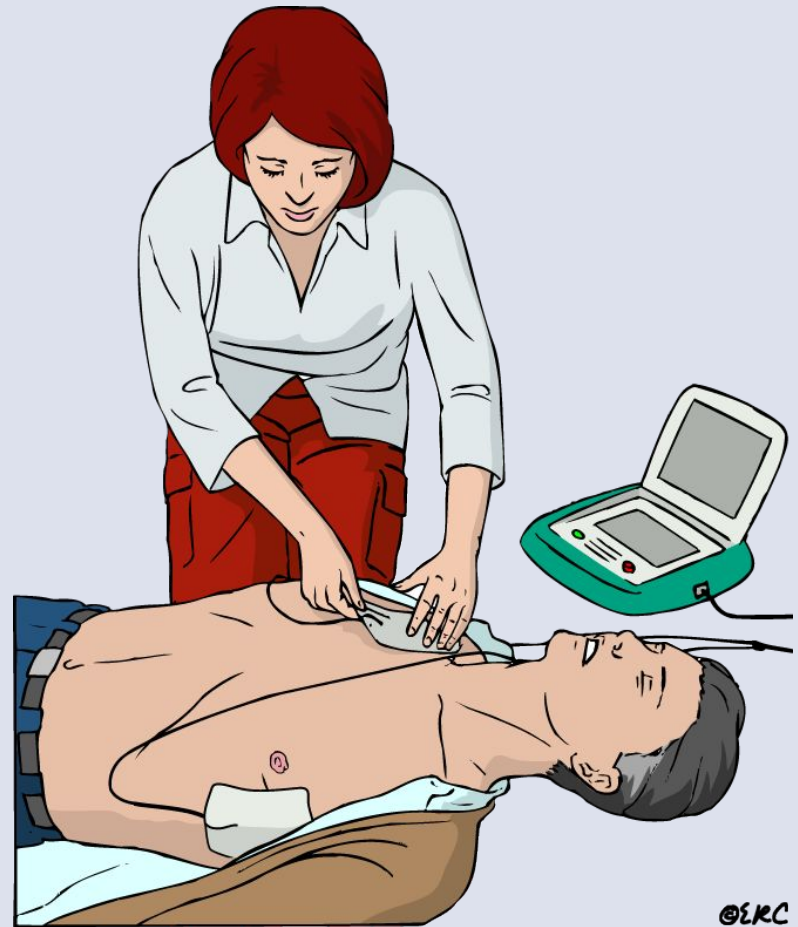


- Some AEDs will automatically switch themselves on when the lid is opened





# ATTACH PADS TO CASUALTY'S BARE CHEST



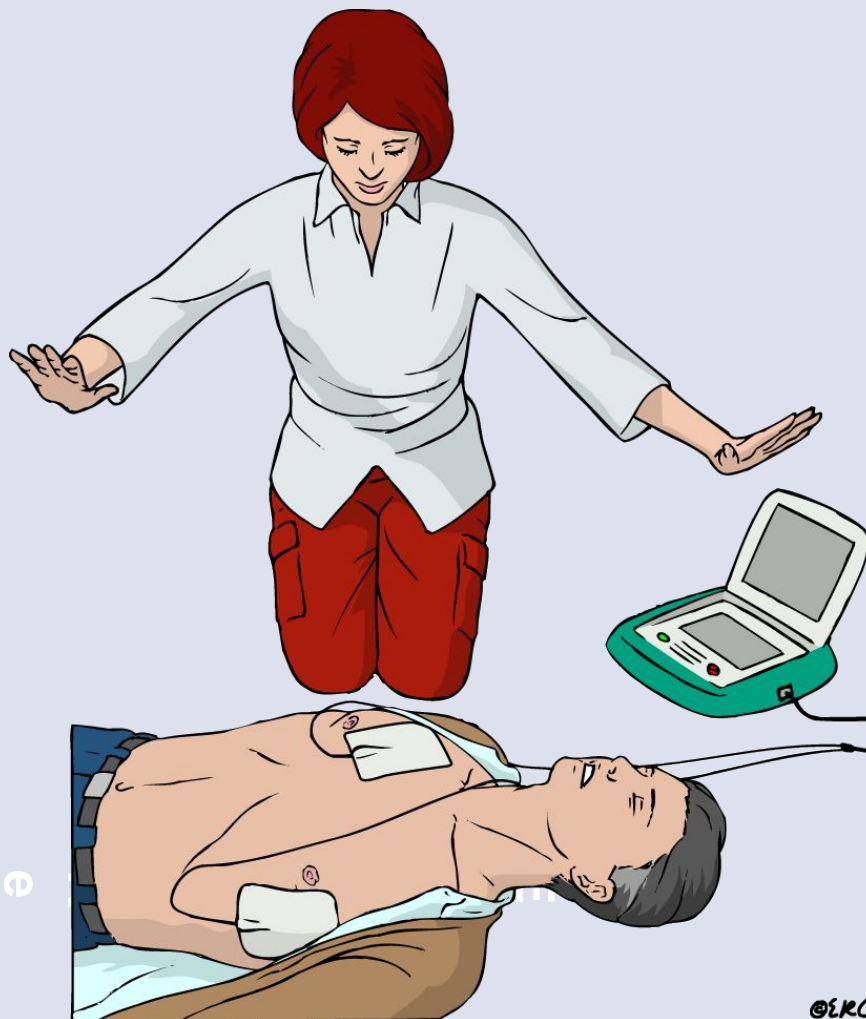
©ERC

©ERC





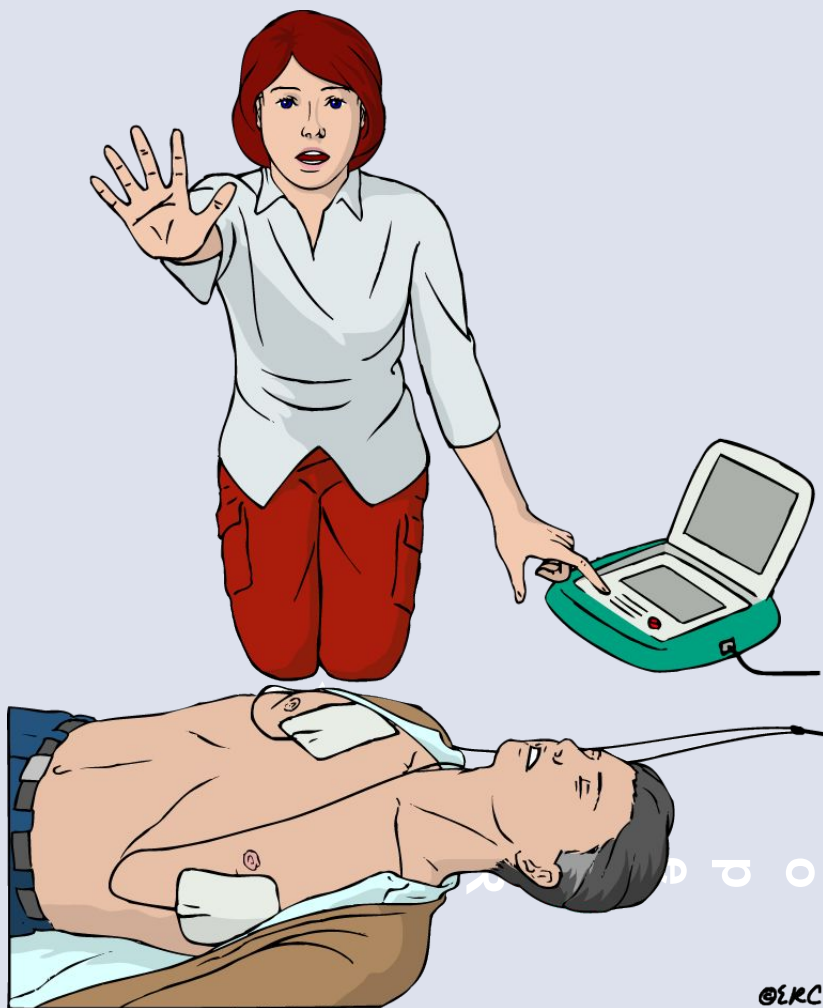
# ANALYSING RHYTHM DO NOT TOUCH VICTIM



CONCISE



## SHOCK INDICATED



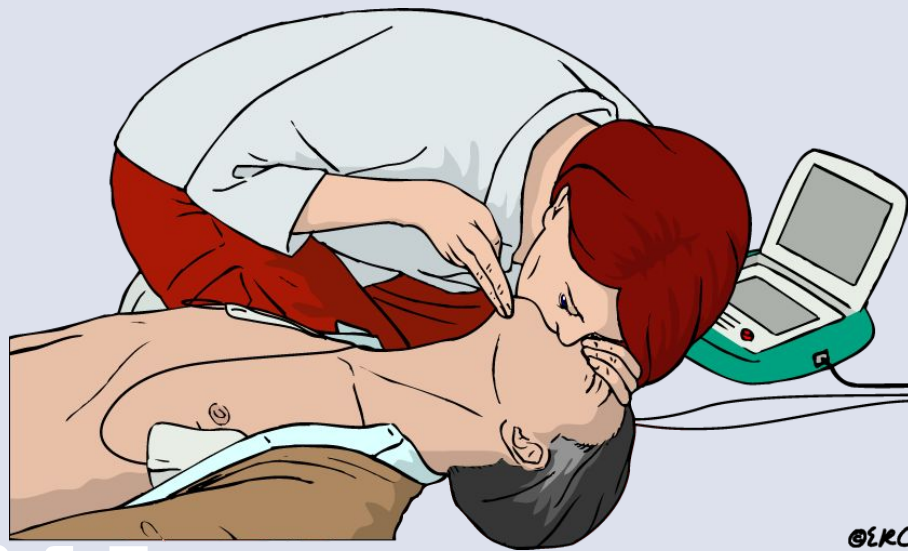
- Stand clear
- Deliver shock



# SHOCK DELIVERED FOLLOW AED INSTRUCTIONS



30



2

© 2015 American Heart Association. All rights reserved. AED, CPR, and First Aid are trademarks of the American Heart Association.

©ERC

©ERC



NO SHOCK ADVISED  
FOLLOW AED INSTRUCTIONS



30



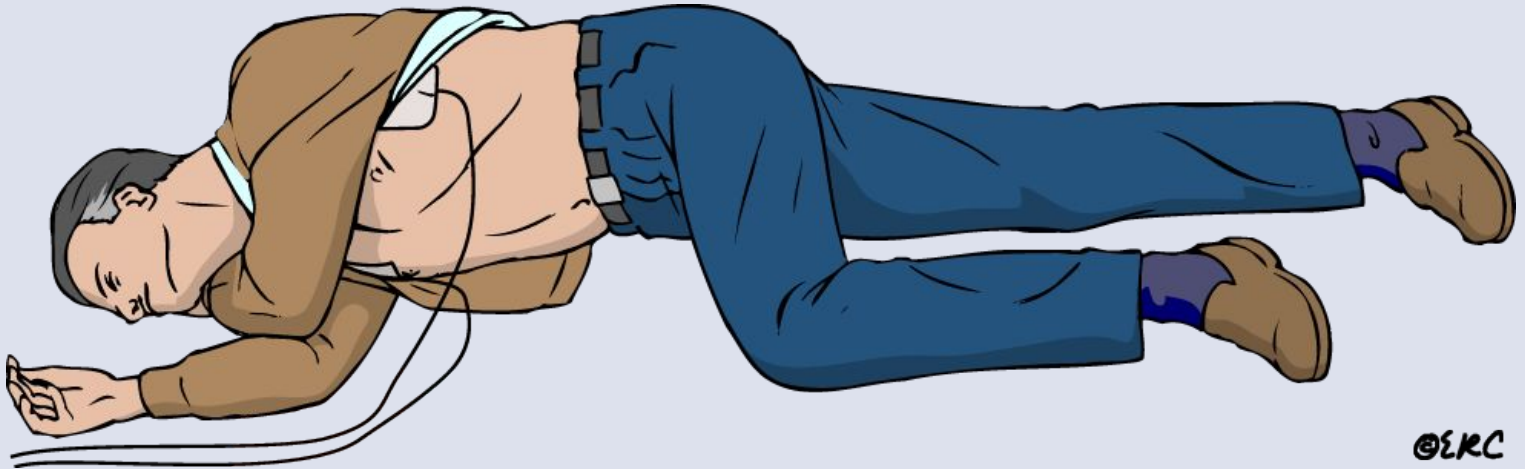
2

© I R C

© I R C



IF VICTIM STARTS TO BREATHE NORMALLY PLACE IN RECOVERY POSITION



©ERC





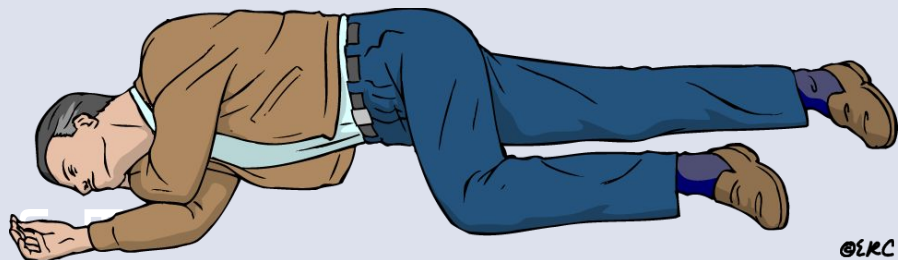
©IRC



©IRC



©IRC



©IRC

C n o t i t a c i o n e



## ■ ■ ■ CPR IN CHILDREN

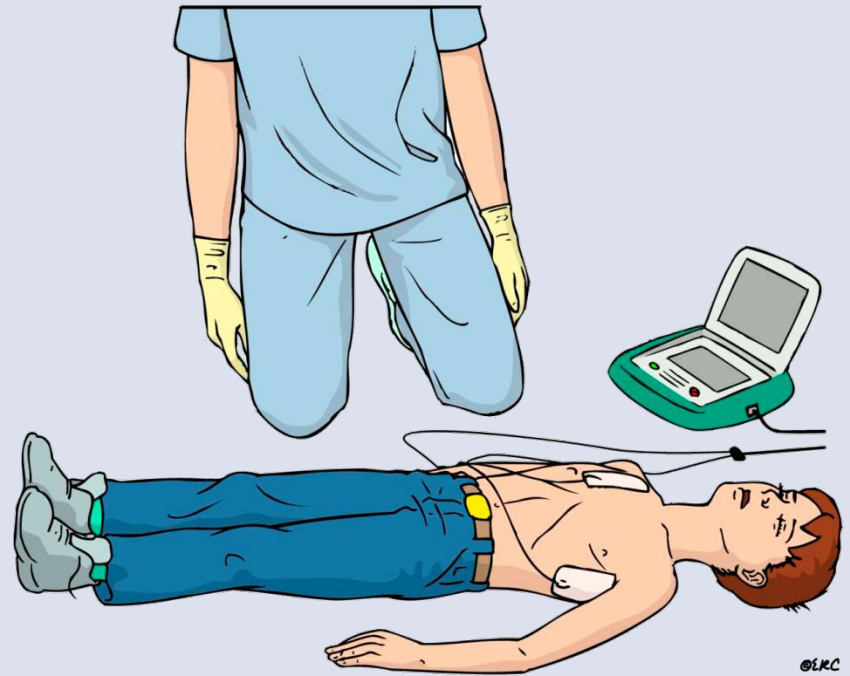
- Adult CPR techniques can be used on children
- Compressions 1/3 of the depth of the chest





## 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

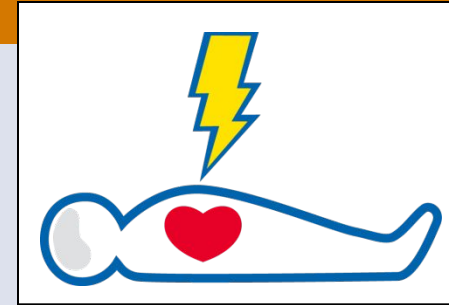


©IRC





**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**