

MUNI | SIMU
MED

Stroke

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Learning objectives

- Student will learn main stroke causes.
- Student will learn how to recognize the symptoms of stroke based on an abbreviation FAST.

Introduction

- serious cardiovascular condition
- the second most common cause of death
- „time is brain“ – if stroke is suspected, call EMS very quickly
- longer the patient without any help, lower the chance of his recovery

Risk factors:

- hypertension
- atherosclerosis
- obesity and lipid metabolism disorders
- smoking and lack of exercise

Definition

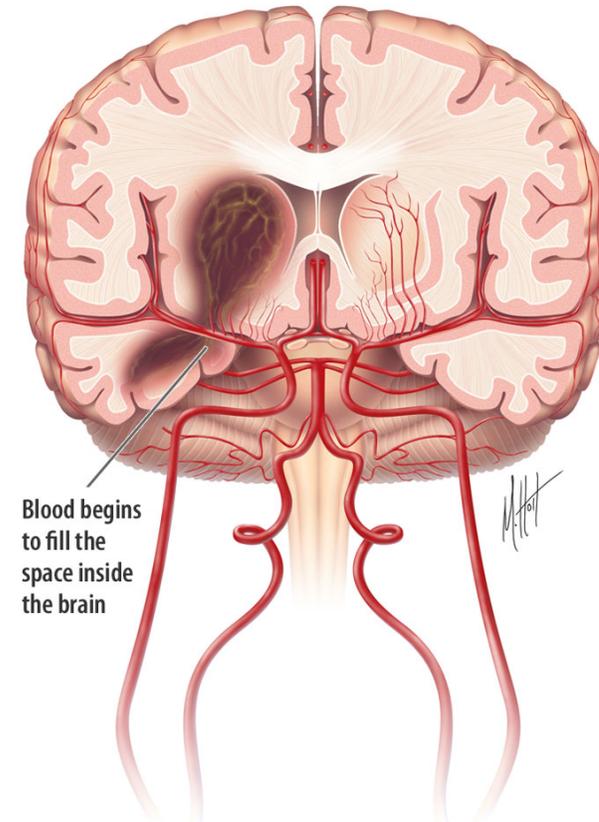
- poor blood flow to the brain results in its dysfunction and cell death
- **brain cells are able to survive without oxygen supply for 3-5 min**
- sudden change in behaviour or movement can occur
- according to damaged cerebral artery and area of the brain, we can see different symptoms

Types of stroke

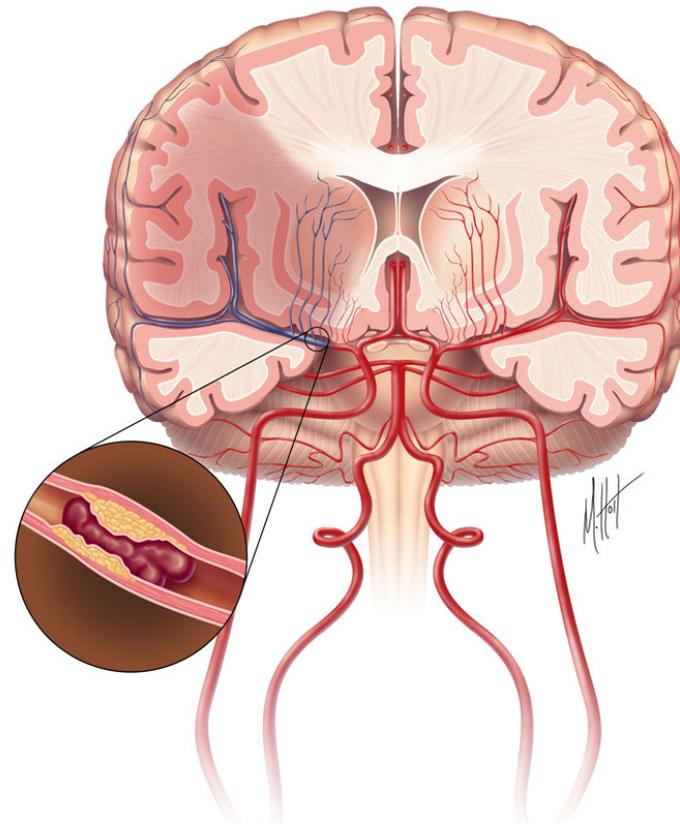
– 2 types:

➤ **hemorrhagic**: low perfusion behind the hemorrhage from cerebral artery
(20%)

- intracerebral bleeding occurs



- **ischemic:** an obstruction of the cerebral artery due to thrombus (80%)

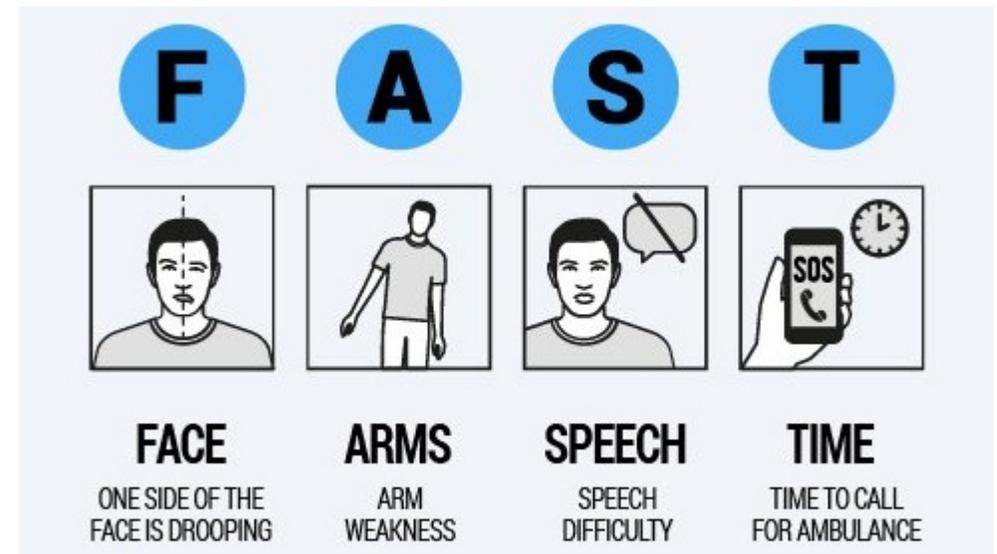


Symptoms

- sudden onset of face and muscle weakness, dizziness, rapid headache (thunderclap headache), abnormal speech,...
- vomiting
- **F** (face)
- **A** (arms)
- **S** (speech)
- **T** (time)

(BE)FAST

- **B** balance (loss of balance, dizziness, headache)
- **E** eyes (blurred vision, anisocoria)



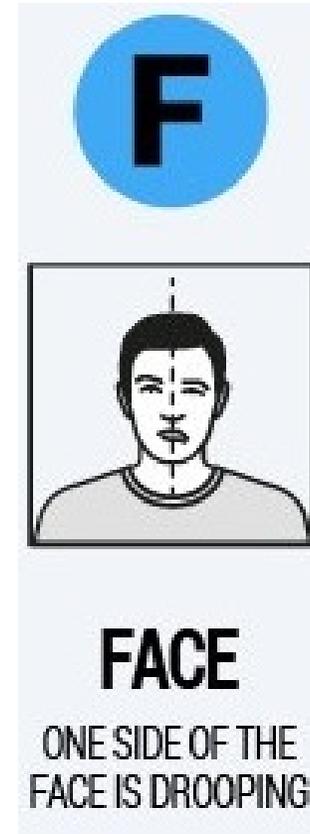
➤ **CAVE: Stroke is not diagnosed JUST to elderly but more often also to young people!**

F - FACE

- face asymmetry
- one side of the face is dropping
- crooked smile
- eyelid drop



Can the casualty smile symmetrically?

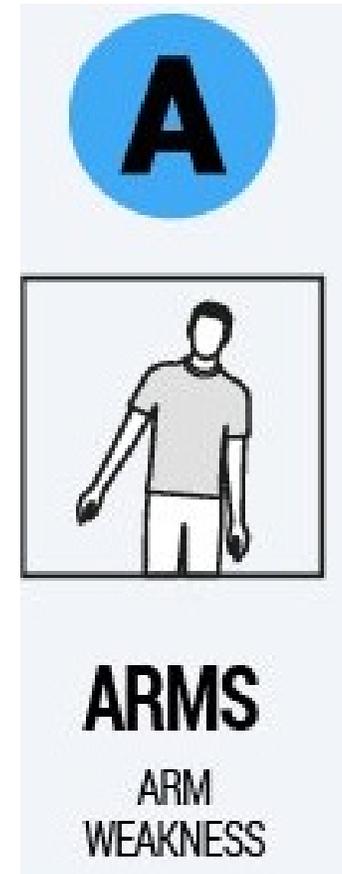


A - ARMS

- arms asymmetry
- muscle weakness (more on one side)
- arm drift



Can the casualty hold his arms in the same level after raising them **with closed eyes**?



S - SPEECH

- speech disorder
- abnormal speech
- inability to say a whole sentence
- incomprehensible words



Can the casualty speak clearly without difficulties? (f.e. name or simple sentence)

T - TIME

- time is brain
- **call an ambulance immediately**
- one positive symptom of acronym FAST is enough to suspect stroke
- if you are not sure – call!



First Aid

- SSS ABC
- sit the casualty down and calm him down while waiting for an ambulance
- monitor his vital signs (level of consciousness, airway, breathing, circulation)
- if the casualty is unconscious and not breathing normally start providing CPR
- do not give any fluids or food to the patient for the risk of aspiration

Learning outcomes

- Student can recognize the main symptoms of stroke by following FAST abbreviation.
- Student knows how to provide first aid in the conscious or unconscious patient with stroke.

Resources

1) Stroke - Symptoms and causes. In: Mayo Clinic [online] [cit. 22.08.2020].

Available from: <https://www.mayoclinic.org/diseases-conditions/stroke/symptoms-causes/syc-20350113>

2) CÉVNÍ MOZKOVÁ PŘÍHODA DETAILNĚ – FNUSA [online] [cit. 22.08.2020].

Available from: <https://iweb3.fnusa.cz/o-nemocnici/cmp/cevni-mozkova-prihoda-detailne/>

3) FA-CPR-AED-Part-Manual.pdf [online] [cit. 22.08.2020].

Available from: https://www.redcross.org/content/dam/redcross/atg/PHSS_UX_Content/FA-CPR-AED-Part-Manual.pdf

Thank you for your attention.

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