

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.

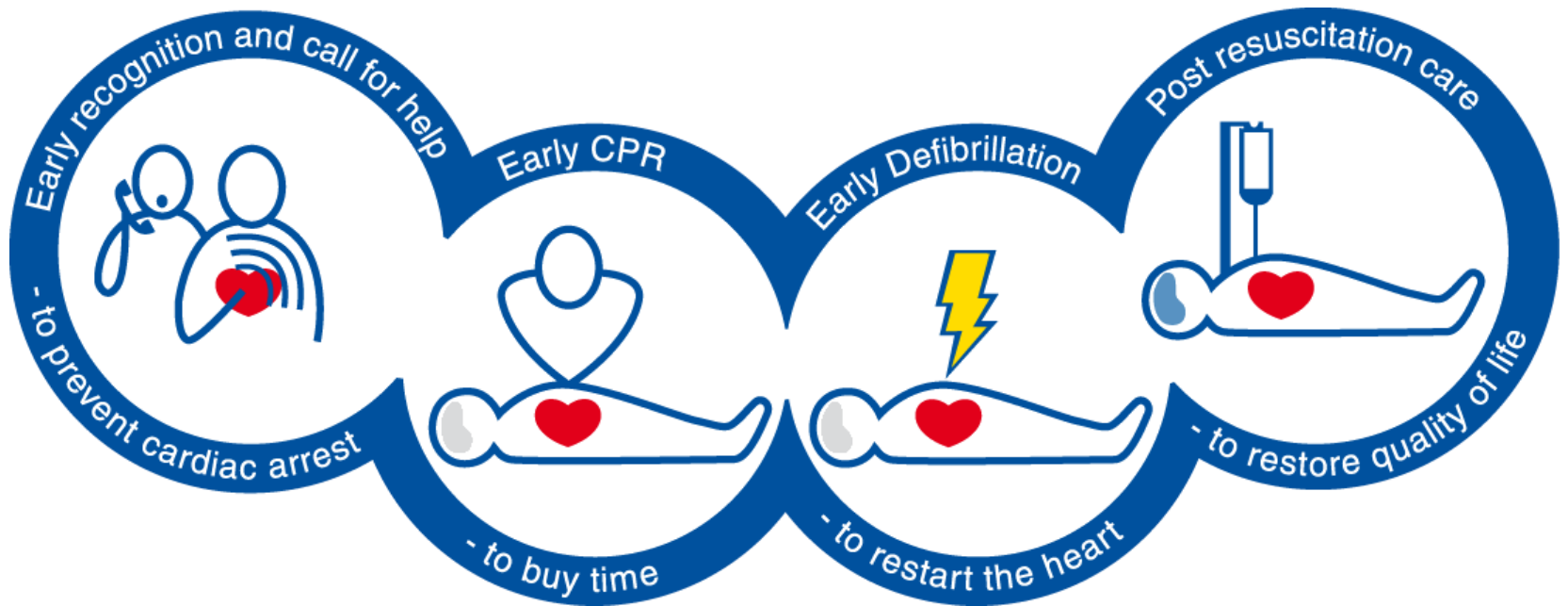


BACKGROUND

- Approximately 350 000 - 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
- The immediate initiation of CPR can double or quadruple survival from cardiac arrest.
- Defibrillation within 3–5 min of collapse can produce survival rates as high as 50–70%.



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

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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.

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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



OPEN AIRWAY



- Tilt the head back
- Lift victim's chin

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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 a signs of cardiac arrest





Approach safely

Check response

Shout for help

Open airway

Check breathing

Call 112

30 chest compressions

2 rescue breaths



Dispatcher assisted CPR

- Reduce the time to first CPR
- Increase the number of chest compressions delivered
- Improve patient outcomes following out-of-hospital cardiac arrest (OHCA)

- Dispatchers should provide telephone-CPR instructions in all cases of suspected cardiac arrest
- Dispatchers should provide chest-compression-only CPR instructions where required



30 CHEST COMPRESSIONS



Approach safely

Check response

Shout for help

Open airway

Check breathing

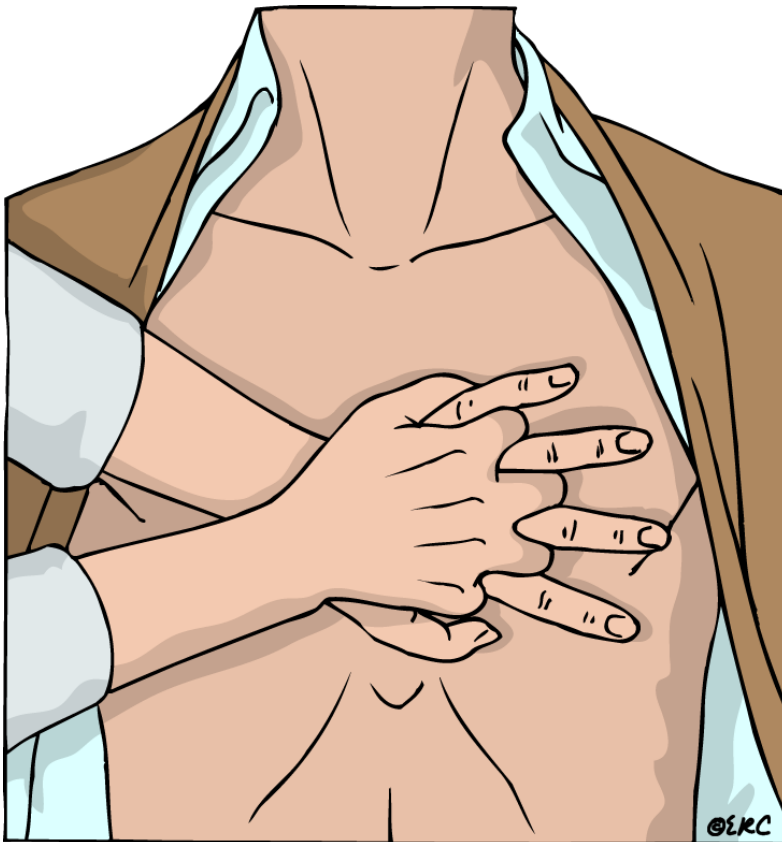
Call 112

30 chest compressions

2 rescue breaths



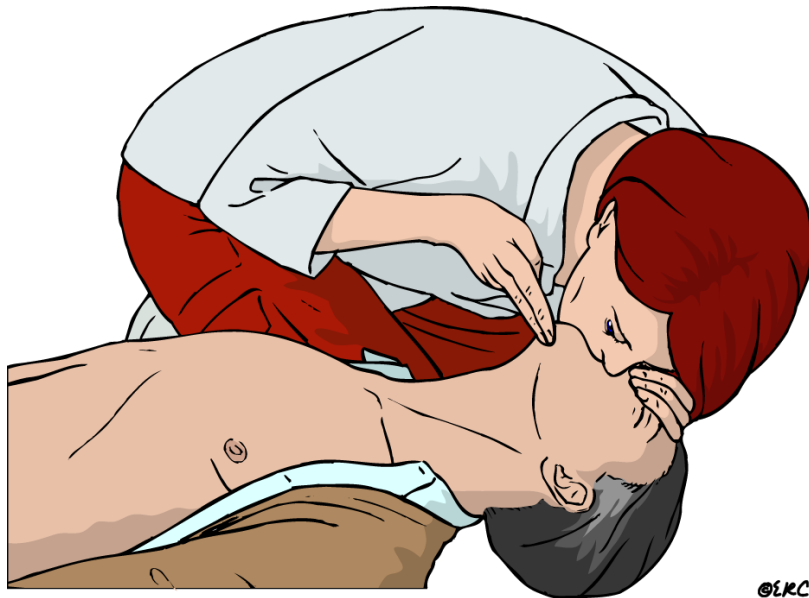
CHEST COMPRESSIONS



- Place the heel of one hand in the centre of the chest
- Place other hand on top
- Interlock fingers
- Compress the chest
 - Rate 100 - 120 min⁻¹
 - Depth 5-6 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

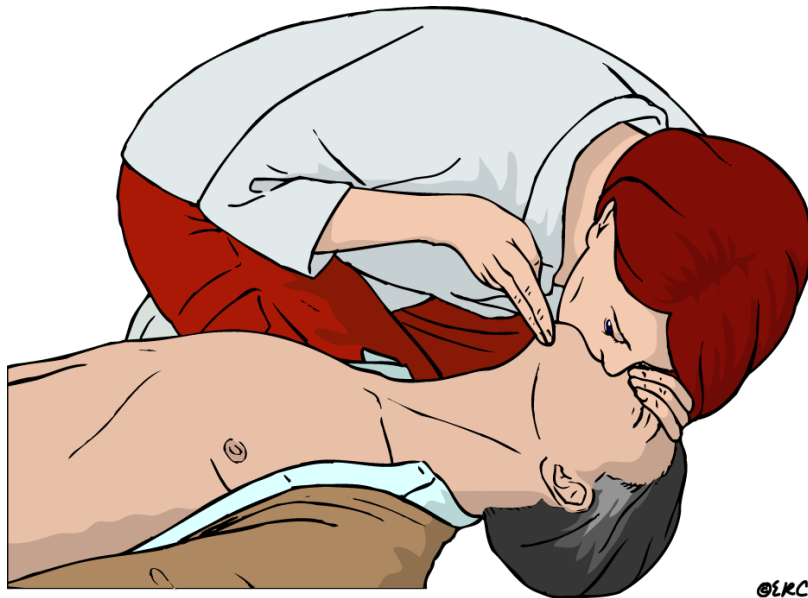
Call 112

30 chest compressions

2 rescue breaths



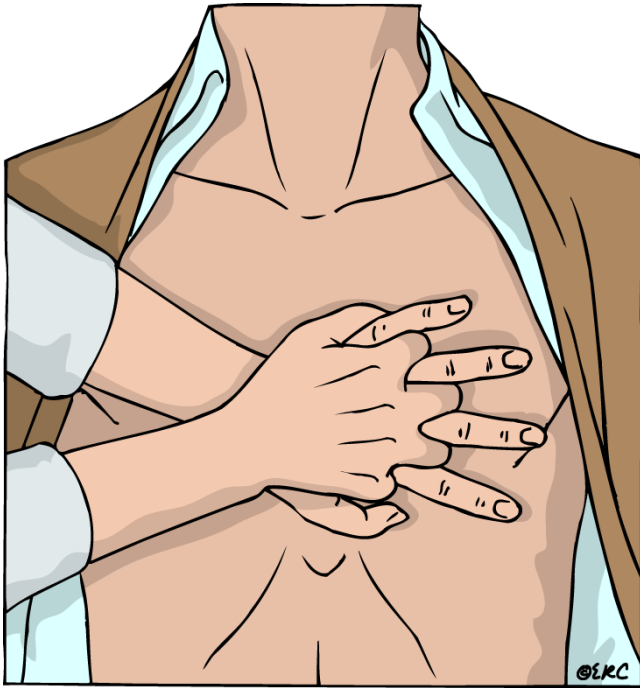
RESCUE BREATHS



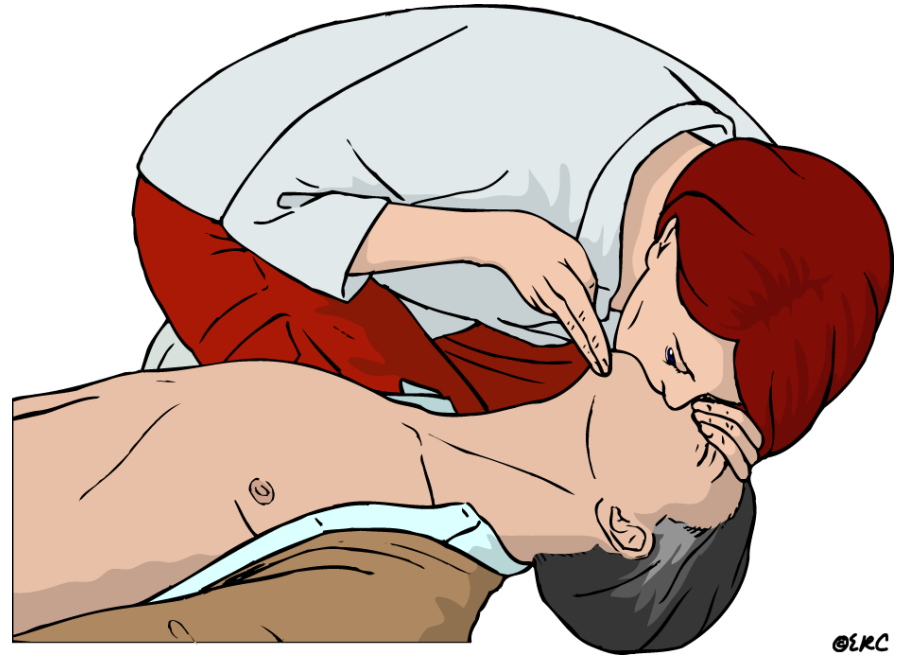
- Pinch the nose
- Take a normal breath
- Place lips over mouth
- Blow until the chest rises
- Take about 1 second
- Allow chest to fall
- Repeat



CONTINUE CPR



30



2



Chest-compression-only

- All CPR providers should perform chest compressions for all victims in cardiac arrest.
- CPR providers trained and able to perform rescue breaths should combine chest compressions and rescue breaths.
- The addition of rescue breaths may provide additional benefit for: children, asphyxial cardiac arrest.





Approach safely

Check response

Shout for help

Open airway

Check breathing

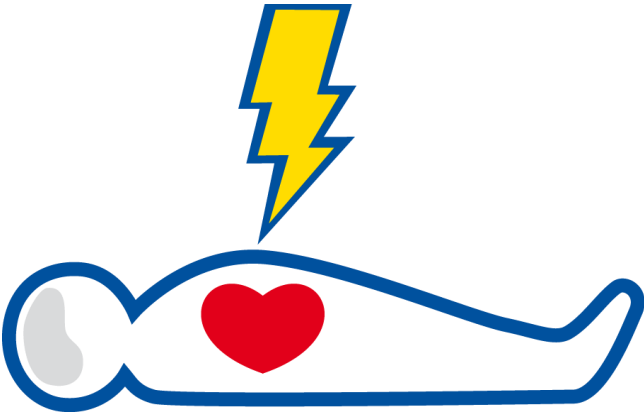
Call 112

30 chest compressions

2 rescue breaths



DEFIBRILLATION



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Approach safely

Check response

Shout for help

Open airway

Check breathing

Call 112

Attach AED

Follow voice prompts





Chicago O'Hare (USA), 18. listopadu 2010

SWITCH ON AED



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



ATTACH PADS TO CASUALTY'S BARE CHEST



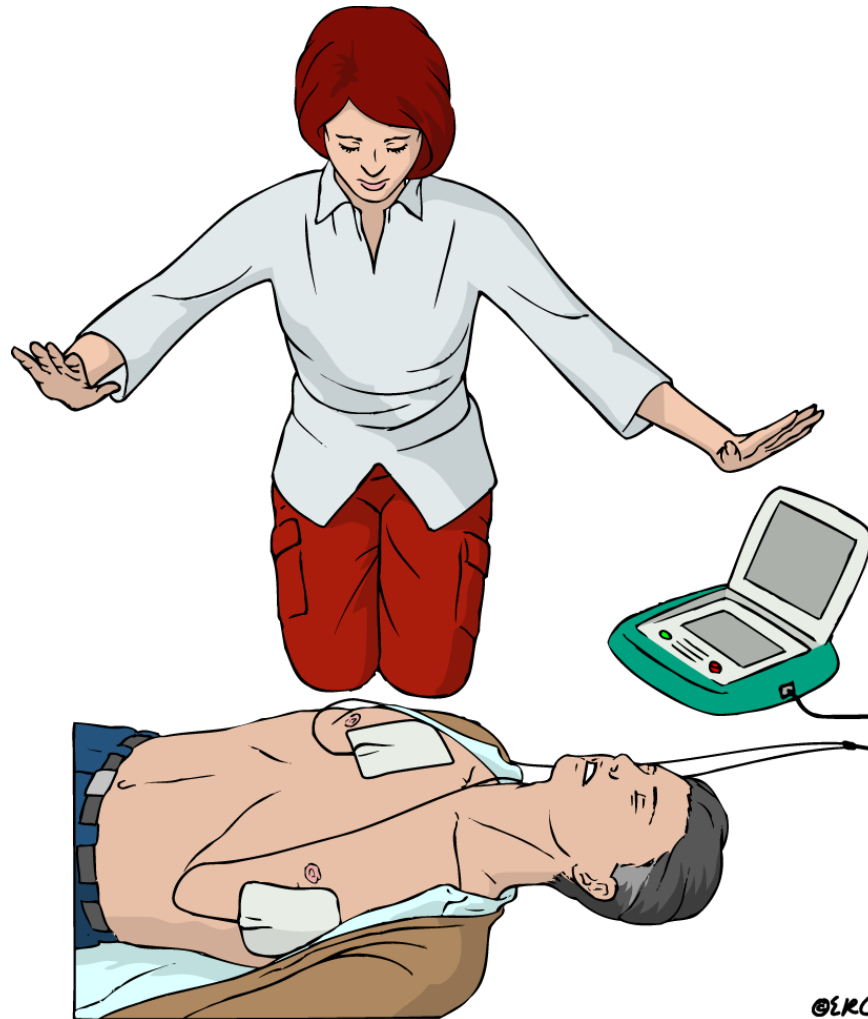
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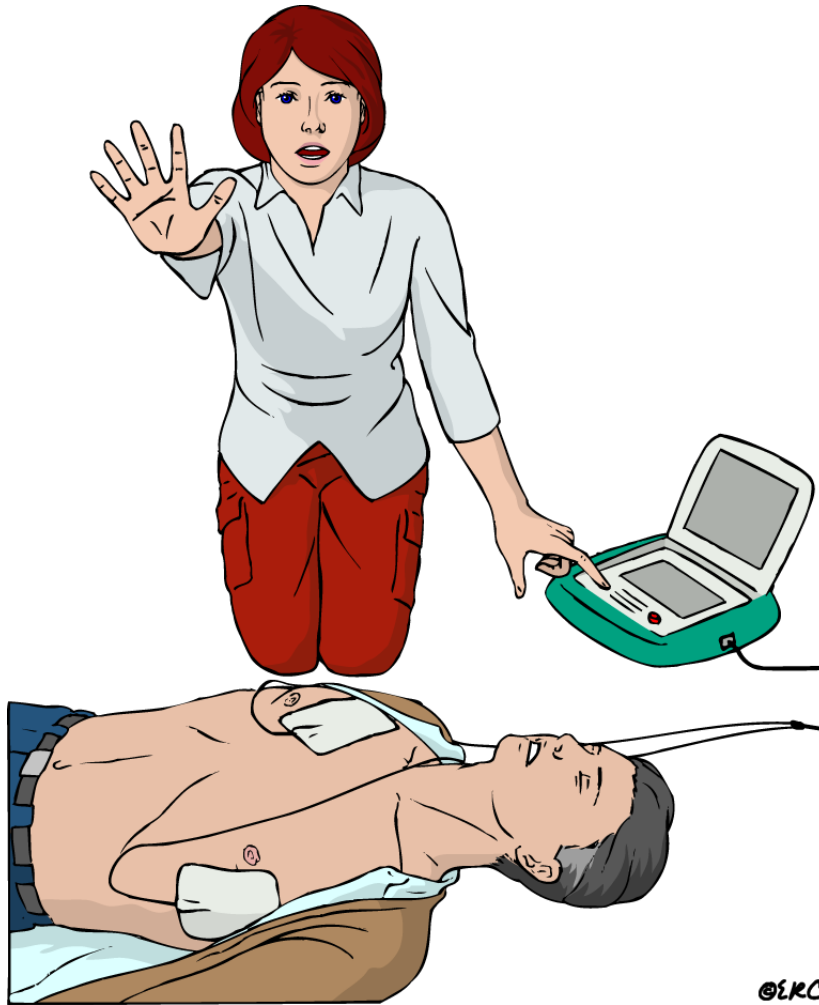
ANALYSING RHYTHM - DO NOT TOUCH VICTIM



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SHOCK INDICATED



- Stand clear
- Deliver shock

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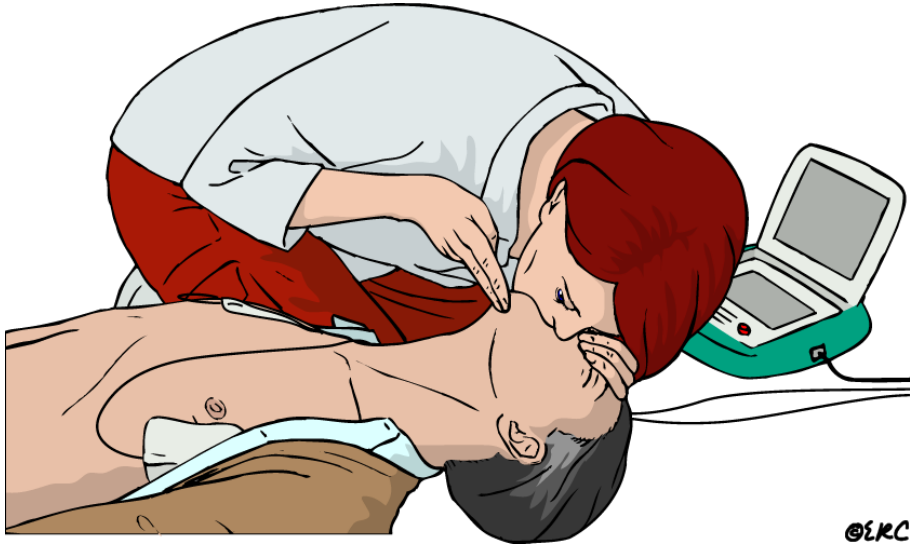


SHOCK DELIVERED FOLLOW AED INSTRUCTIONS



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30



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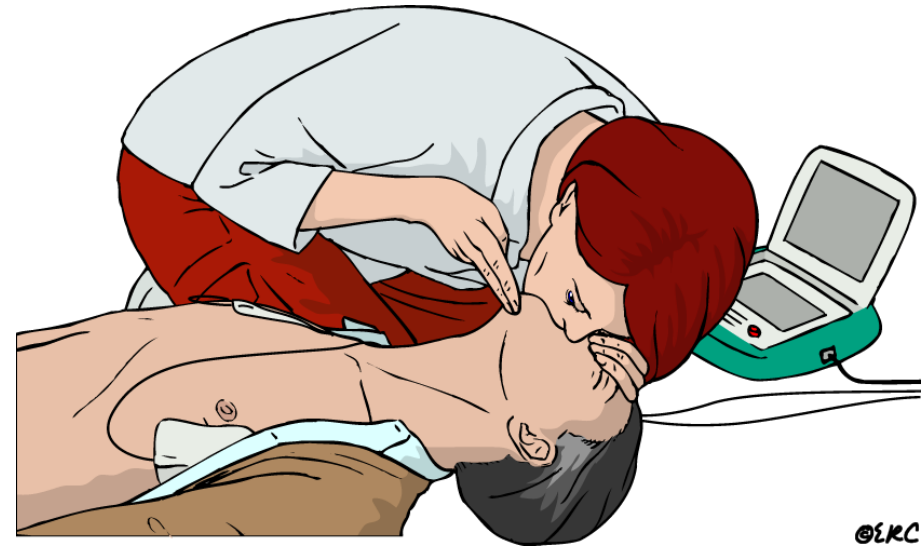
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NO SHOCK ADVISED FOLLOW AED INSTRUCTIONS



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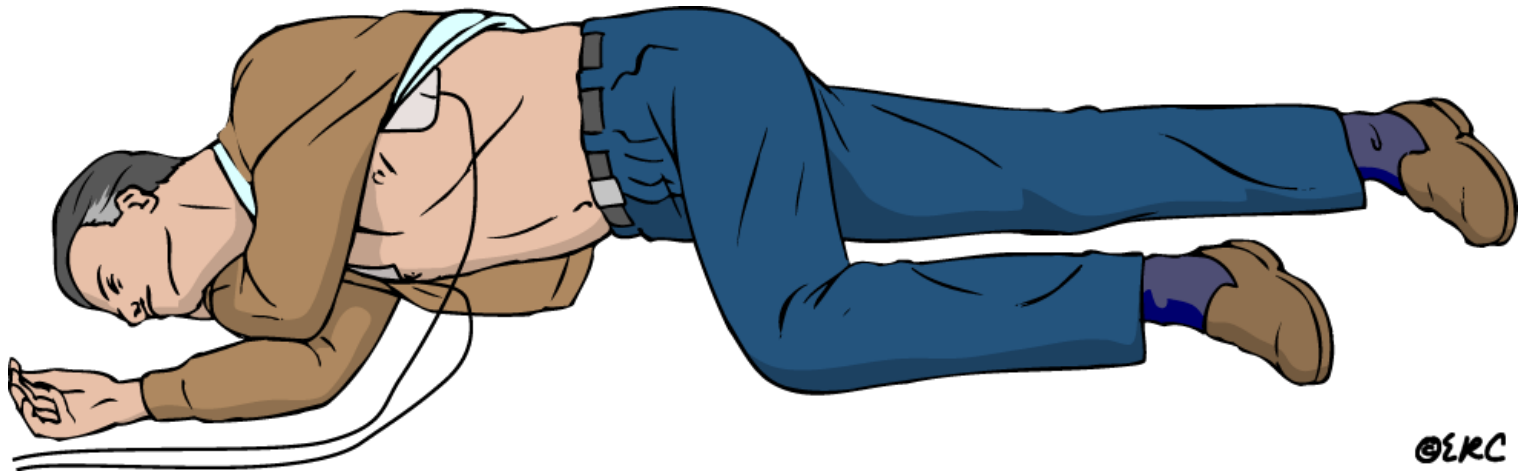
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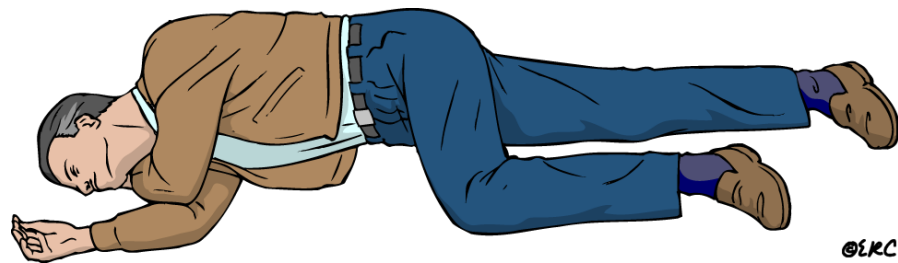


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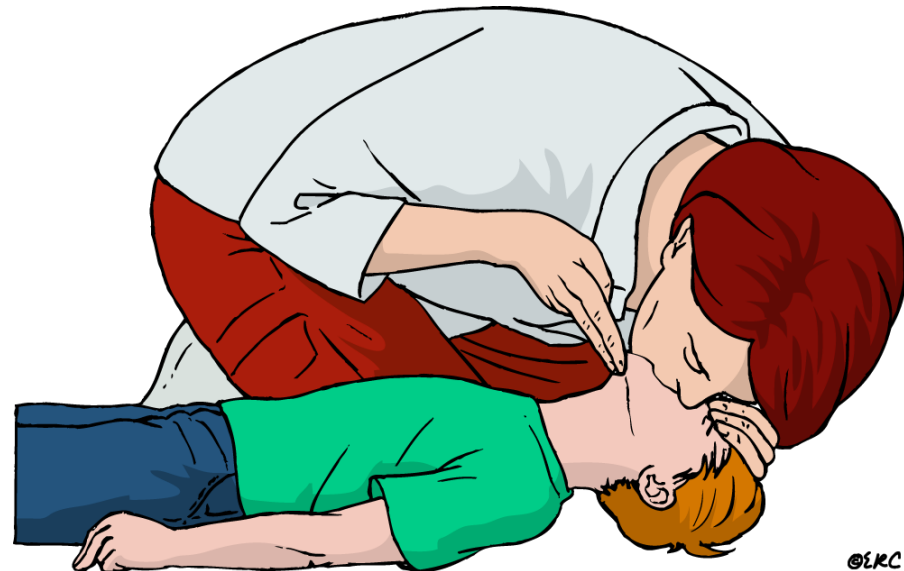
IF VICTIM STARTS TO BREATHE NORMALLY PLACE IN RECOVERY POSITION





CPR IN CHILDREN

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



ANY QUESTIONS?





Approach safely

Check response

Shout for help

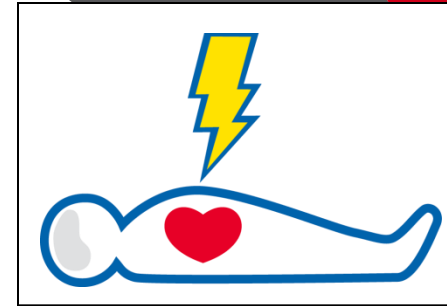
Open airway

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



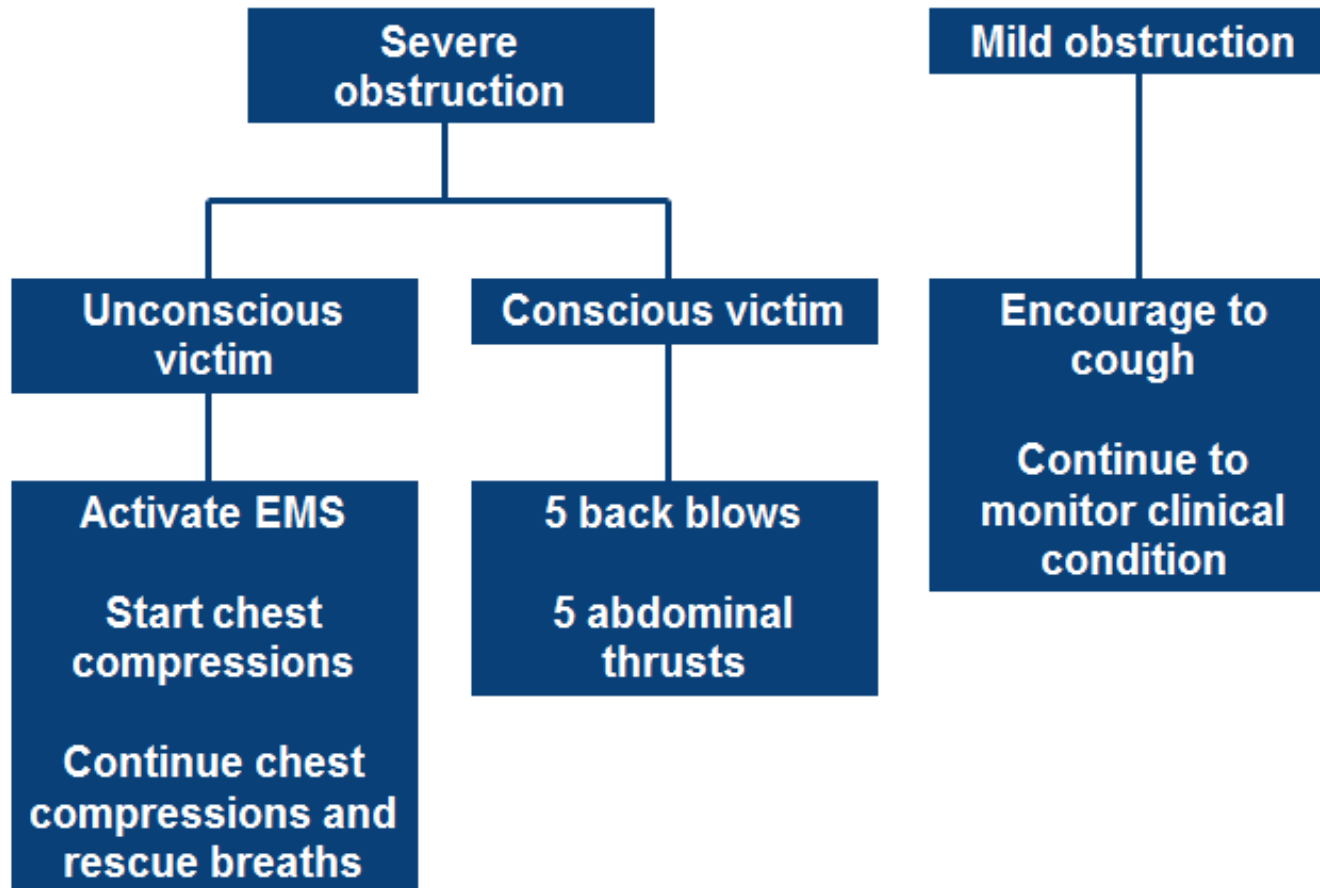
Choking and Foreign Body Airway Obstruction (FBAO)

1



Heimlich's maneuver

FBAO algorithm



Choking

Back Blows



**Abdominal thrusts:
position of first
hand**



**Abdominal thrusts:
position of second
hand**



Adult

LEARN CPR.ORG



**Nelze najít dekomprimační modul vids:XVID.
Video nebude k dispozici.**

Don't judge too quickly toilet12



Airway adjuncts

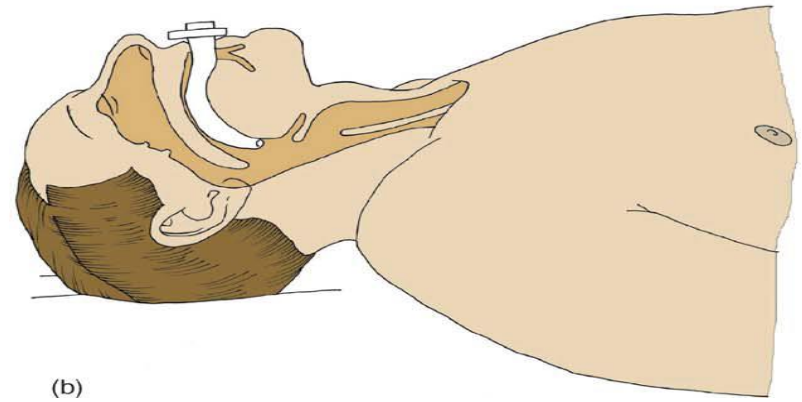
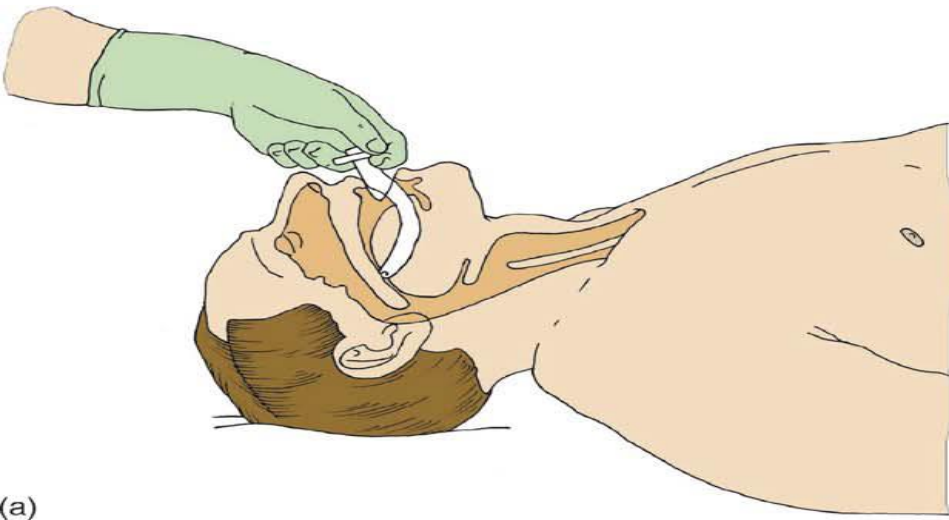
- Oropharyngeal airways
 - Better in comatose patients
- Nasopharyngeal airways
 - Better tolerated by patient
 - Can cause nose bleed



CAREFUL! Both can cause airway obstruction !



Airway adjuncts



Insertion of oropharyngeal airway



Oxygen

- Give oxygen whenever it is available

More O₂ for brain

Type of oxygenation	Oxygen concentration
Mouth to mouth	17 %
Face mask	Up to 50%
Face mask with reservoir	Up to 85%

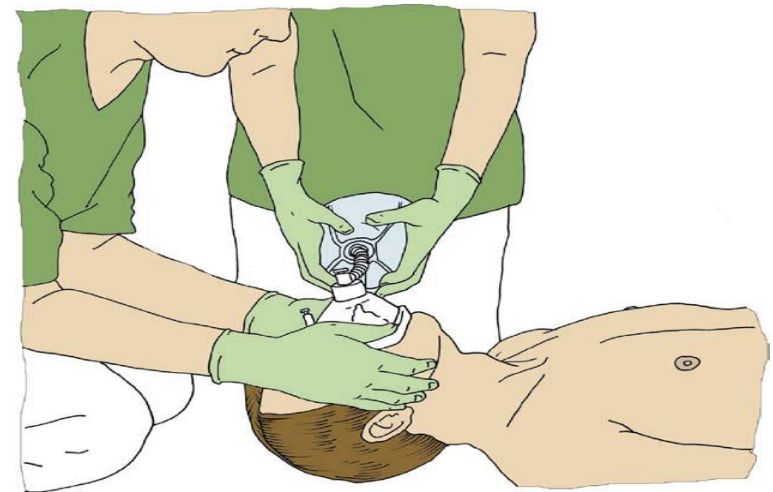
Alternative airway devices

- High incidence of complications without adequate training and experience
- Best technique depends on the circumstances and competence of the rescuer



B - Breathing

- Mouth to mouth
- Mouth to nose
- Mouth to protective device
- Using self inflating bag or ventilator



Ventilation

- Inspiration 1 sec
- Volume : enough to make the chest rise
 - Larger volumes lead to gastric inflation



ANY QUESTIONS?

