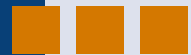




European Resuscitation Council



# ADULT BASIC LIFE SUPPORT (BLS)



## OBJECTIVES

### Students should be able to demonstrate:

- How to assess the collapsed victim
- How to perform chest compression and rescue breathing
- How to place an unconscious breathing victim in the recovery position.



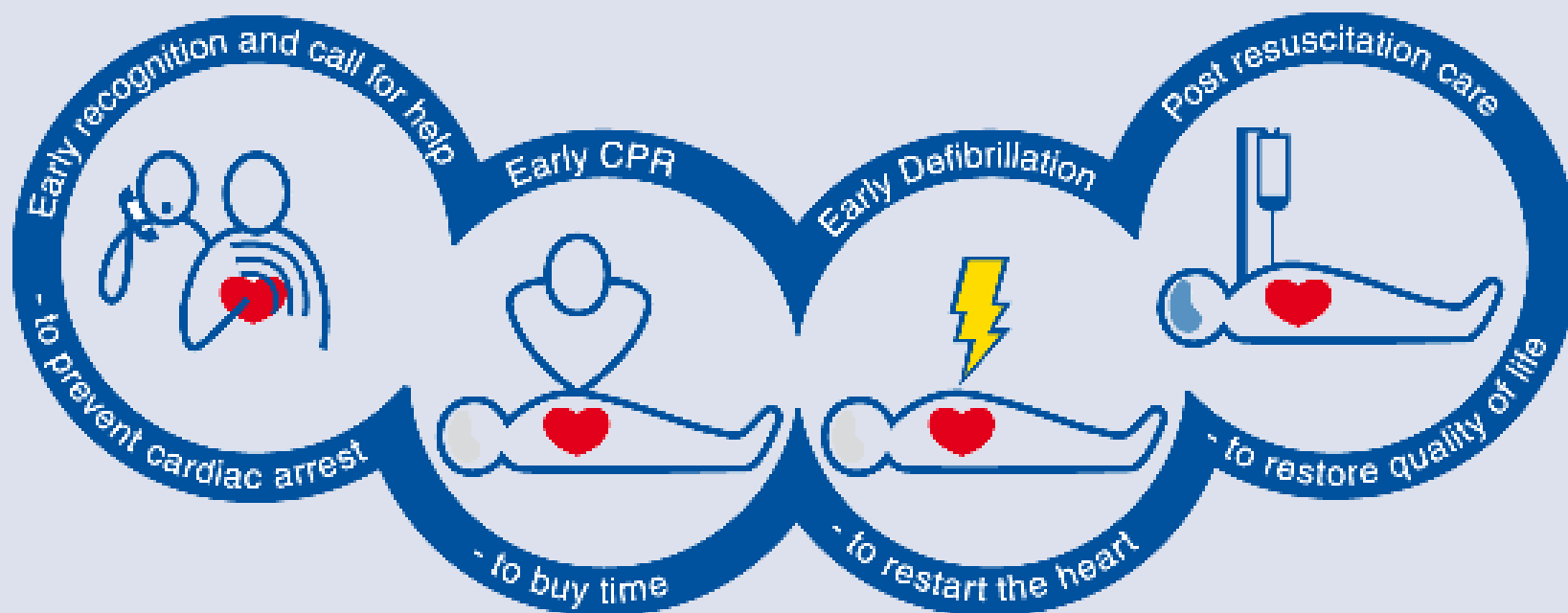
## ■ ■ ■ BACKGROUND

- 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 – **double or triple** survival from SCA (sudden cardiac arrest)
- Early resuscitation and prompt defibrillation (within 1-2 minutes) can result in **>60% survival**



## CHAIN OF SURVIVAL

European Resuscitation Council



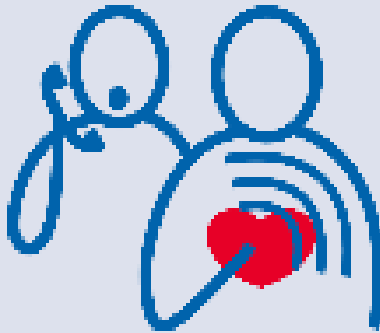


## BASIC LIFE SUPPORT

SEQUENCES OF PROCEDURES PERFORMED TO RESTORE THE CIRCULATION OF OXYGENATED BLOOD AFTER A SUDDEN PULMONARY AND/OR CARDIAC ARREST

CHEST COMPRESSIONS AND PULMONARY VENTILATION PERFORMED BY **ANYONE** WHO KNOWS HOW TO DO IT, **ANYWHERE, IMMEDIATELY, WITHOUT ANY OTHER EQUIPMENT**

**Protective devices**



**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



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Approach safely

Check response

Shout for help

**Open airway**

Check breathing

Call 112

30 chest compressions

2 rescue breaths

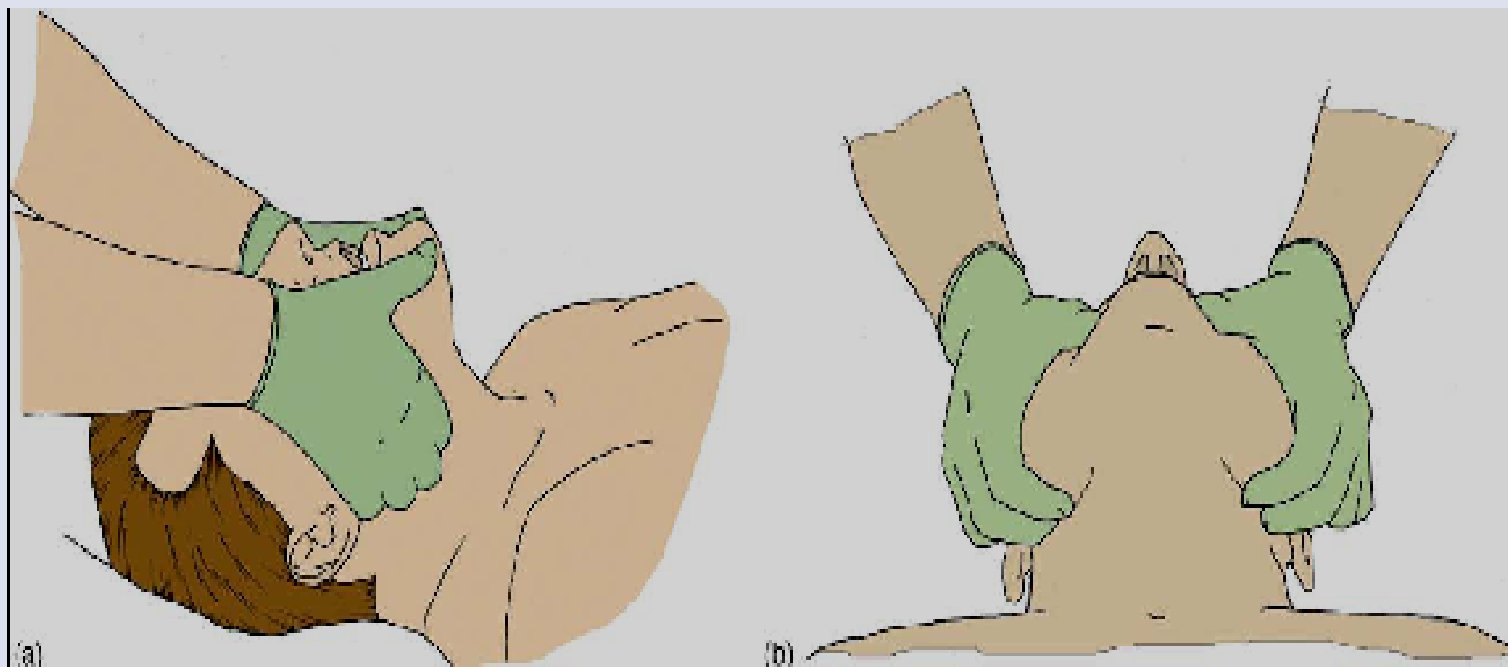


## OPEN AIRWAY





## OPEN AIRWAY



**Head tilt, chin lift + jaw thrust**  
- healthcare professionals



## ■ ■ ■ 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**

Erroneous information can result in withholding CPR from cardiac arrest victim



Approach safely

Check response

Shout for help

Open airway

Check breathing

**Call 155 / 112**

30 chest compressions

2 rescue breaths



## FOREIGN-BODY AIRWAY

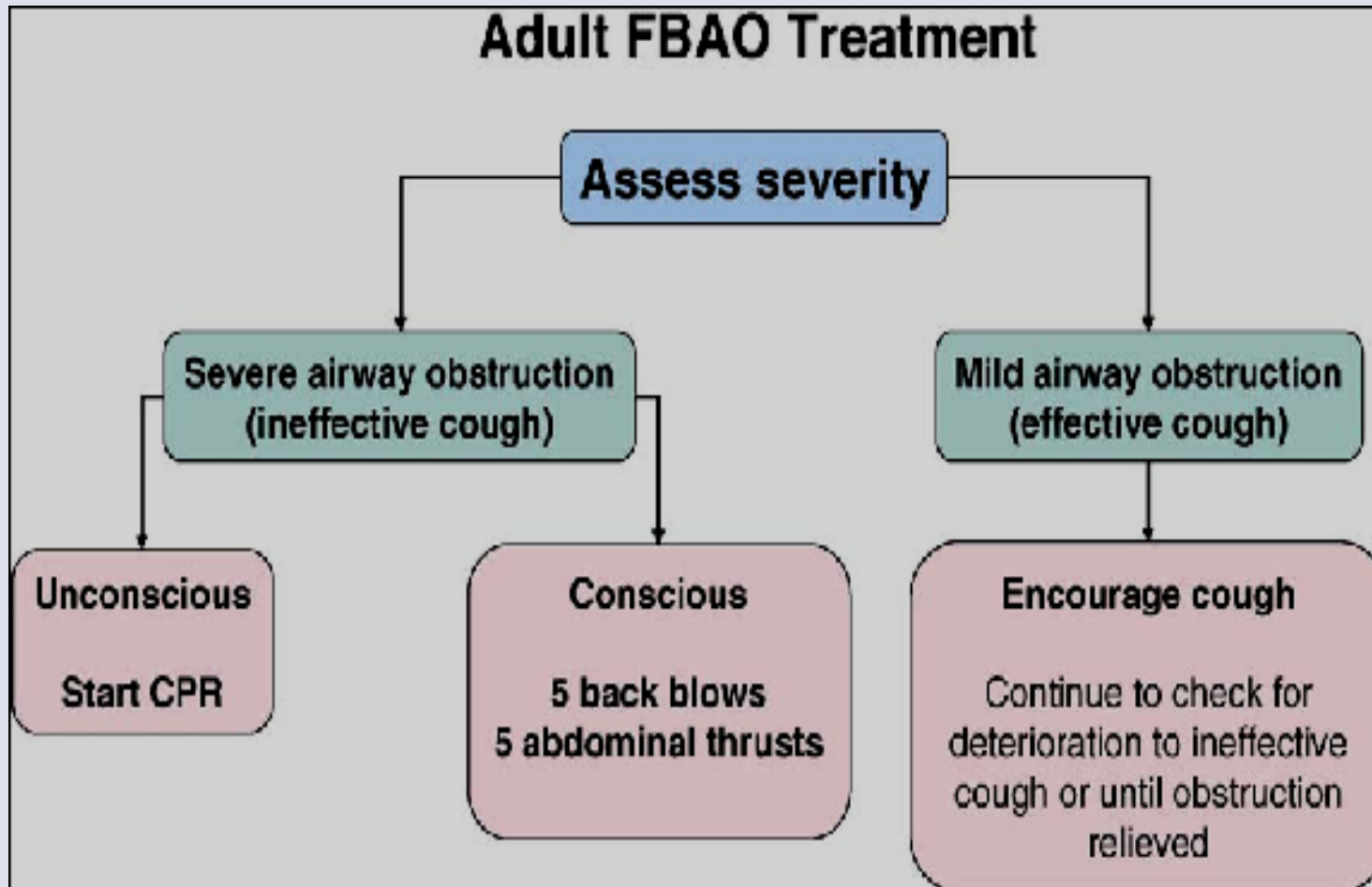
## OBSTRUCTION (FBAO)

Approximately 16 000 adults and children receive treatment for FBAO in the UK yearly

SIGNS	MILD obstruction	SEVERE obstruction
"Are you choking?"	"YES"	Unable to speak, may nod
Other signs	Can speak, cough, breathe	Can not breathe/ wheezy breathing/ silent attempts to cough/ unconsciousness



## ADULT FBAO TREATMENT



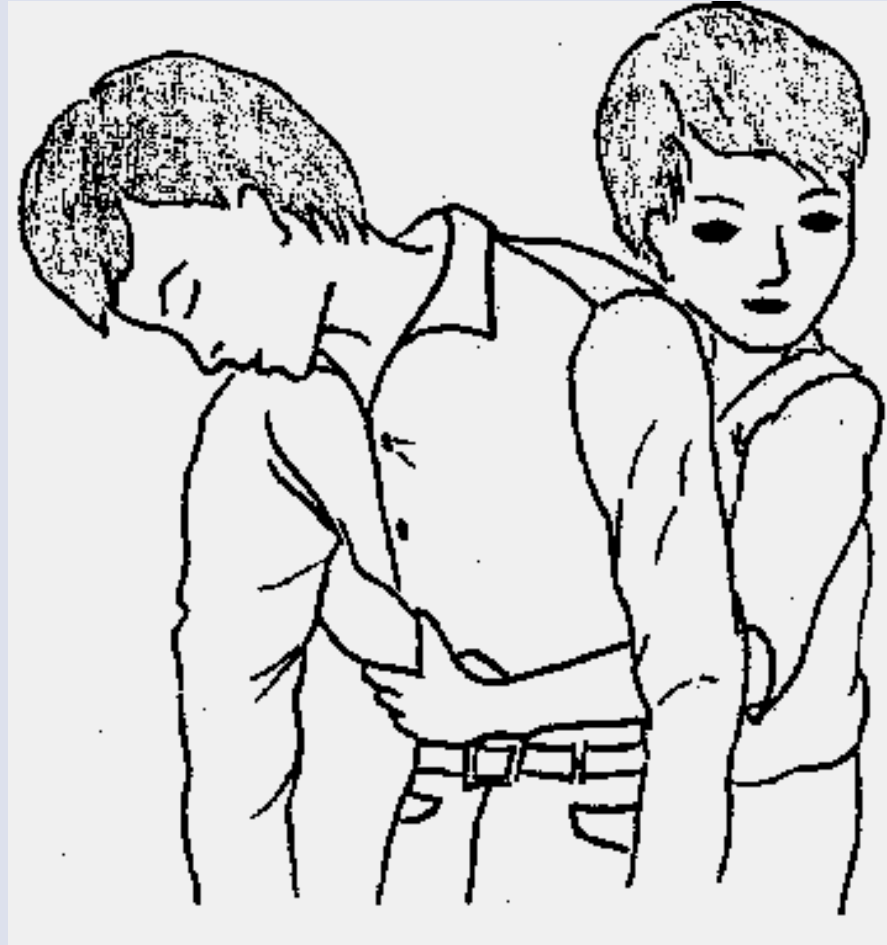


## BACK BLOWS





## ABDOMINAL THRUSTS





## 30 CHEST COMPRESSIONS



Approach safely

Check response

Shout for help

Open airway

Check breathing

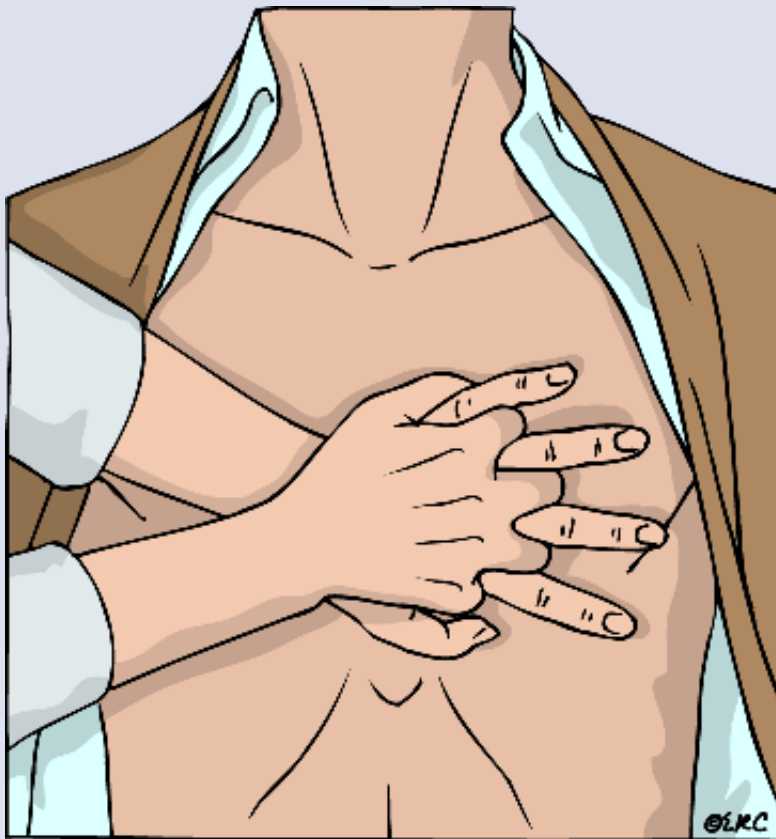
Call 112

**30 chest compressions**

2 rescue breaths



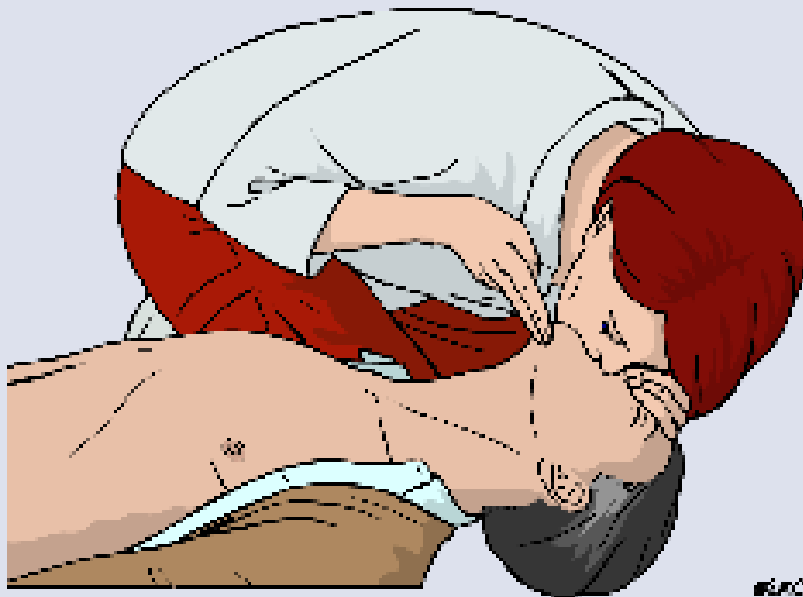
## ■■■■ CHEST COMPRESSIONS



- Place the heel of one hand in the centre of the chest
- Place other hand on top
- Interlock fingers
- Compress the chest
  - Rate 100 min<sup>-1</sup>
  - 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

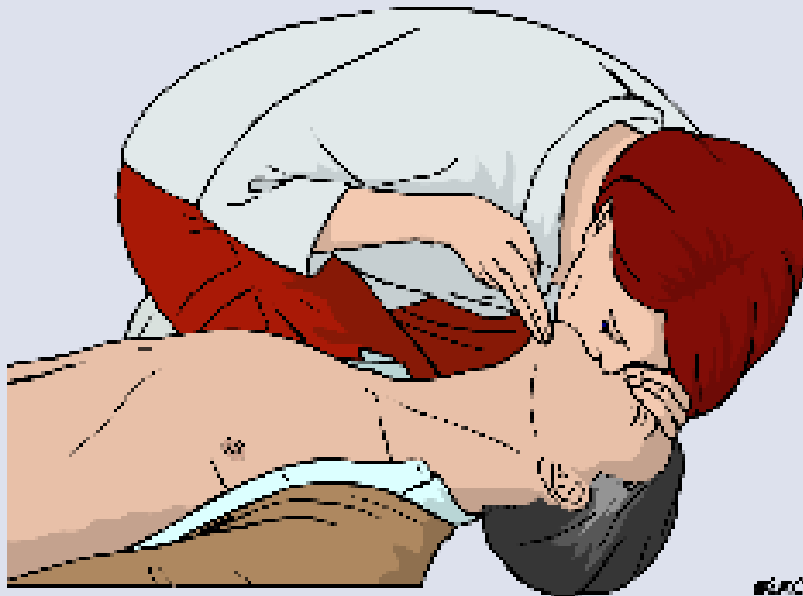
Call 112

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



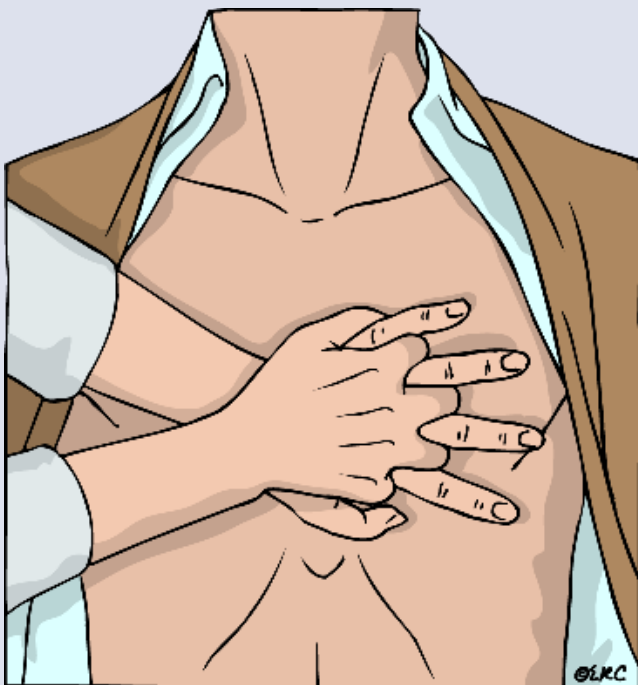
## RESCUE BREATHS

### RECOMMENDATIONS:

- **Tidal volume**  
500 – 600 ml
- **Respiratory rate**  
give each breaths over about 1s with enough volume to make the victim's chest rise
- **Chest-compression-only**  
continuously at a rate of 100 min

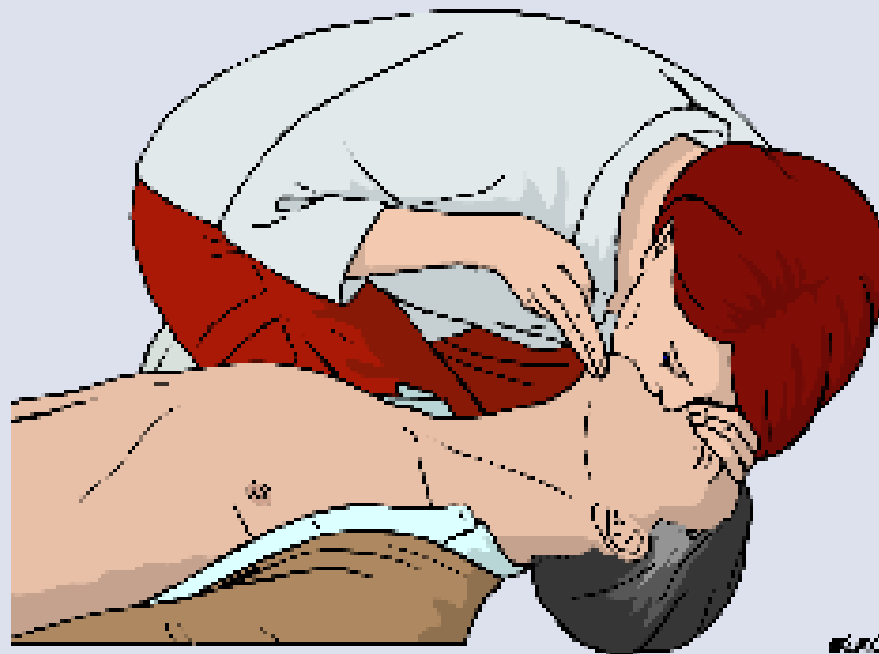


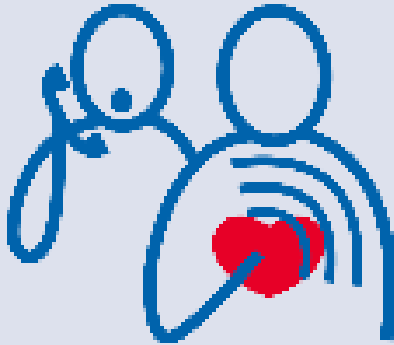
## CONTINUE CPR



30

2





**Approach safely**

**Check response**

**Shout for help**

**Open airway**

**Check breathing**

**Call 112**

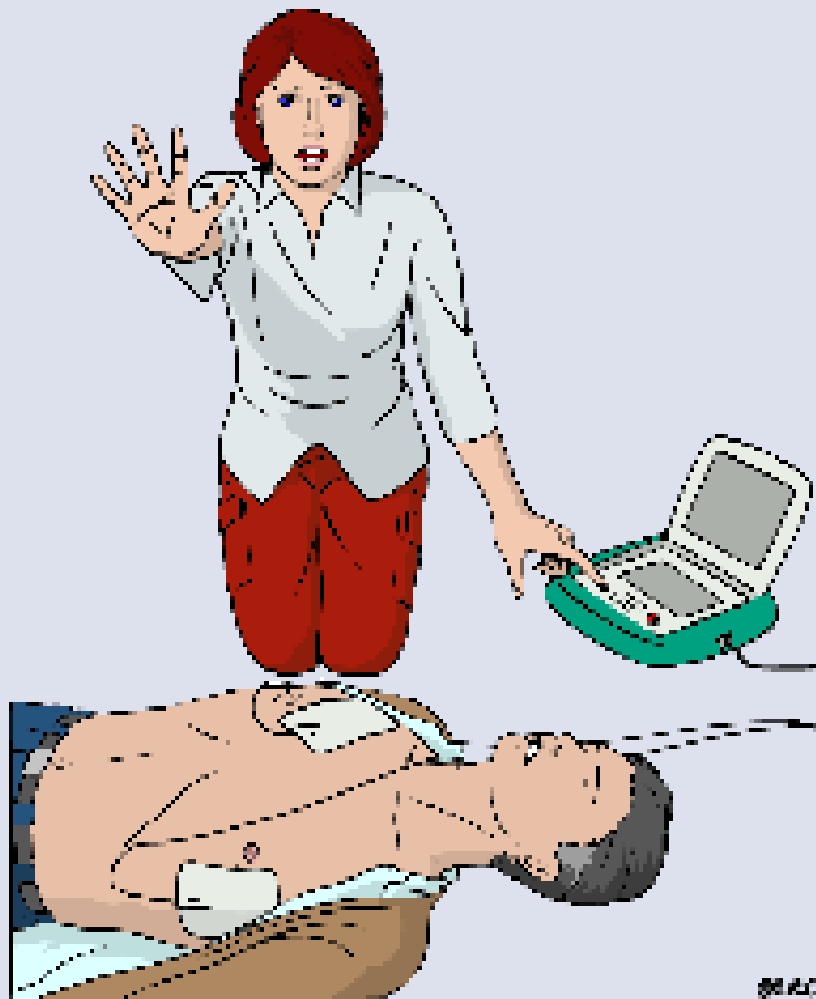
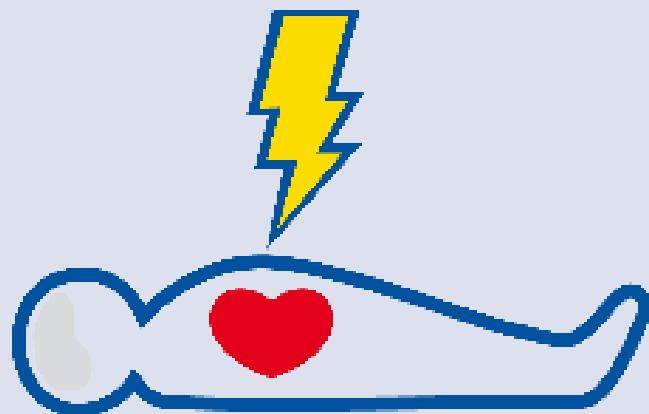
**30 chest compressions**

**2 rescue breaths**





## DEFIBRILLATION





Approach safely

Check response

Shout for help

Open airway

Check breathing

Call 112

Attach AED

Follow voice prompts



## ■ ■ ■ AUTOMATED EXTERNAL DEFIBRILLATOR (AED)



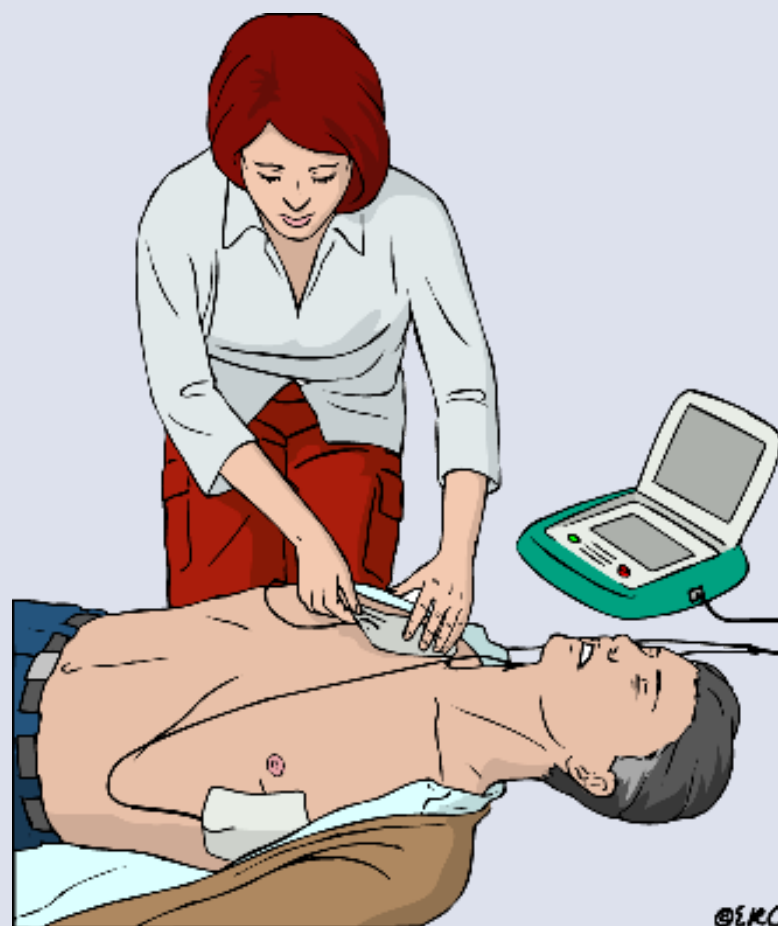
- Some AEDs will automatically switch themselves on when the lid is opened



## ATTACH PADS TO CASUALTY'S BARE CHEST



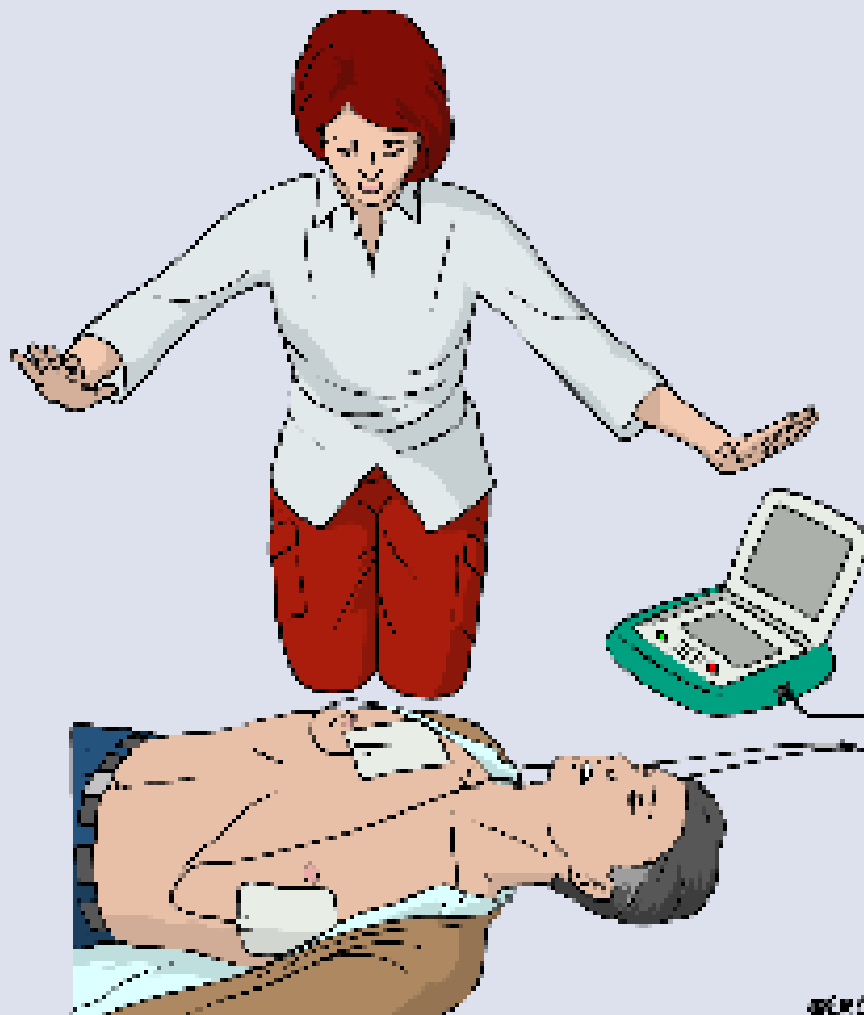
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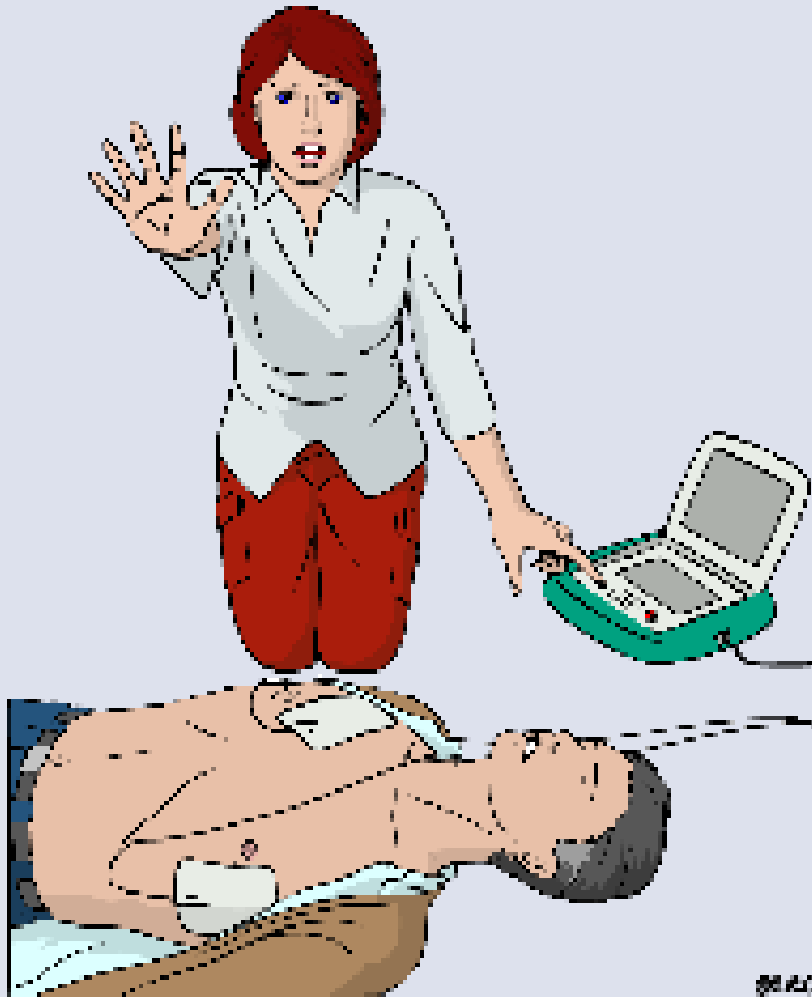


## ANALYSING RHYTHM DO NOT TOUCH VICTIM





## SHOCK INDICATED



- Stand clear
- Deliver shock



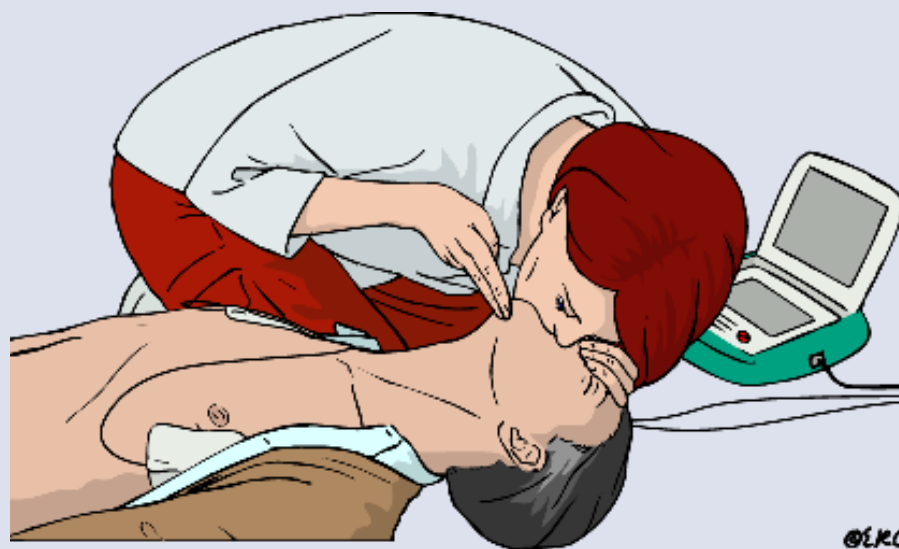
SHOCK DELIVERED  
FOLLOW AED INSTRUCTIONS



30

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2



ERC



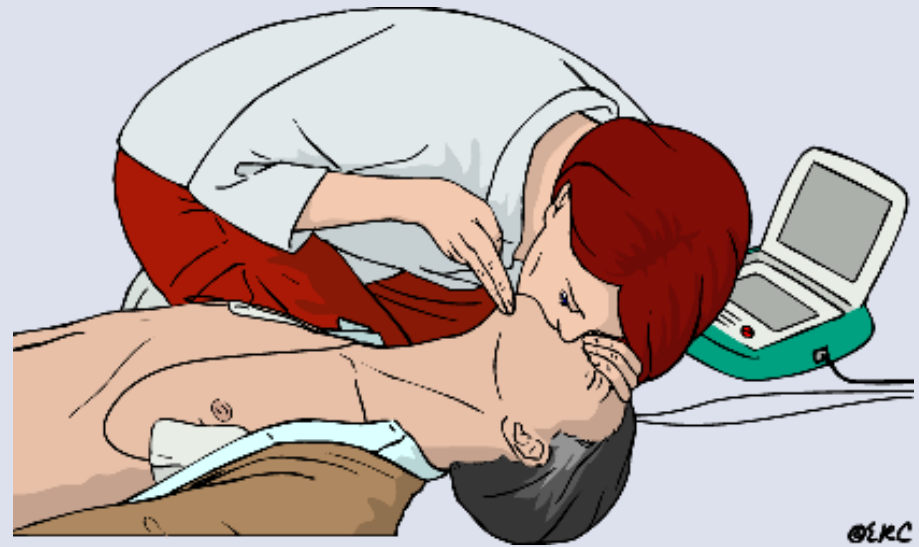
NO SHOCK ADVISED  
FOLLOW AED INSTRUCTIONS



30

ERC

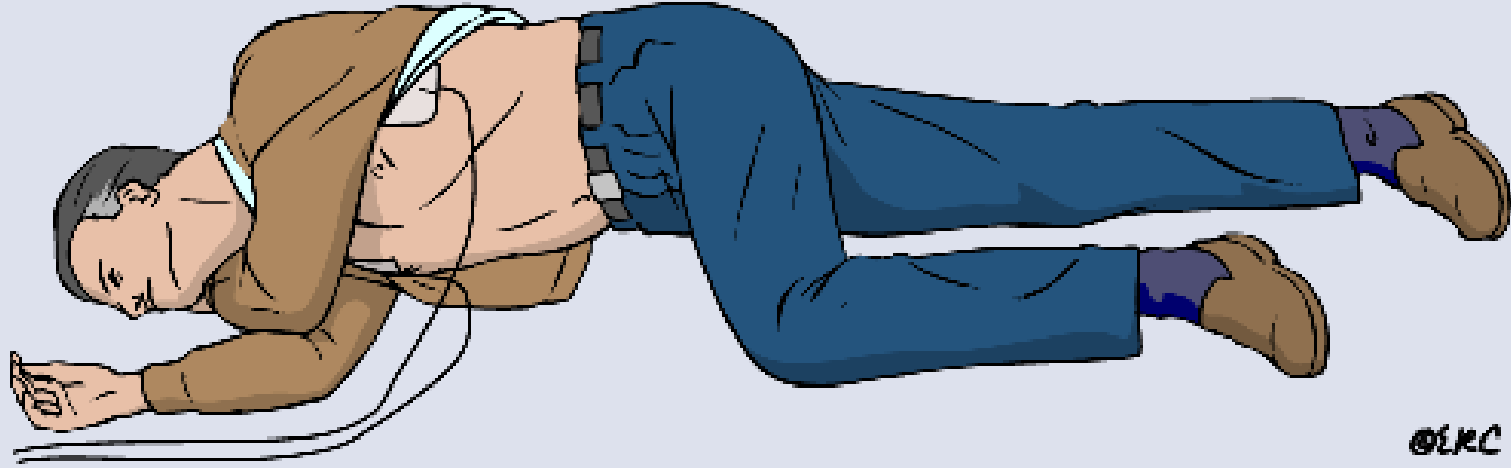
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IF VICTIM STARTS TO BREATHE  
NORMALLY PLACE IN RECOVERY  
POSITION





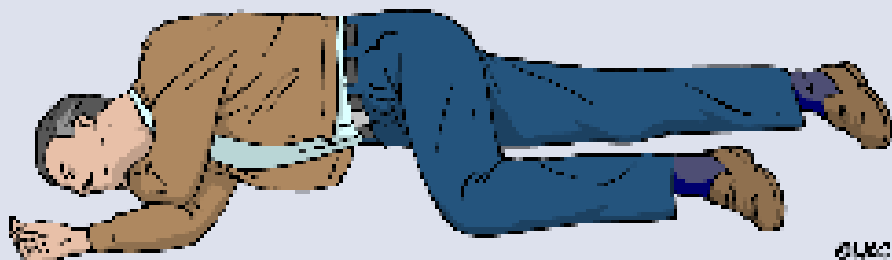
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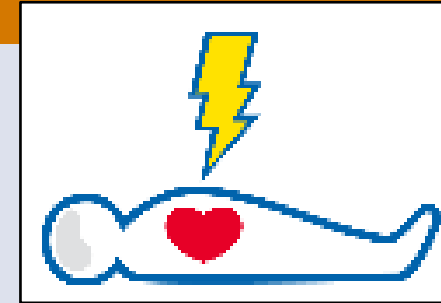
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ERC



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European Resuscitation Council

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



## CONTINUE RESUSCITATION UNTIL

- Qualified help arrives and takes over
- The victim starts breathing normally
- Rescuer becomes exhausted



## REPETITION

1. Name adult basic life support sequences of actions.
2. What is the manoeuvre for keeping the airway open called?
3. What is the numeral combination of chest compression and rescue breaths in adult basic life support?
4. Where do you place your hands while performing chest compressions?
5. How would you describe „agonal breathing“?
6. What is the telephone number of emergency response system?
7. Name 2 techniques applied in severe airway obstruction?



**THANK YOU**

Consultations: Monday 3.30 – 4.00pm