

First Aid 2010

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How to survive?

- Do not kill the patient.
- Reason of lectures
 - to pass the exam
 - to know important information for life



How to survive

- D
- R
- A
- B
- C



Danger



Danger



- to you
 - to other
 - to the casualty
 - make sure that no one else gets hurt. You will not be able to help if you are also a casualty
 - only proceed if it is safe to do so.
-
-



Danger

- look & listen & feel
 - vehicle on the street
 - gas in the house
 - fire
 - poison, infection
 - electricity
 - Position the patient on their back.
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Basic Vital signs:

- RESPOND = consciousness
- A+B breathing
- C circulation

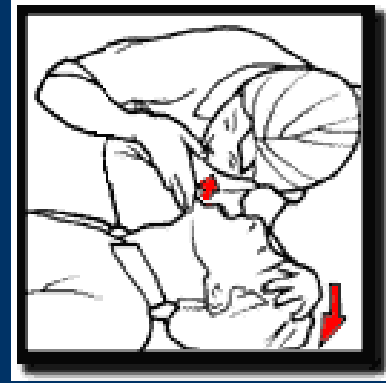
Primary Survey = 20s

Responsiveness

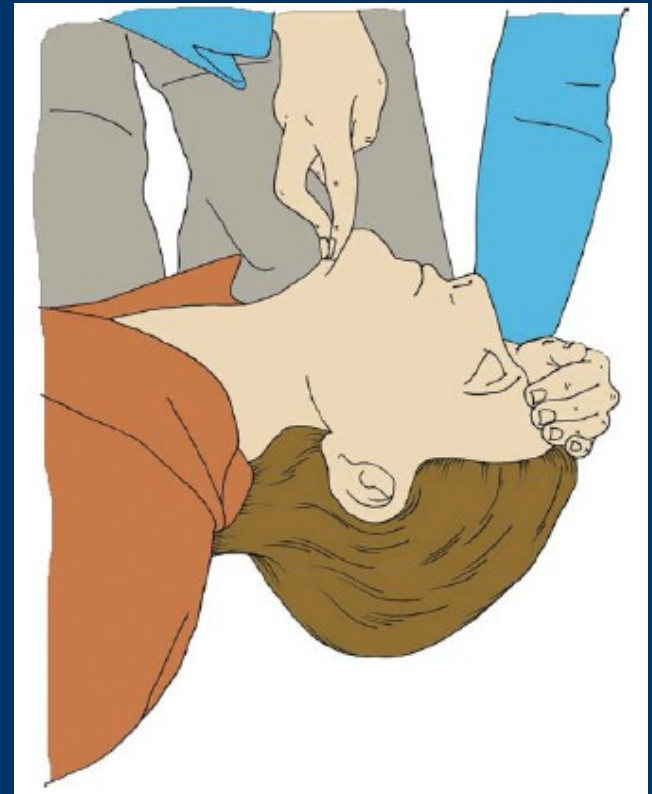


- **S**hout ,Are You O.K.?‘, Can you hear me?' ,
'What is your name?
 - **S**hake **S**houlder
 - opening eyes
 - movement
 - words
 - unconsciousness
-
-

Airway + B



- open it and keep it open
- Tilt the head back



Clear airway if necessary

- with the casualty supported on the side, tilt the head backwards and slightly down.
- Open the mouth and clear any foreign object. Only remove dentures if loose or broken.



Breathing ?



- Normal = look & listen & feel
 - movement of chest wall [reg., 10-20/ min]
 - air flow
 - abnormal breathing - "agonal respiration" and is the result of the brain's breathing center sending out signals even though circulation has ceased.
The key point - sound like grunting, gasping or snoring. It disappears in 2-3 minutes.
 - No breathing
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Circulation ?

Signs:

- normal consciousness
 - normal breathing
 - movement
 - coughing
 - {PULSATIONS a.carotis}
 - Any doubt = NO circulation
-
-

No consciousness
No breathing
No sign of circulation

Cardio Pulmonary Resuscitation

- Start Basic Life Support

30:2



ABC and what next?

- managing life-threatening problems - ABC, bleeding
- (turn the casualty to a stable side position)

- look for

- bleeding

- burns

- fractures. Note any tenderness, swelling, wounds or deformity

... Secondary Survey

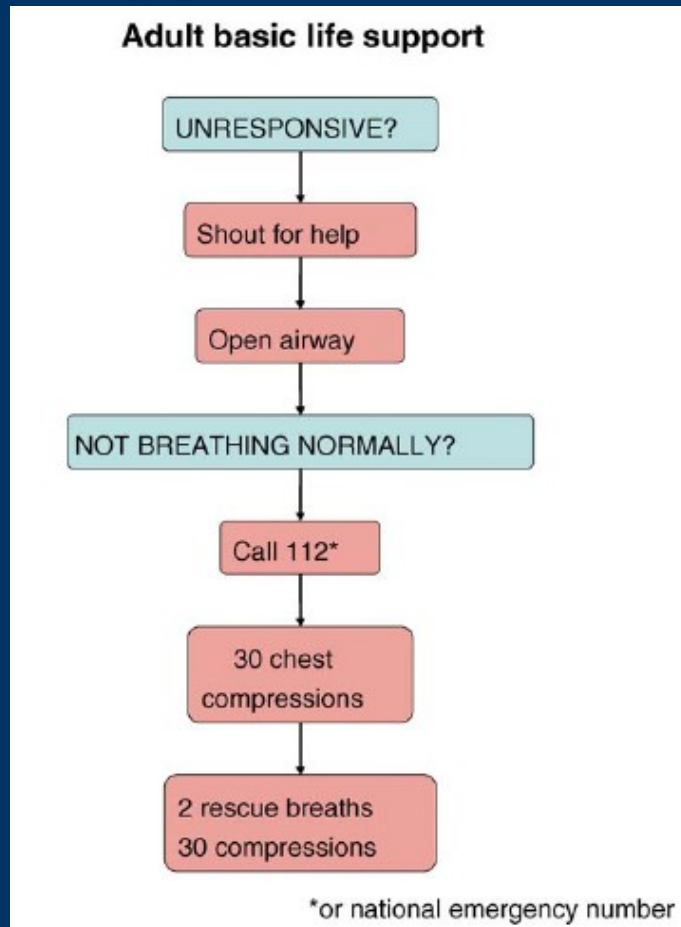


Examine the casualty

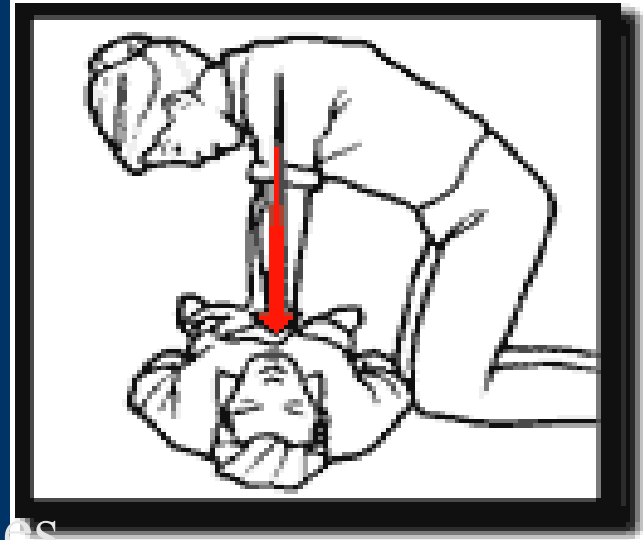
... Secondary Survey

- in the following order:
 - head and neck
 - chest (including shoulders)
 - abdomen (including hip bone)
 - upper limbs
 - lower limbs
 - back
 - call medical aid as soon as possible
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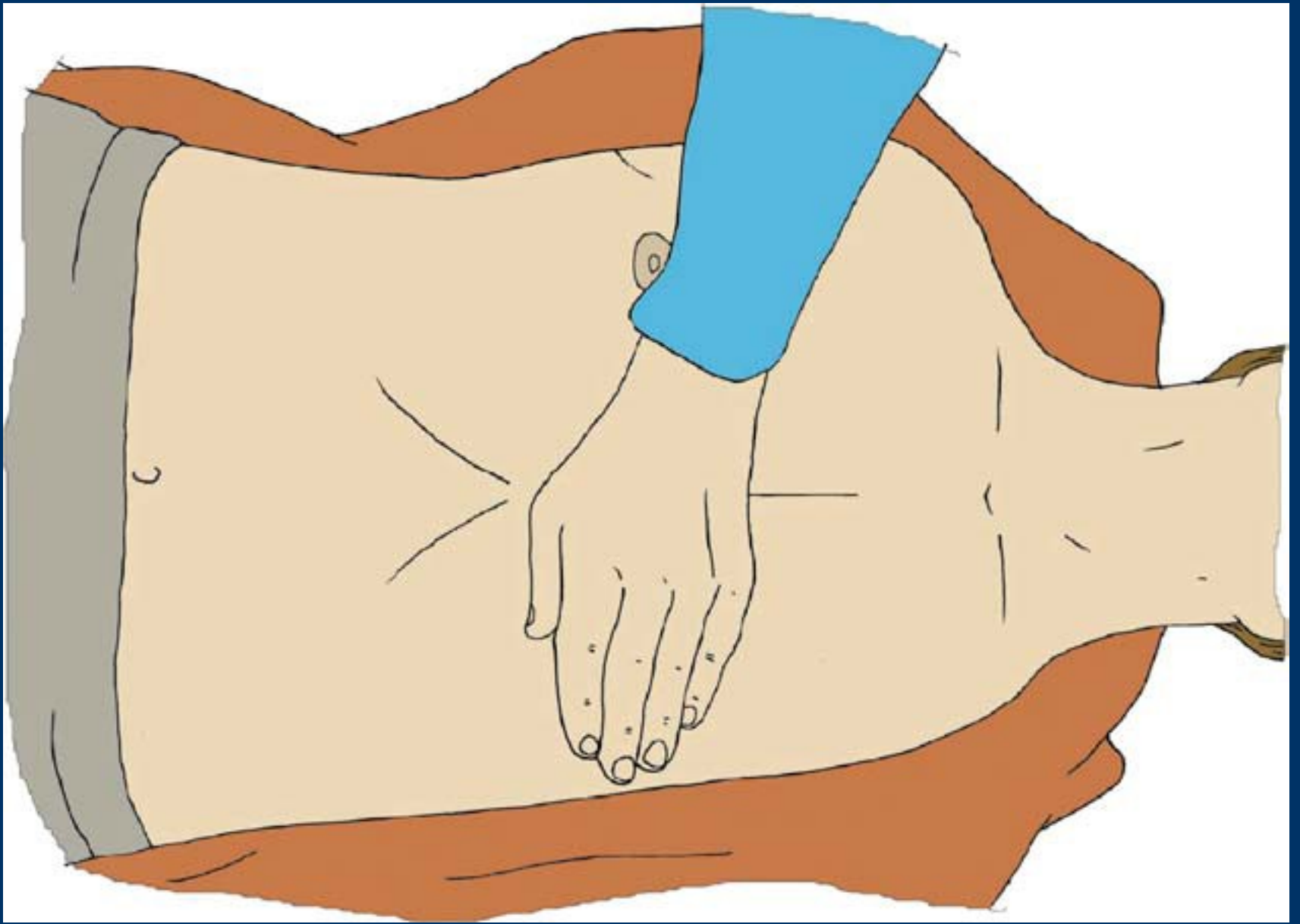
Adult basic life support

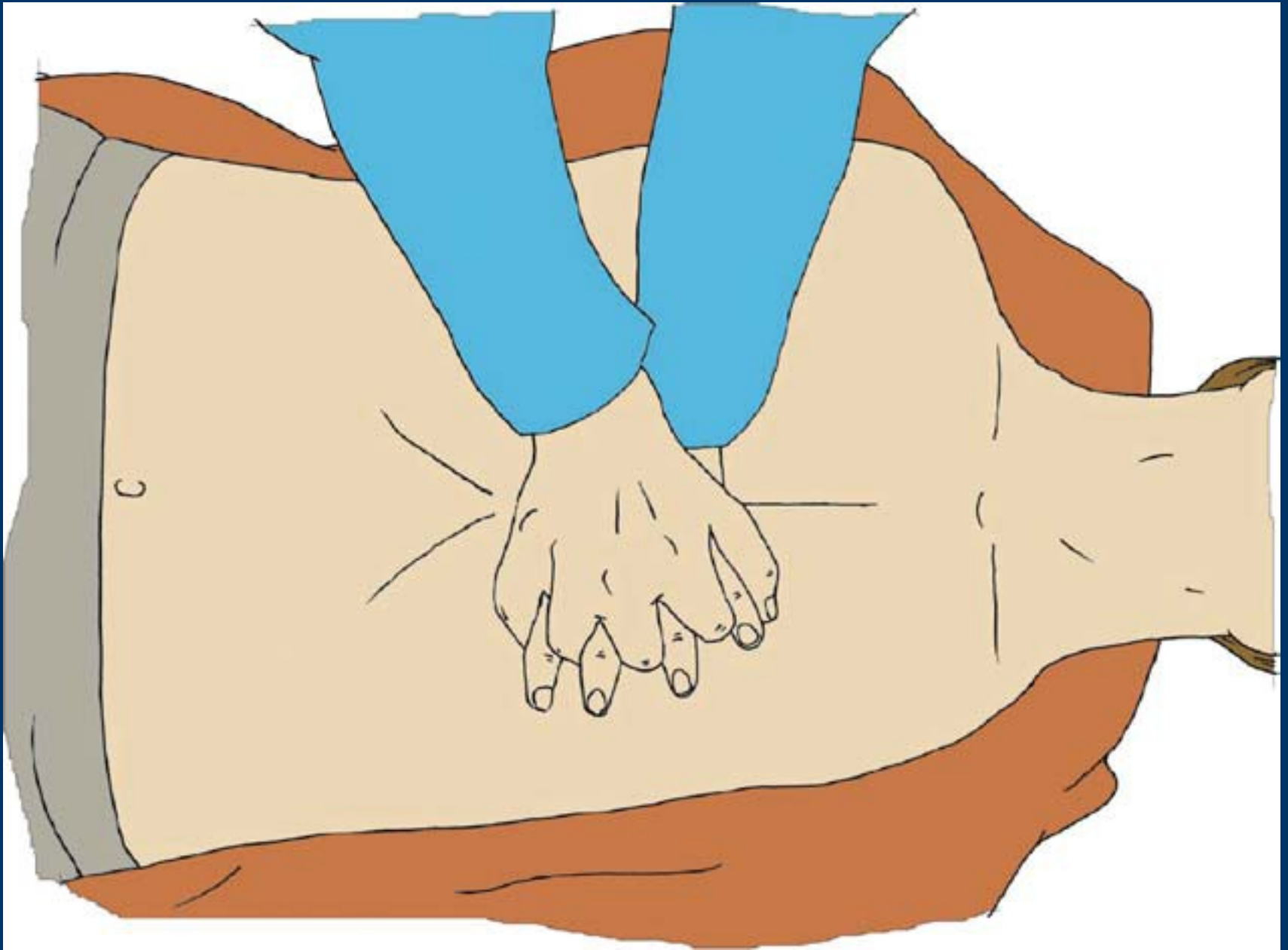


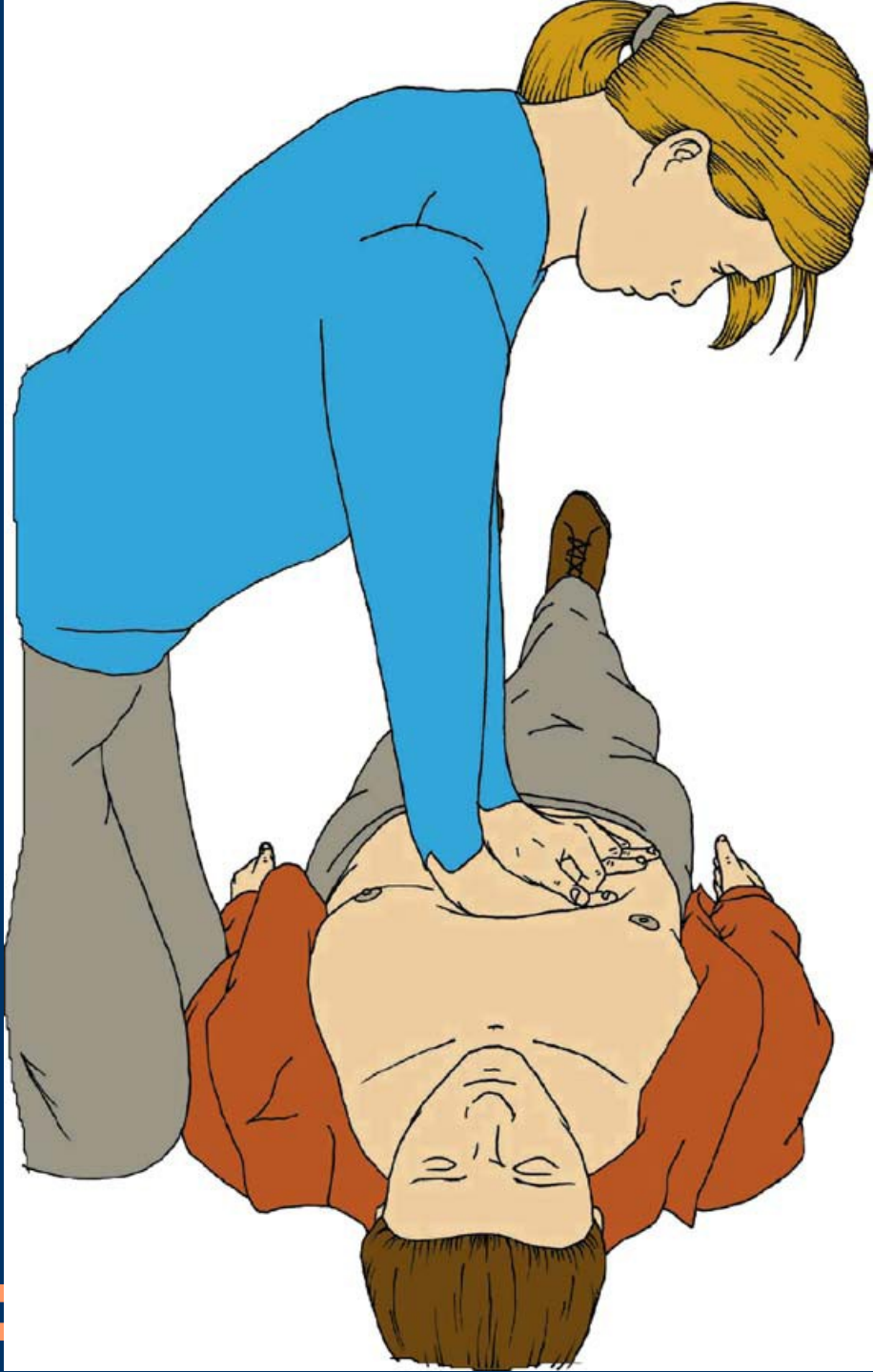
Chest compressions



- Place the heel of one hand on the breastbone -- right between the nipples.
 - **In the centre of the chest**
 - Place the heel of your other hand on top of the first hand.
 - Position your body directly over your hands. Your shoulders should be in line with your hands. **DO NOT** lean back or forward.
 - Give 30 chest compressions. 100/minute
 - Press down on the sternum 4 -5 cm
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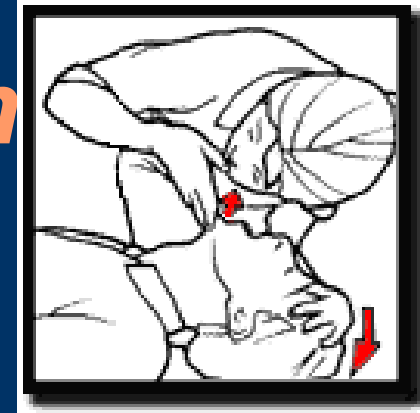






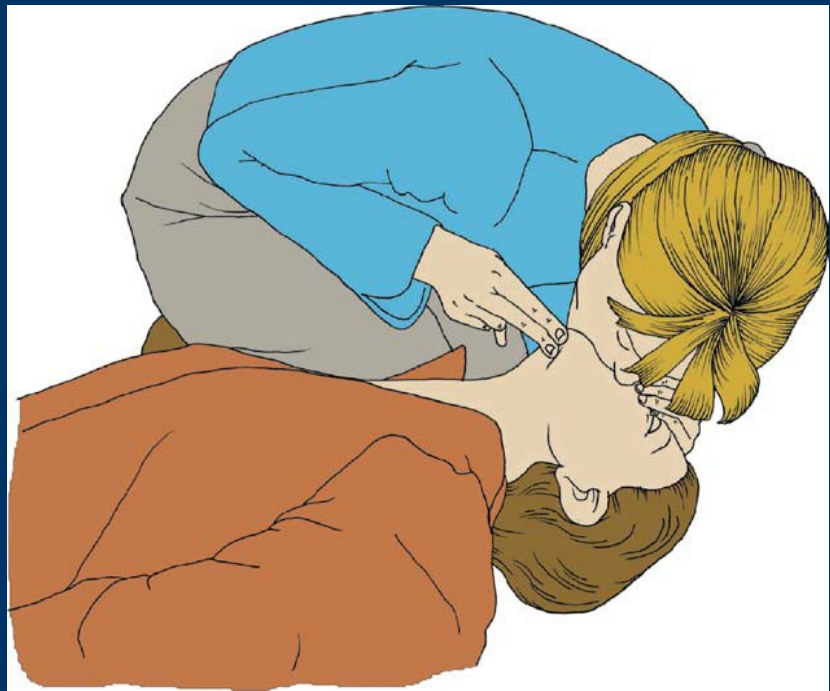
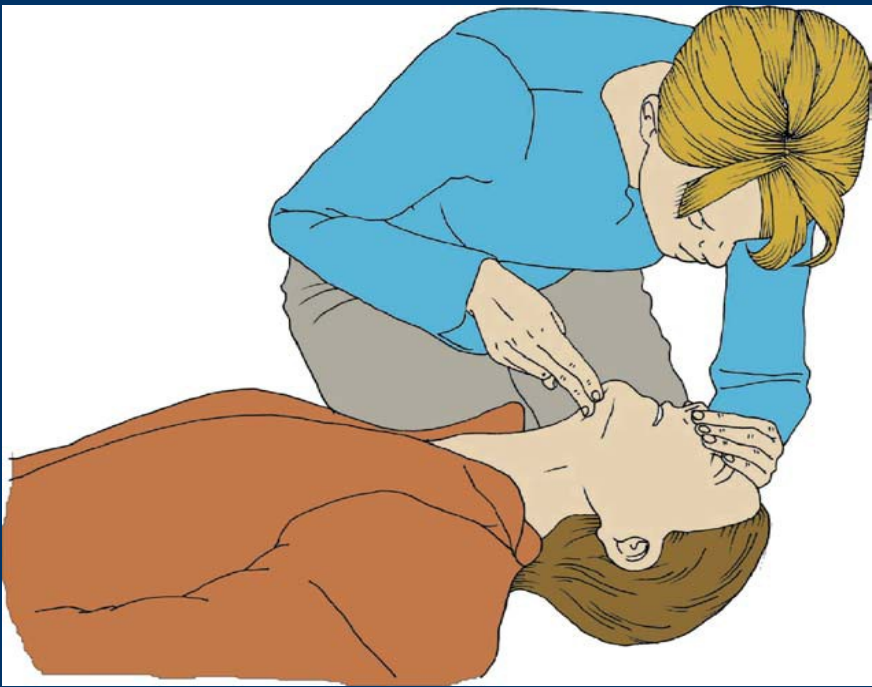
EAR expired air resuscitation (mouth-to-mouth ventilation)

= O2



1. Knee beside the head of casualty.
 2. Keep the casualty's head tilted back.
 3. Pinch the casualty's nostrils with your fingers
 4. Lift the jaw forward with your other hand.
 5. Take a normal breath and open your mouth wide.
 6. Place your mouth firmly over the casualty's mouth making an airtight seal.
 7. Breathe into the casualty's mouth.
 8. Remove your mouth and turn your head to **observe the chest fall** and listen or feel for exhaled air.
 9. If the chest does not rise and fall, check head tilt position first, then check for and clear foreign objects in the airway.
 10. Give 2 breaths, then go back to 30 compressions
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Mouth to nose

- the victim's mouth is seriously injured
- cannot be opened,
- the rescuer is assisting a victim in the water,
- a mouth-to-mouth seal is difficult to achieve.

There is no published evidence on the safety, effectiveness or feasibility of mouth to-tracheostomy ventilation, but it may be used for a victim with a tracheostomy tube or tracheal stoma

3 things are the most important:

- Compressions
- Compressions
- Compressions



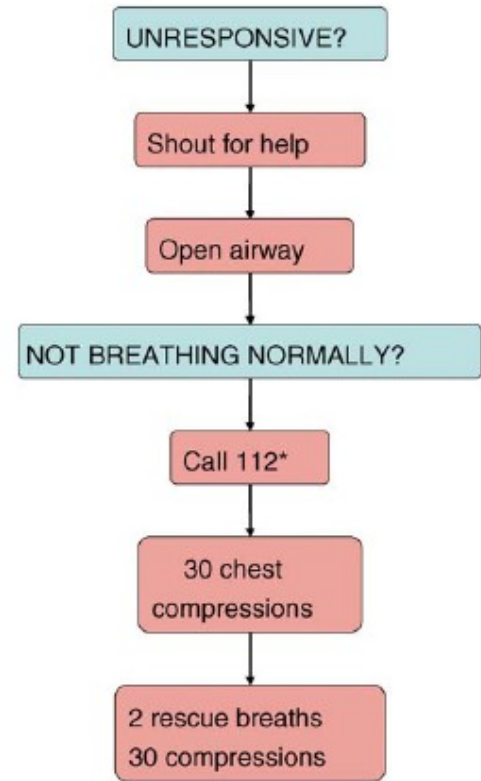
BLS

When to start BLS:

- always when victim is unconsciousness, no breath, no circulation

When not to start:

- end stage disease, no prognosis
- trauma with no hope for life (decapitation)
- signs (indication) of death (patch)
- time factor (15 – 30 minutes from stop of circulation)



When ...

When stop CPR:

- restoring vital functions
(normal breathing, movement)
- ER takes care of victim
- no power to continue with CPR
- new danger



Risk to the rescuer

The safety of both rescuer and victim are paramount during a resuscitation attempt.

There have been few incidents :

- tuberculosis
- severe acute respiratory distress syndrome (SARS)

Transmission of HIV has never been reported.

Barrier devices with one-way valves, prevent oral bacterial transmission from the victim to the rescuer during mouth-to-mouth ventilation.

Top-less

Chest-compression-only CPR may be used as follows:

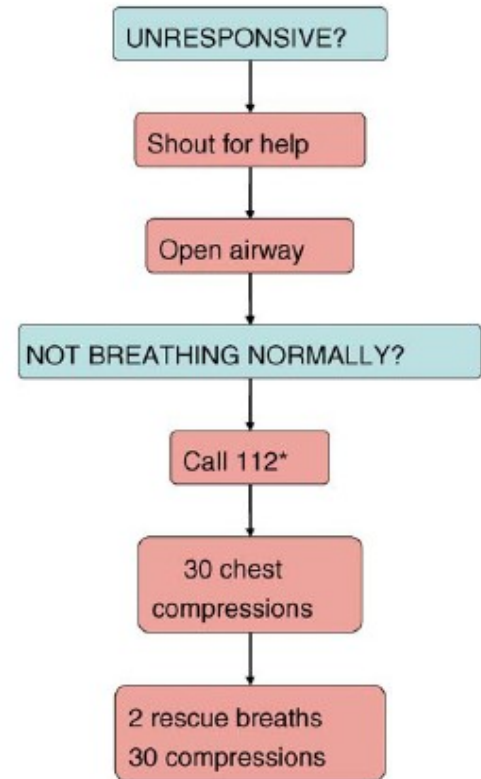
- If you are not able or are unwilling to give rescue breaths, give **chest compressions** only continuous,
at a rate of 100 min^{-1}
 - Stop to recheck the victim only if he starts breathing normally; otherwise do not interrupt resuscitation.
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Precordial thump

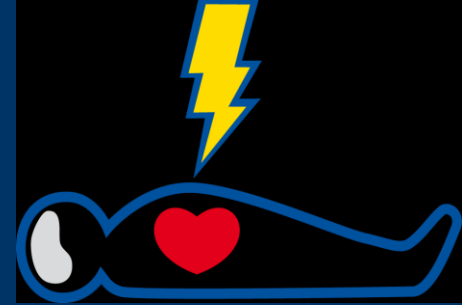
Not part of BLS reserved :

- witnessed cardiac arrest when no defibrillator is immediately available
- if done in first 20s
25% regain cardiac function

Adult basic life support



Defibrillation

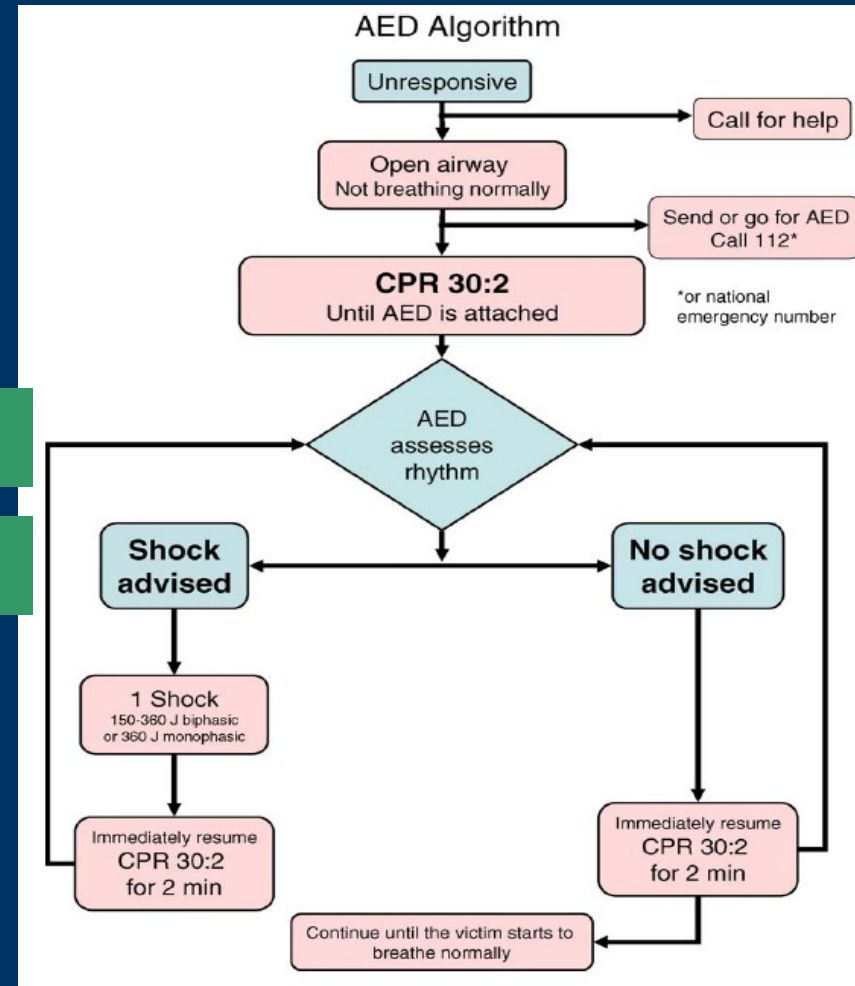


in Czech provided by ER

- continue with CPR

Attach AED

Follow voice prompts



Start of AED

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



ATTACH PADS TO CASUALTY'S BARE CHEST



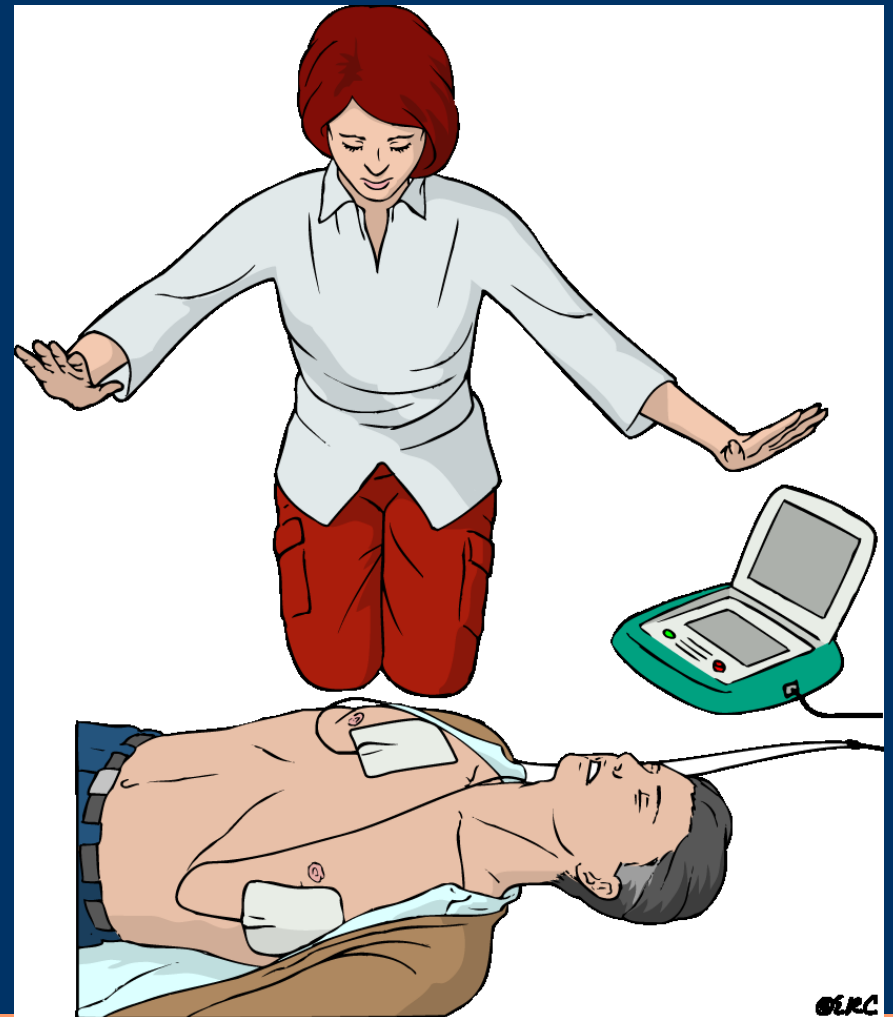
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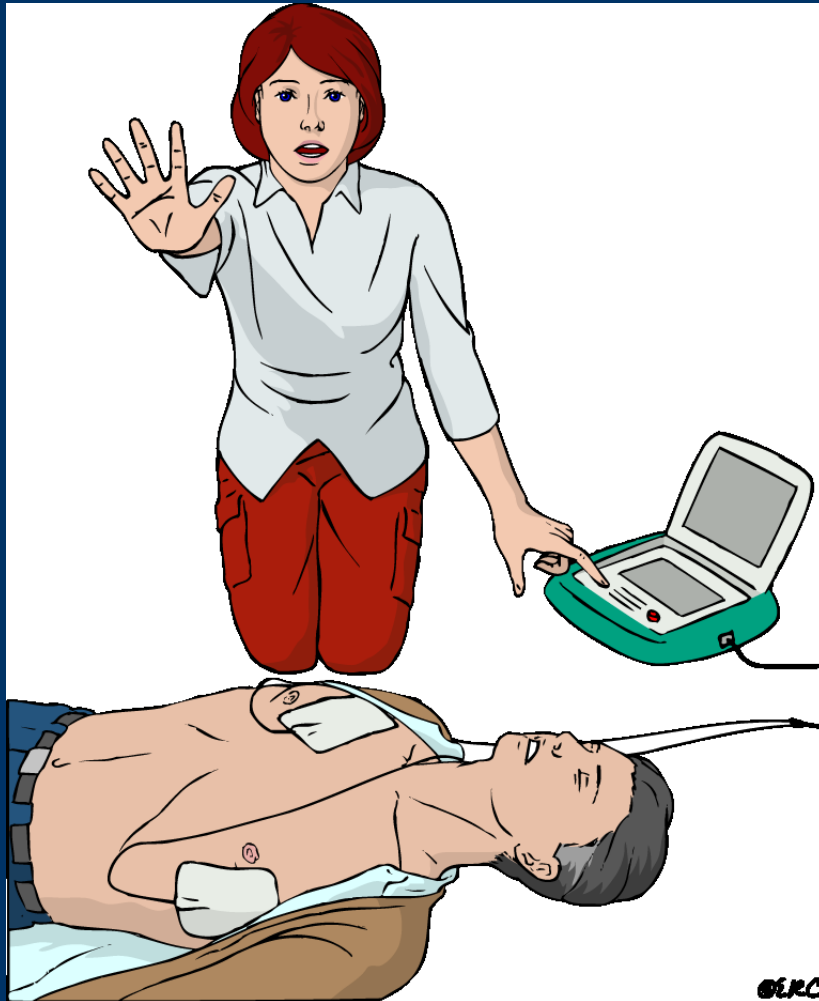
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ANALYSING RHYTHM

DO NOT TOUCH VICTIM



SHOCK INDICATED



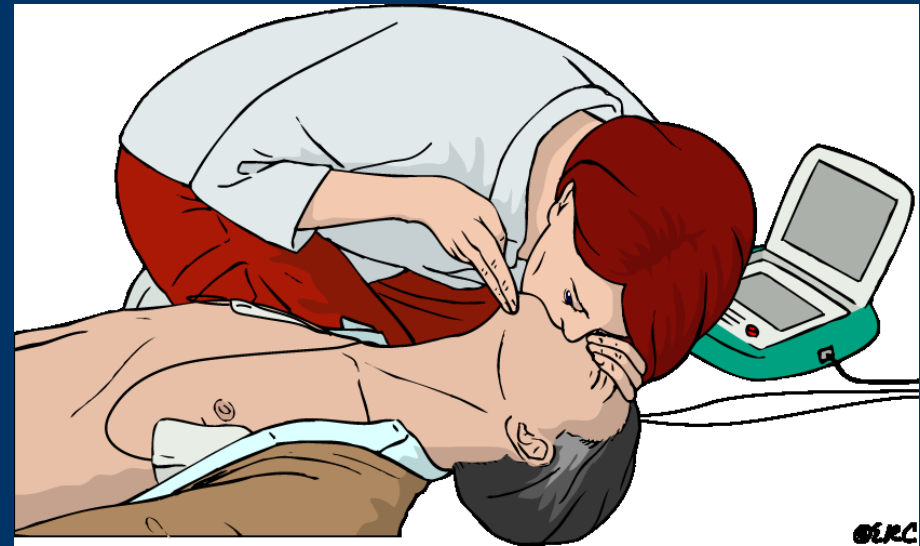
- Stand clear
- Deliver shock

SHOCK DELIVERED FOLLOW AED INSTRUCTIONS



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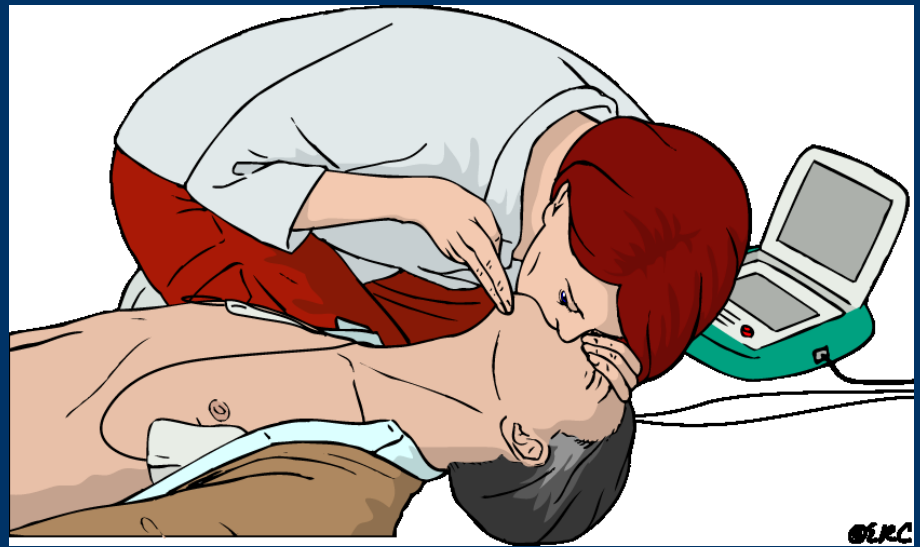
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NO SHOCK ADVISED FOLLOW AED INSTRUCTIONS



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