

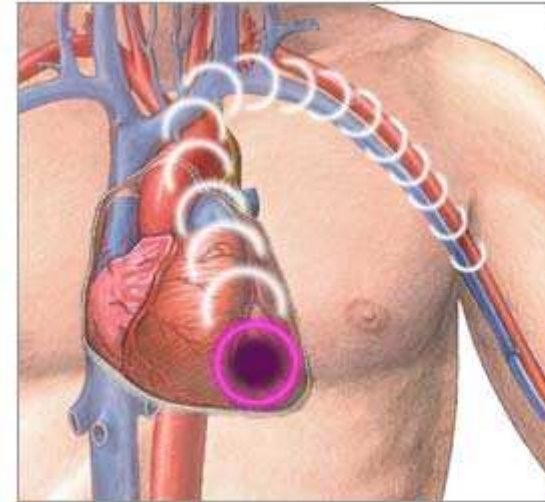
Chest pain, Drowning



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Pain

- WHO:
an unpleasant sensory or emotional **experience** associated with actual or potential **tissue damage**, or described in terms of such damage
- often difficult to interpret

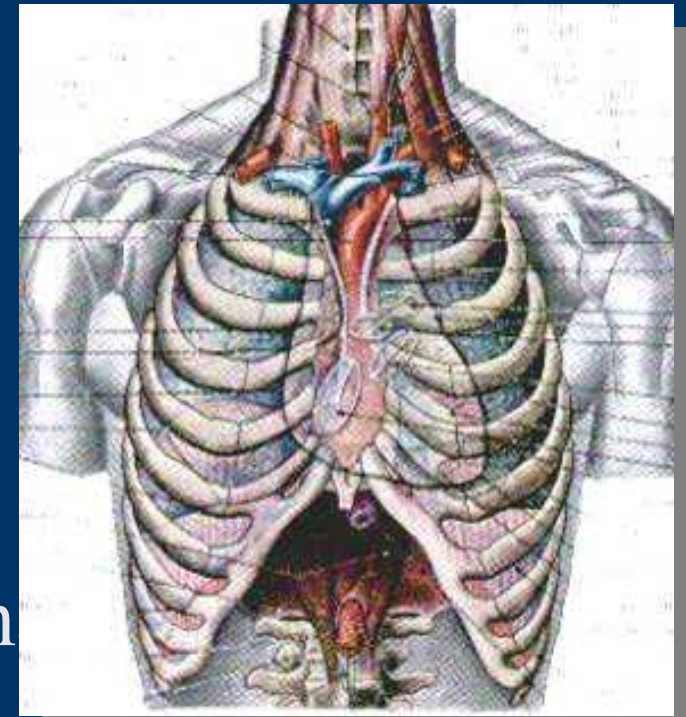


Pain radiating
down arm
might signal
heart attack

ADAM.

Thorax

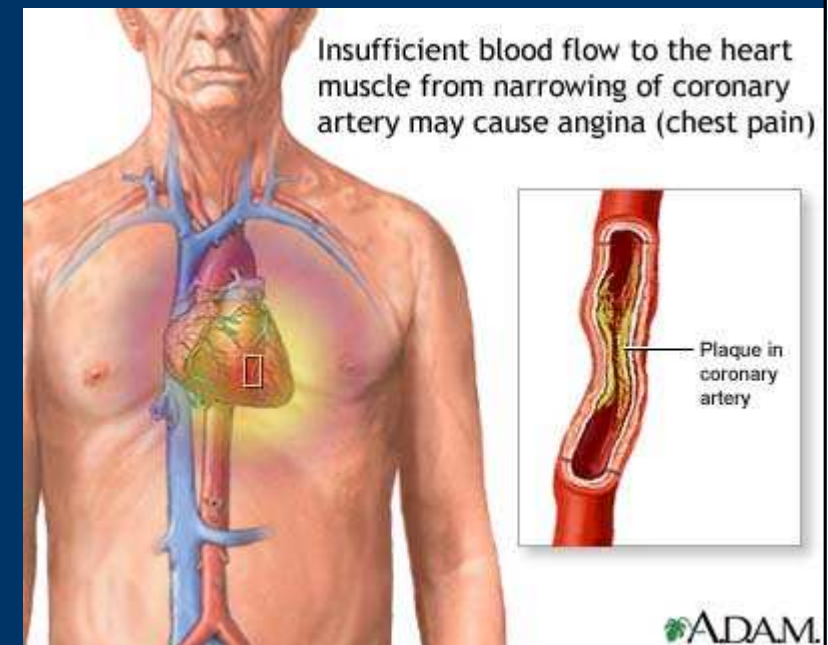
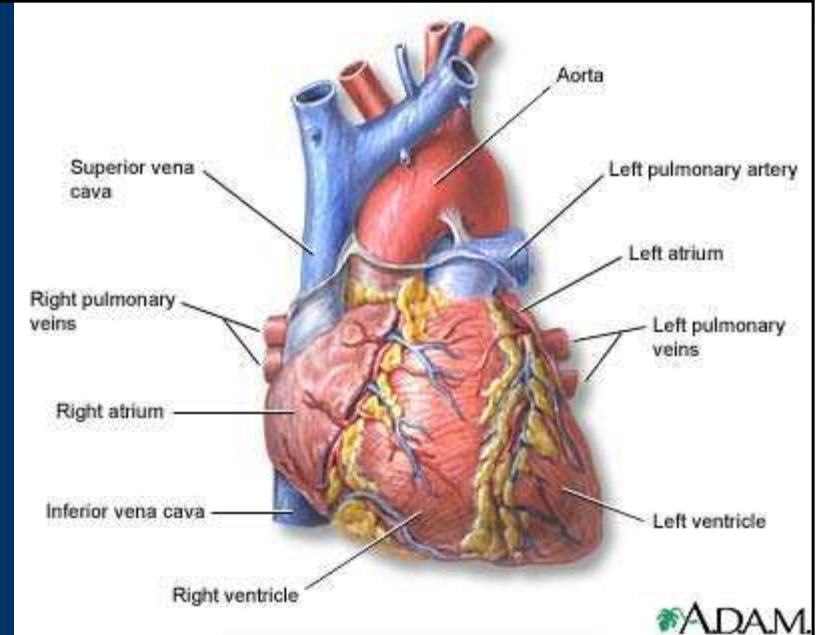
- chest wall
- skin, mm, joints, bones
- pleura
- parietal = somatic
 - local
 - sharp
 - change during movement
 - by finger
- heart
- (lung)
- oesoph
- aorta
- pleura
- visceral
 - diffuse
 - dull, crampy and aching
 - middle line
 - by hand



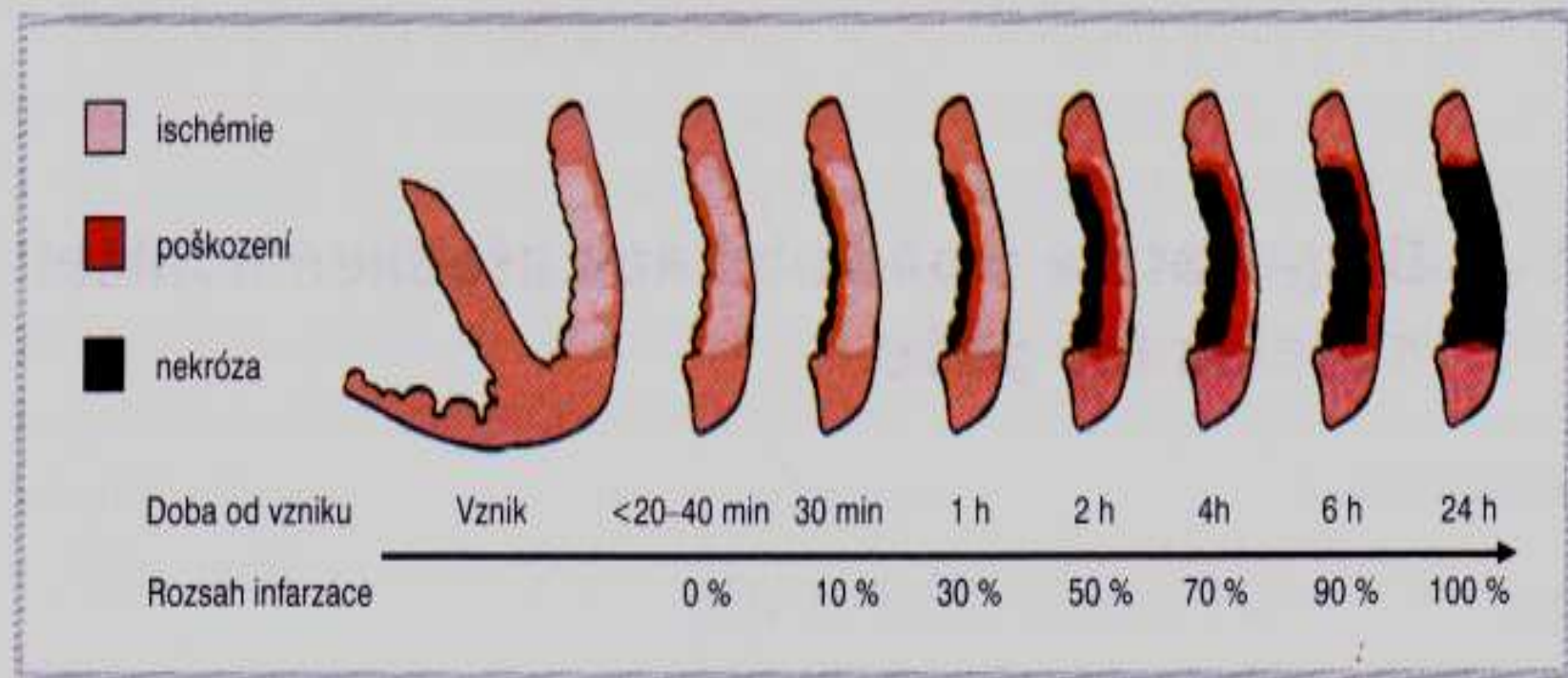
Heart attack

= myocardial infarction

- artery supplies oxygen is blocked
- The heart muscle becomes starved for oxygen and begins to die.
- Heart disease is the leading cause of death (US, EU).

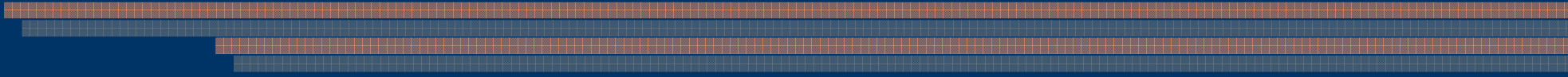


during time:



Obr. 8.1. Rozsah infarzace

Risk factors

- age
 - smoking
 - diabetes
 - male gender
 - high cholesterol level
 - high blood pressure (hypertension)
 - family history of heart disease/heart attack
 - obesity
 - atherosclerosis (hardening of the arteries)
 - lack of exercise and physical activity
- 

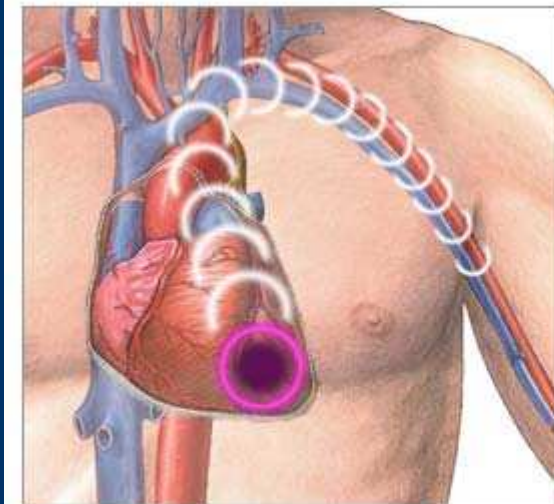
Where it happens?

- home (70%)
- work (10%)

- resting (45%)
- sleeping (17%)
- daily activity (30%)
- hard work (8%)

Warning signs and symptoms:

- Uncomfortable pressure, fullness or squeezing pain in the center of chest lasting more than a few minutes.
- Pain spreading to your shoulders, neck or arms.
- Lightheadedness, fainting, sweating, nausea or shortness of breath.



Pain radiating down arm might signal heart attack

First aid:

- Have the person sit down, rest, and try to keep calm + ABC + nothing p.os, NO smoking
- Loosen any tight clothing.
- Ask if the person takes any chest pain medication for a known heart condition. + Help to take the medication (nitroglycerin, which is placed under the tongue).
- If the pain does not go away promptly with rest or within 3 minutes of taking nitroglycerin, call for emergency medical help.
- (acylpyrin= Anopyrin)
- unconscious: local emergency number + CPR.

Do not

- DO NOT leave the person alone except to call for help, if necessary.
- DO NOT allow the person to deny the symptoms and convince you not to call for emergency help.
- DO NOT wait to see if the symptoms go away.
- DO NOT give the person anything by mouth unless a heart medication (such as nitroglycerin) has been prescribed.

Pulmonary embolism

- An embolus is an accumulation of foreign material (usually a blood clot) that blocks an artery.
- Tissue death occurs when the tissue supplied by the blocked artery is damaged by the sudden loss of blood.
- Pulmonary embolism describes the condition that occurs when a clot (usually from the veins of the leg or pelvis) lodges in an artery of the lung.

Signs and symptoms of PE:

- Sudden, sharp chest pain that begins or worsens with a deep breath or a cough, often accompanied by shortness of breath
- Sudden, unexplained shortness of breath, even without pain
- Cough that may produce blood-streaked sputum
- Rapid heartbeat
- Anxiety and excessive perspiration

First aid

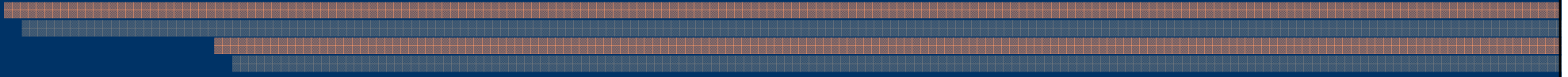
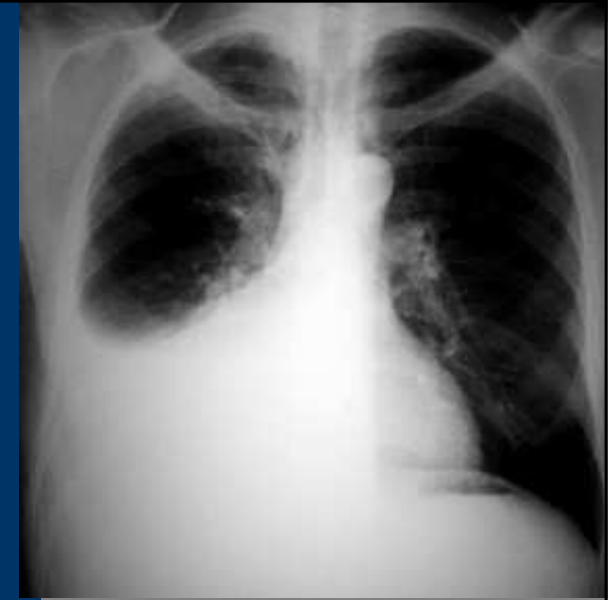
= As with a suspected heart attack

- ABC + rest + call for emergency medical assistance immediately.

Inflamation of lung and pleura

= Pneumonia with pleurisy

- chills + fever (tachycardia)
- cough
- pain
 - of inflamation of pleura
 - worsening by deep breath or cough
- fatigue



Drowning

- = Near-drowning means a person almost died from not being able to breathe (suffocating) under water
- disaster in the lung = H₂O

Why:

- jump to flat water
- fall to wildwater
 - head trauma / C spine
- Inability to swim or panic while swimming
- alcohol



**CHILDREN AREN'T
WATERPROOF**

small children unattended
around bathtubs and pools

How it works:

- Po ponoření – vůlí potlačeno dýchání → pokles O_2 v krvi, v mozku → porušena volní kontrola → → voda do úst - polykána
 - voda v horních dýchacích cestách –(20%) → reflexní stah hlasivek (suché tonutí)
 - voda dýchána do plic - v alveolu se vstřebává do krve
- otok plic, mozku, poškození a rozpad červených krvinek = šok

- Safely - Out of water

If the water is too deep or dangerous to enter or if the victim is too far out to reach with a long object, a throwing assist may be wisest



ADAM.

If the victim is in deep or dangerous water but there is a dock to stand on, try a reaching assist with a long, sturdy object



ADAM.

People who have fallen through ice may not be able to grasp objects within their reach or hold on while being pulled to safety.

First aid:

- 1) Do not place yourself in danger. Do NOT get into the water or go out onto ice unless you are absolutely sure it is safe.
- 2) (start the breathing while still in the water)
- 3) Move victim to dry land - give CPR if needed.
- 4) Assume neck or spine injury
- 5) Keep the person calm and still. Seek medical help immediately.
- 6) Remove any cold, wet clothes from the person and cover with something warm, if possible. = prevent hypothermia.

DO NOT

- DO NOT go into rough or turbulent water that may endanger you.
- The Heimlich maneuver is NOT part of the routine CPR
- Do not go home
All near-drowning victims should be checked by a doctor. Even though victims may revive quickly at the scene, lung complications are common.

Interesting web pages

www.heartfailure.org

www.bbc.co.uk/health/first_aid_action/es_drown.shtml

www.bbc.co.uk/health/first_aid_action/es_heart.shtml