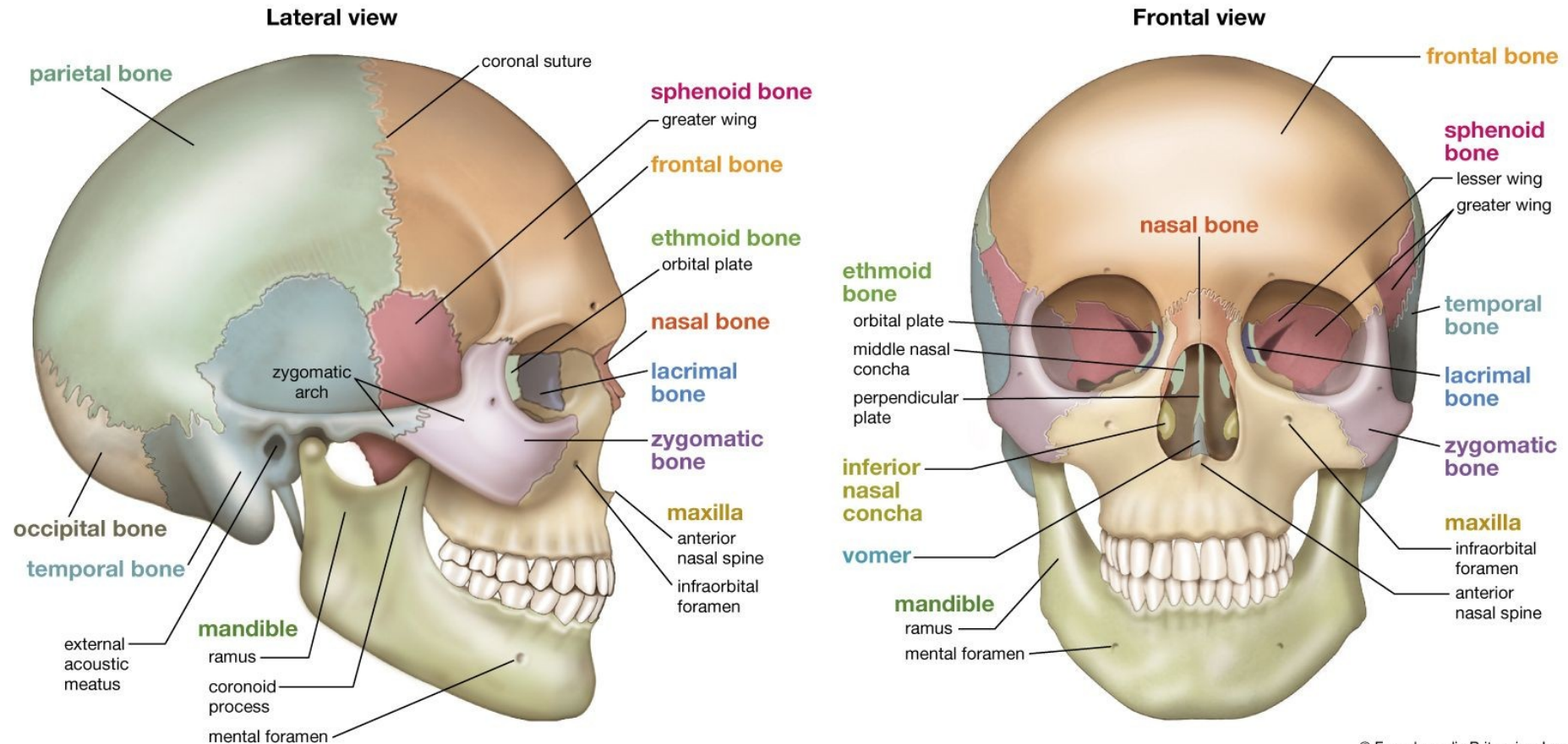
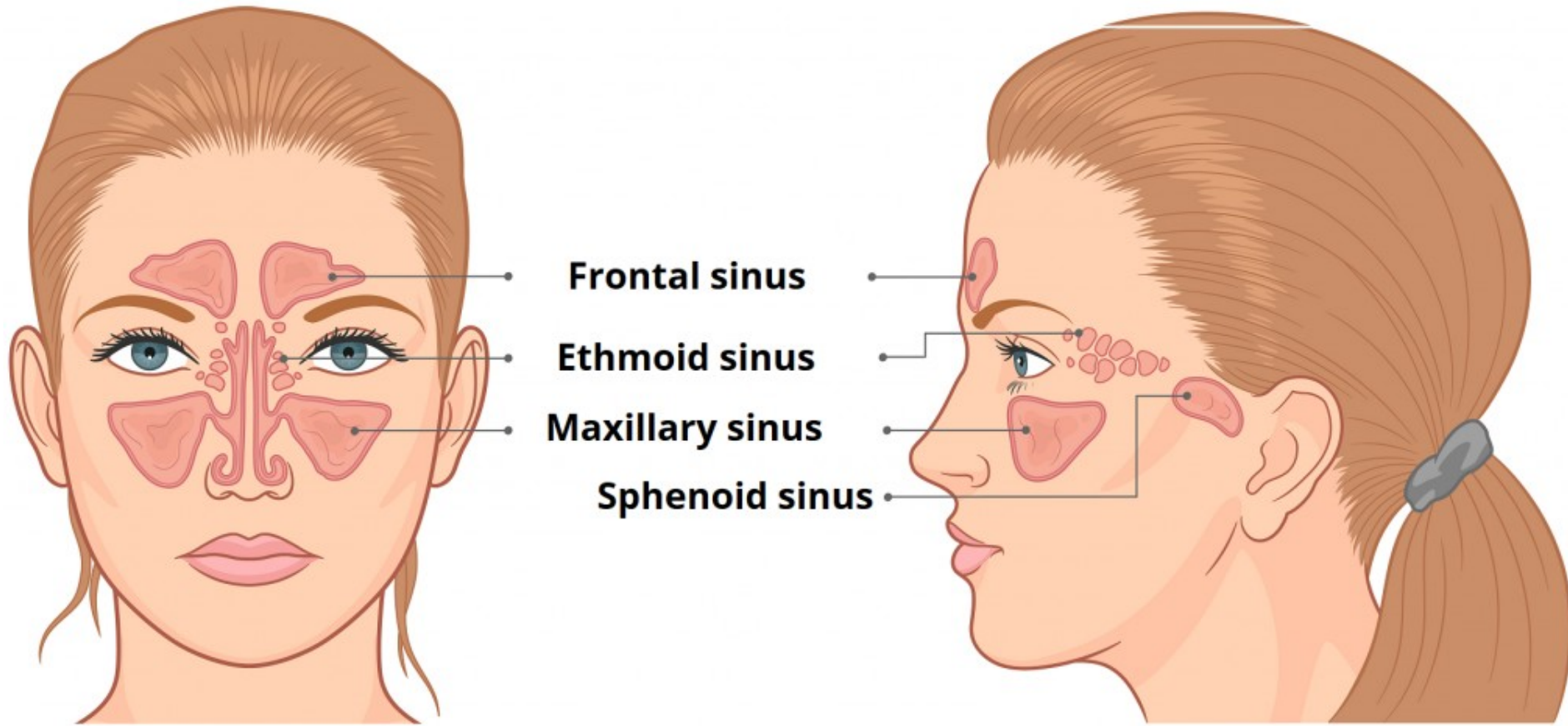


# Kostra - lebka

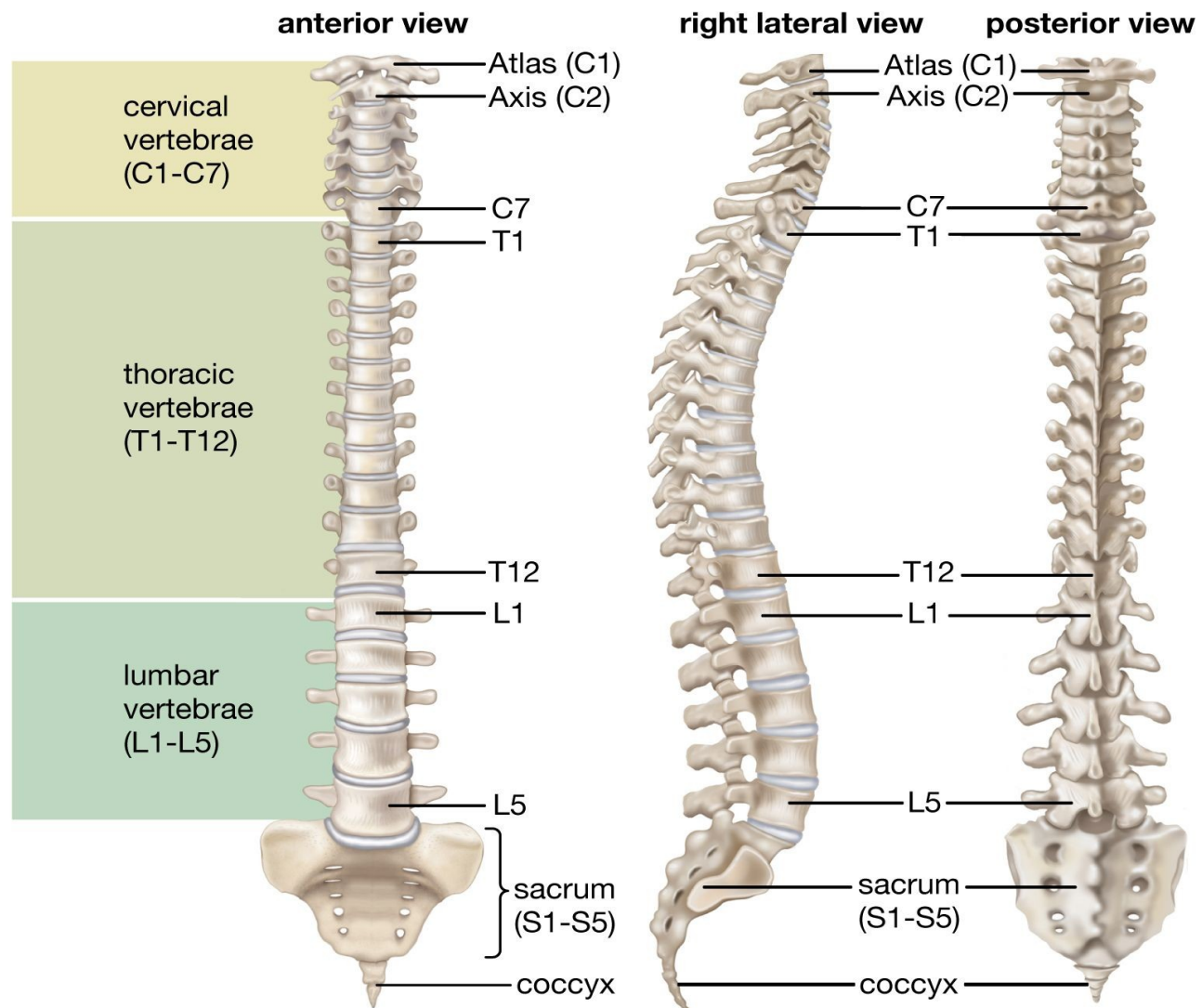


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# Vedlejší dutiny nosní – sinusi paranasales



# Páteř – Columna vertebrarum



<https://www.britannica.com/science/ve>



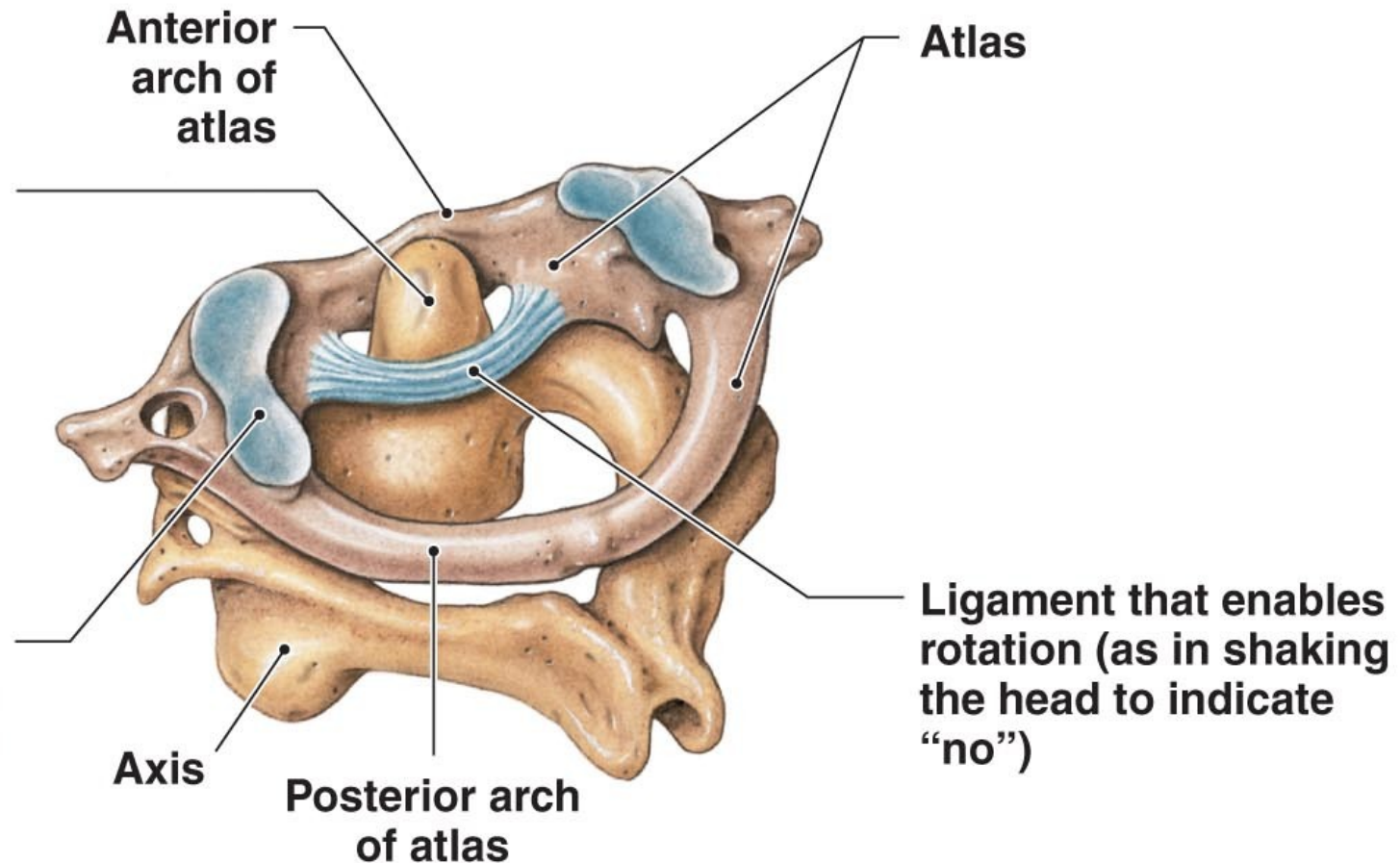
# Spojení Atlas – axis C1- C2

<https://youtu.be/amOPxAXGK4>

The first two cervical vertebrae: the atlas and the axis

Dens (odontoid process)

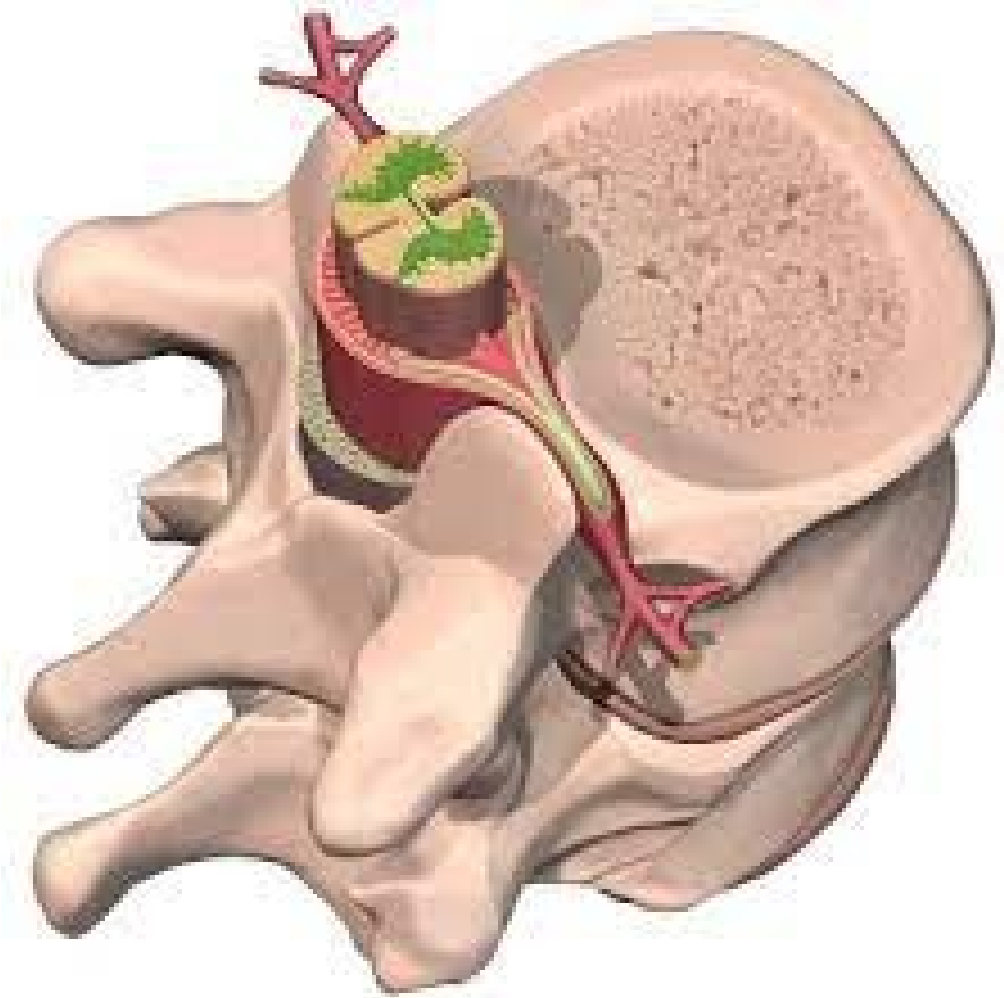
Joint that permits nodding (as in indicating “yes”)



[https://www.google.cz/search?q=connection+atlas+axis&tbm=isch&ved=2ahUKEwibrTbG0sZ7AhXBz7siHcvZDJEQ2-cCegQIABA&oeq=connection+atlas+axis&gs\\_lcp=CgNpbWwCQAZoECAAQzofCAAQgAAQ6CAgAEIAELEDogQIABBAeOgcIABCAABBA TOglABAFEB4QEZolCAAOQBAAEEM6BggAEAgQHICjCvicOWCaQWgAcAB4AIAB8QGIAlfQkGEFMTIuMTcVAOCgAAQgAAQIInd3Mt d2l6LWltZ8ABAAQ&scIent=img&ei=h3GCY9vOLGf7\\_UPy7OzIAk&bih=609&biw=1263&hl=cs#imgrc=CWUW64w00eZEUm](https://www.google.cz/search?q=connection+atlas+axis&tbm=isch&ved=2ahUKEwibrTbG0sZ7AhXBz7siHcvZDJEQ2-cCegQIABA&oeq=connection+atlas+axis&gs_lcp=CgNpbWwCQAZoECAAQzofCAAQgAAQ6CAgAEIAELEDogQIABBAeOgcIABCAABBA TOglABAFEB4QEZolCAAOQBAAEEM6BggAEAgQHICjCvicOWCaQWgAcAB4AIAB8QGIAlfQkGEFMTIuMTcVAOCgAAQgAAQIInd3Mt d2l6LWltZ8ABAAQ&scIent=img&ei=h3GCY9vOLGf7_UPy7OzIAk&bih=609&biw=1263&hl=cs#imgrc=CWUW64w00eZEUm)

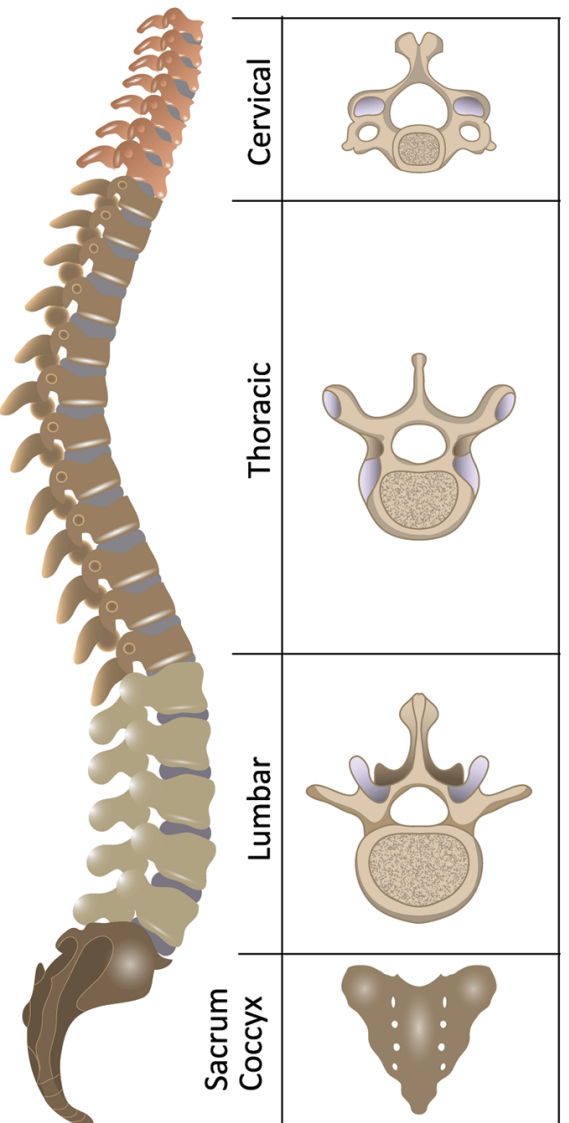


[https://www.google.cz/search?q=outputs+nerves+from+vertebrae&tbm=isch&ved=2ahUKEwif\\_oXR1sz7AHXUXgIHHTCcb2UQ2cCegQlABAA&dq=outputs+nerves+from+vertebrae&gs\\_lcp=CgNpbWcQAzoFCAAQgAQA06BAGAEEM6BgAEACQHjoiCAAOQBABEB50tYzgHFg6HvOAXAAEACACACMBIAG5FpiBBDguIMTOYAQCgAQGqAQCtrnd3Mtd2l6LWIz8ABAQ&scit=img&ei=23WCY8X3DtsNI-gPslieqAV&bih=255&biw=628#imgrc=YcdxTPfBR3n5M](https://www.google.cz/search?q=outputs+nerves+from+vertebrae&tbm=isch&ved=2ahUKEwif_oXR1sz7AHXUXgIHHTCcb2UQ2cCegQlABAA&dq=outputs+nerves+from+vertebrae&gs_lcp=CgNpbWcQAzoFCAAQgAQA06BAGAEEM6BgAEACQHjoiCAAOQBABEB50tYzgHFg6HvOAXAAEACACACMBIAG5FpiBBDguIMTOYAQCgAQGqAQCtrnd3Mtd2l6LWIz8ABAQ&scit=img&ei=23WCY8X3DtsNI-gPslieqAV&bih=255&biw=628#imgrc=YcdxTPfBR3n5M)



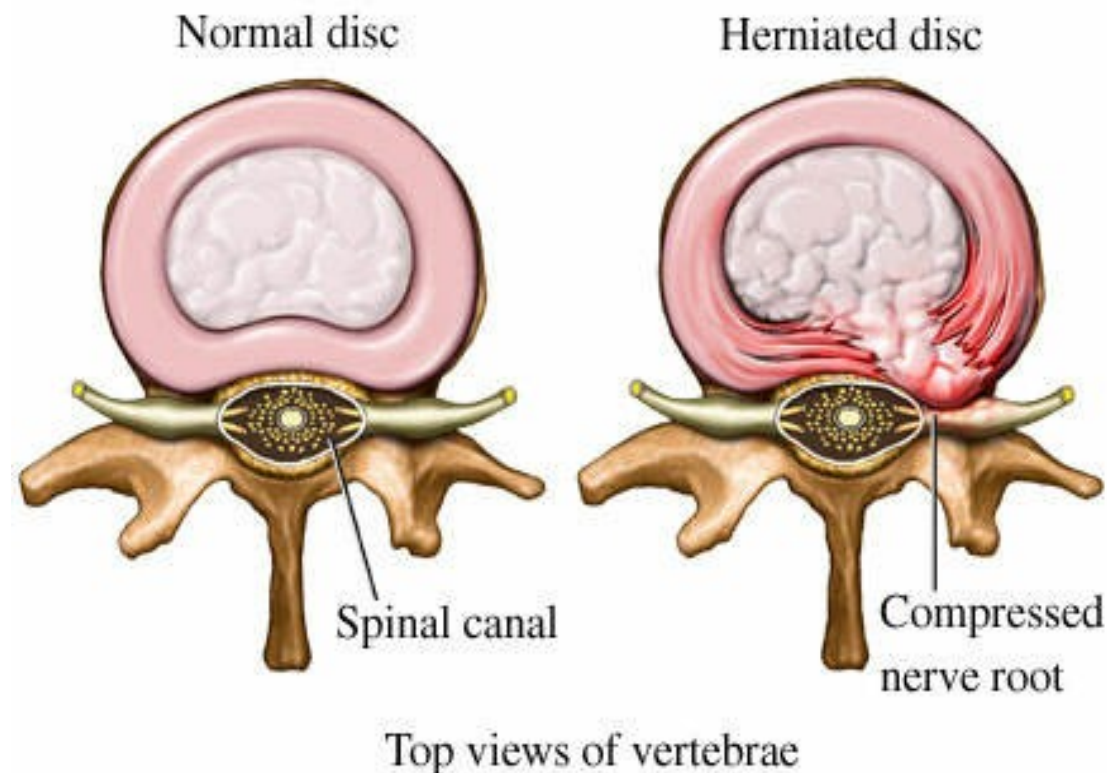
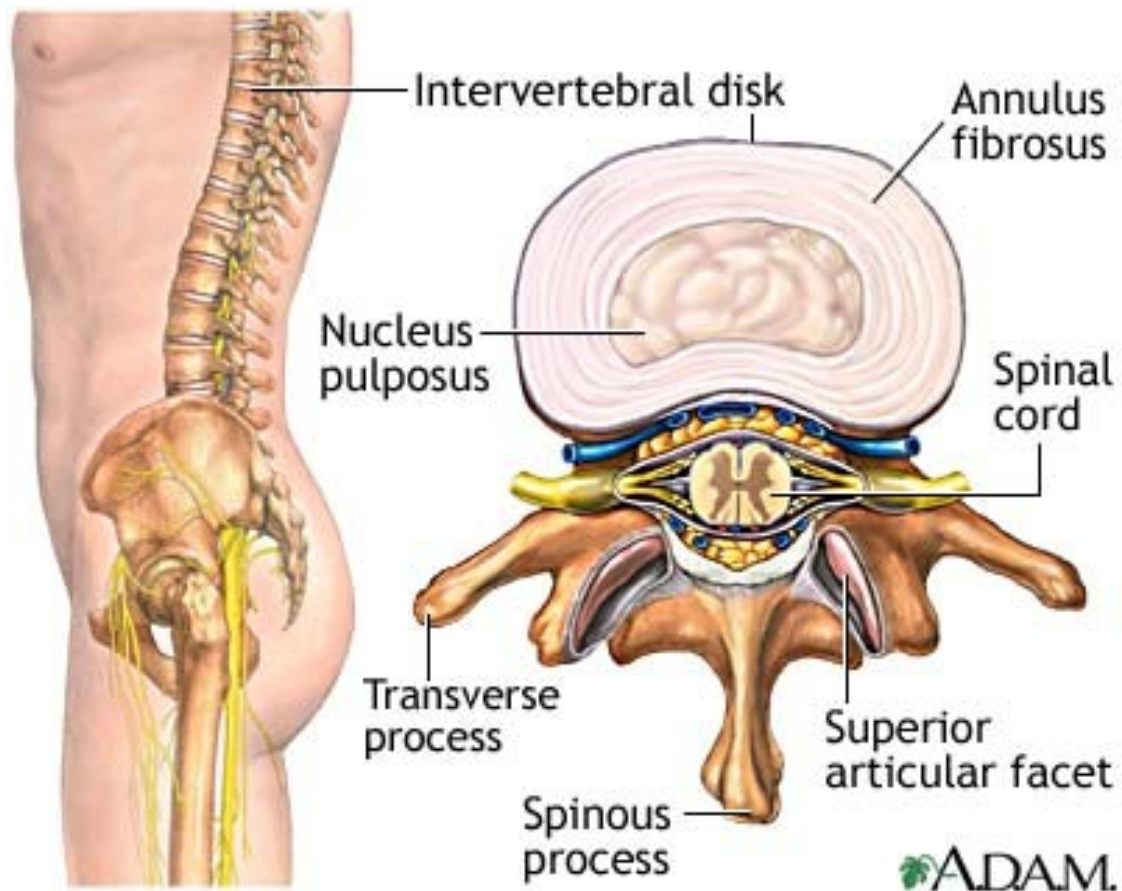
vertebra,

Obratel, stavba  
vertebrae



[https://www.google.cz/search?q=vertebrae&source=lmns&tbm=isch&sa=X&ved=2ahUKEwjt0lvQ1sz7AhVcSKQKHb9aAa4Q\\_AUoAXoECAIQAw&biw=628&bih=255&dpf=1.5#imgrc=10ycP5HITWIAW](https://www.google.cz/search?q=vertebrae&source=lmns&tbm=isch&sa=X&ved=2ahUKEwjt0lvQ1sz7AhVcSKQKHb9aAa4Q_AUoAXoECAIQAw&biw=628&bih=255&dpf=1.5#imgrc=10ycP5HITWIAW)

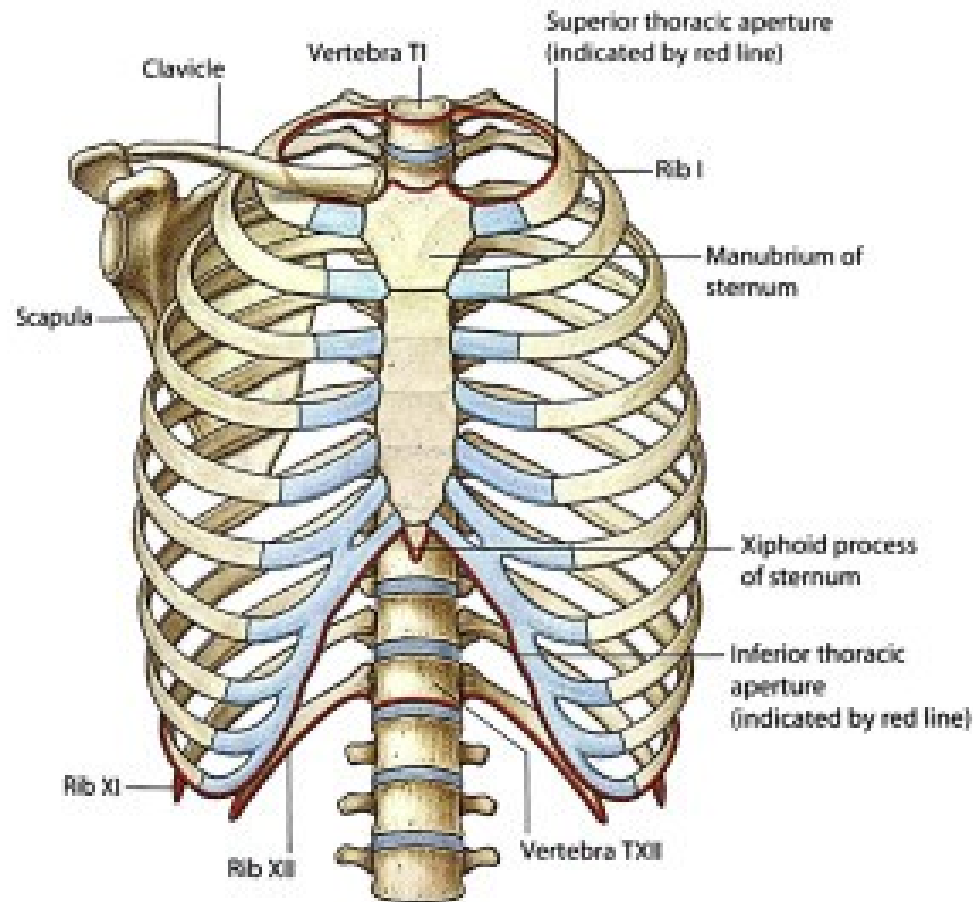
# Meziobratlové ploténky, discus intervertebralis



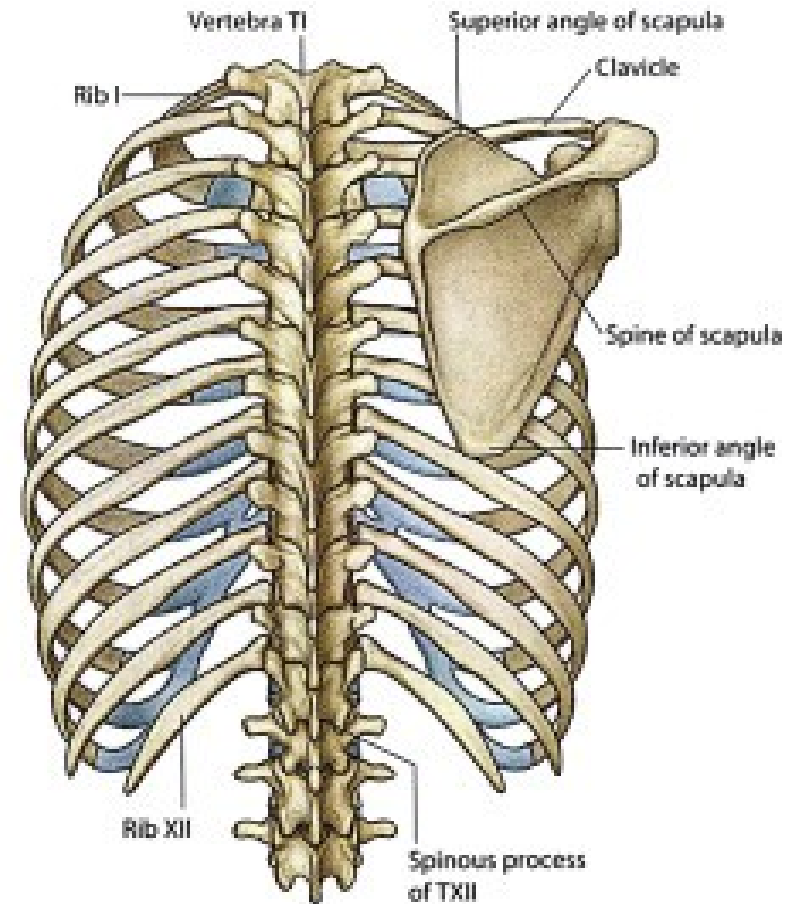
[https://www.google.cz/search?q=discus+intervertebralis&tbm=isch&ved=2ahUKEwjz69O118z7AhX-xgIHdHdWc5AQ2-cCegQIABAA&oeq=discus+inter&gs\\_lcp=CgNpbWcQARgAMgUIABCABDIECAAQHjIECAAQHjIECAAQHjIECAAQHjIECAAQHjGCAAQBR AeMgYIABAIEB4yBAgAEB4yBAgAEB46CAgAEIAEELEDOgQIABBDULQJWLkhYNYvaABwAHgAgAGqAogBgwysAQULjguMZgBAKABA aoBC2d3cy13aXotaW1nwAEB&scit=img&ei=Q3aCY7O-NP6Ni-gP0OGtgAk&bih=255&biw=628#imgrc=qNgHlkOmRuirAM](https://www.google.cz/search?q=discus+intervertebralis&tbm=isch&ved=2ahUKEwjz69O118z7AhX-xgIHdHdWc5AQ2-cCegQIABAA&oeq=discus+inter&gs_lcp=CgNpbWcQARgAMgUIABCABDIECAAQHjIECAAQHjIECAAQHjIECAAQHjIECAAQHjGCAAQBR AeMgYIABAIEB4yBAgAEB4yBAgAEB46CAgAEIAEELEDOgQIABBDULQJWLkhYNYvaABwAHgAgAGqAogBgwysAQULjguMZgBAKABA aoBC2d3cy13aXotaW1nwAEB&scit=img&ei=Q3aCY7O-NP6Ni-gP0OGtgAk&bih=255&biw=628#imgrc=qNgHlkOmRuirAM)

[https://www.google.cz/search?q=prolaps+discus+intervertebralis&tbm=isch&ved=2ahUKEwjkrMGE2Mz7AhWRNewKHTR9D9gQ2-cCegQIABAA&oeq=prolaps+discus+intervertebralis&gs\\_lcp=CgNpbWcQAZoFCAAQgAQ6BggAEAcQHjoECAAQHIDLliaQGCqRGgA cAB4AIB0QGIAYglkgEFNC40LjGYAQCgAQGqAQQnd3Mtd216LWitZ8ABAQ&scit=img&ei=R3eCY6TtJHrsAe0-r3ADQ&bih=255&biw=628#imgrc=jK64SpwG6sGqM](https://www.google.cz/search?q=prolaps+discus+intervertebralis&tbm=isch&ved=2ahUKEwjkrMGE2Mz7AhWRNewKHTR9D9gQ2-cCegQIABAA&oeq=prolaps+discus+intervertebralis&gs_lcp=CgNpbWcQAZoFCAAQgAQ6BggAEAcQHjoECAAQHIDLliaQGCqRGgA cAB4AIB0QGIAYglkgEFNC40LjGYAQCgAQGqAQQnd3Mtd216LWitZ8ABAQ&scit=img&ei=R3eCY6TtJHrsAe0-r3ADQ&bih=255&biw=628#imgrc=jK64SpwG6sGqM)

# Hrudník, Thorax



**Bony framework of thorax  
(anterior view)**

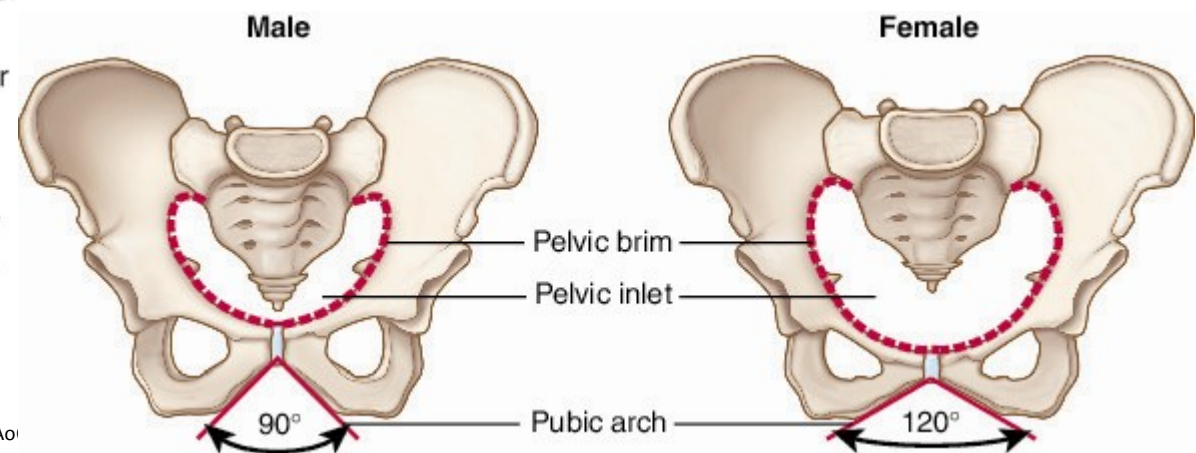
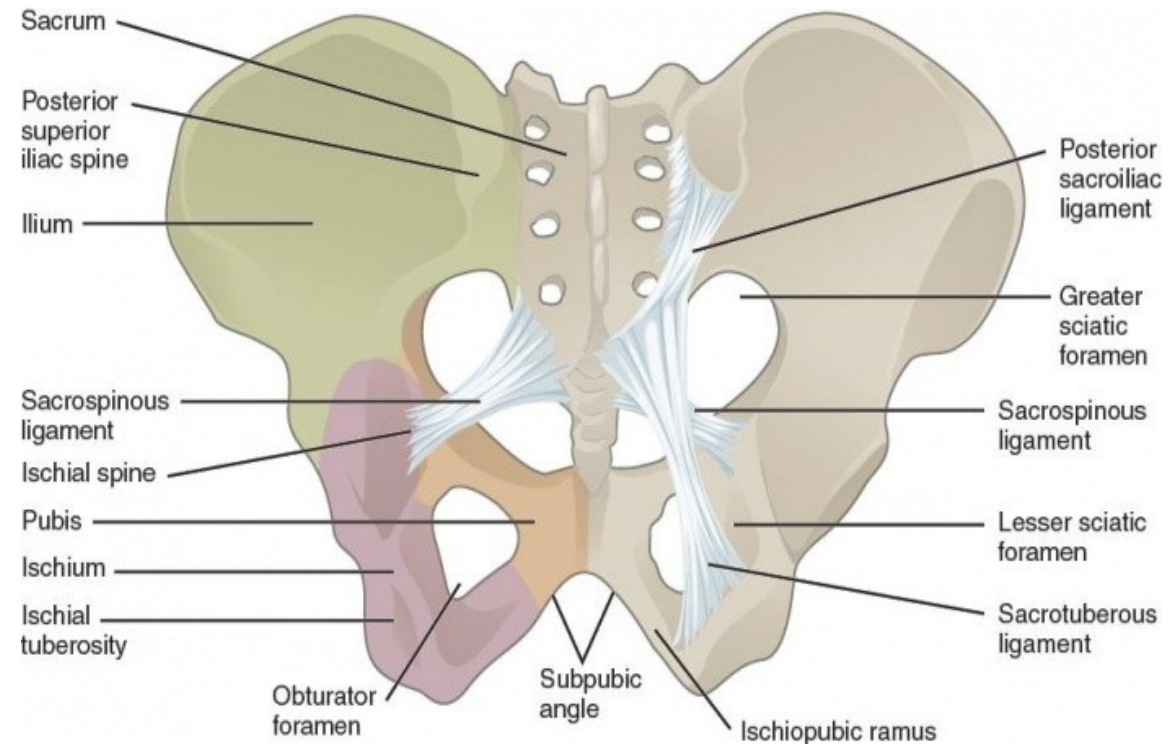
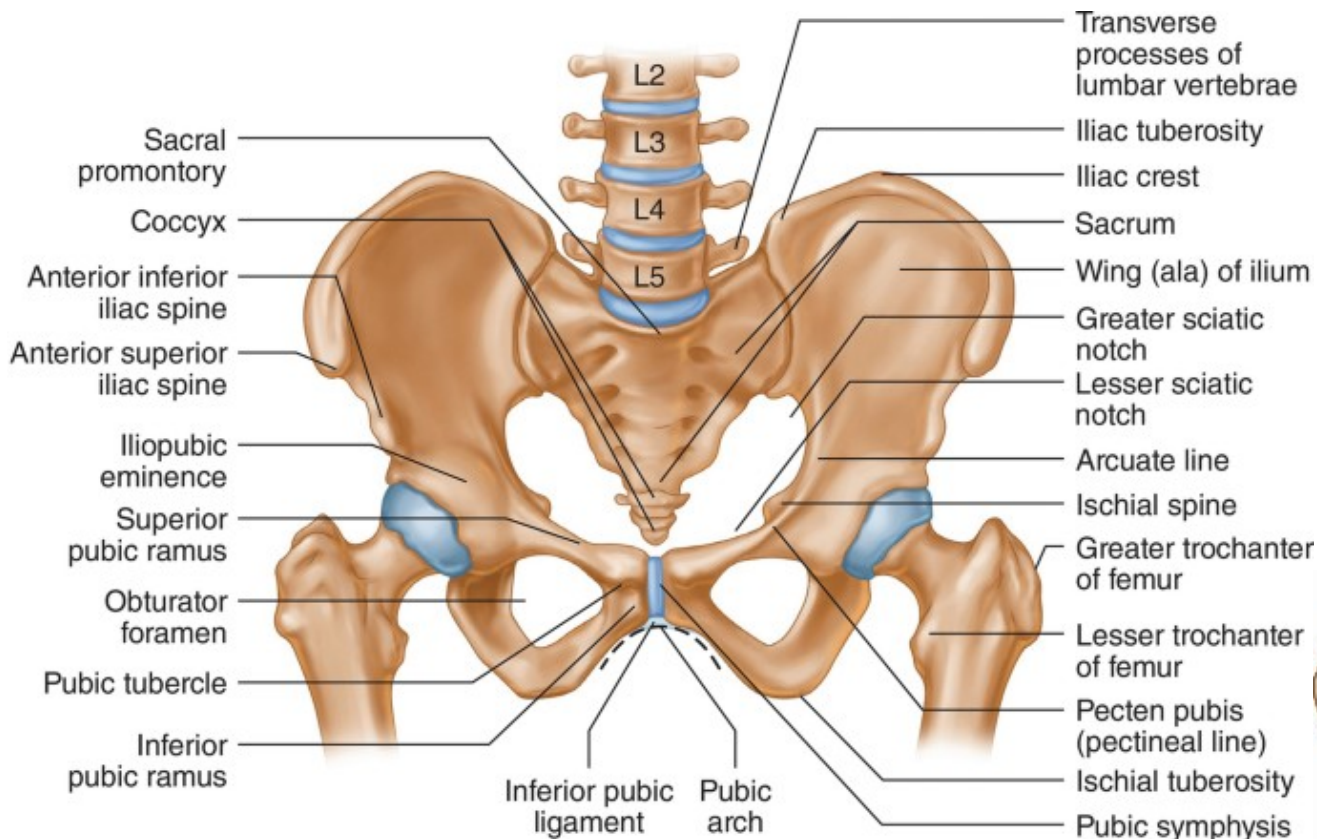


**Bony framework of thorax  
(posterior view)**





# Pánev - pelvis



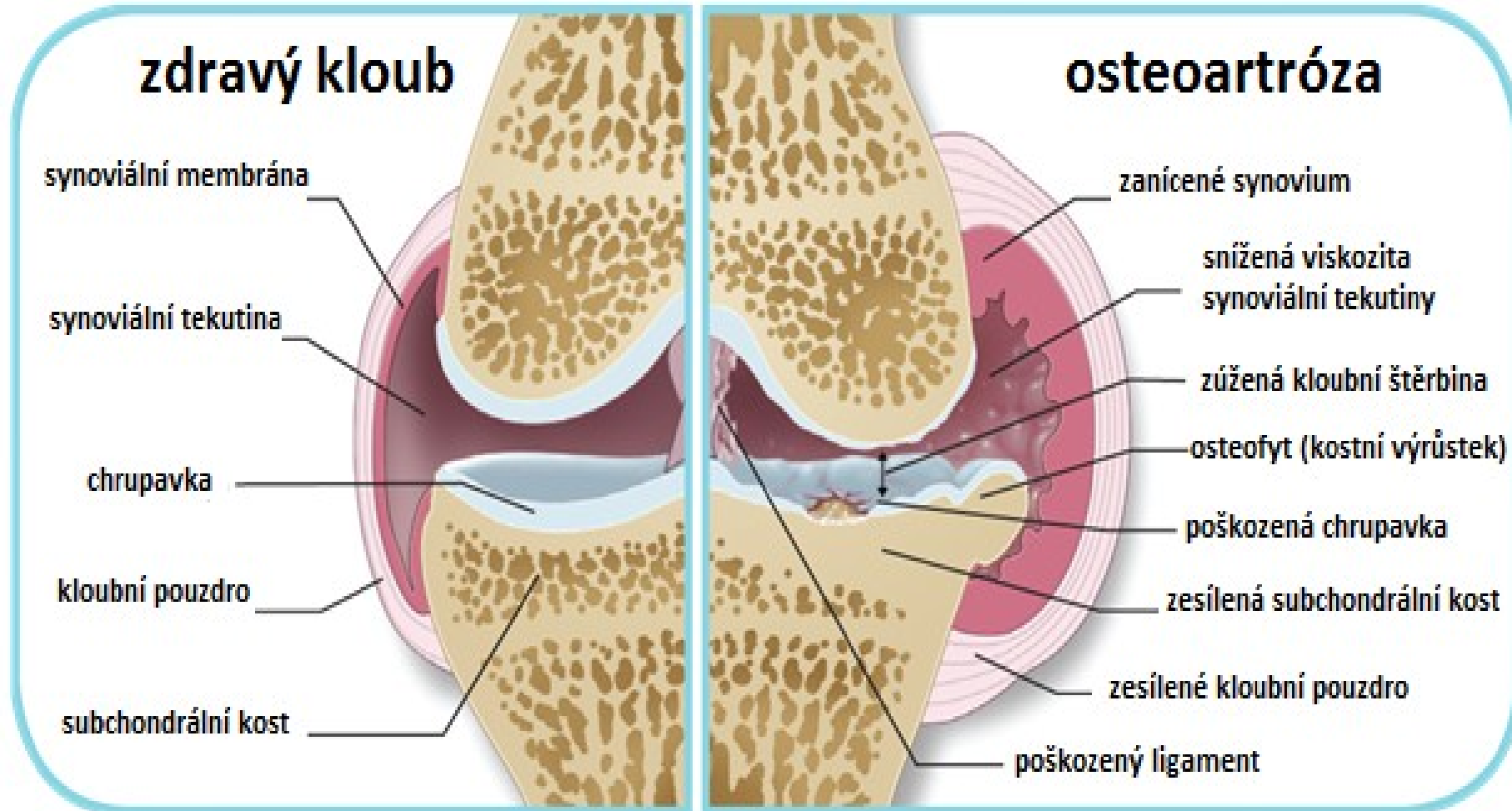
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<https://nursing.unboundmedicine.com/nursingcentral/view/Tabers-Dictionary/764020/all/pelvis>



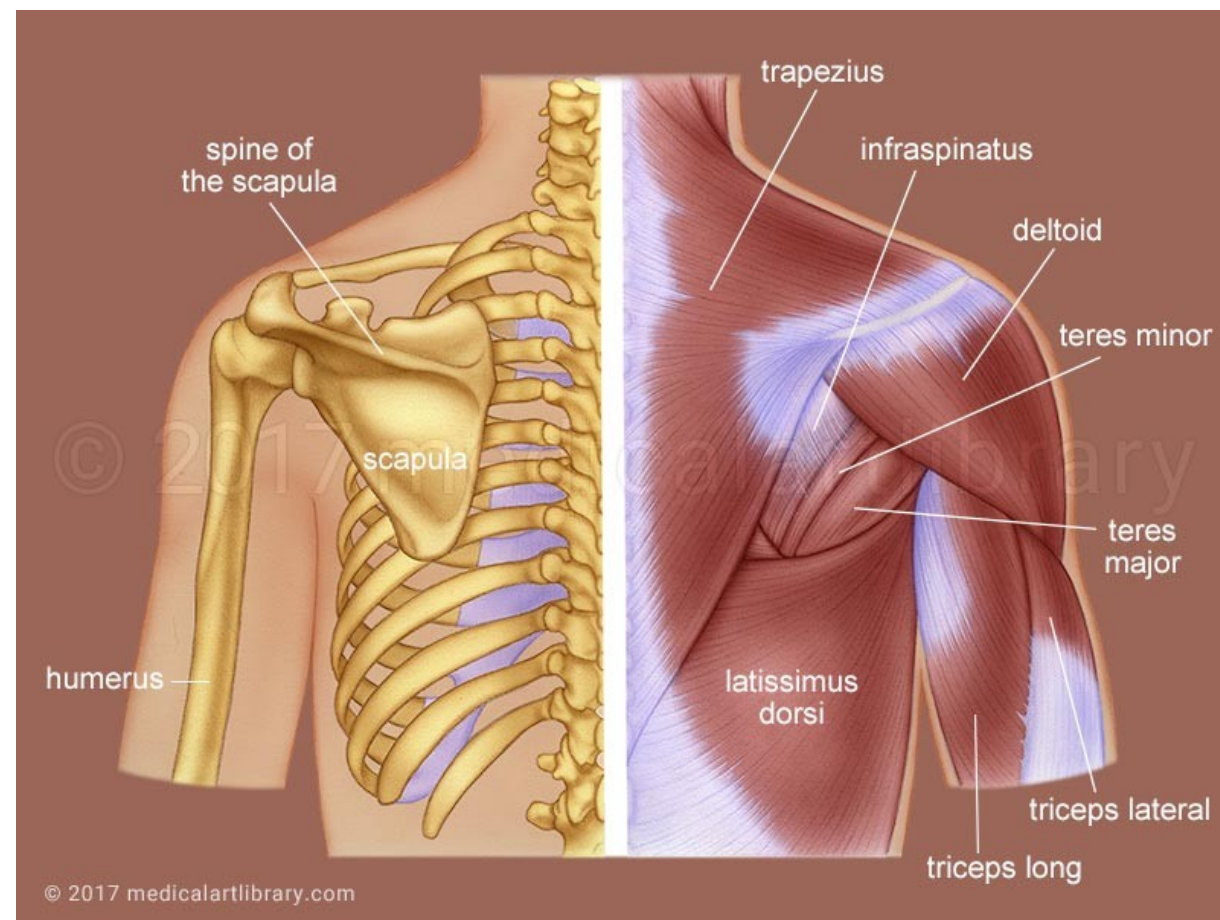


# Stavba kloubu

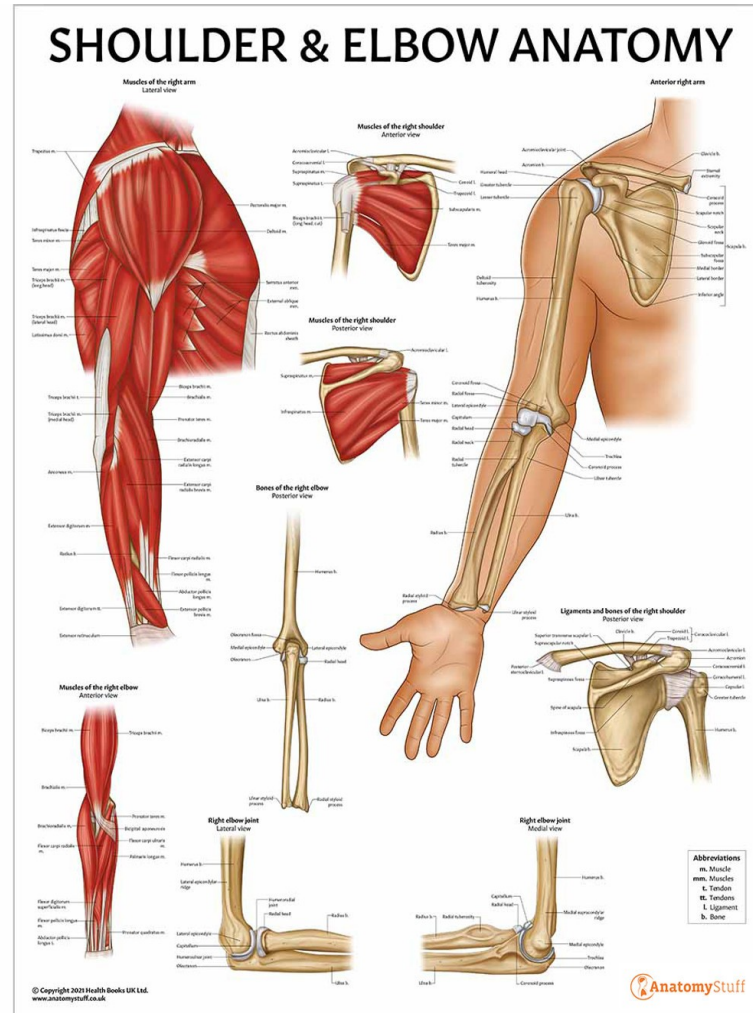


# Ramenní kloub

- <https://www.youtube.com/watch?v=D3GVKjeY1FM>



# Loketní kloub – articulatio cubiti





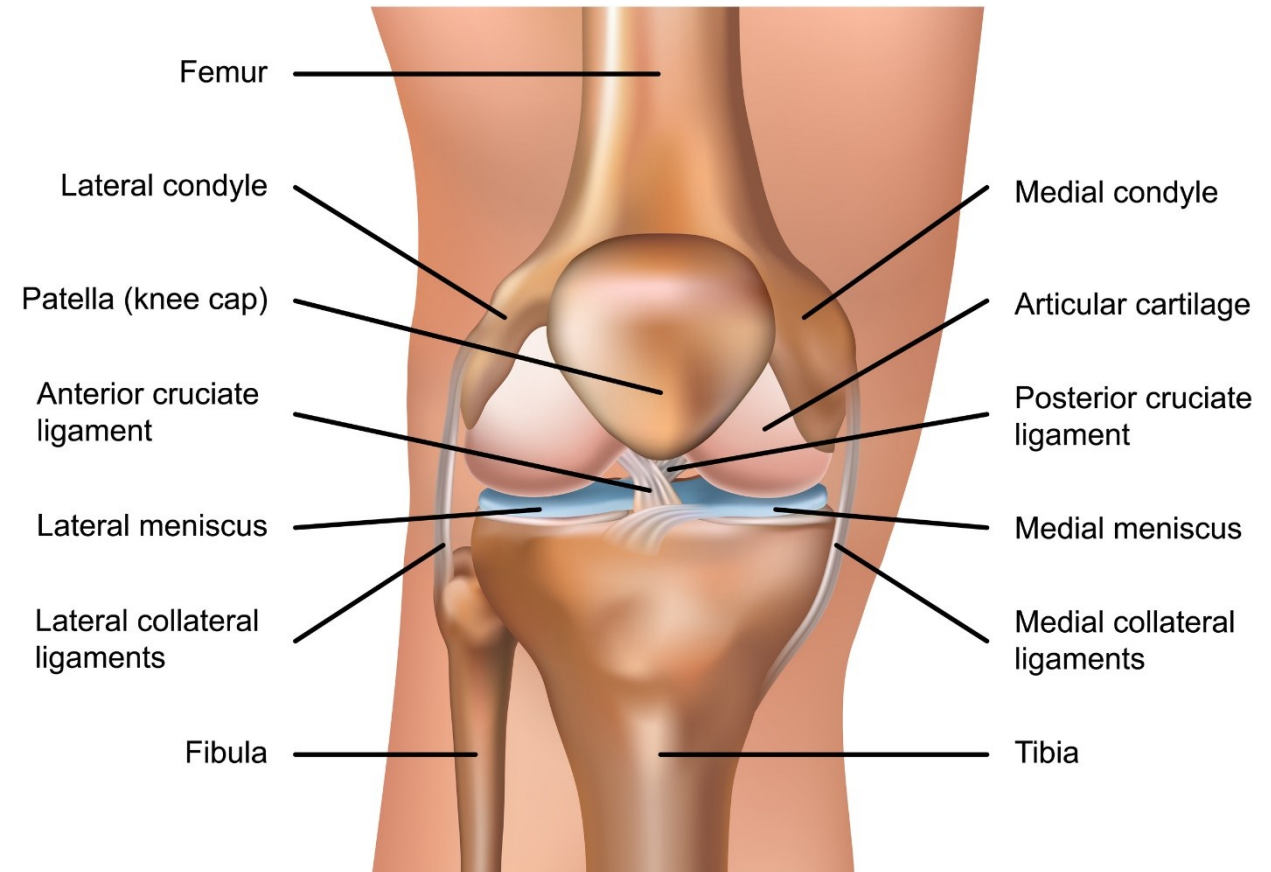
# Klouby ruky – articulatio manus



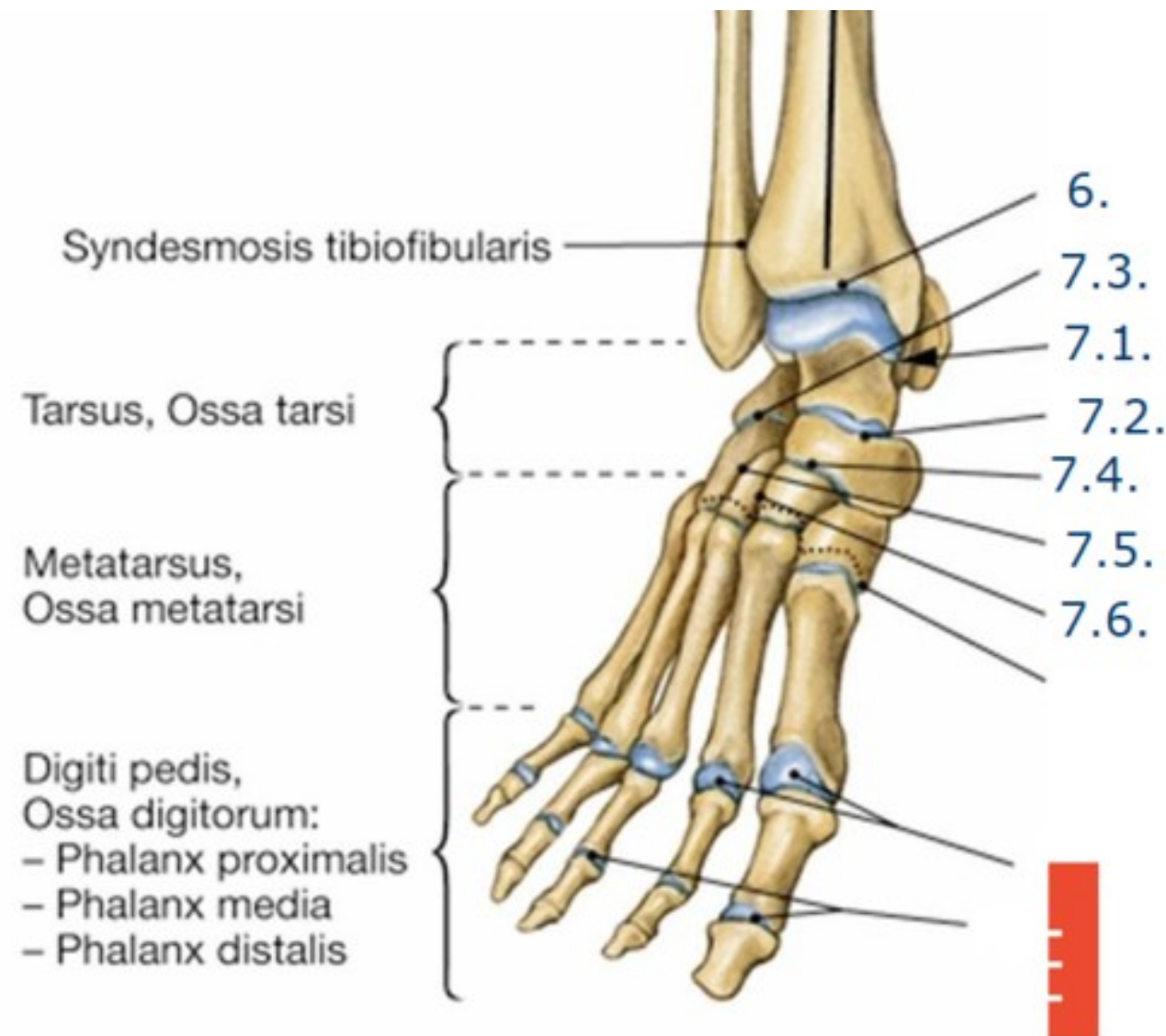
<https://www.dreamstime.com/arm-hand-bone-vector-illustration-arm-hand-bone-image178009684>

# Kolenní kloub

- <https://www.youtube.com/watch?v=q-Jxj5sT0g>

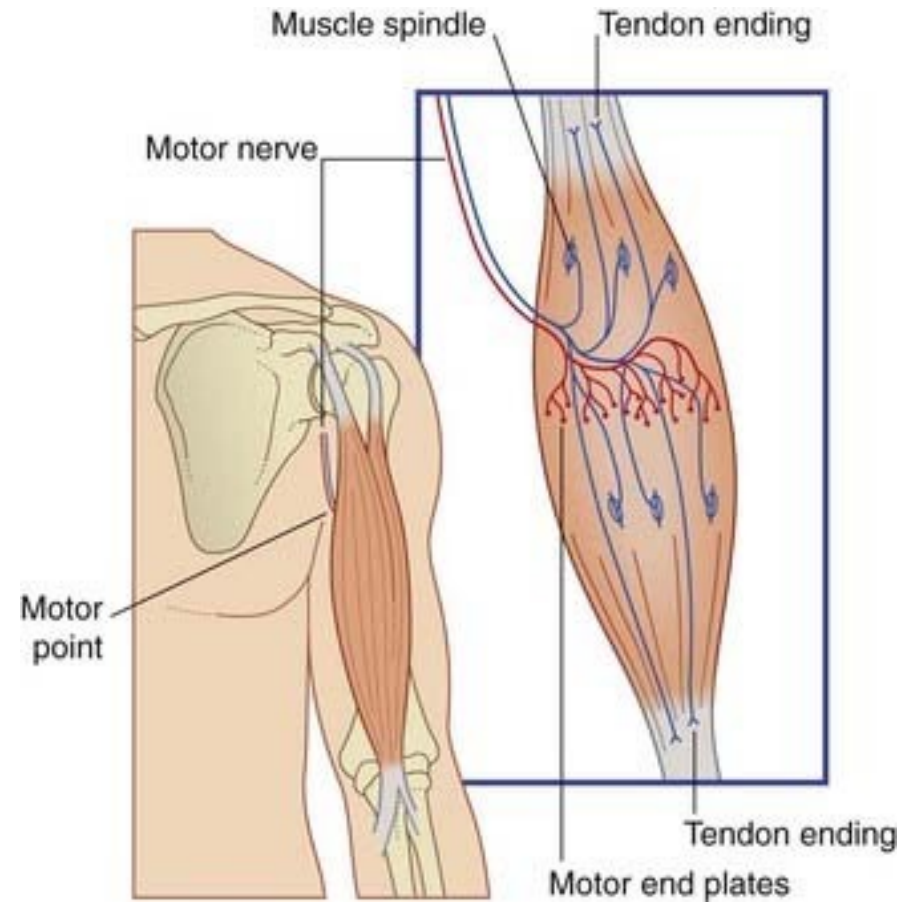
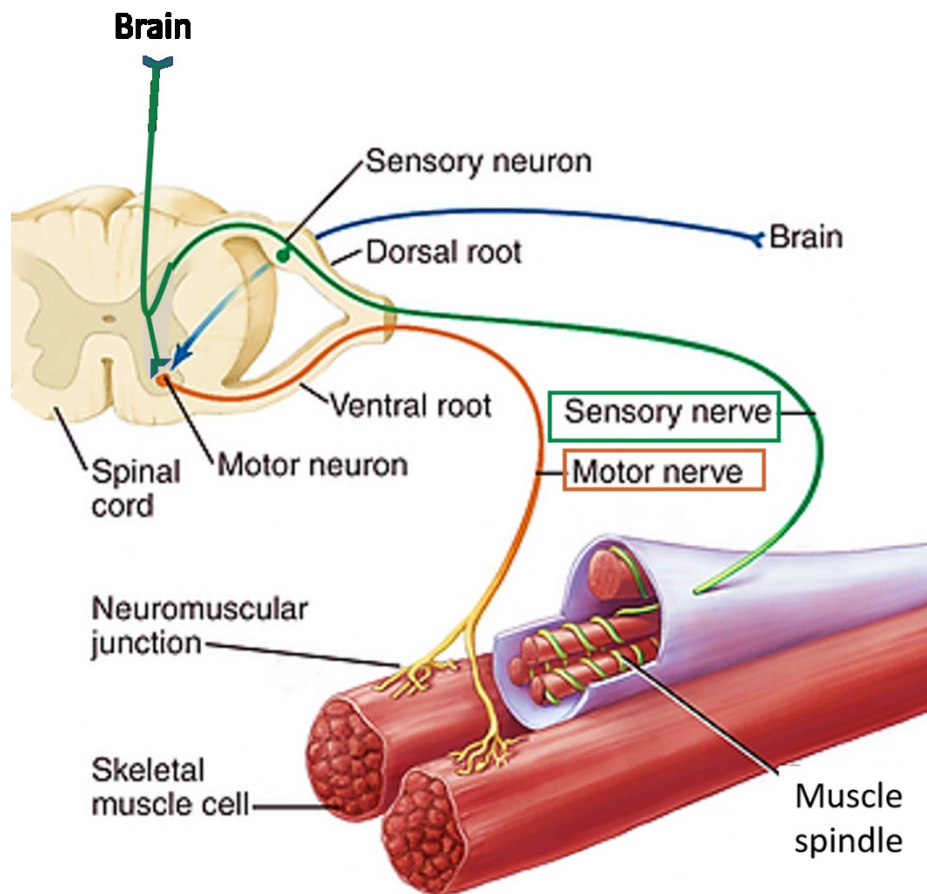


# Kloub hlezenní articulatio talocruralis

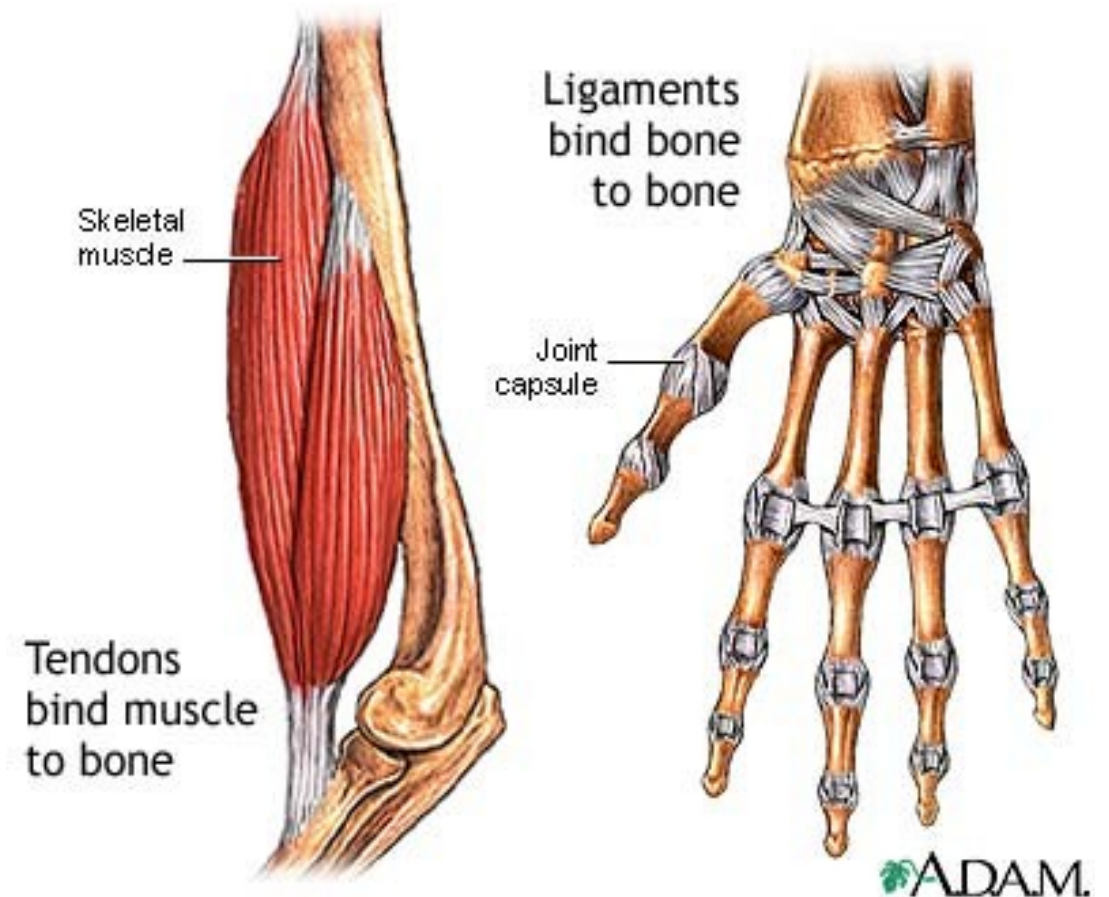
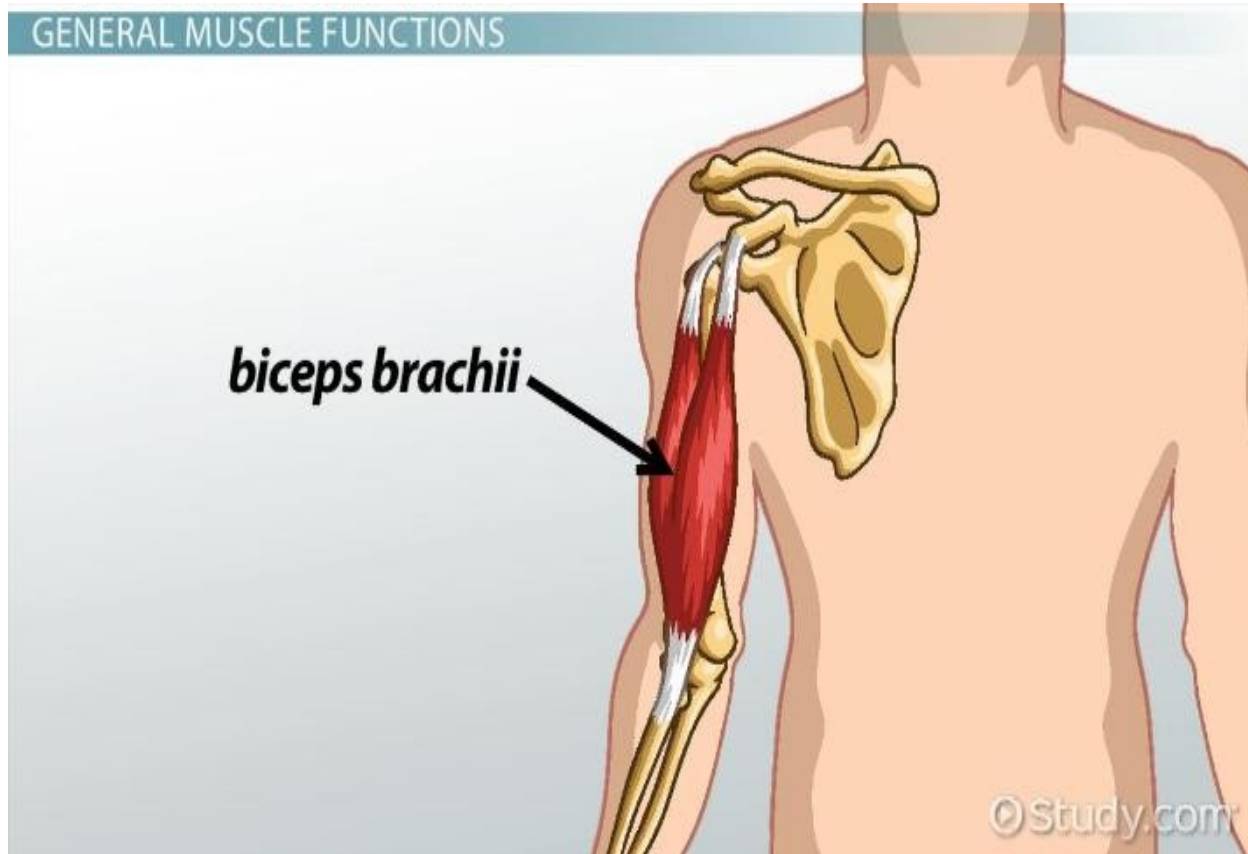




# Inervace svalů



# Šlachy - tendinum, vazy - ligamenta





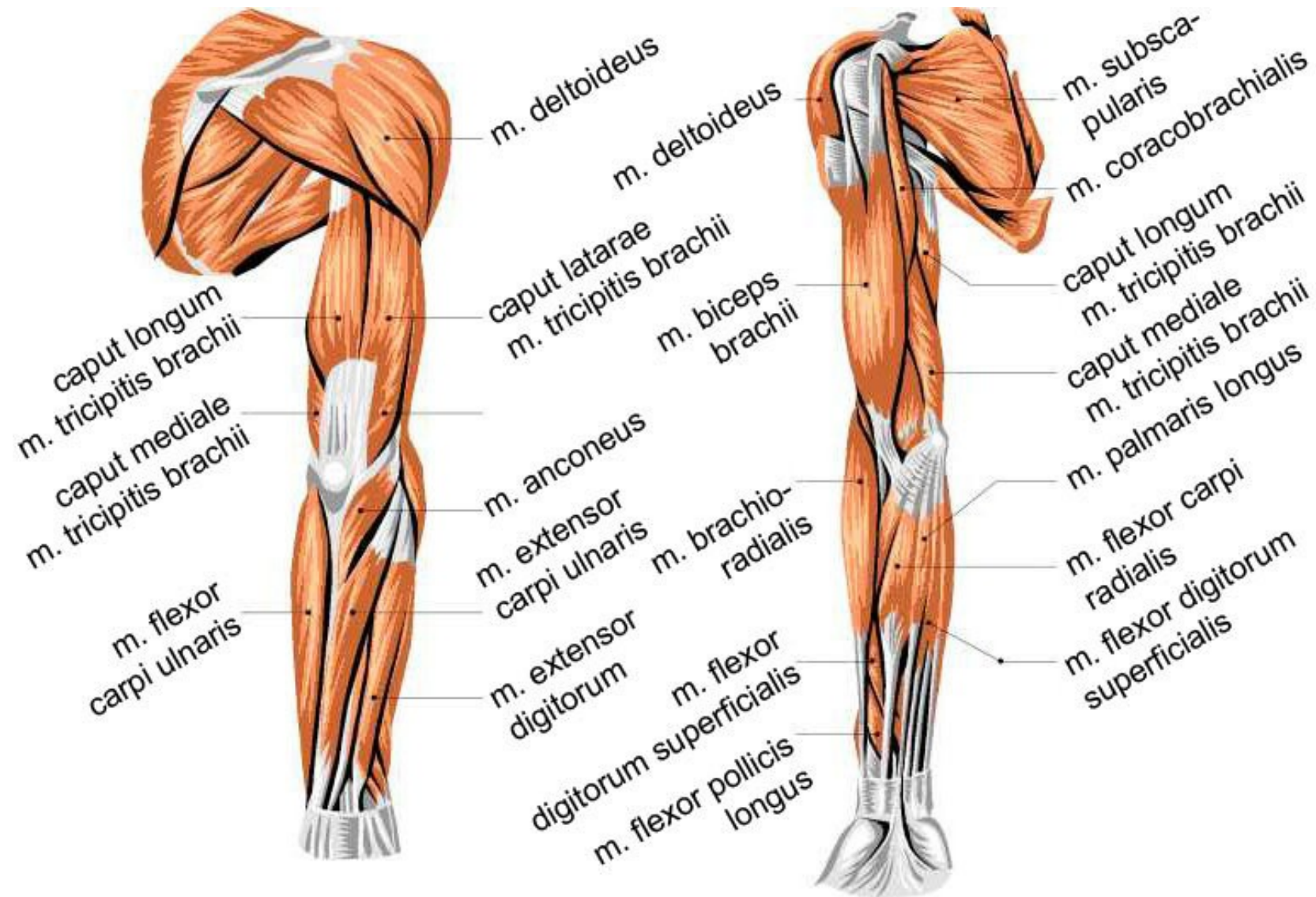






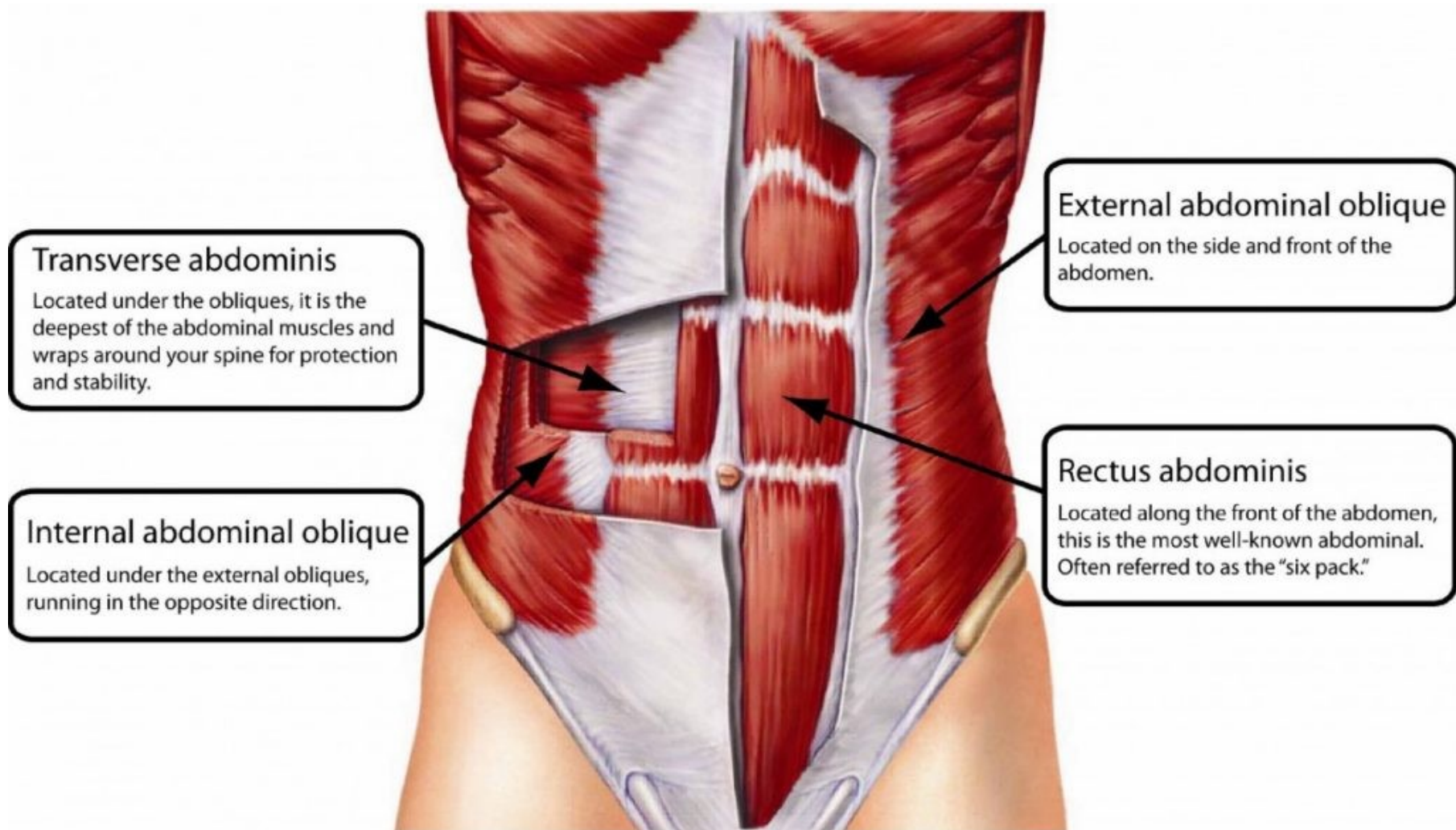


# Svaly horní končetiny



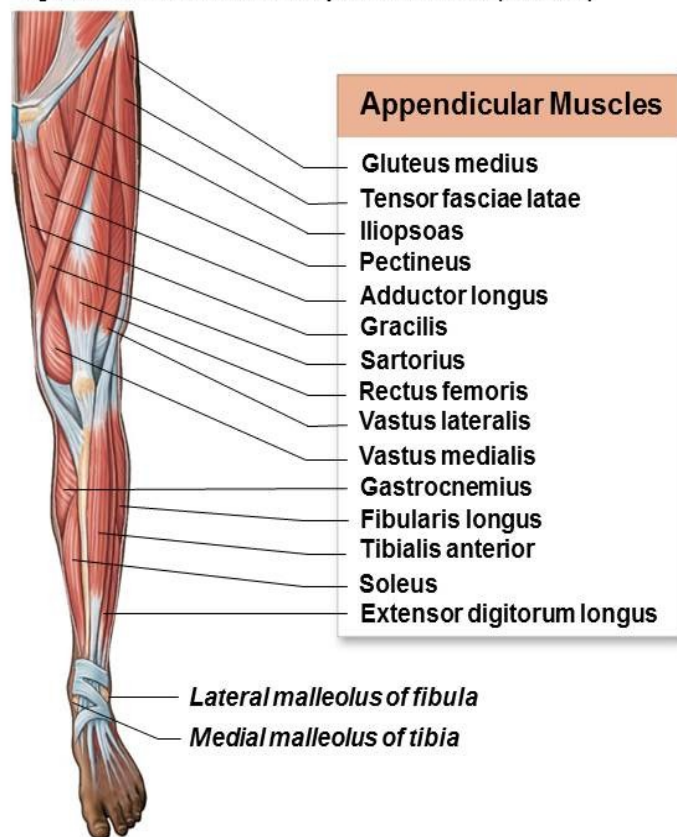


# Svaly břicha



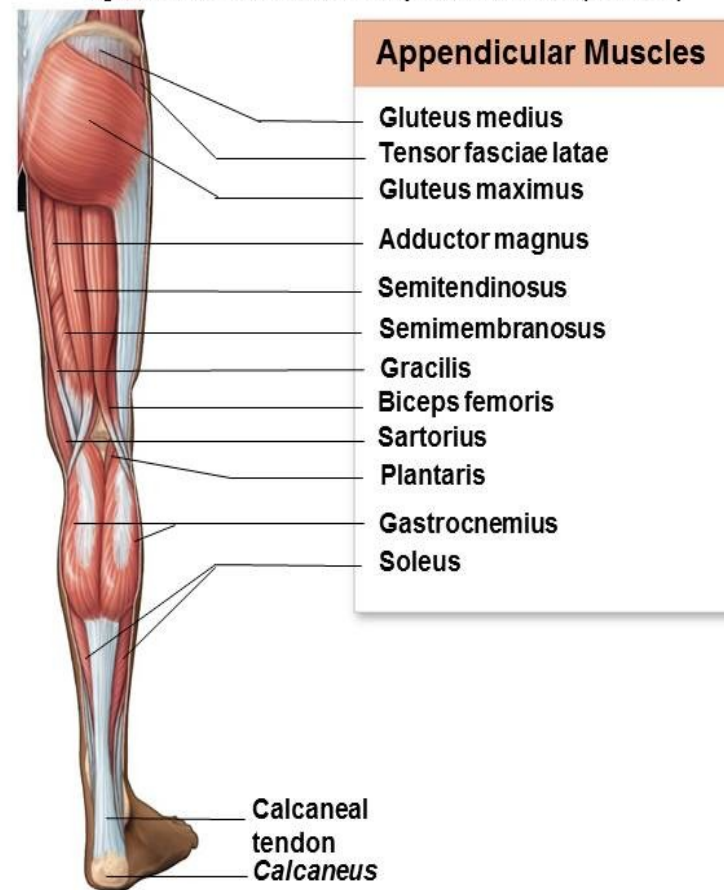
# Svaly dolní končetiny

Figure 11-3a An Overview of the Major Skeletal Muscles (Part 6 of 6)



**a** An anterior view.  
ATLAS: Plates 1a; 39a–d

Figure 11-3b An Overview of the Major Skeletal Muscles (Part 5 of 6)



**b** A posterior view  
ATLAS: Plates 1b; 40a,b



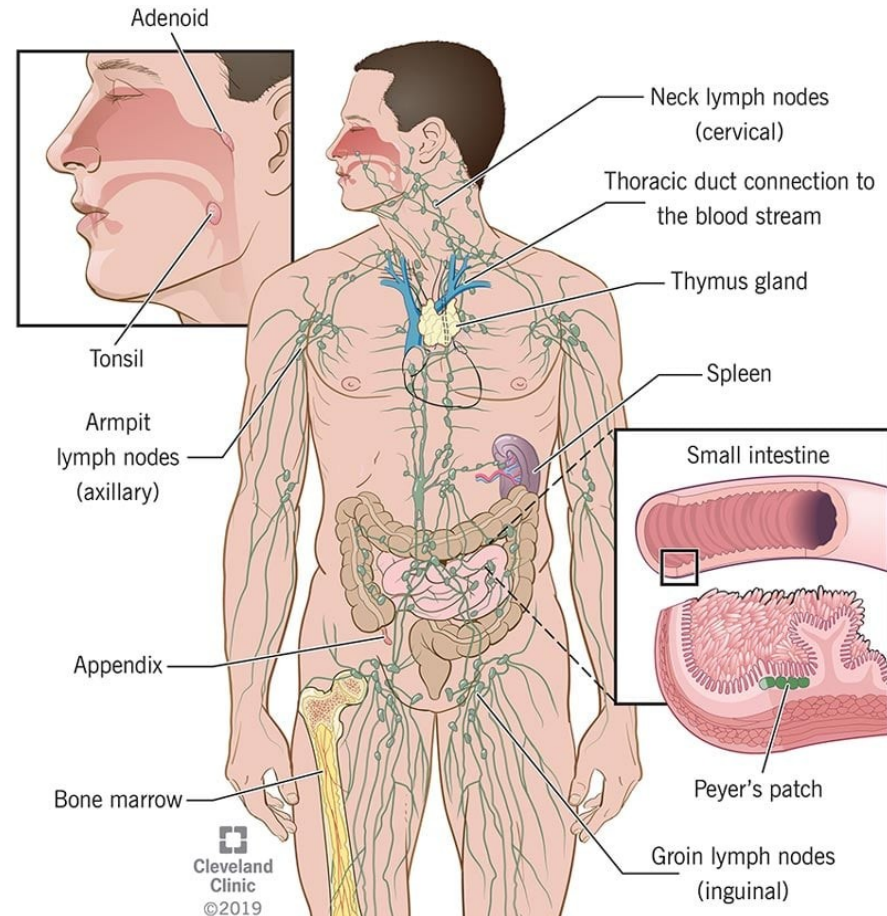
# Krev – tekutá tkáň

<https://www.youtube.com/watch?v=PK5YbDZODYk>

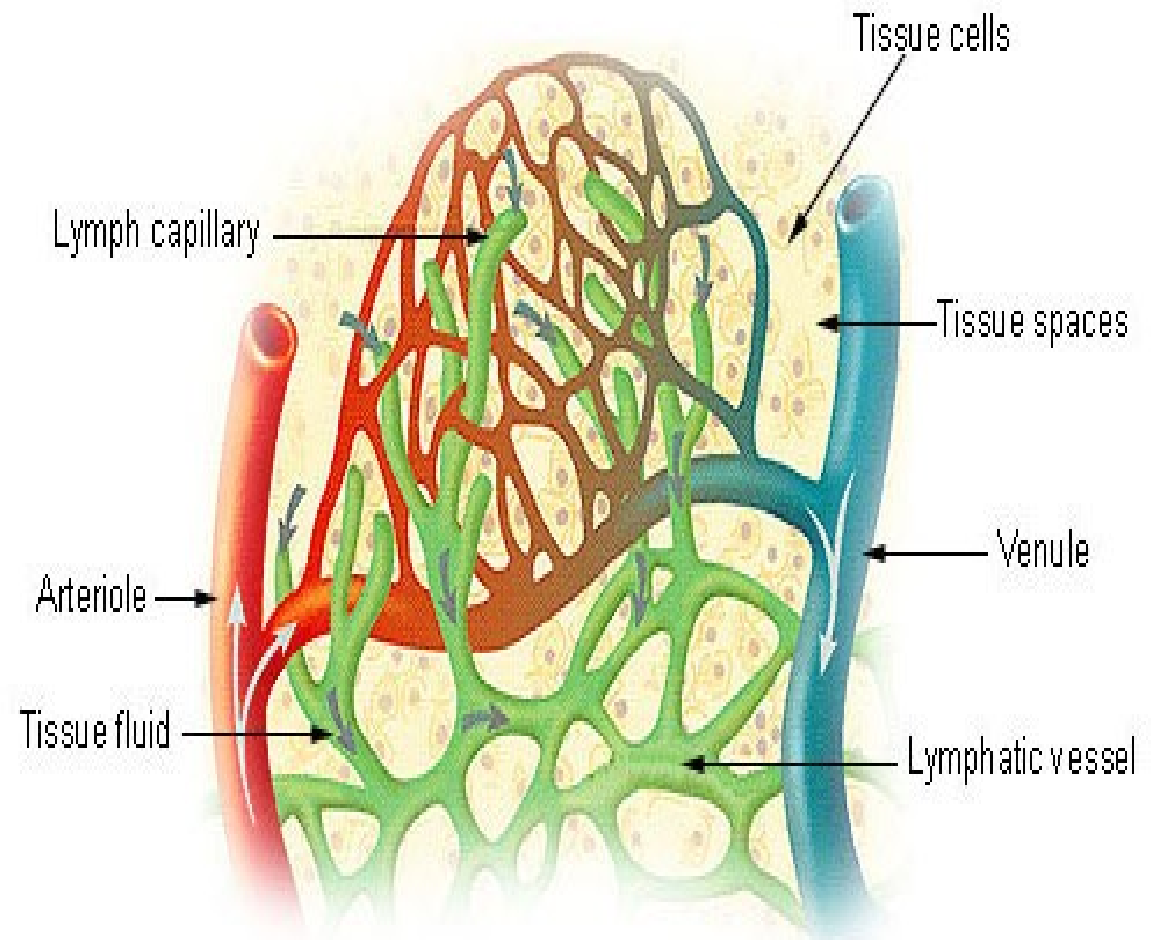
## Hematopoeza

- <https://www.youtube.com/watch?v=0deCbmh7PHs>
- <https://www.youtube.com/watch?v=IXfEK8G8CUI>
  
- Přenos kyslíku Ery
- <https://www.youtube.com/watch?v=xEHGIRpGyh4>
- Srážení krve
- <https://www.youtube.com/watch?v=PK5YbDZODYk>
- <https://www.youtube.com/watch?v=DKFSH5MMPLM>
- <https://www.youtube.com/watch?v=R8JMfbYW2p4>
- [https://www.youtube.com/watch?v=cy3a\\_OOa2M](https://www.youtube.com/watch?v=cy3a_OOa2M)
- <https://www.youtube.com/watch?v=x8TLTTyyPfl>
- [https://www.wikiskripta.eu/w/Von\\_Willebrand%C5%AFv\\_faktor](https://www.wikiskripta.eu/w/Von_Willebrand%C5%AFv_faktor)

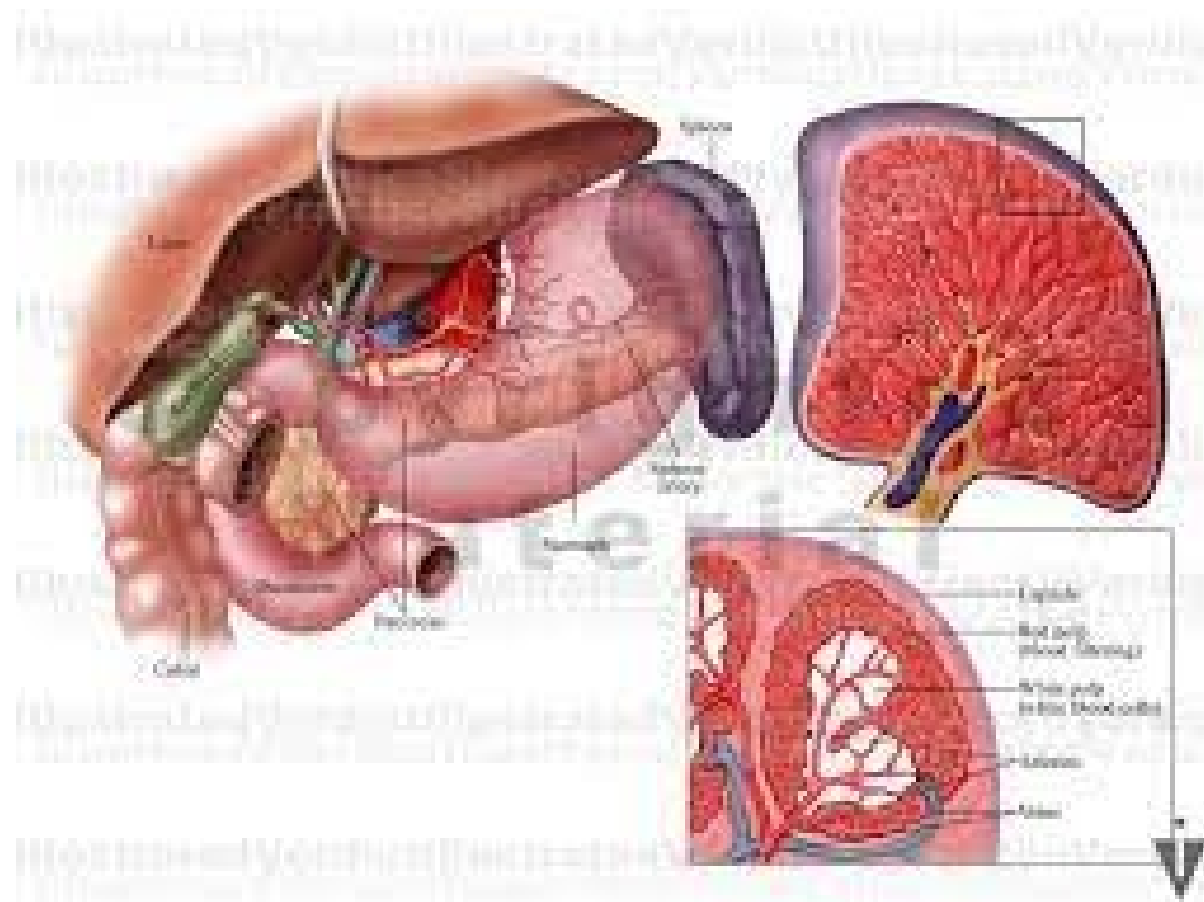
# Lymfatický systém



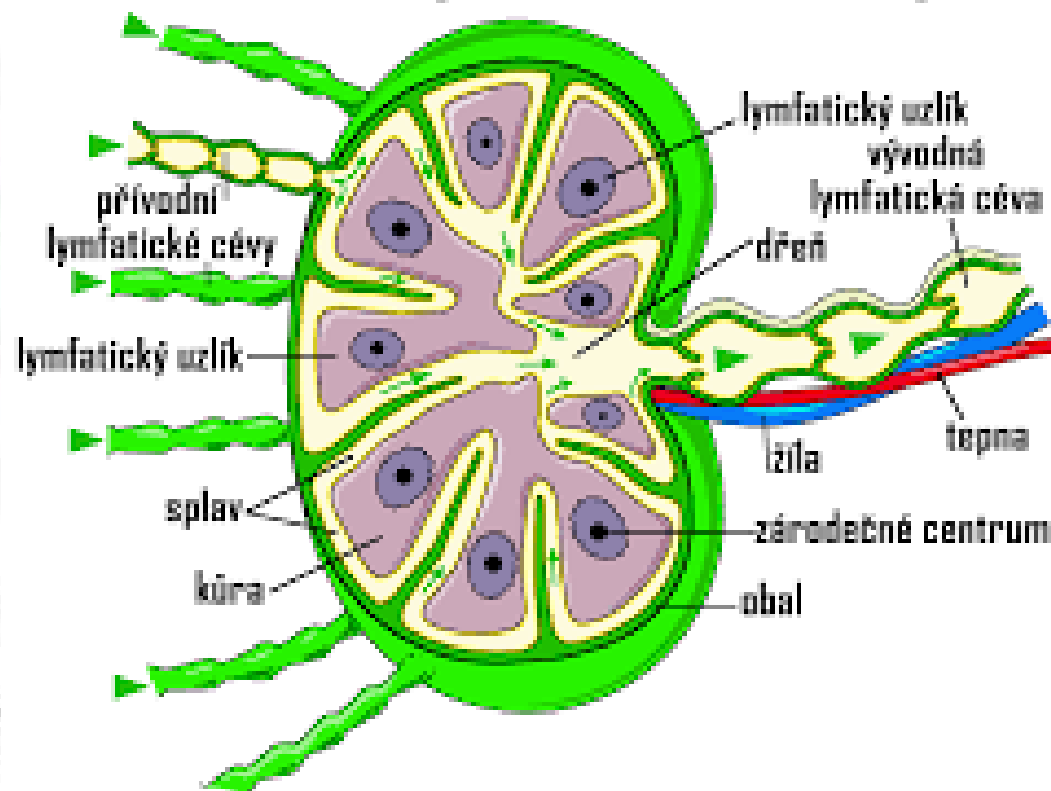
## Lymph Capillaries in the Tissue Spaces



# Slezina, *lat. lien, řec. splen*



## Stavba lymfatické uzliny



# Lymfatický systém

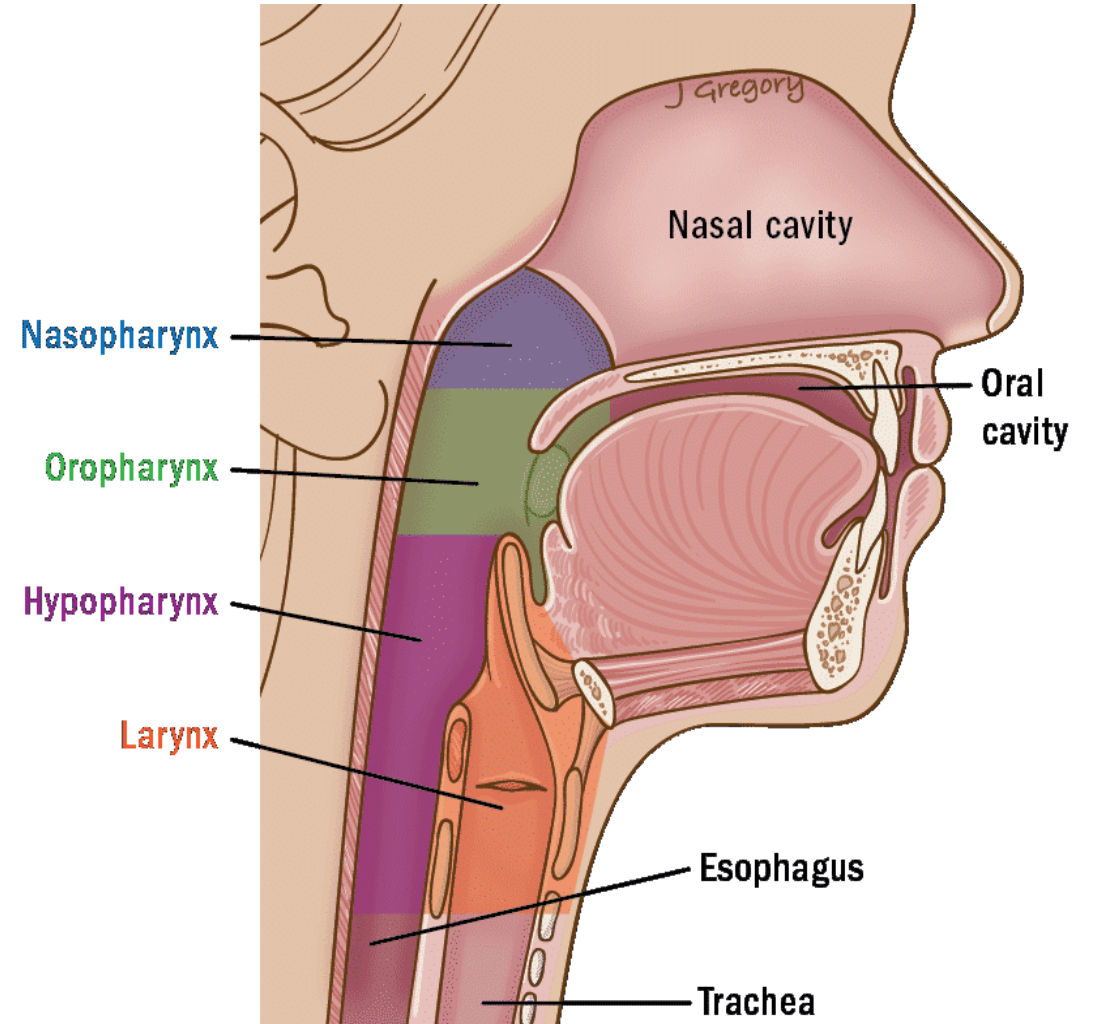
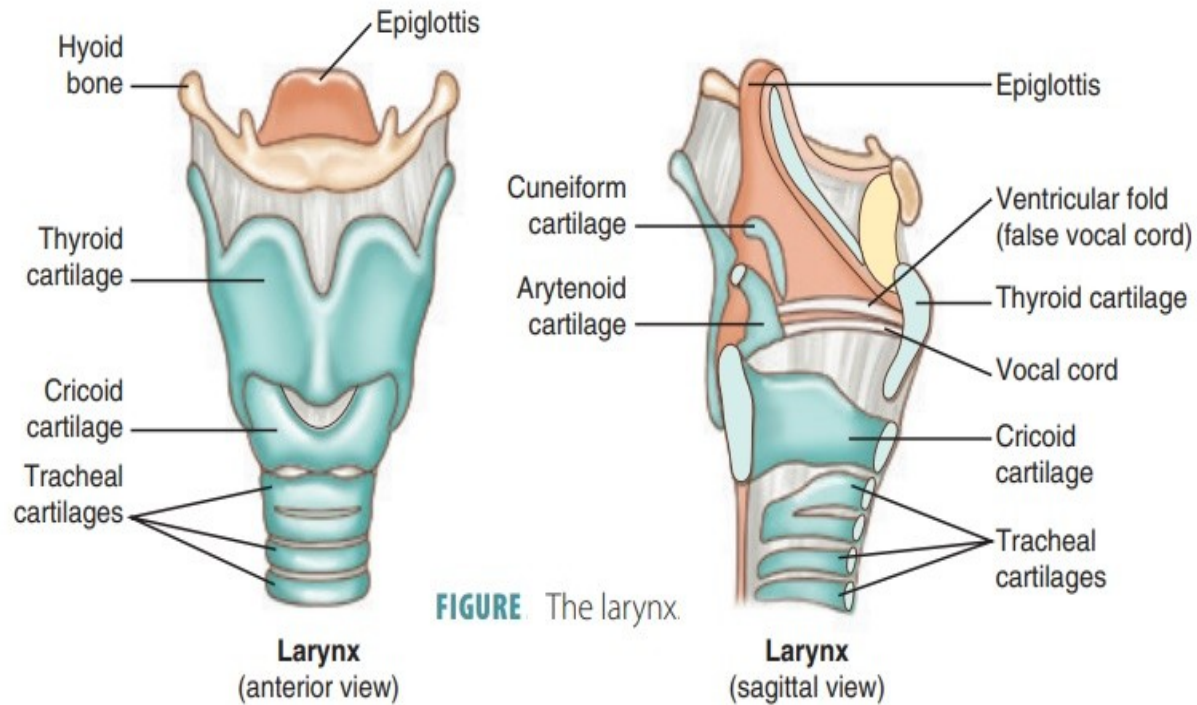
- <https://www.youtube.com/watch?v=cCPyWFK0IKs>
- <https://www.youtube.com/watch?v=IxC-3MpIMUo>
- <https://www.youtube.com/watch?v=IXfEK8G8CUI>





# Hrtan, lat. Larynx

<https://youtu.be/b89RSYCaUBo>

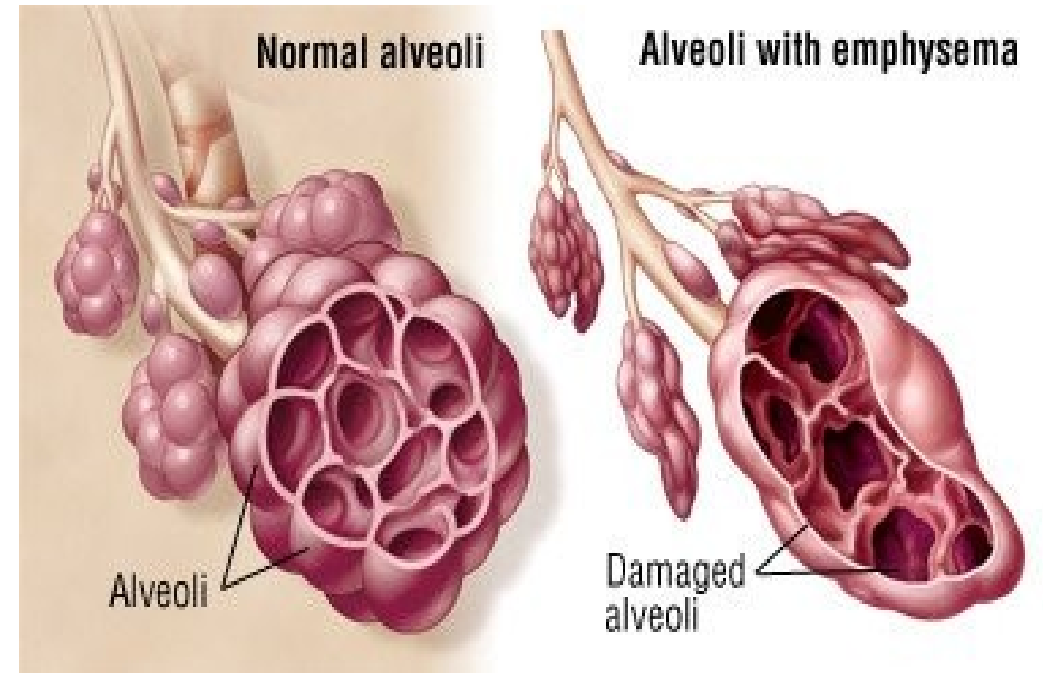


<https://healthjade.com/what-is-the-larynx/>

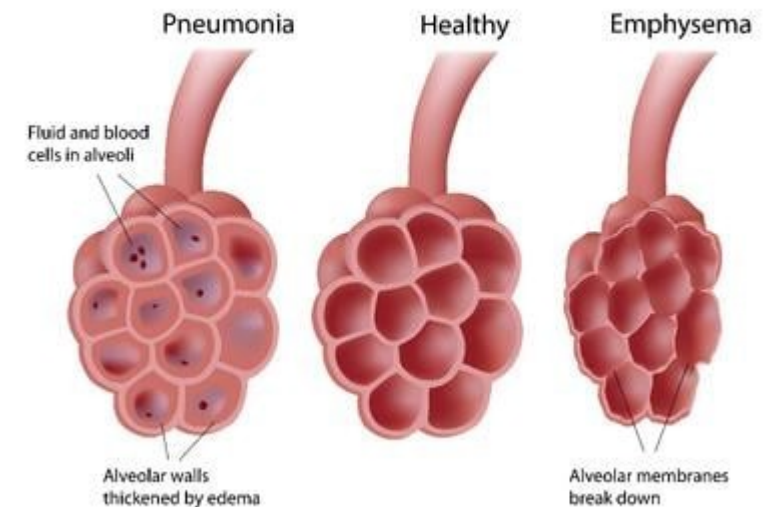
<https://www.pharmacy180.com/article/larynx-3656/>

# Respirační systém

- <https://www.youtube.com/watch?v=B75kBvjJink>
- Emfysém
- Spirometrie
- <https://youtu.be/hQzNG89pESQ>
- [https://www.google.com/search?q=emphysema&tbm=isch&source=lnms&sa=X&ved=2ahUKewiw94Kk79v7AhV1SfEDHTIVAxYQ\\_AUoAXoECAoQAw&biw=1003&bih=497&dpr=1.5#imgrc=ex-siDfAWuS7sM&imgdii=hXLB\\_vm-q3gXSM](https://www.google.com/search?q=emphysema&tbm=isch&source=lnms&sa=X&ved=2ahUKewiw94Kk79v7AhV1SfEDHTIVAxYQ_AUoAXoECAoQAw&biw=1003&bih=497&dpr=1.5#imgrc=ex-siDfAWuS7sM&imgdii=hXLB_vm-q3gXSM)



Alveoli Changes in Lung Diseases

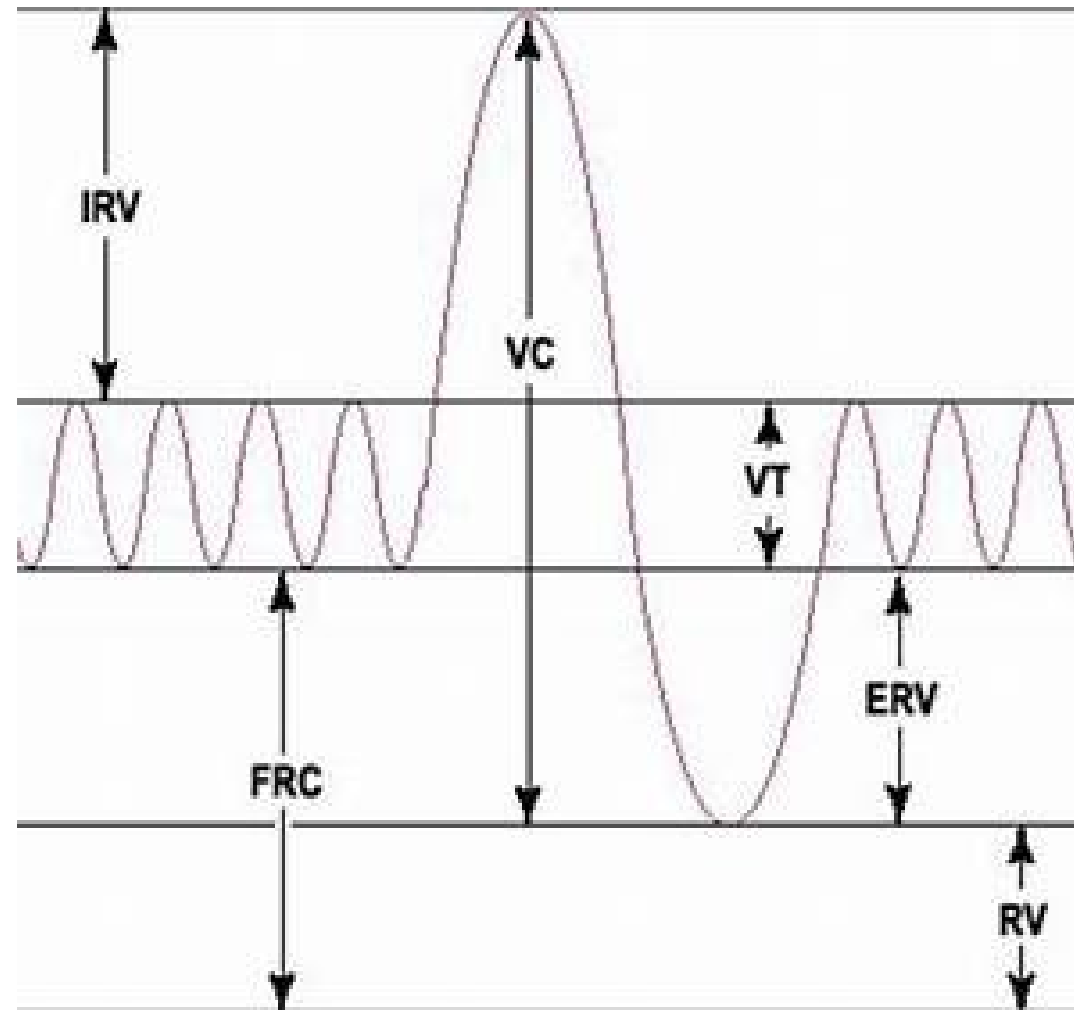


# Pneumonie

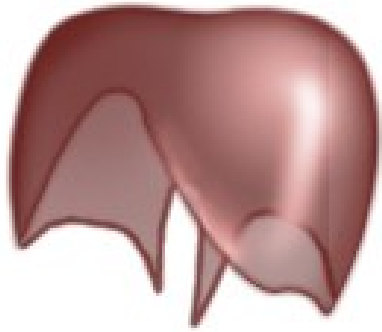
- <https://lungfoundation.com.au/patients-carers/living-with-a-lung-disease/other-lung-conditions/pneumonia/>
- <https://youtu.be/3hTsve9jjsQ>



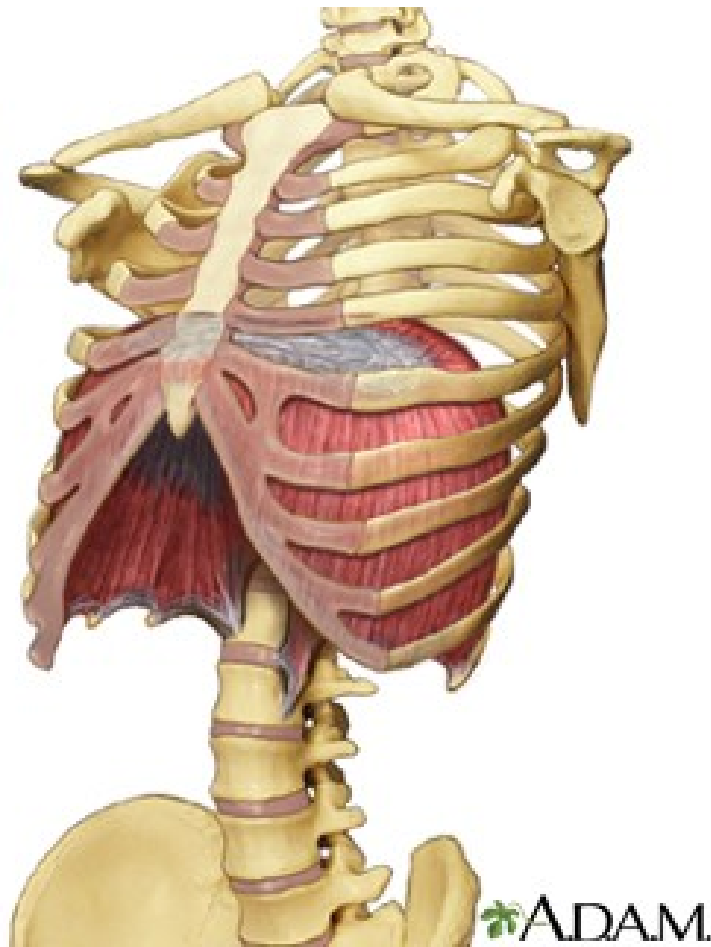
# Spirometrie



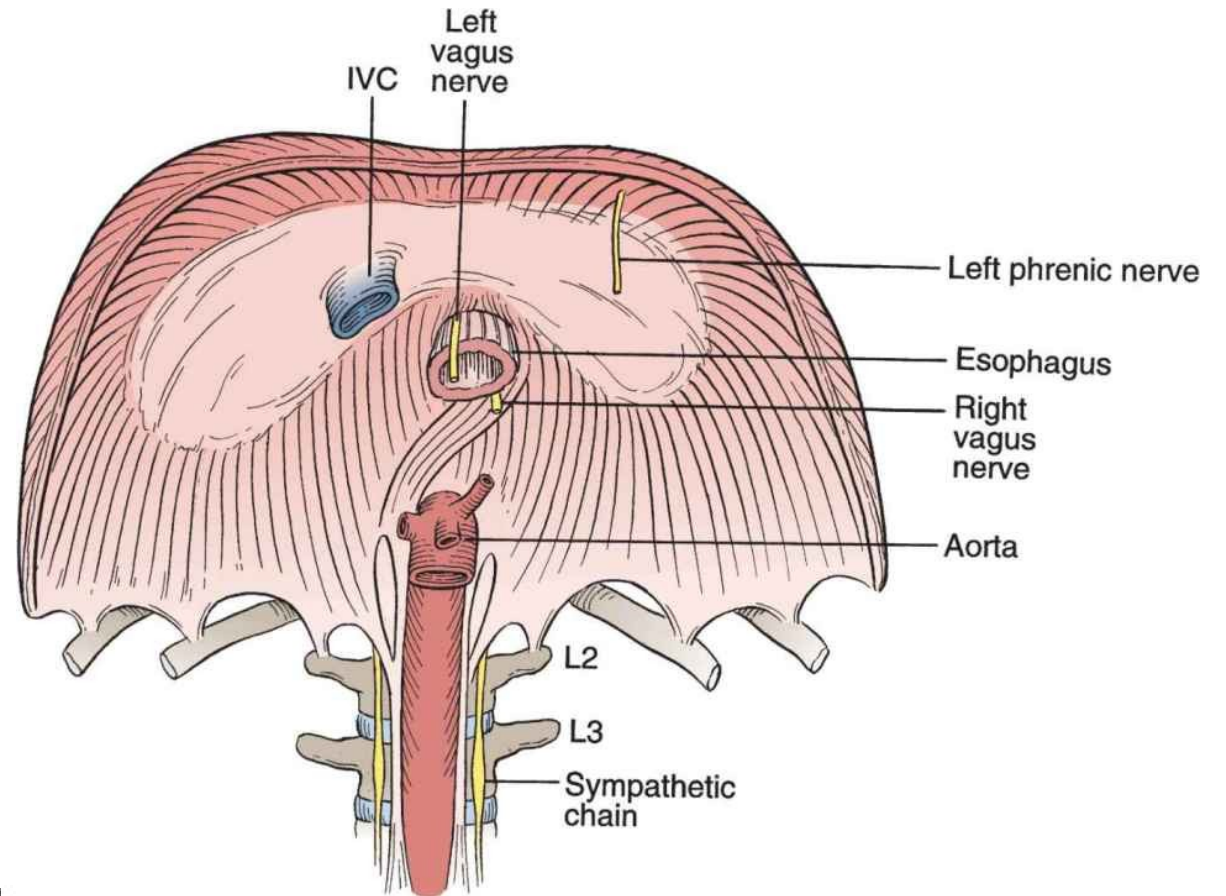
# Bránice, *lat. diaphragma*



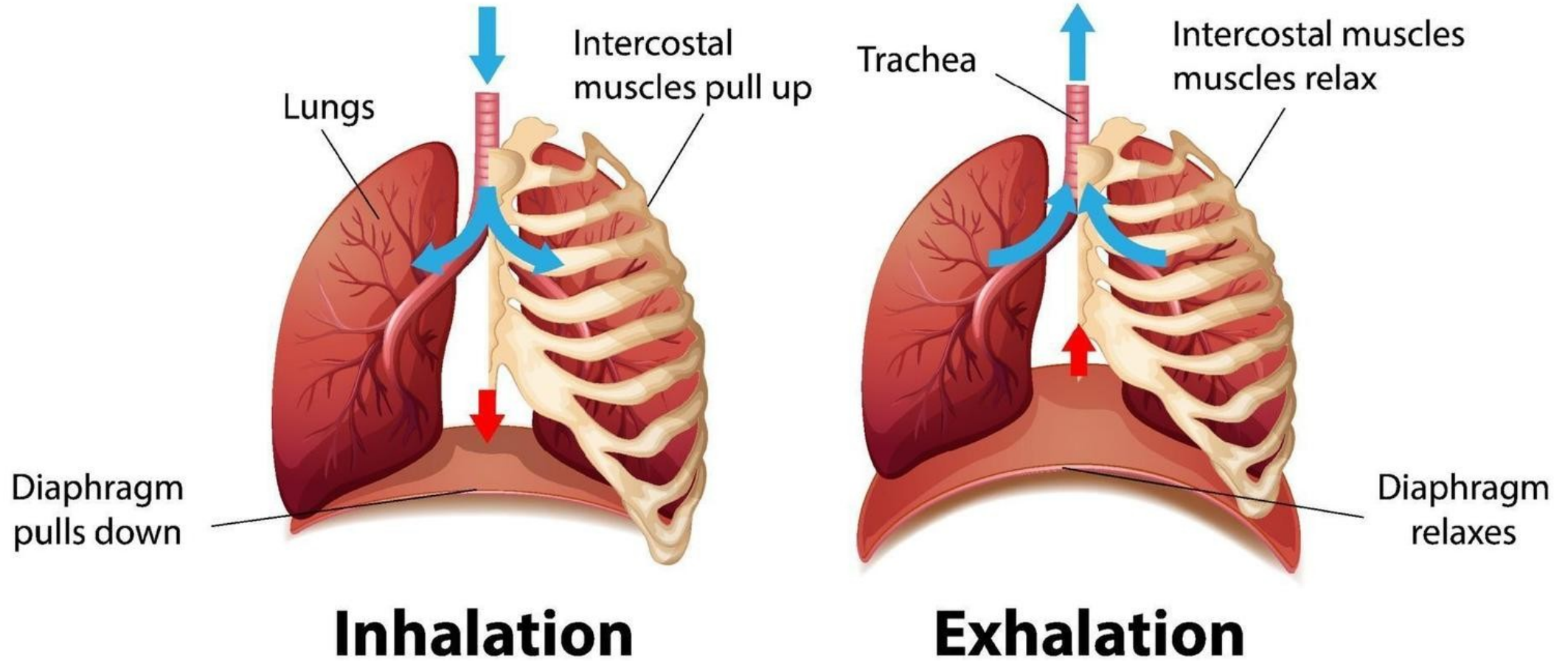
The diaphragm is shaped like a parachute



ADAM.



# THE DIAPHRAGM FUNCTIONS IN BREATHING



# Srdce, oběh

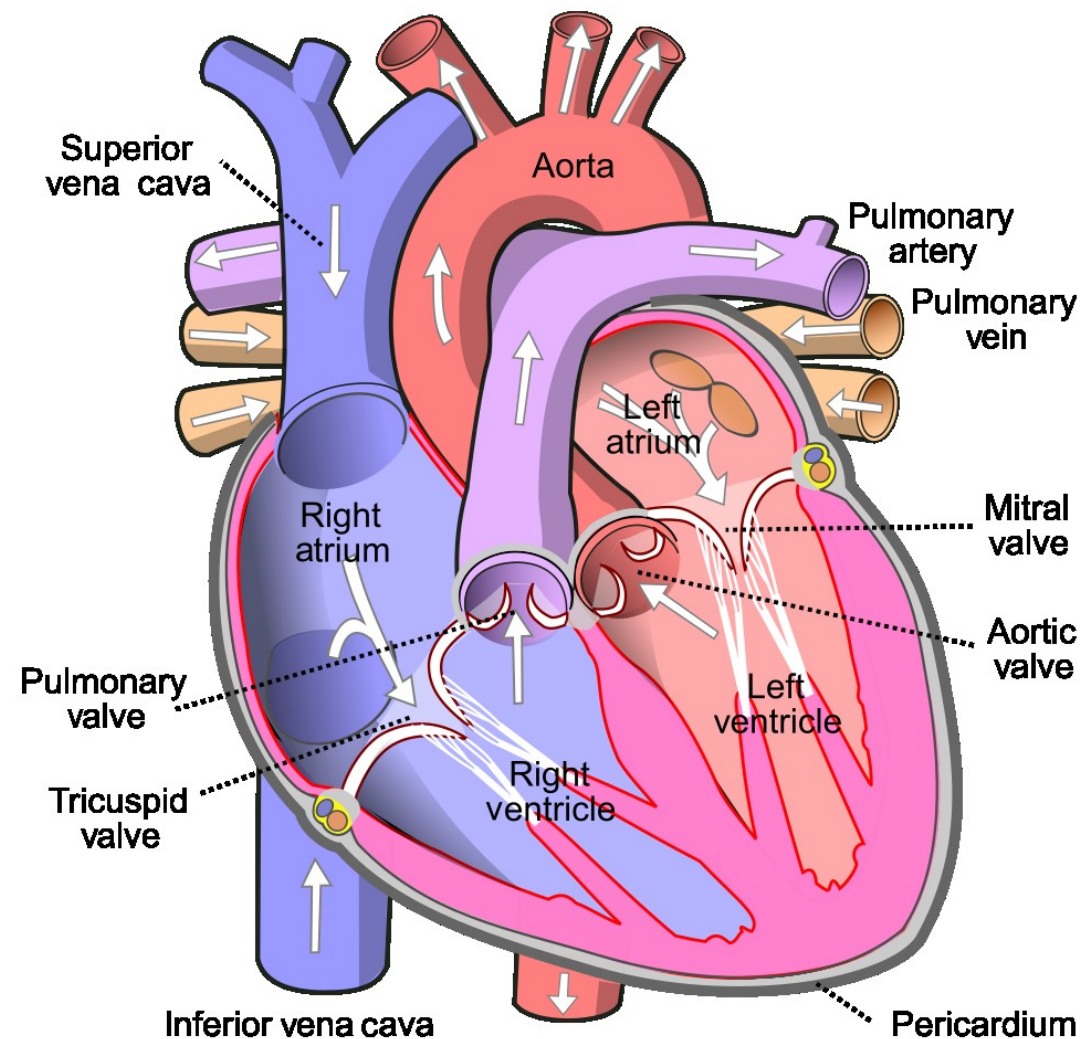
- <https://www.youtube.com/watch?v=GMBSU-2GK3E>
- <https://www.youtube.com/watch?v=46u2ON6d4m8g>
- <https://www.youtube.com/watch?v=CWFyxn0qDEU>
- [https://youtu.be/\\_qmNCJxpsr0](https://youtu.be/_qmNCJxpsr0)

Koronární artérie

<https://www.youtube.com/watch?v=ggj4OWNkBbw>

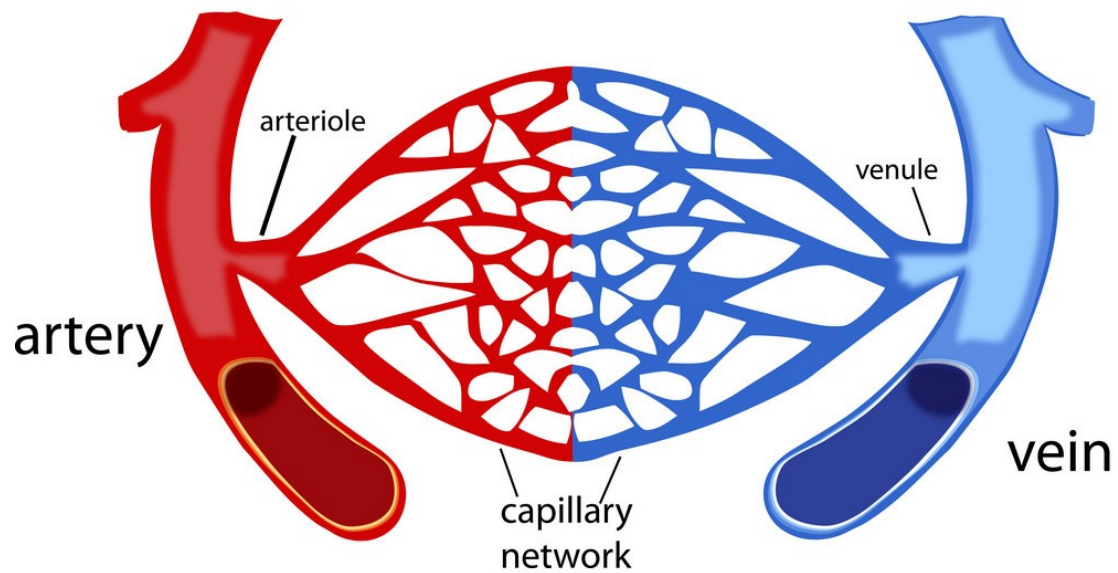
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<https://www.youtube.com/watch?v=QllguanpKic>





# Krevní oběh

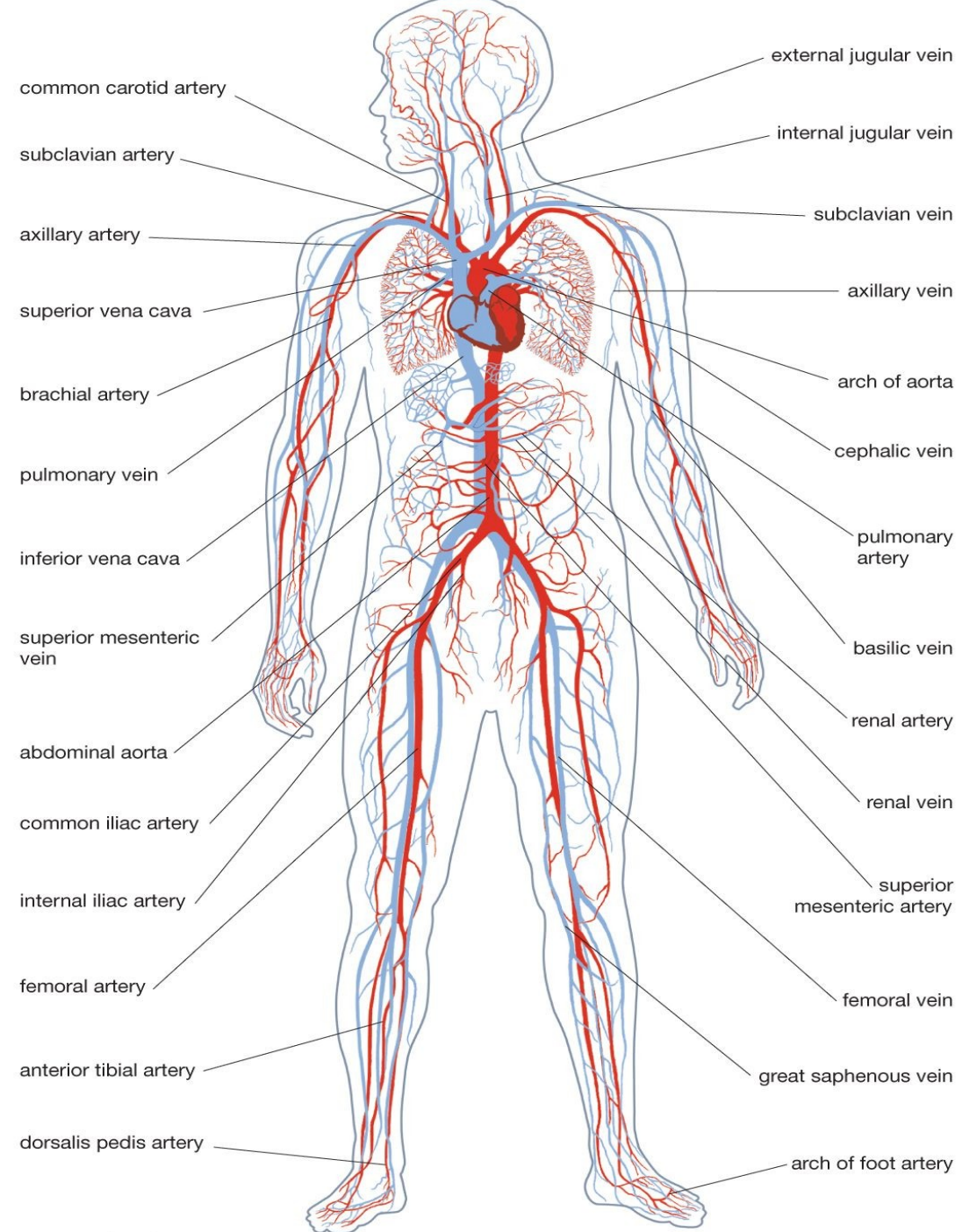


VectorStock®

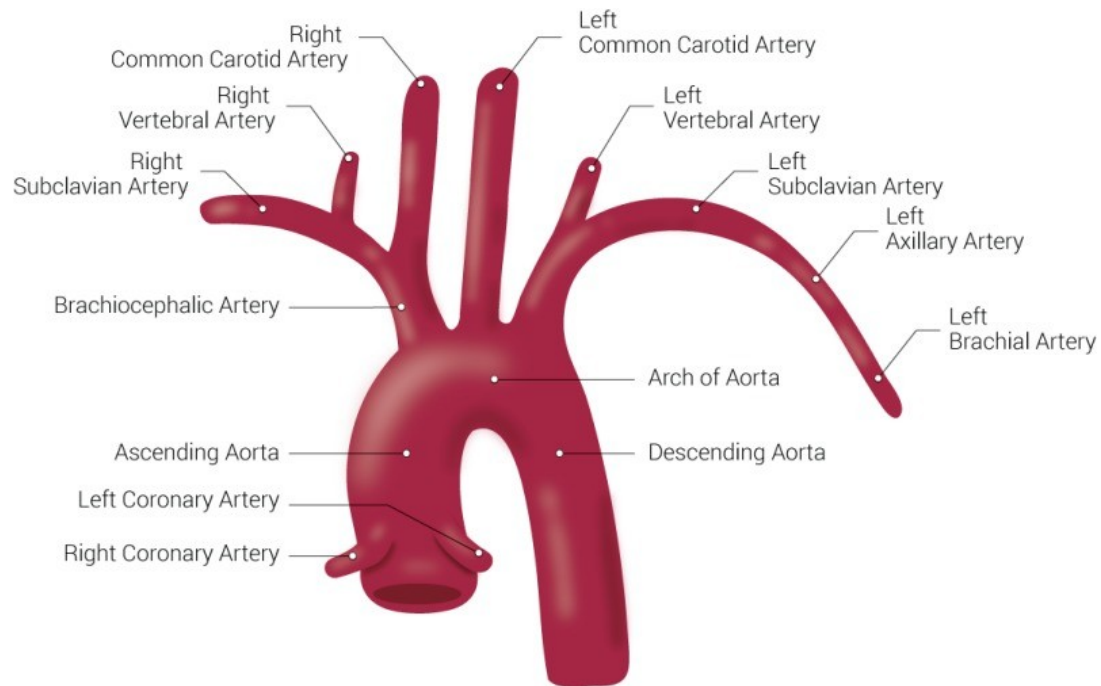
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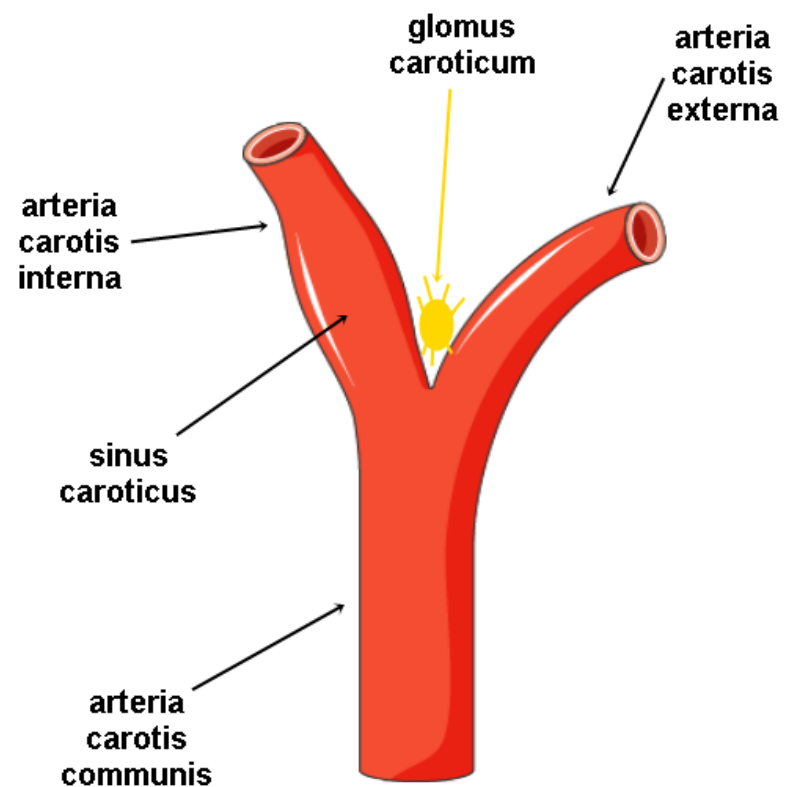
- <https://www.google.com/search?q=kardiovscular+system&tbm=isch&ved=2ahUKEwij6b-J8z7AhWMMyAIHHRToArEQ2-cCegQIABAA&oq=kardio>



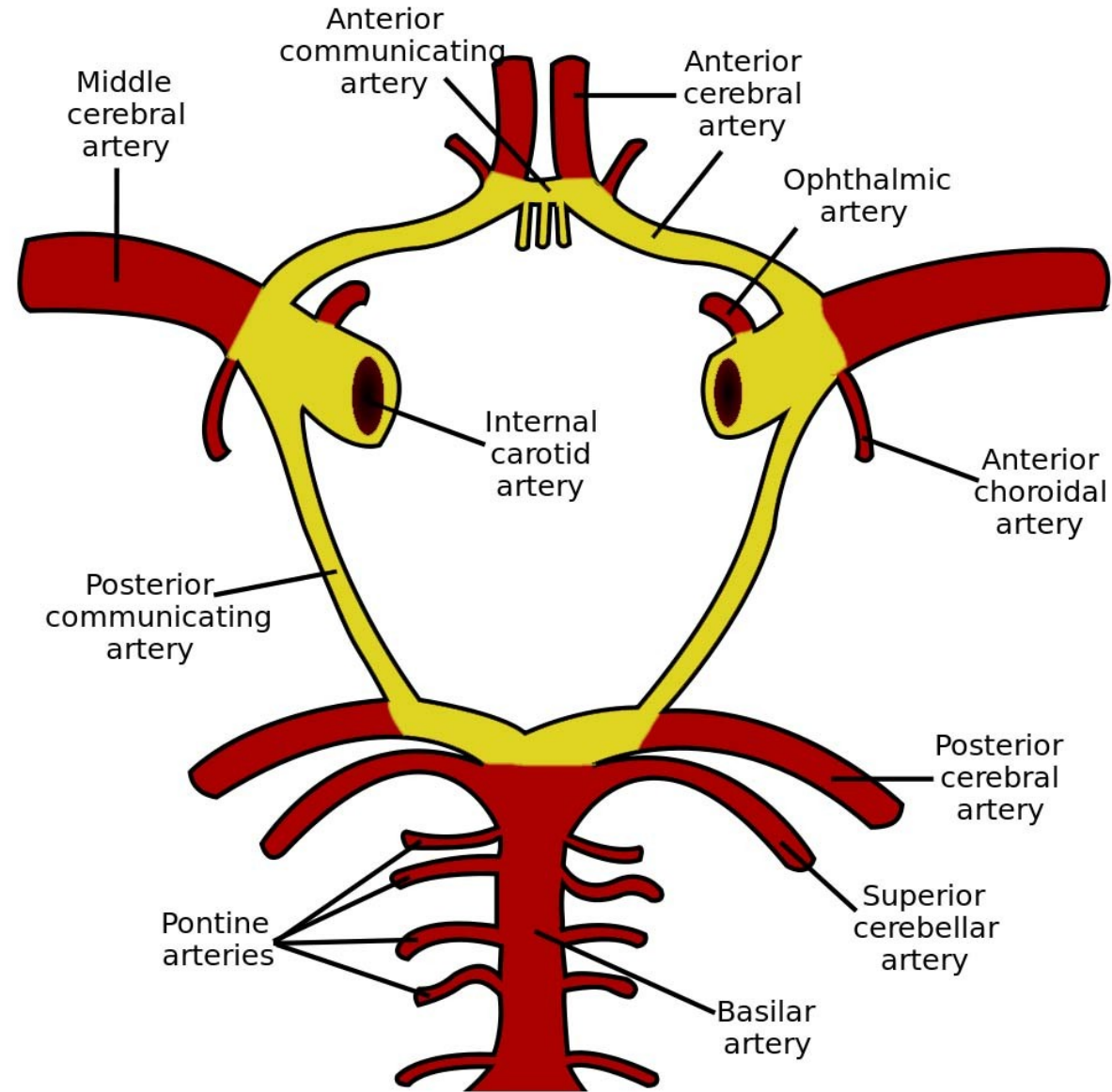
# Oblouk aorty



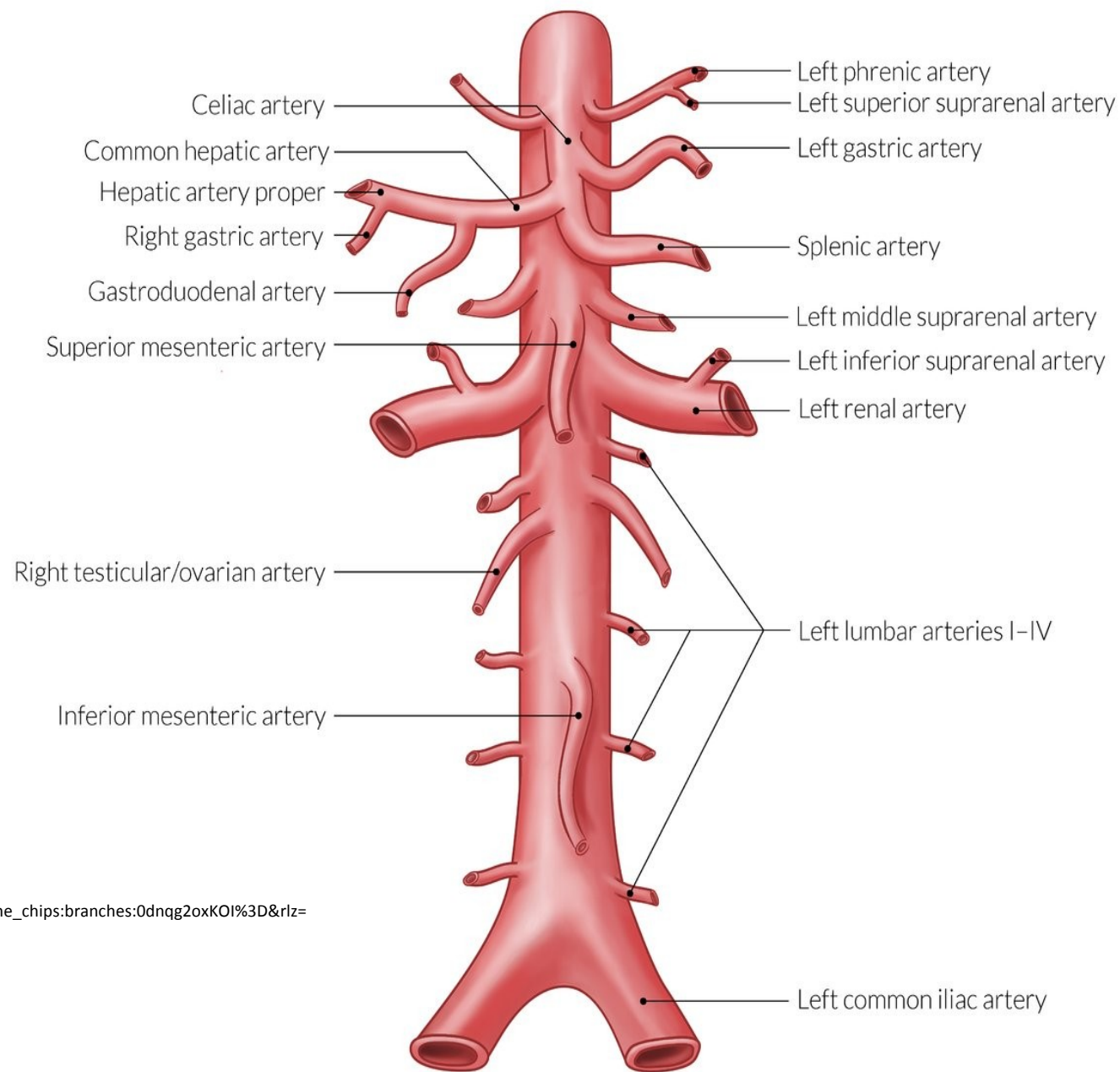
# Odstupy aa. carotis



# Wilisův okřih



# Odstupy břišní aor

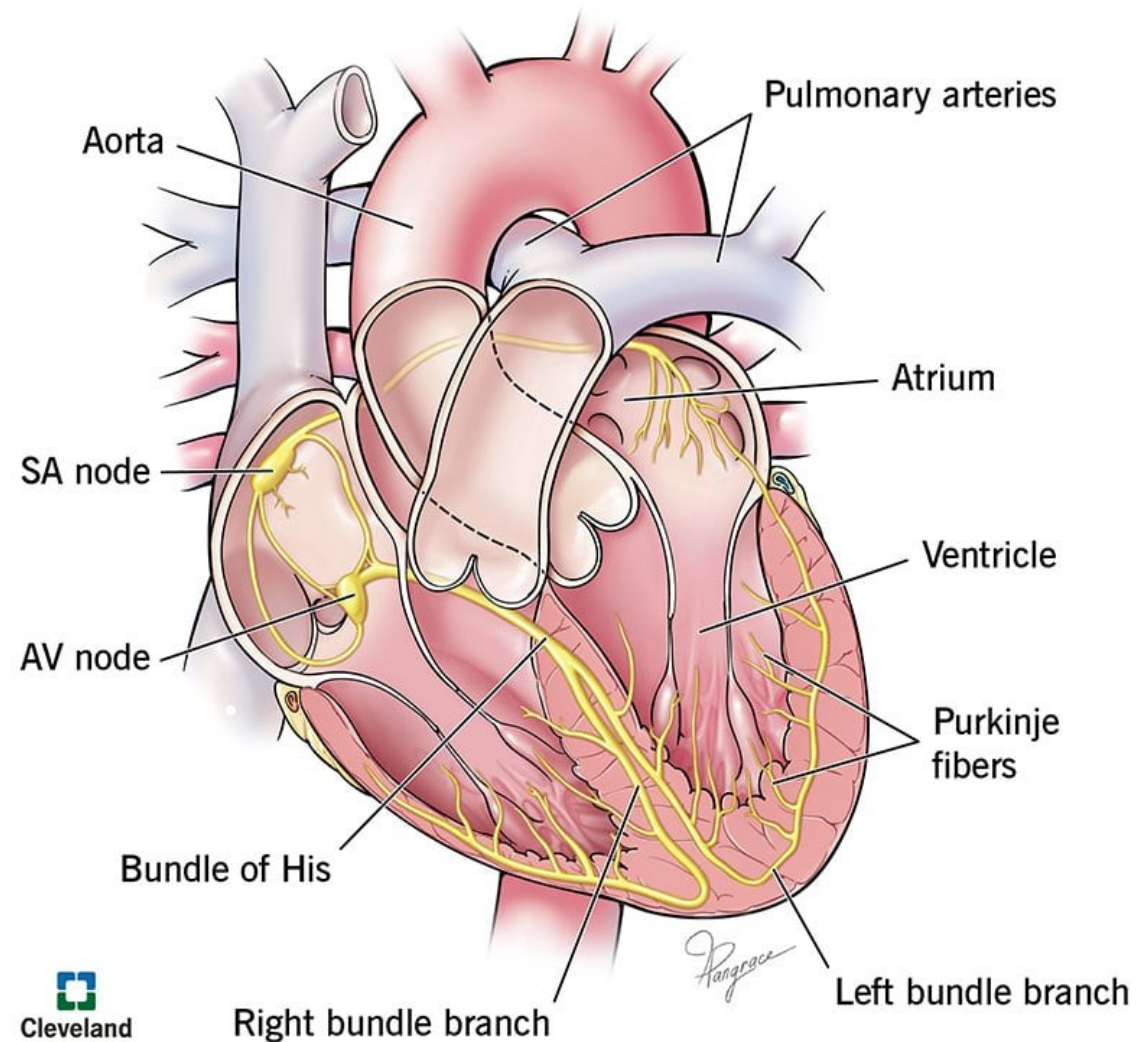


[https://www.google.com/search?q=abdomen+aorta&tbm=isch&hl=cs&chips=q:abdomen+aorta,online\\_chips:branches:0dnqg2oxKOI%3D&rlz=1C1CHBF\\_enCZ924CZ924&sa=X&ved=2ahUKEwjGpL\\_R98z7AhWTxwIHHb-2D34Q4IYoAXoECAEQJA&biw=617&bih=243#imgrc=5Q991GRSN4nKAM](https://www.google.com/search?q=abdomen+aorta&tbm=isch&hl=cs&chips=q:abdomen+aorta,online_chips:branches:0dnqg2oxKOI%3D&rlz=1C1CHBF_enCZ924CZ924&sa=X&ved=2ahUKEwjGpL_R98z7AhWTxwIHHb-2D34Q4IYoAXoECAEQJA&biw=617&bih=243#imgrc=5Q991GRSN4nKAM)



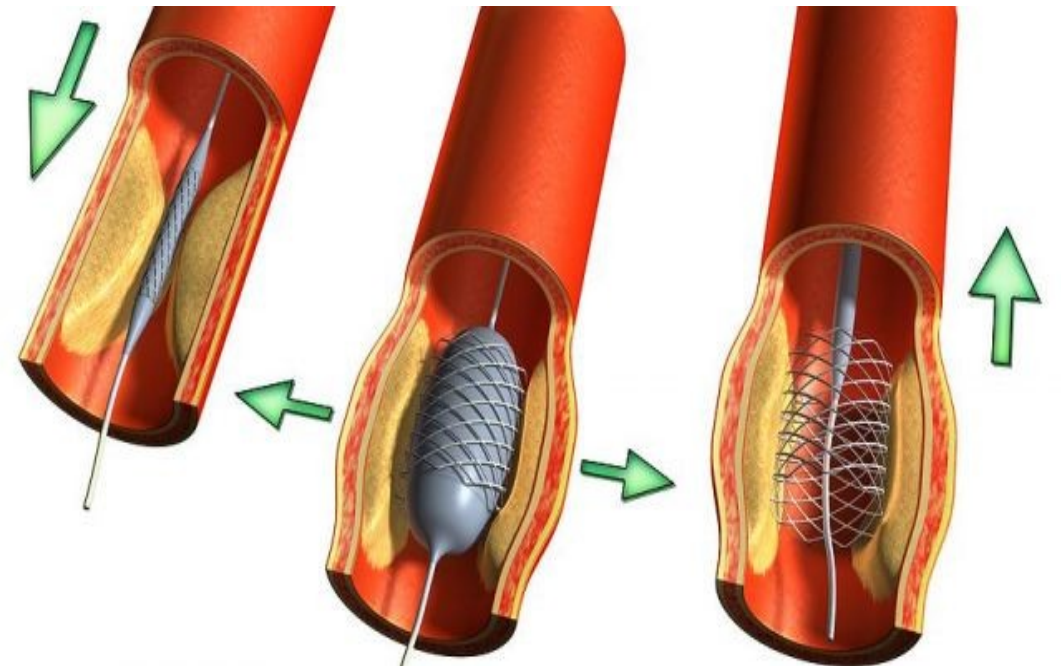
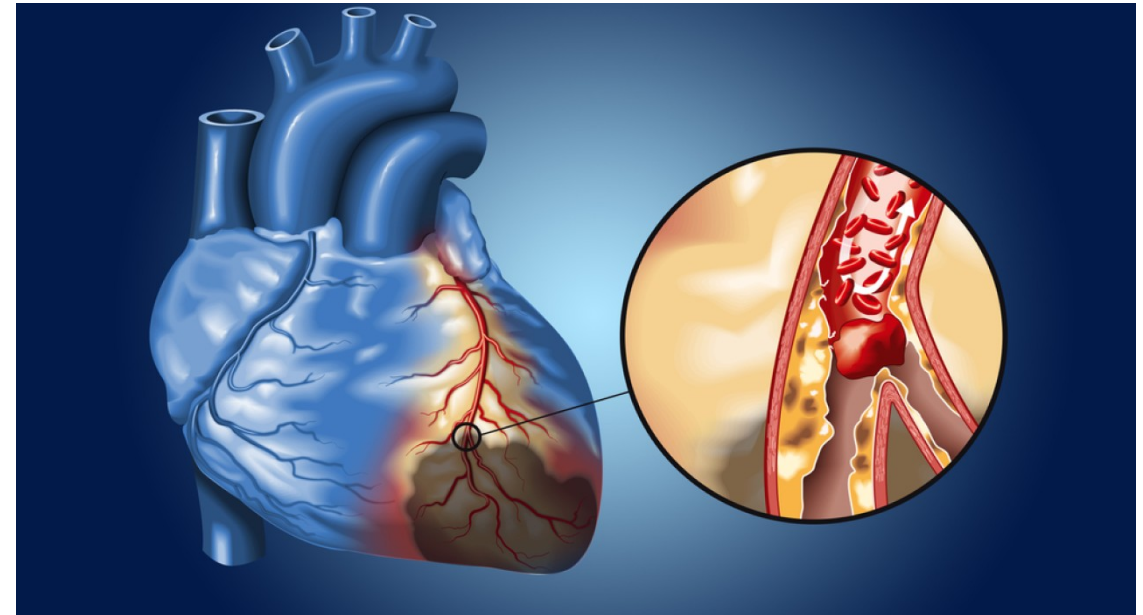
# Převodní systém srdeční

- <https://www.youtube.com/watch?v=RYZ4daFwMa8>



# Infarkt

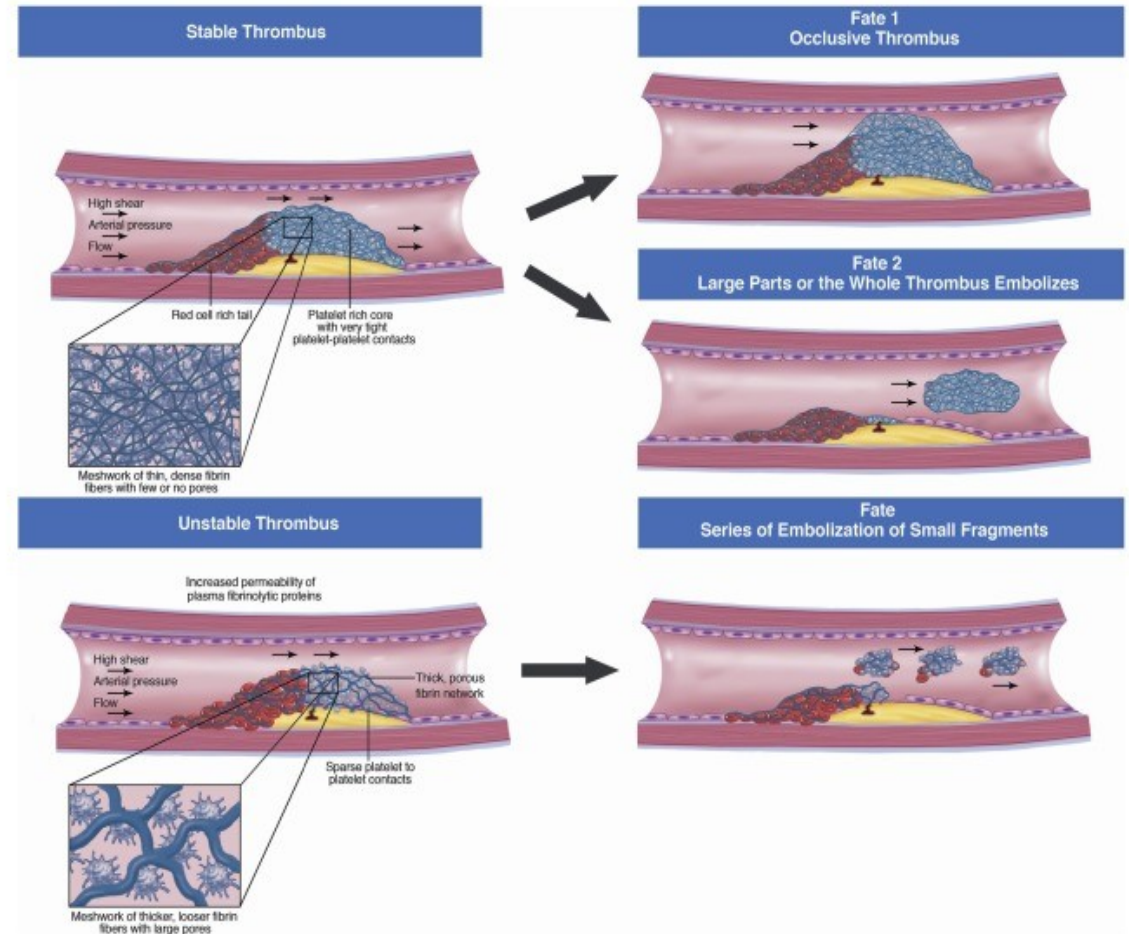
- <https://www.youtube.com/watch?v=QllguanpKic>
- Angioplastika
- <https://www.youtube.com/watch?v=p3z9FLYijrQ>



# Srážení krve

- <https://www.youtube.com/watch?v=DKFSH5MMPLM>

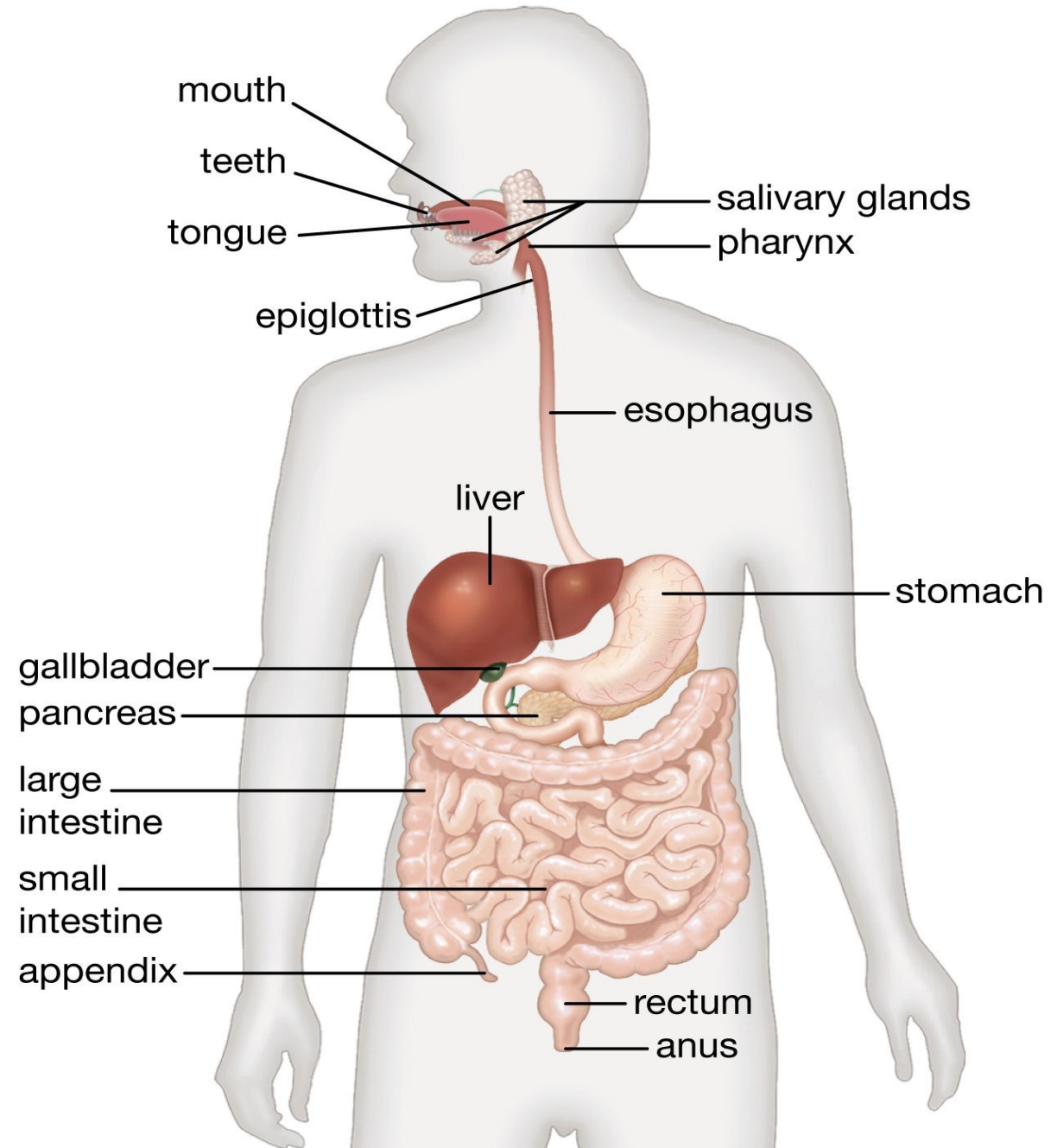
## CENTRAL ILLUSTRATION: Potential Fate of a Growing Arterial Thrombus, Depending on Thrombus Stability



Gorog, D.A. et al. J Am Coll Cardiol. 2017;70(16):2036-47.

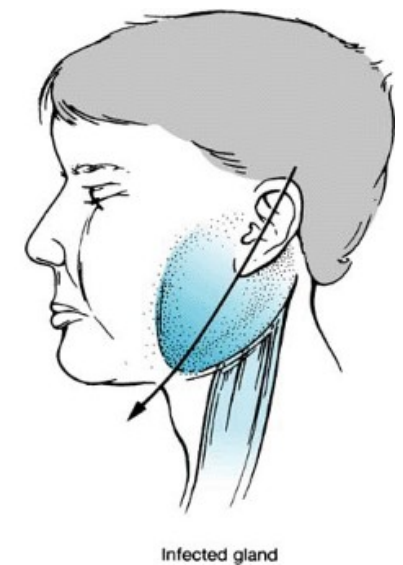
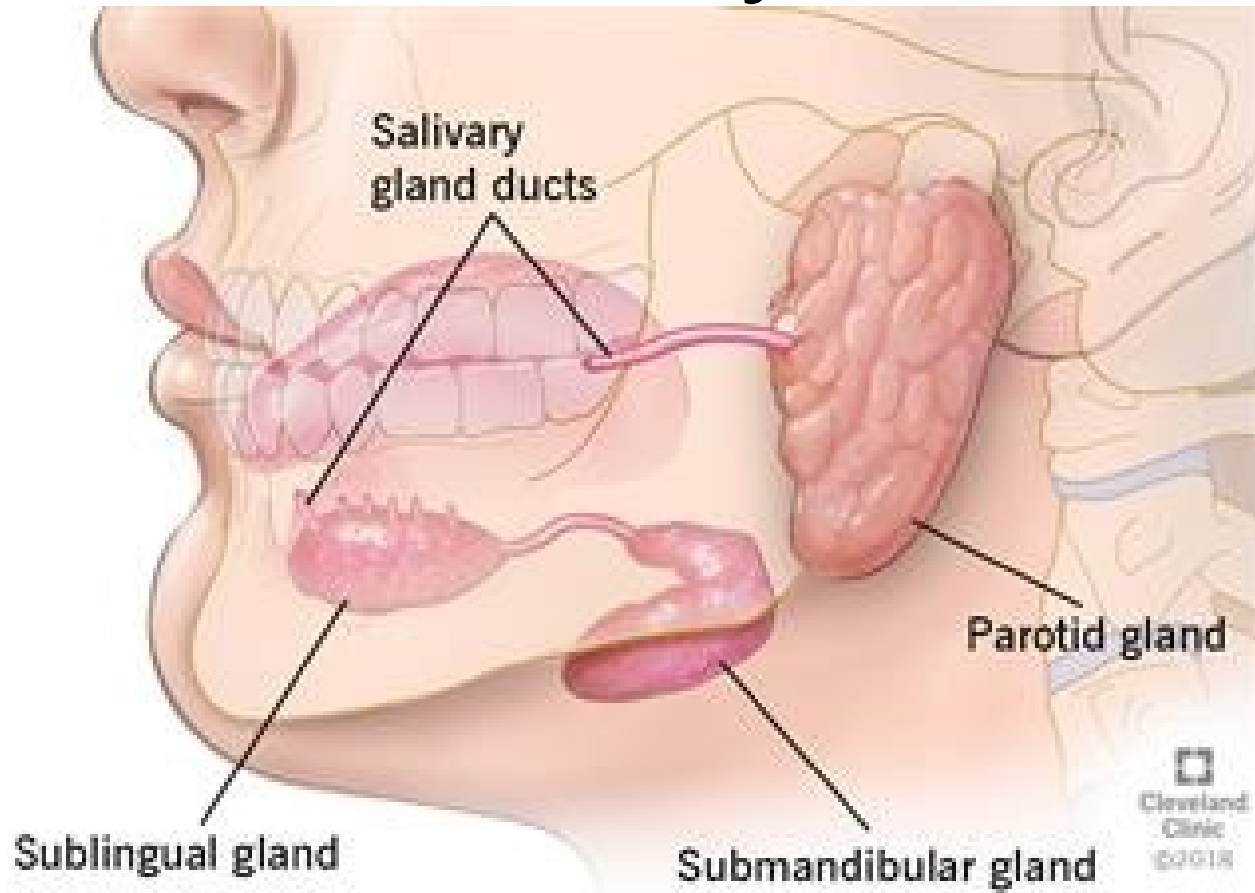
# Trávicí systém

- <https://www.youtube.com/watch?v=X3TAR0otFfM>

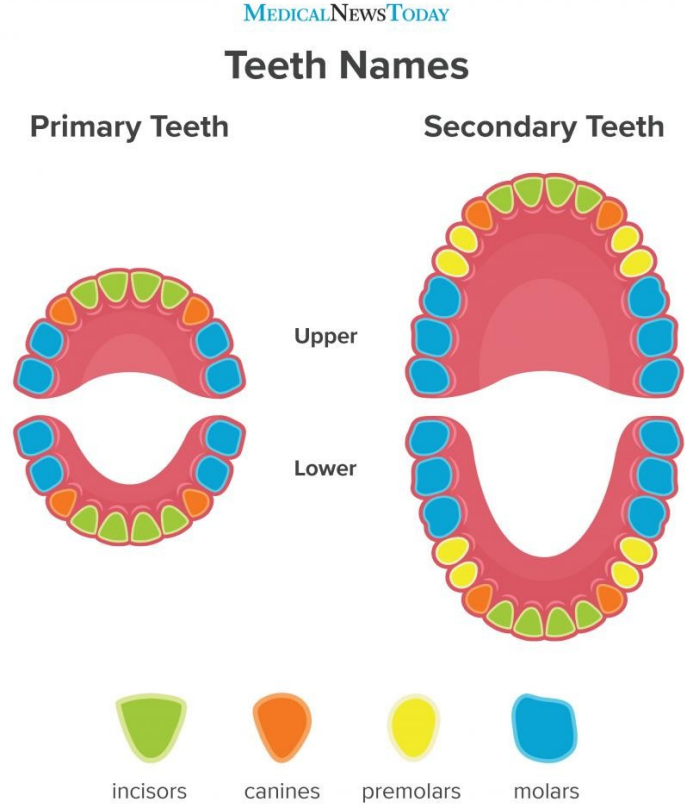
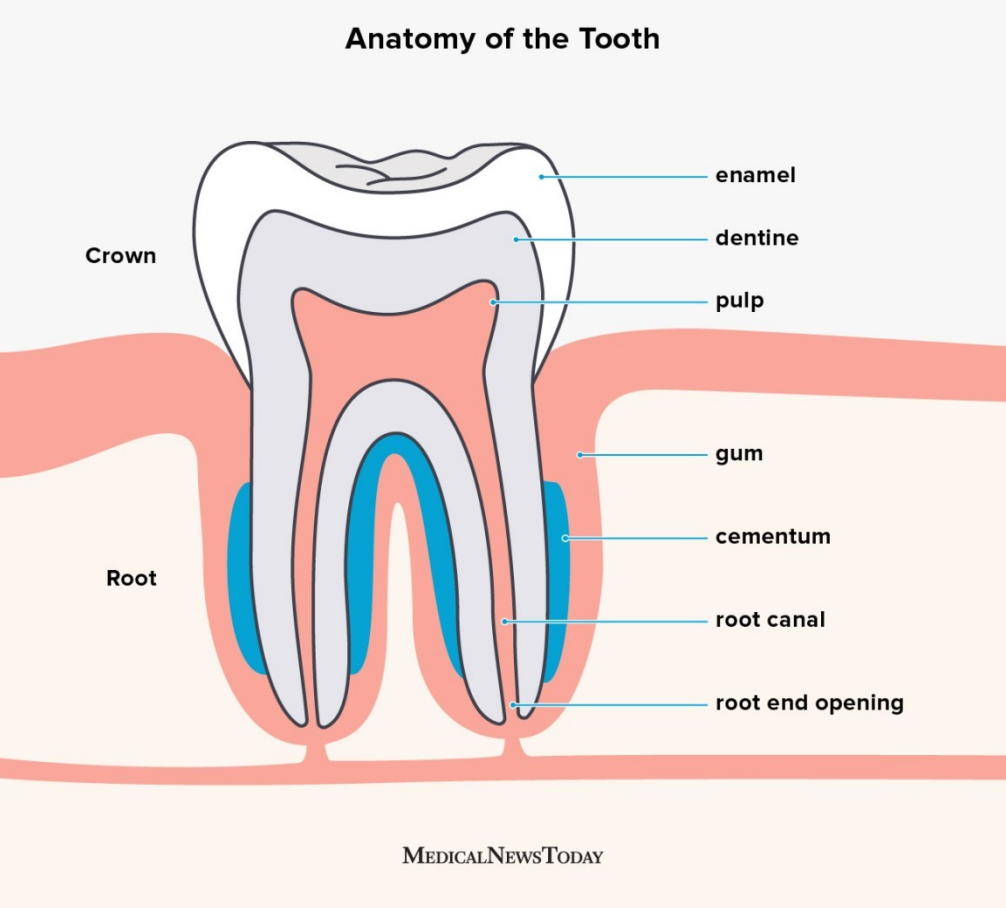




# Slinné žlázy



# Zuby, denty



# Žaludek

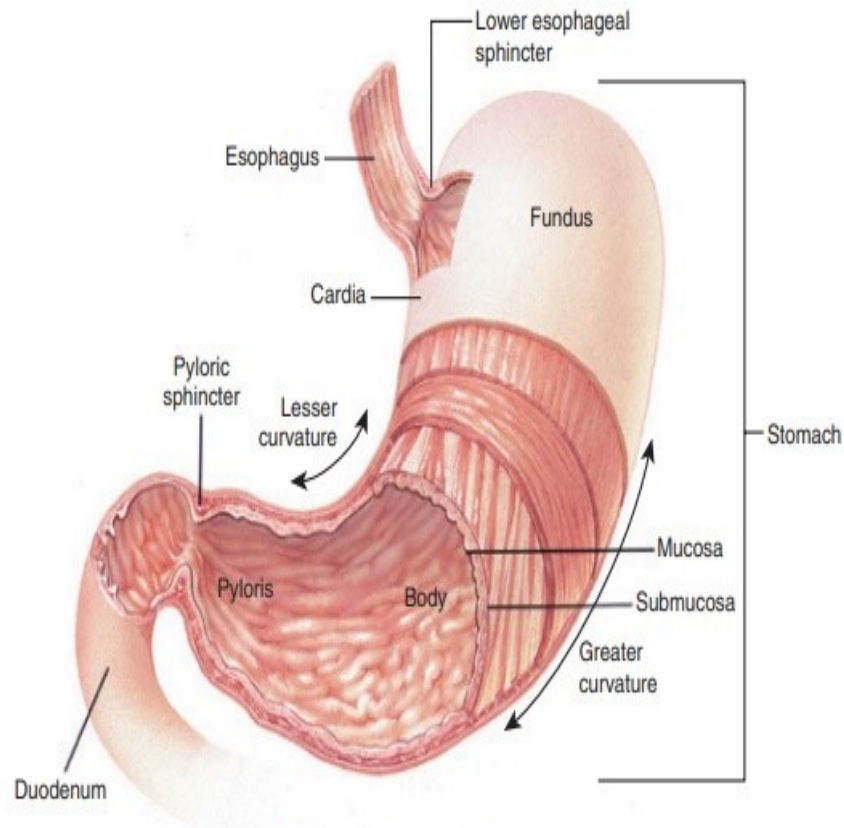
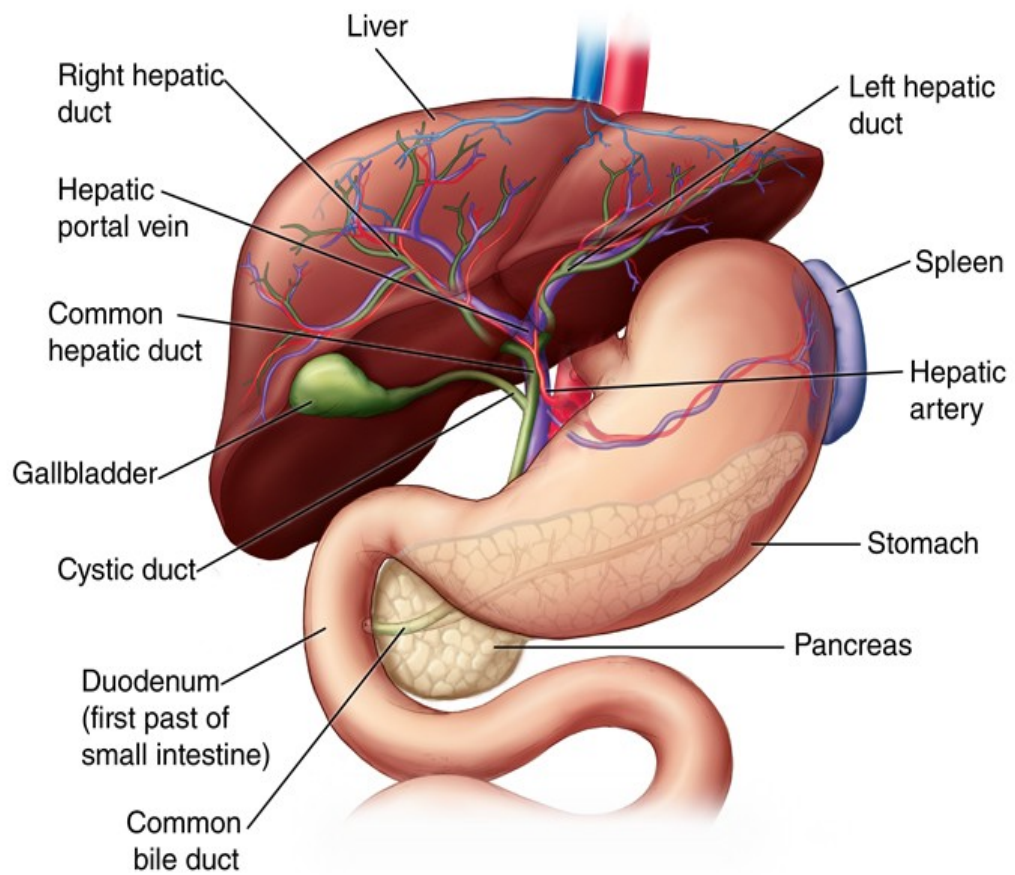


FIGURE The stomach.

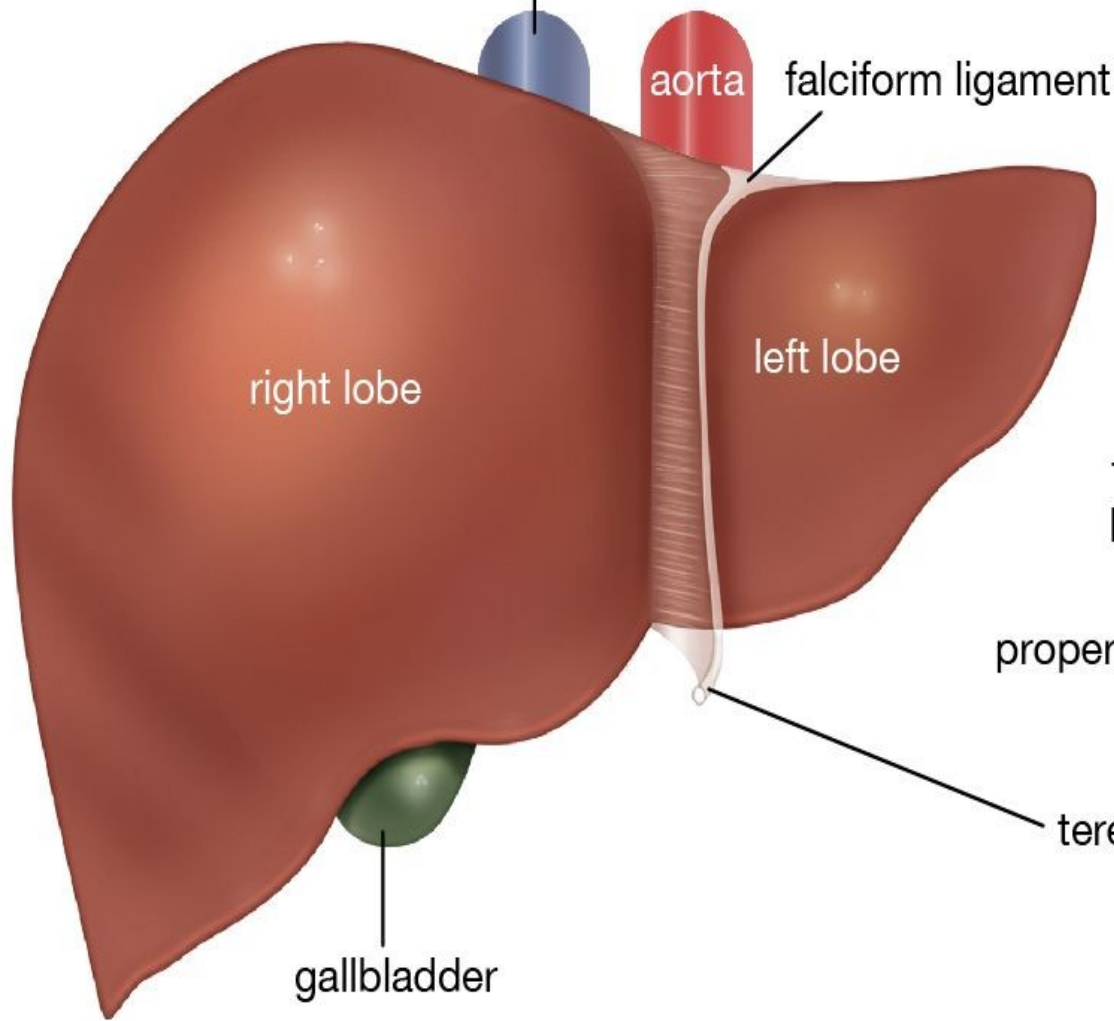
- Funkce:
- Mechanická
- Chemická
  - HCl
  - Pepsin
  - Vnitřní faktor
- Mucin
- <https://youtu.be/ZuJzYYIS9c4>

# Játra

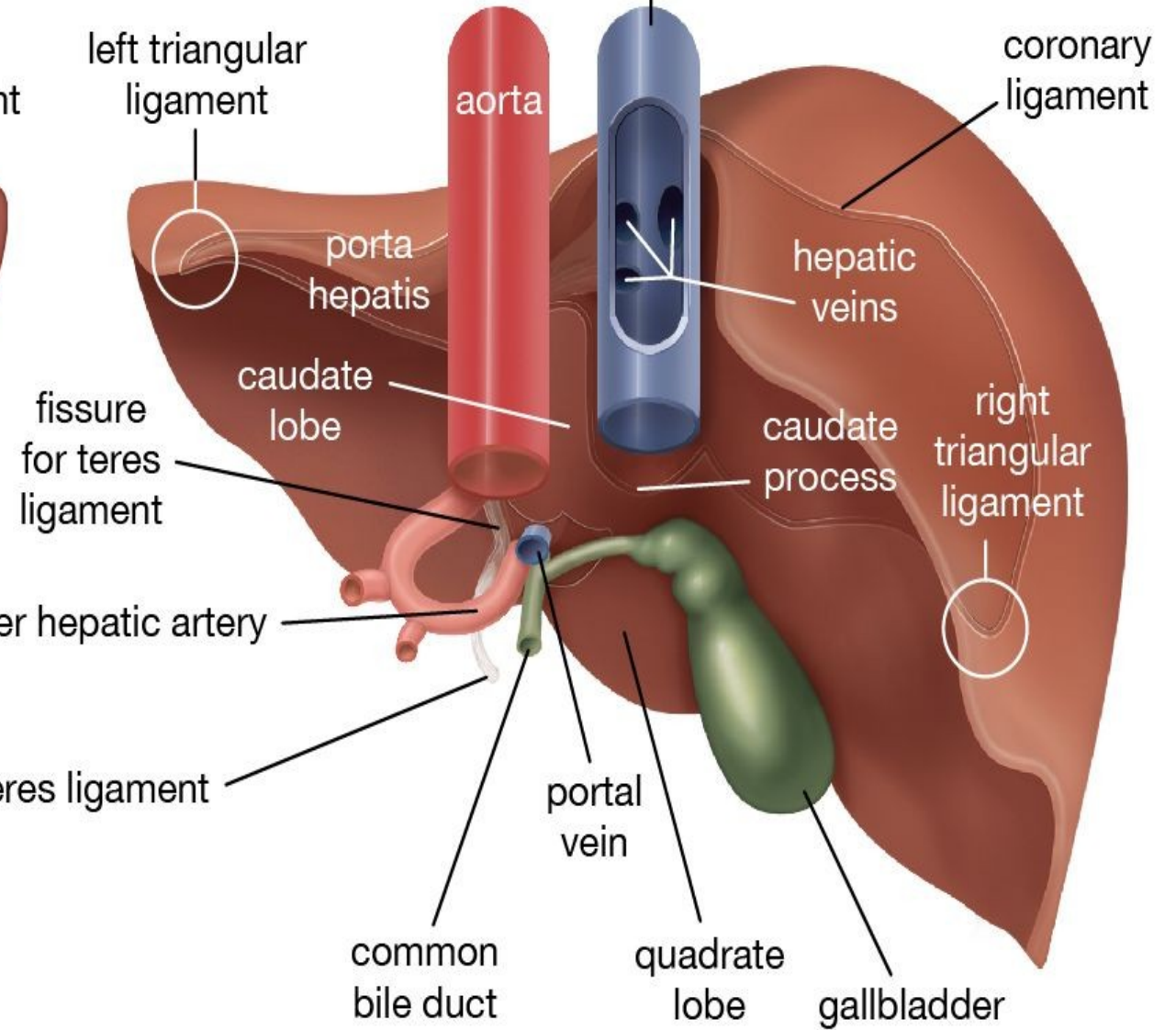




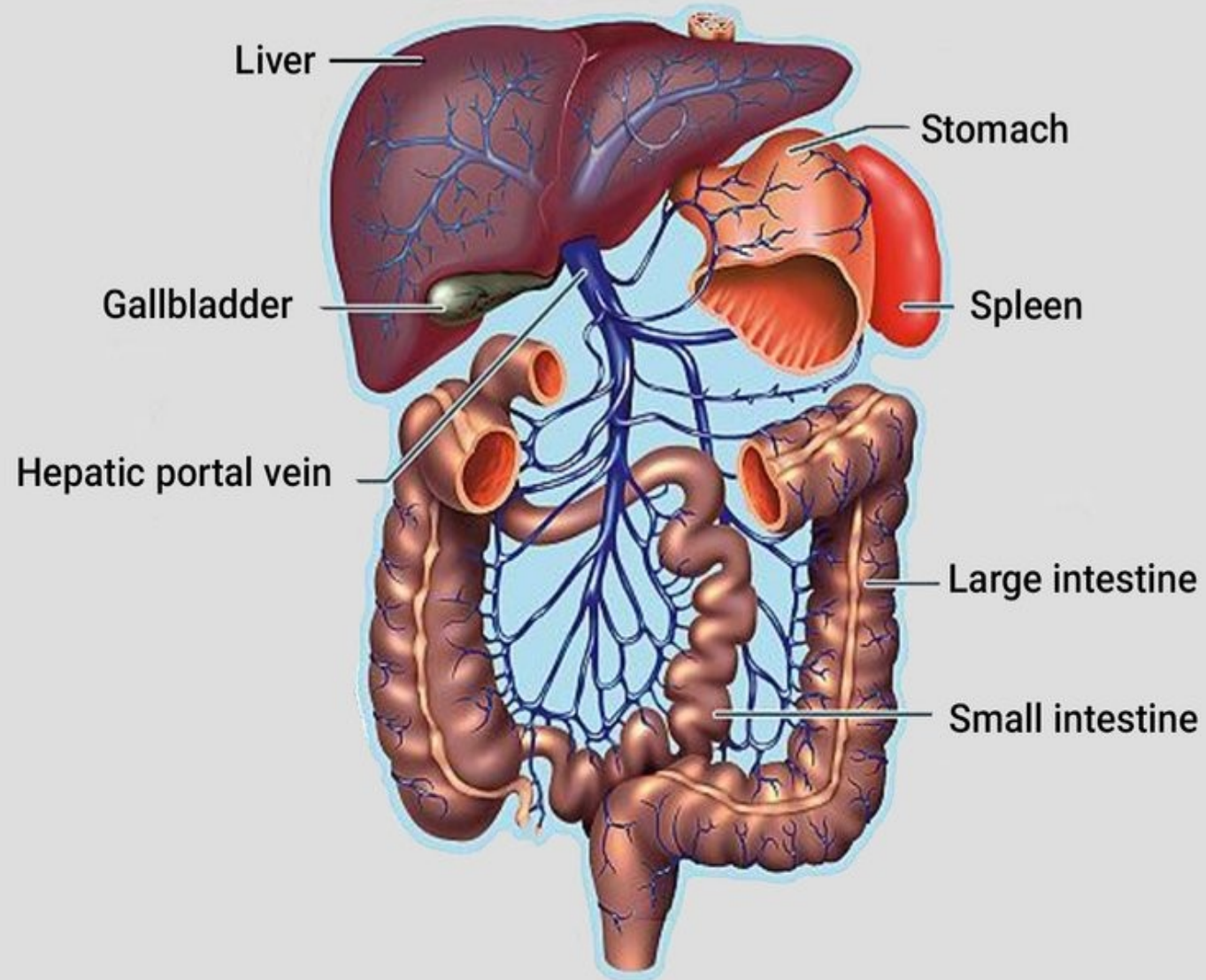
**anterior view**



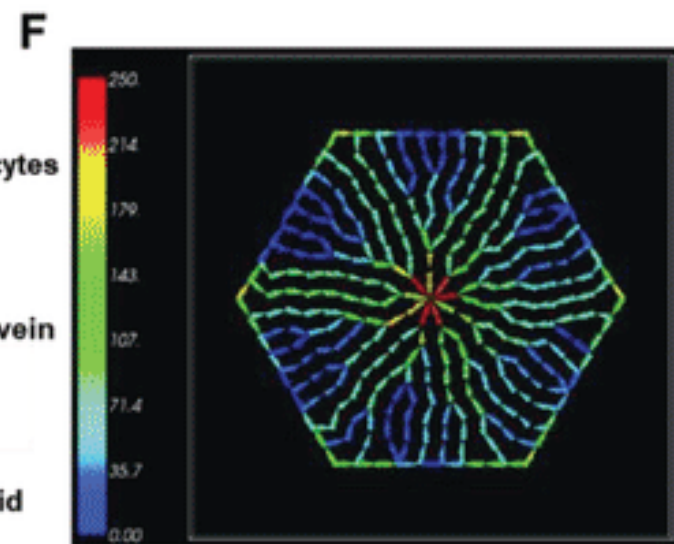
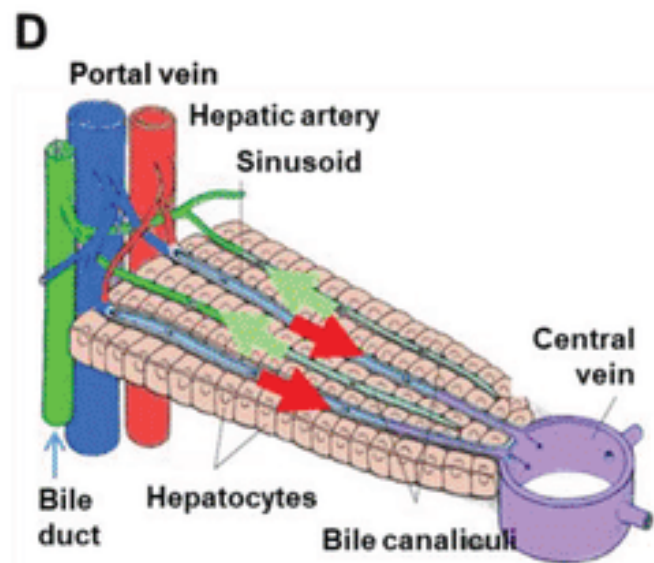
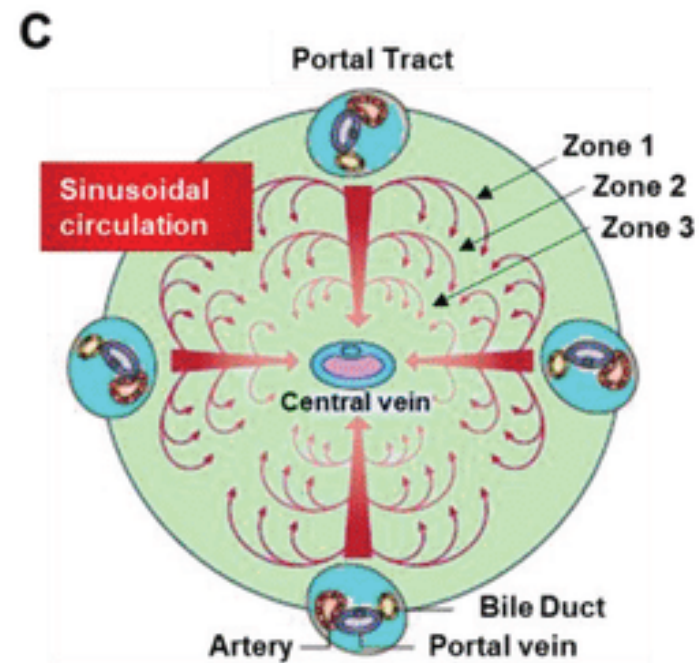
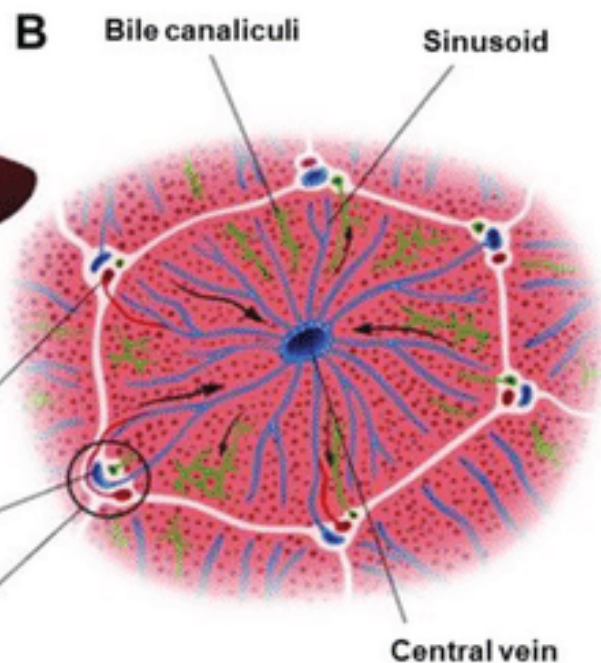
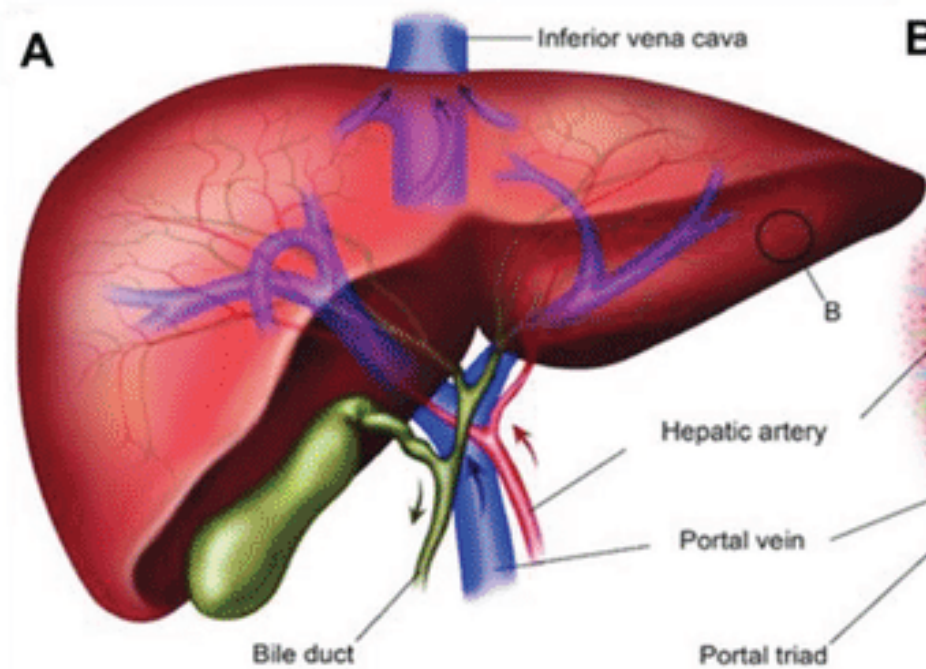
**posterior view**

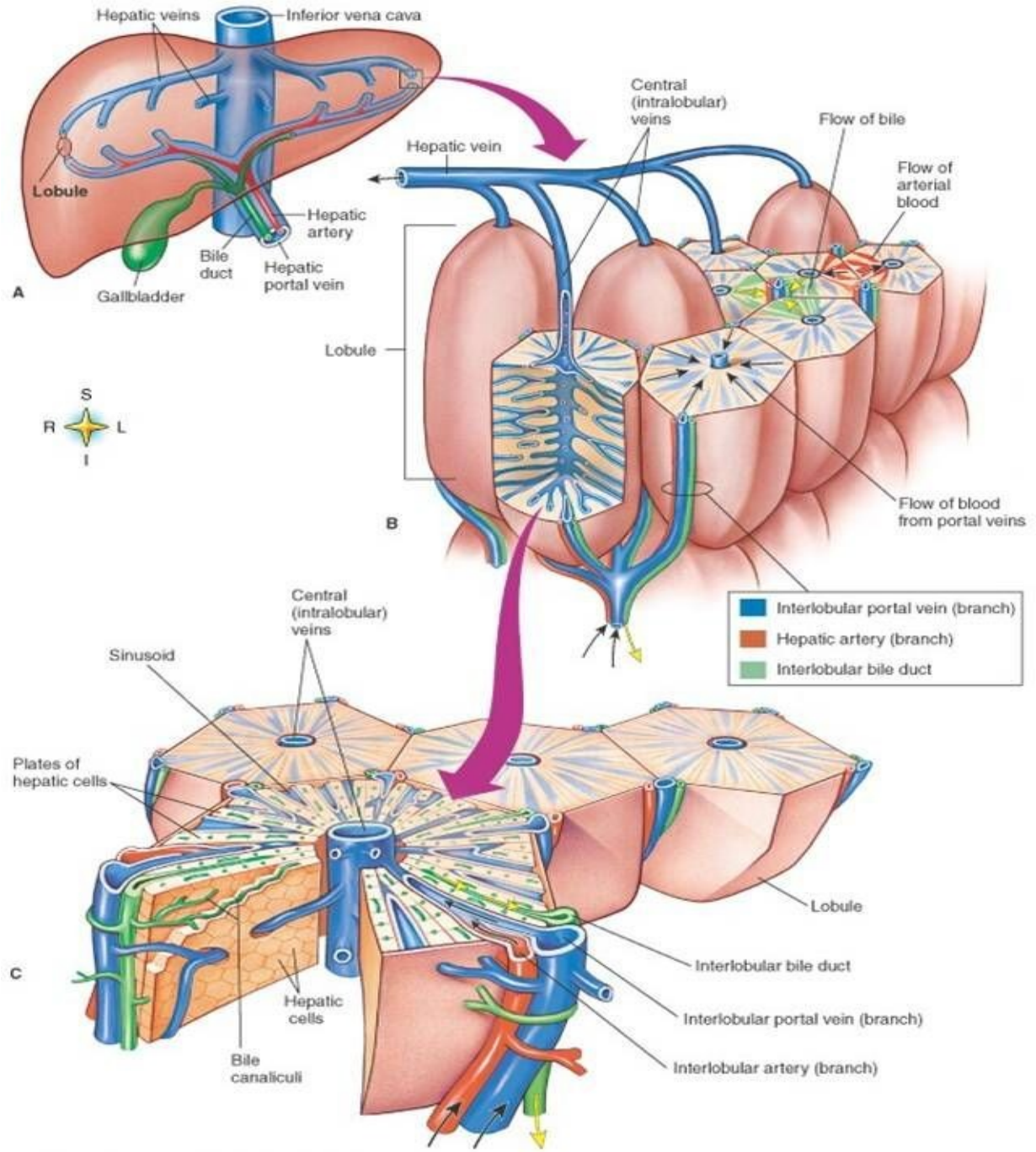


# Portální oběh





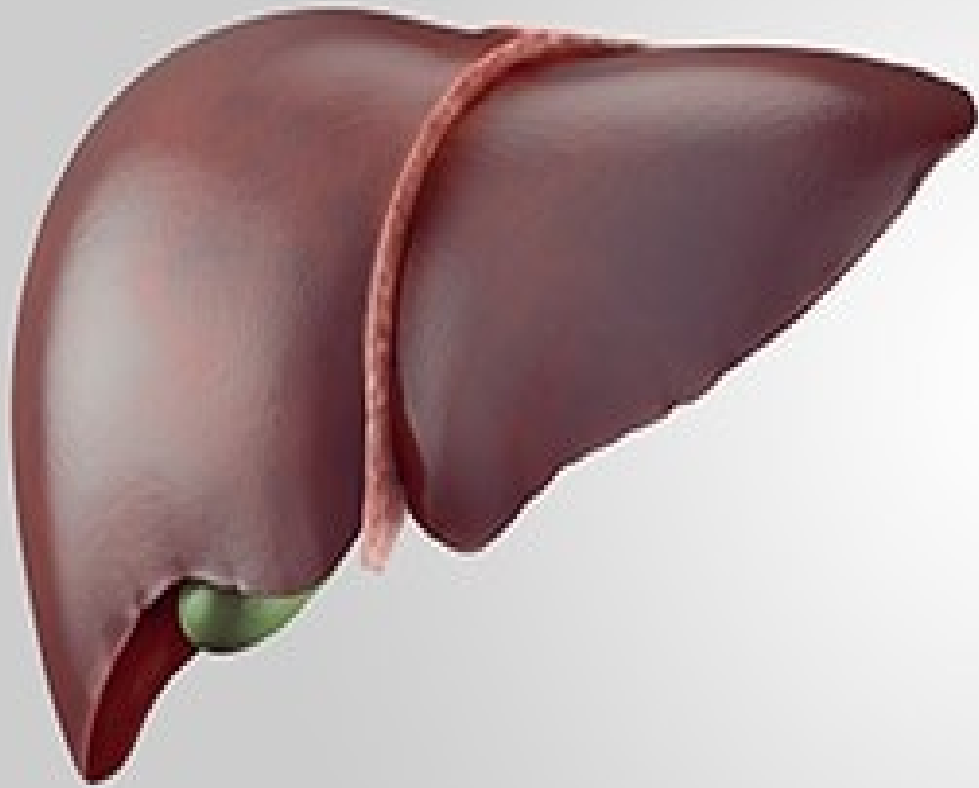




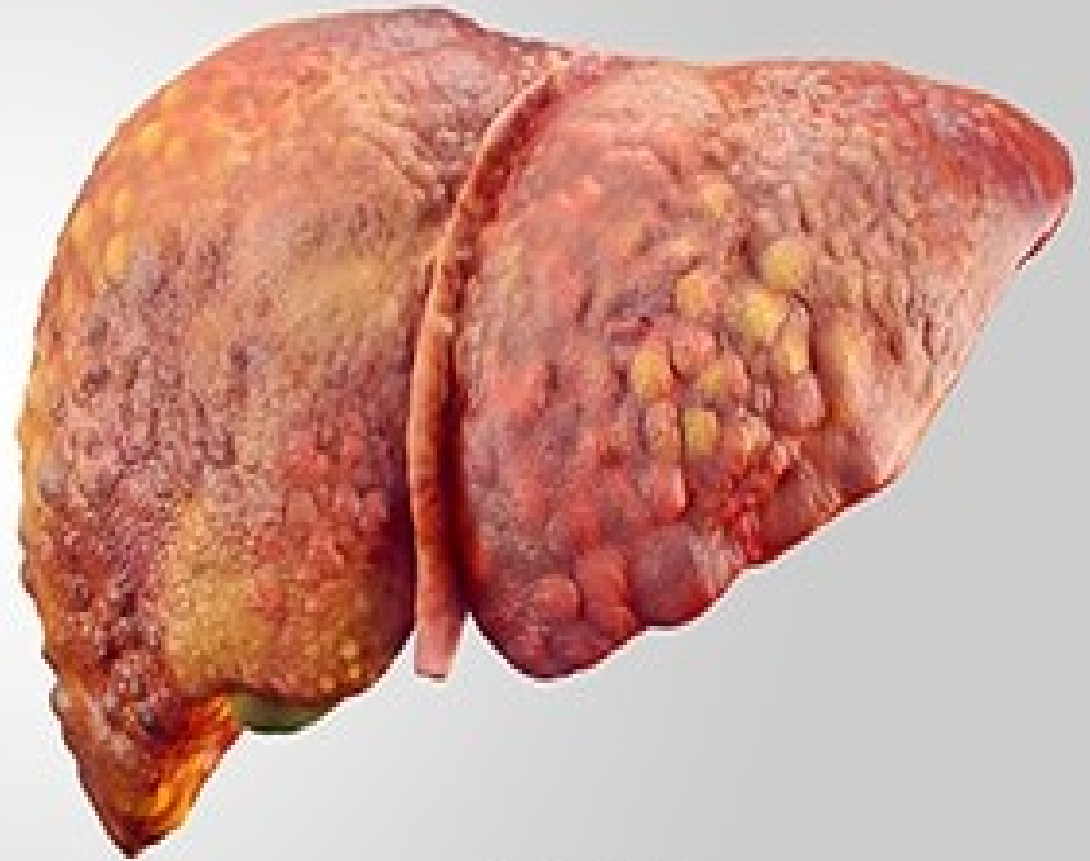


# Funkce jater

- <https://youtu.be/Qxnq3gj8Pa4>

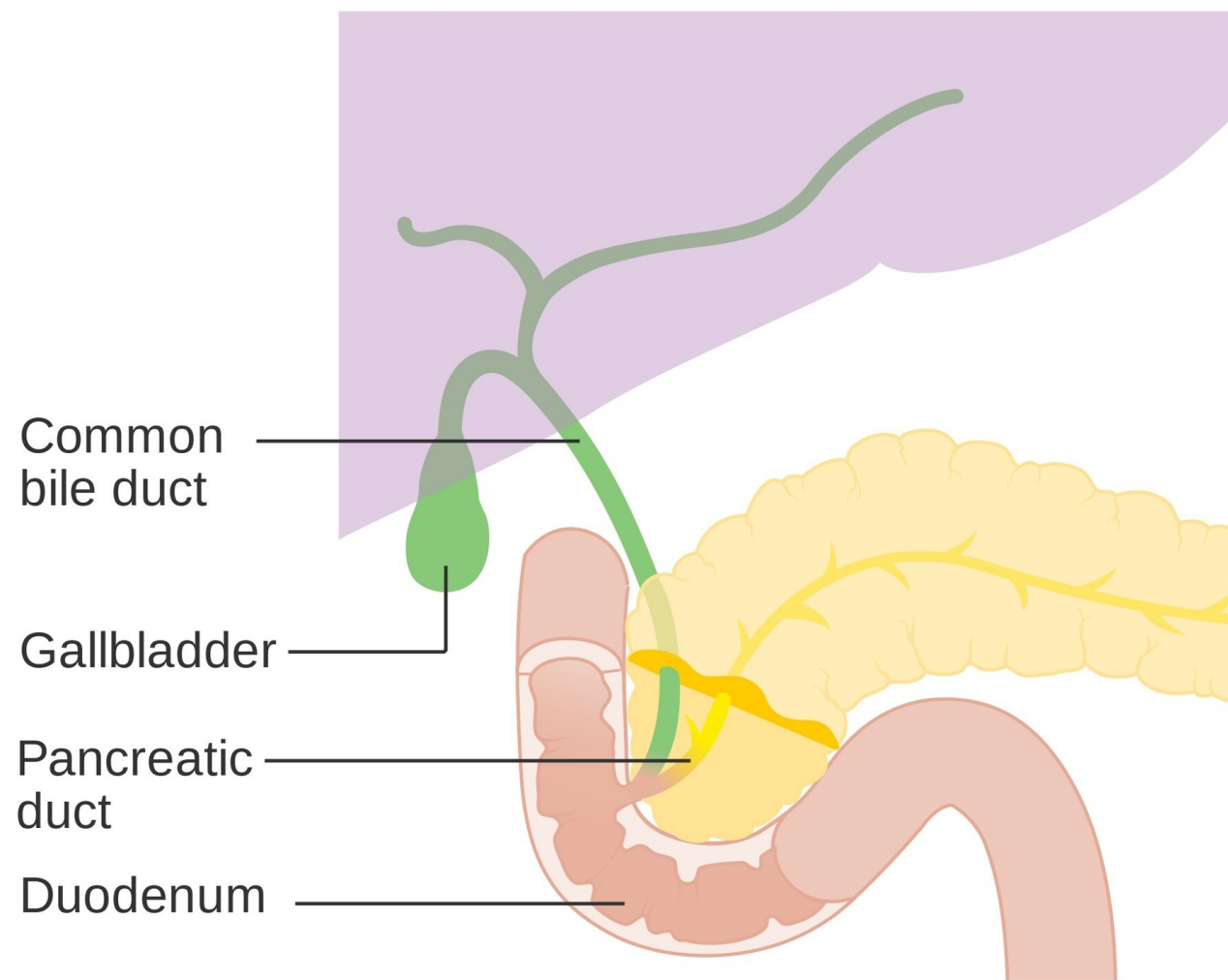


healthy liver

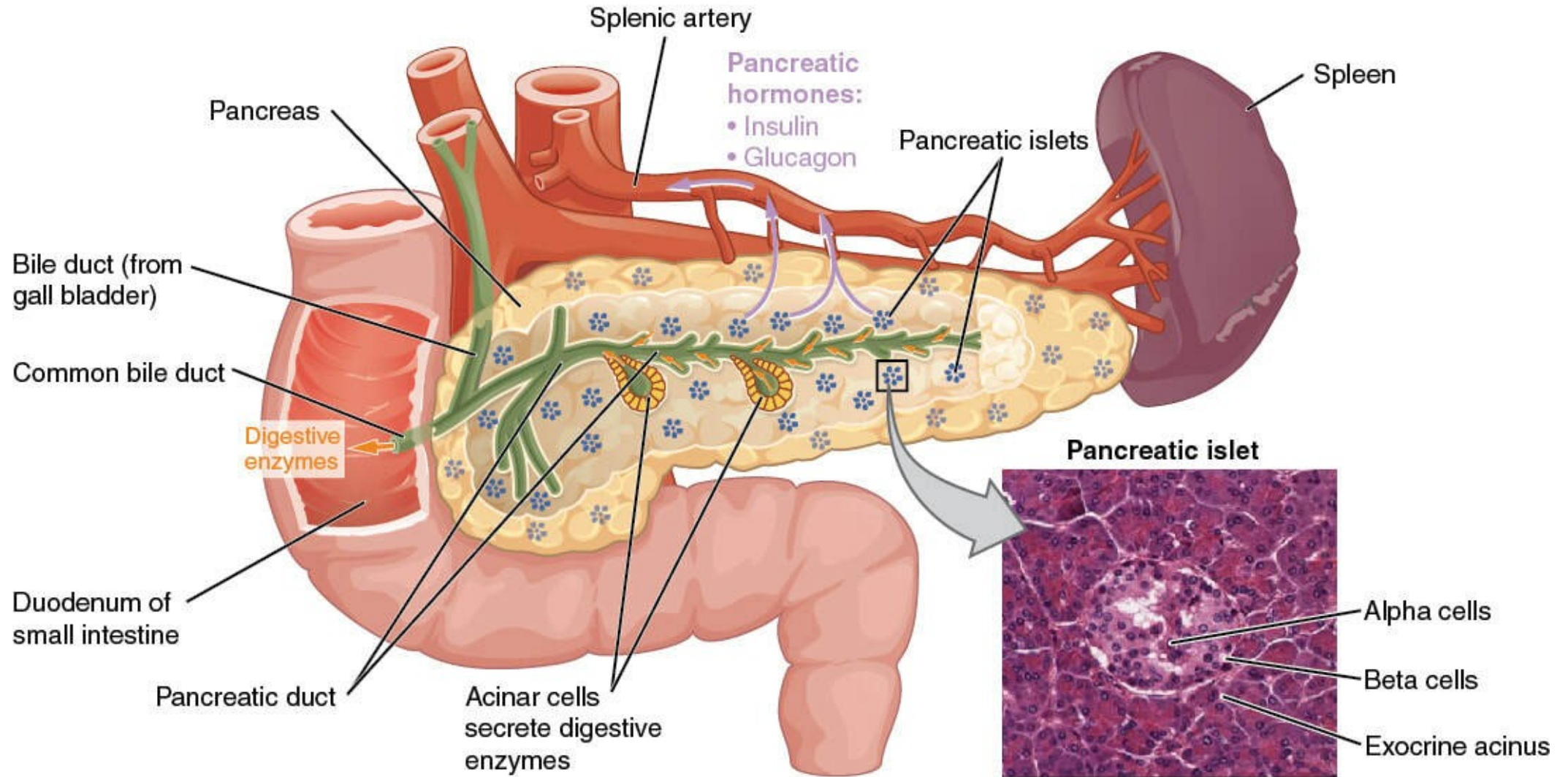


cirrhosis

# Žlučové cesty

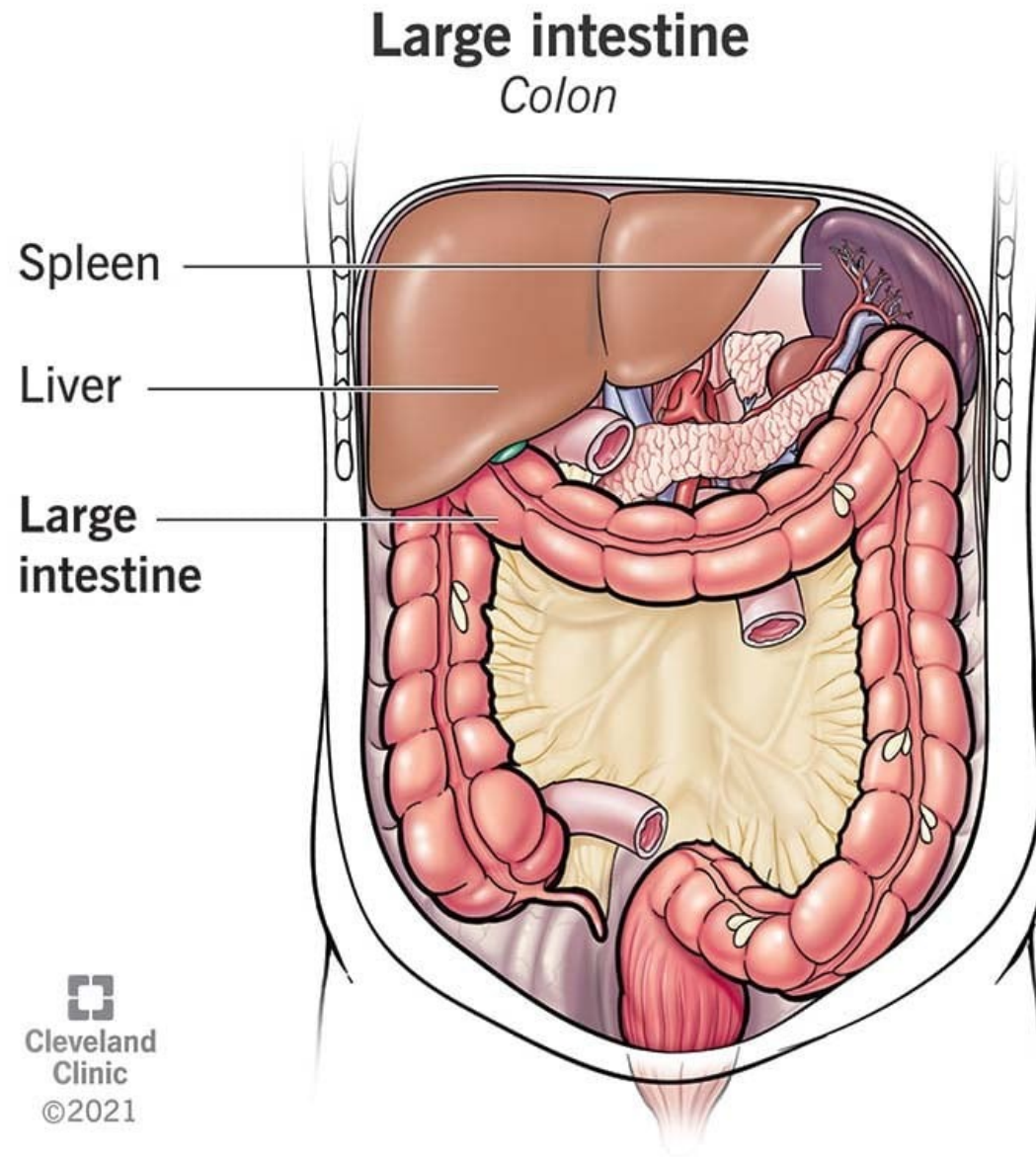


# Slinivka břišní, pancreas

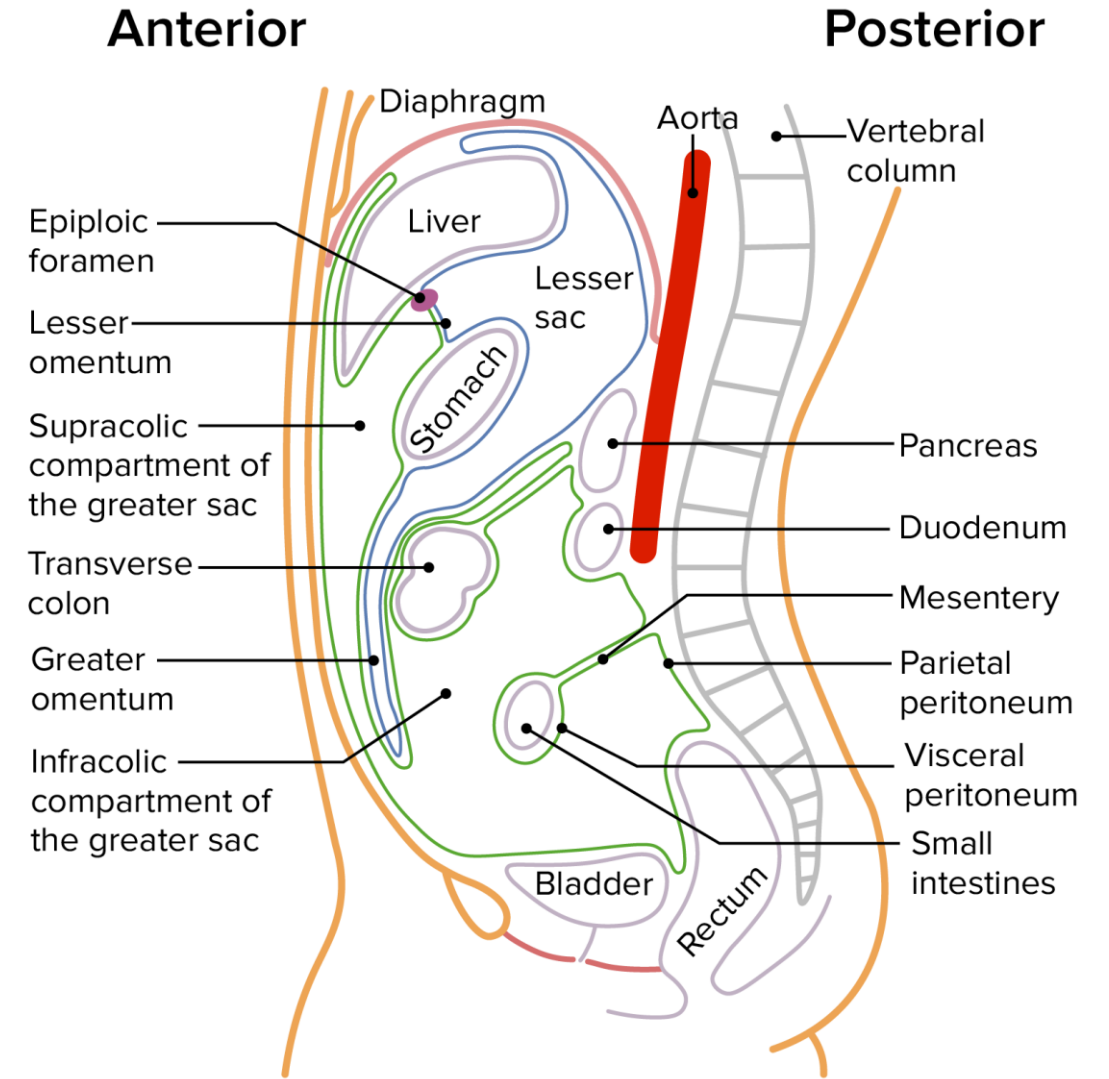
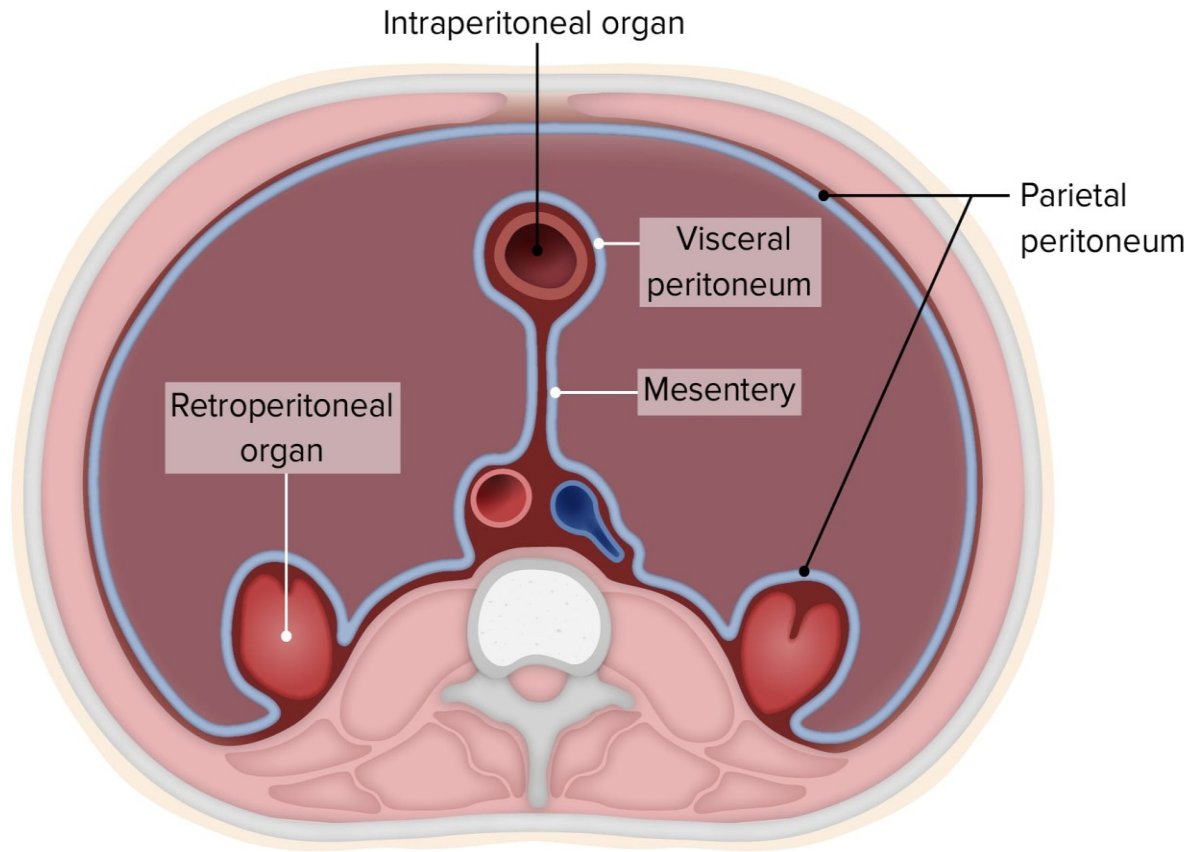




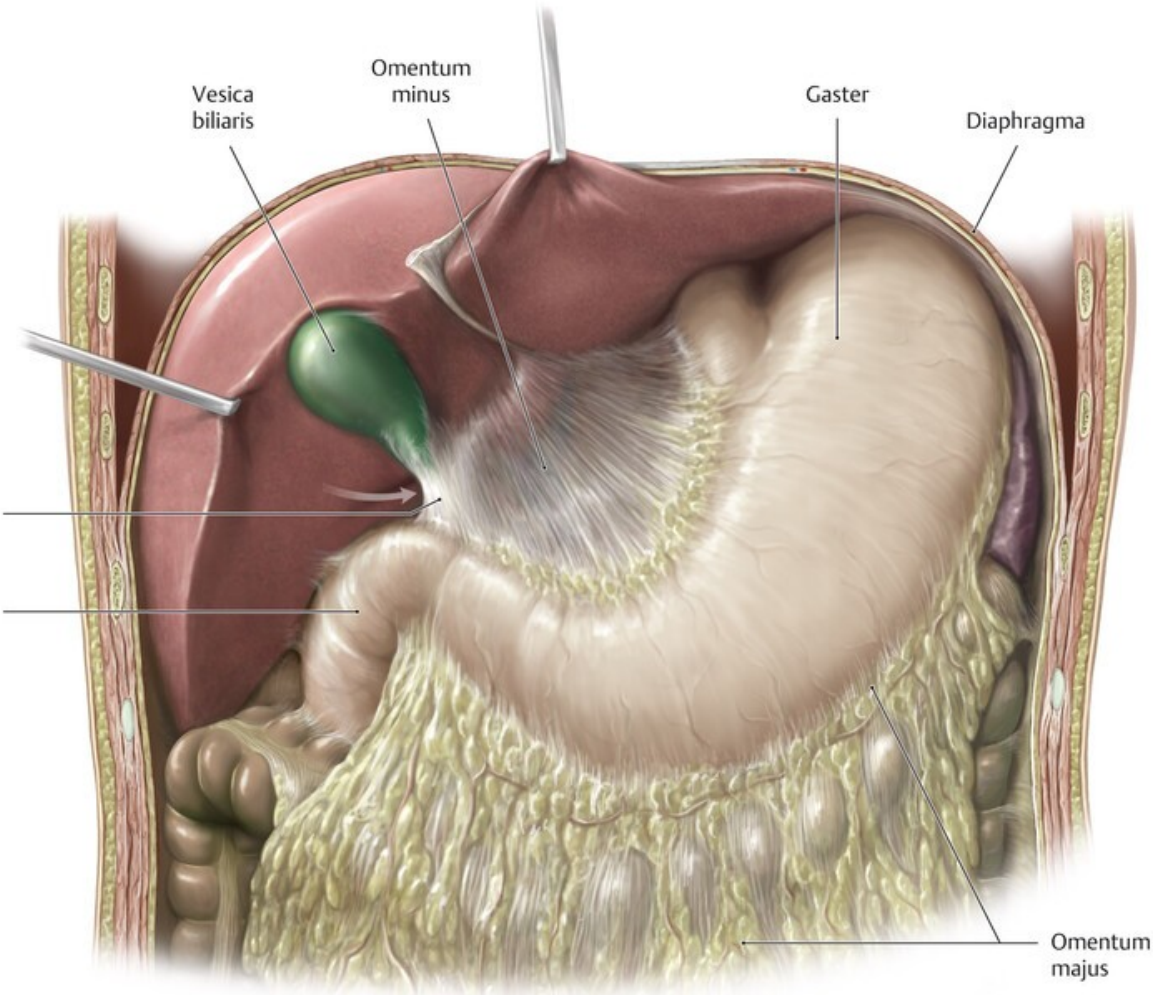
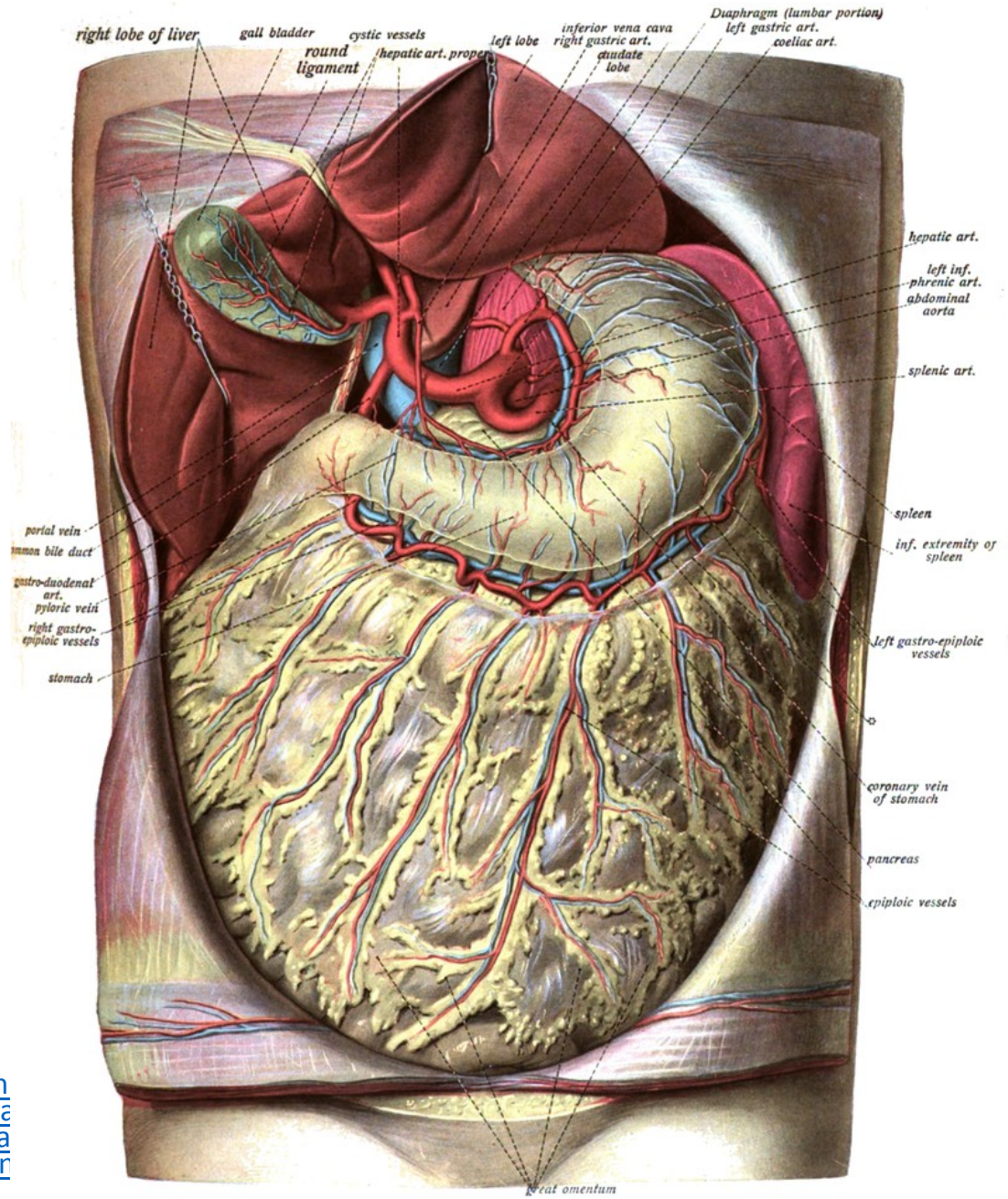
# Střeva



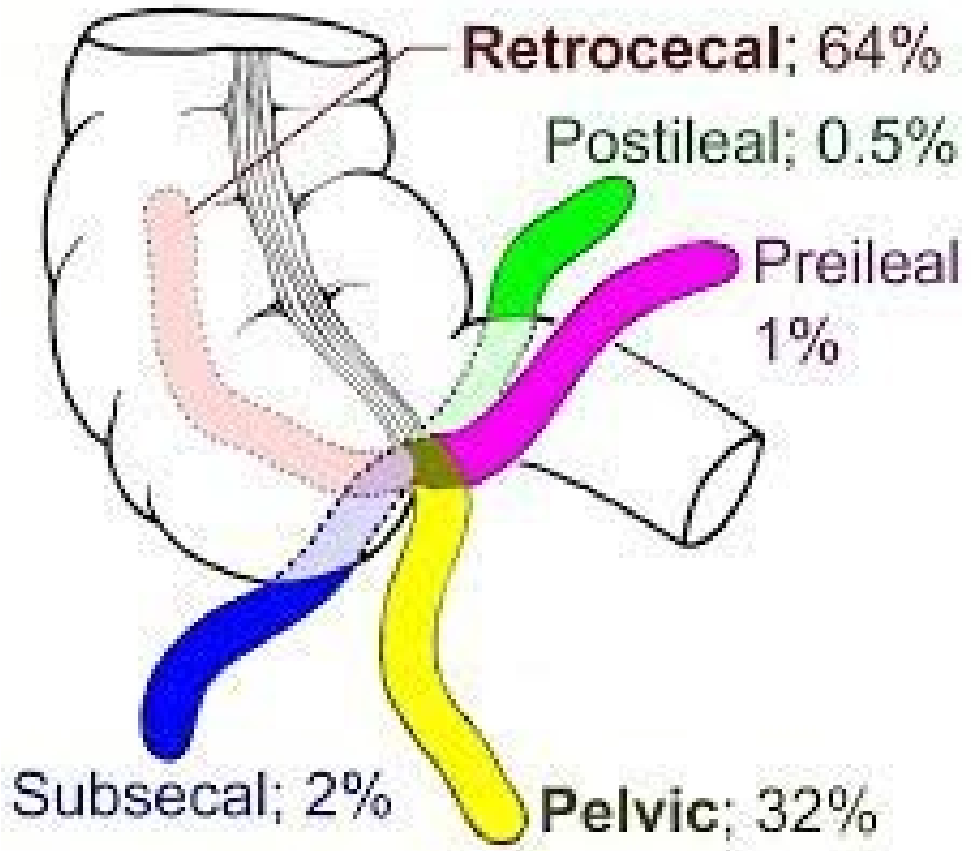
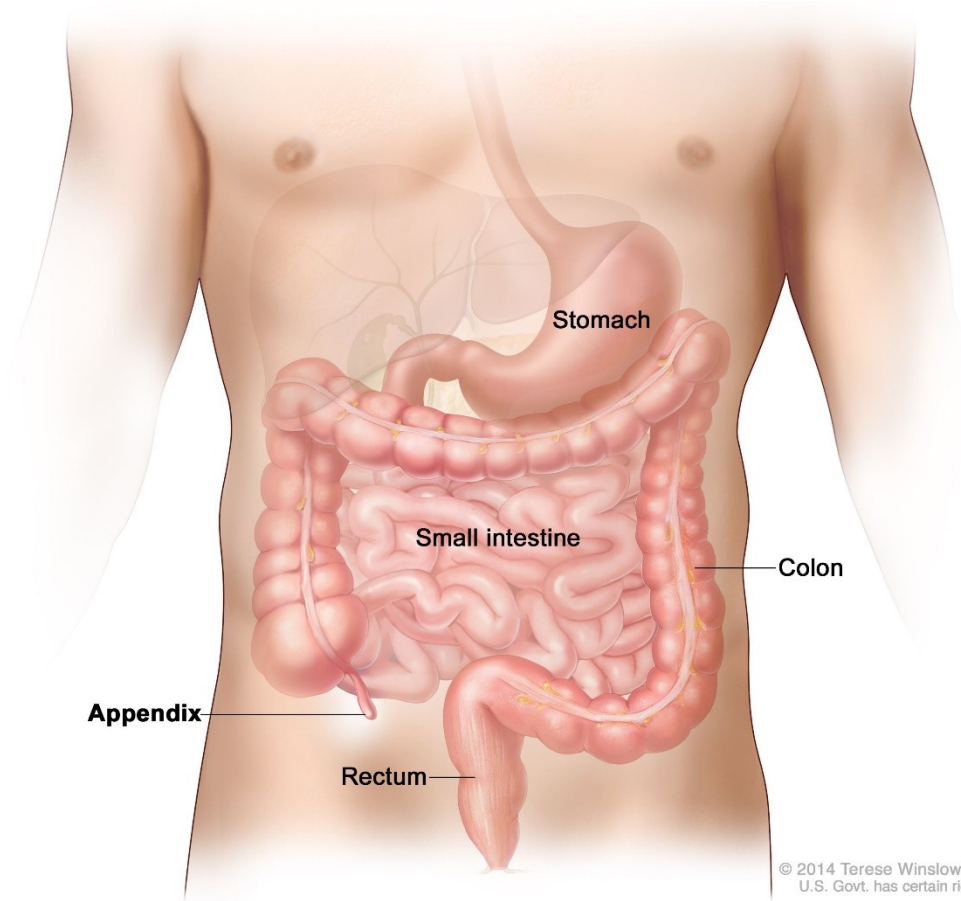
# Peritoneum







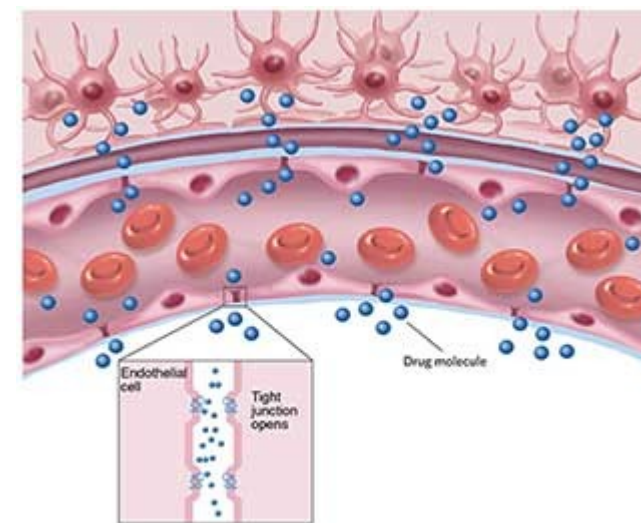
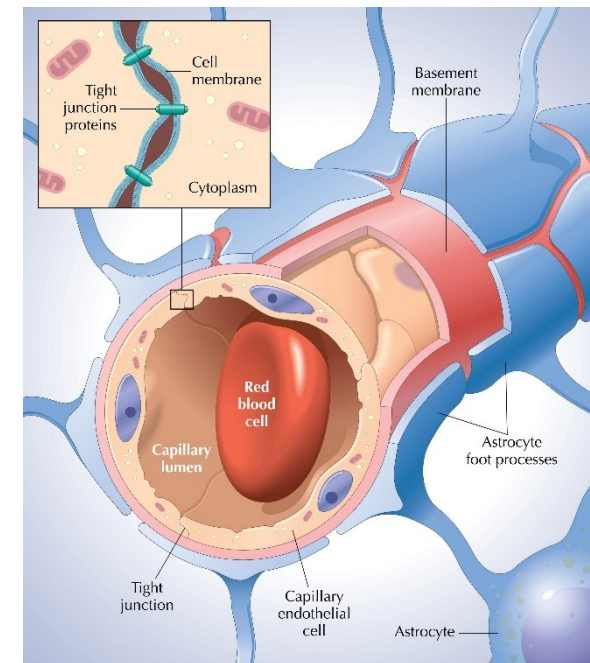
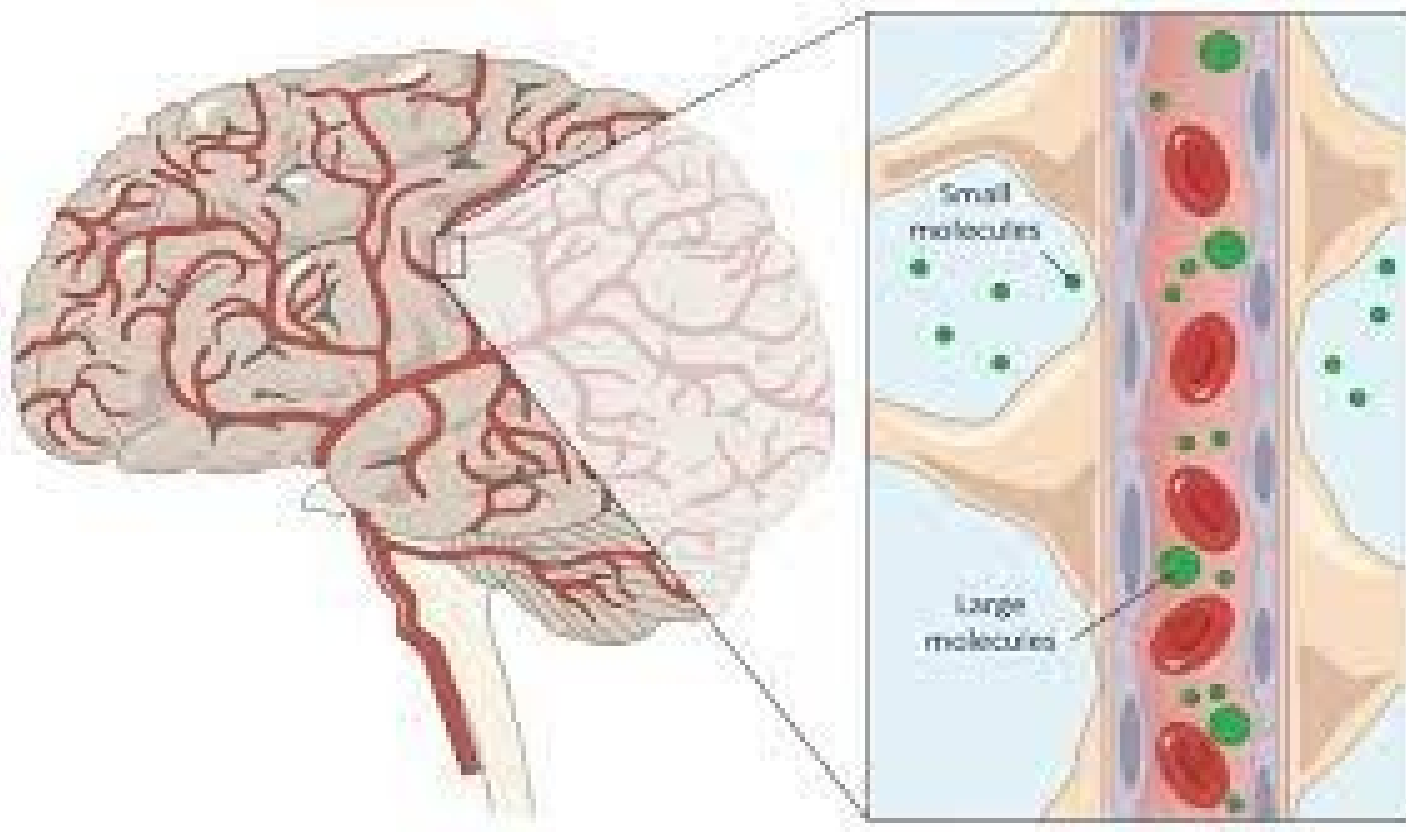
# Appendix





# Hematoencefalická bariéra

- <https://www.youtube.com/watch?v=noWwbvmdhL0>



[https://www.google.com/search?q=hematoencephalic+barrier&tbm=isch&ved=2ahUKEwjkhLTb-cz7AhUOtKQKHYYwAI4Q2-cCegQIABAA&aq=hematoencephalic&gs\\_lcp=CgNpbWcQARgAMgUIABCABDIECAAQHjIECAAQHjIECAAQHjIECAAQgAQQGDoGCAAQBxAcOgQIABBDoggIABCABBCxAzoGCAAQBRAeUP8KWLmzYPFGaABwAHgAgAftiAHL5IBBDEzLjSYAQcGAAQgAQtdn3Mtd2I6LWltZ8ABAQ&scIent=img&ei=mJqCY-TYDI7okgWG4YjwBQ&bih=241&biw=615&rlz=1C1CHBF\\_encZ924C2924&hl=cs#imgcr=hXA8pztExr9FLM](https://www.google.com/search?q=hematoencephalic+barrier&tbm=isch&ved=2ahUKEwjkhLTb-cz7AhUOtKQKHYYwAI4Q2-cCegQIABAA&aq=hematoencephalic&gs_lcp=CgNpbWcQARgAMgUIABCABDIECAAQHjIECAAQHjIECAAQHjIECAAQgAQQGDoGCAAQBxAcOgQIABBDoggIABCABBCxAzoGCAAQBRAeUP8KWLmzYPFGaABwAHgAgAftiAHL5IBBDEzLjSYAQcGAAQgAQtdn3Mtd2I6LWltZ8ABAQ&scIent=img&ei=mJqCY-TYDI7okgWG4YjwBQ&bih=241&biw=615&rlz=1C1CHBF_encZ924C2924&hl=cs#imgcr=hXA8pztExr9FLM)