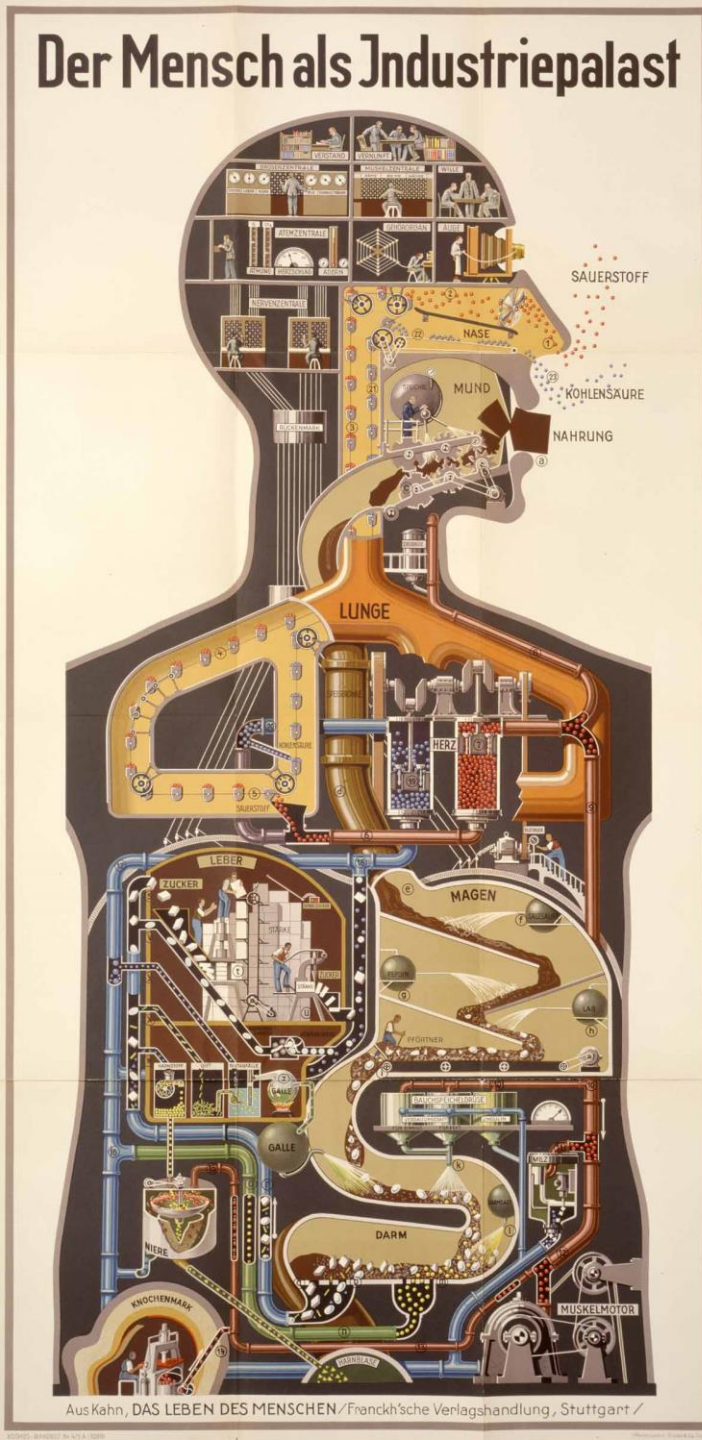


Tápcsatorna

Máj

Hasnyánmirigy

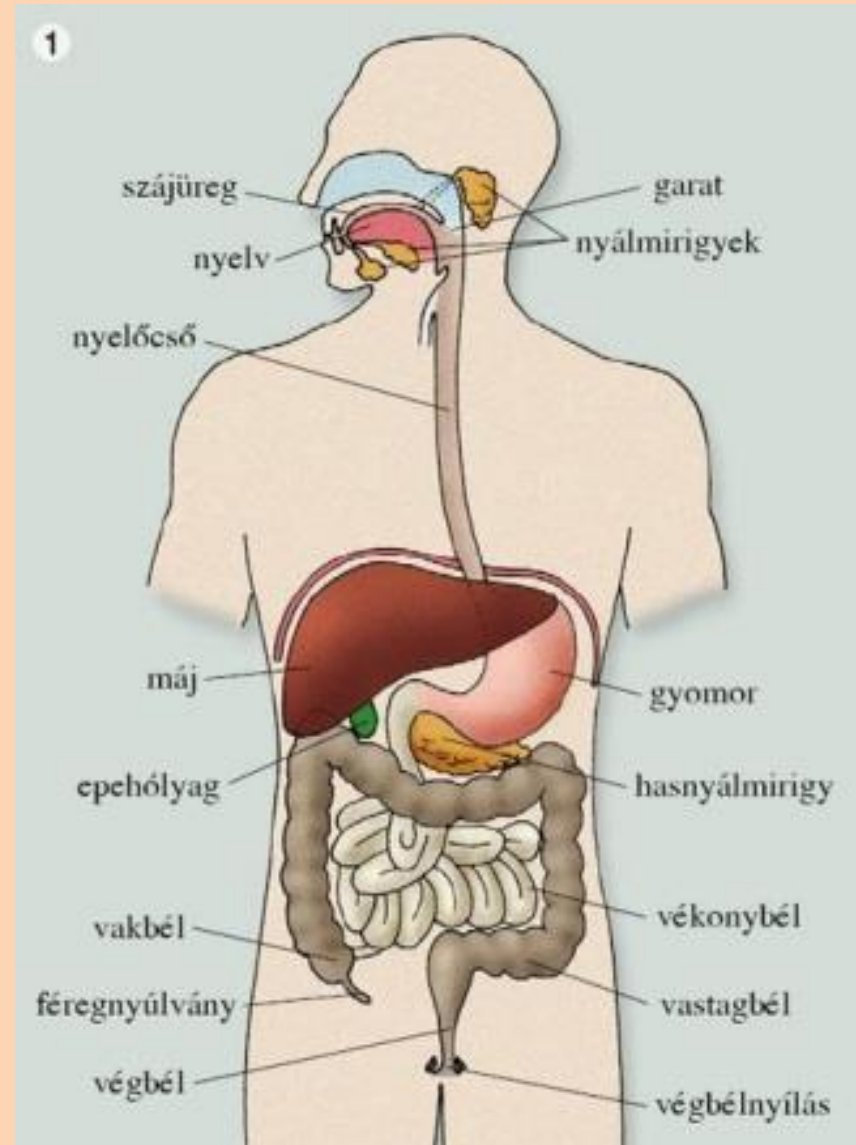
GYTK
2019.03.14.

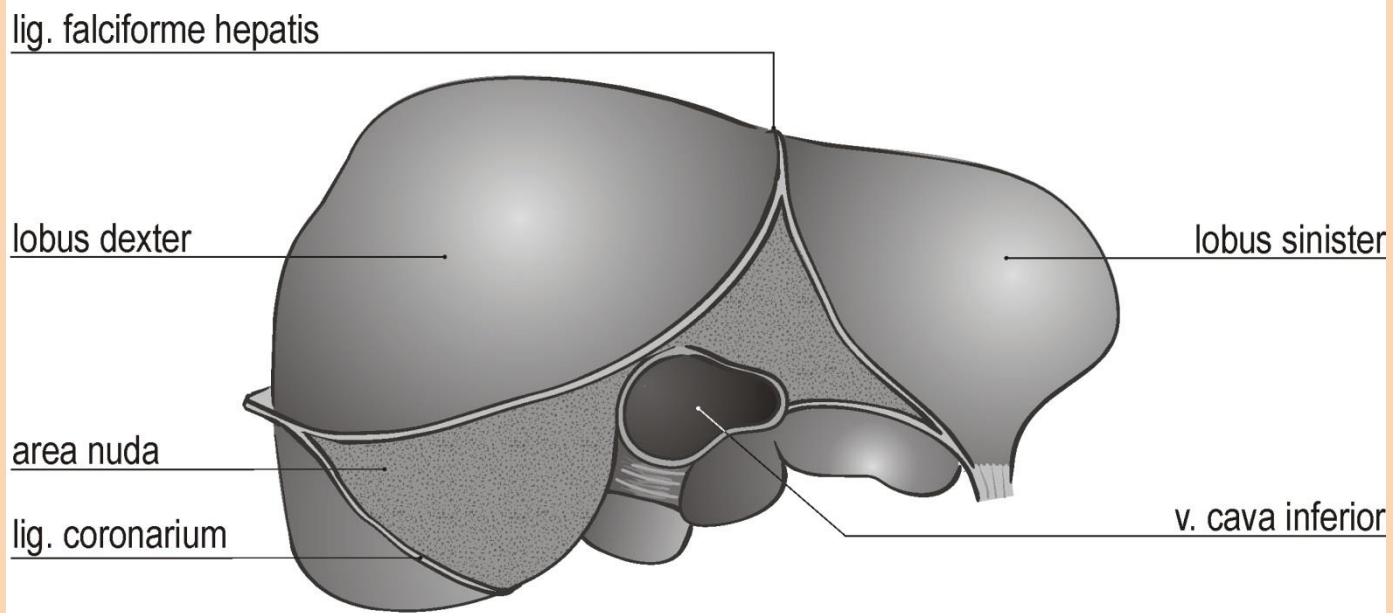
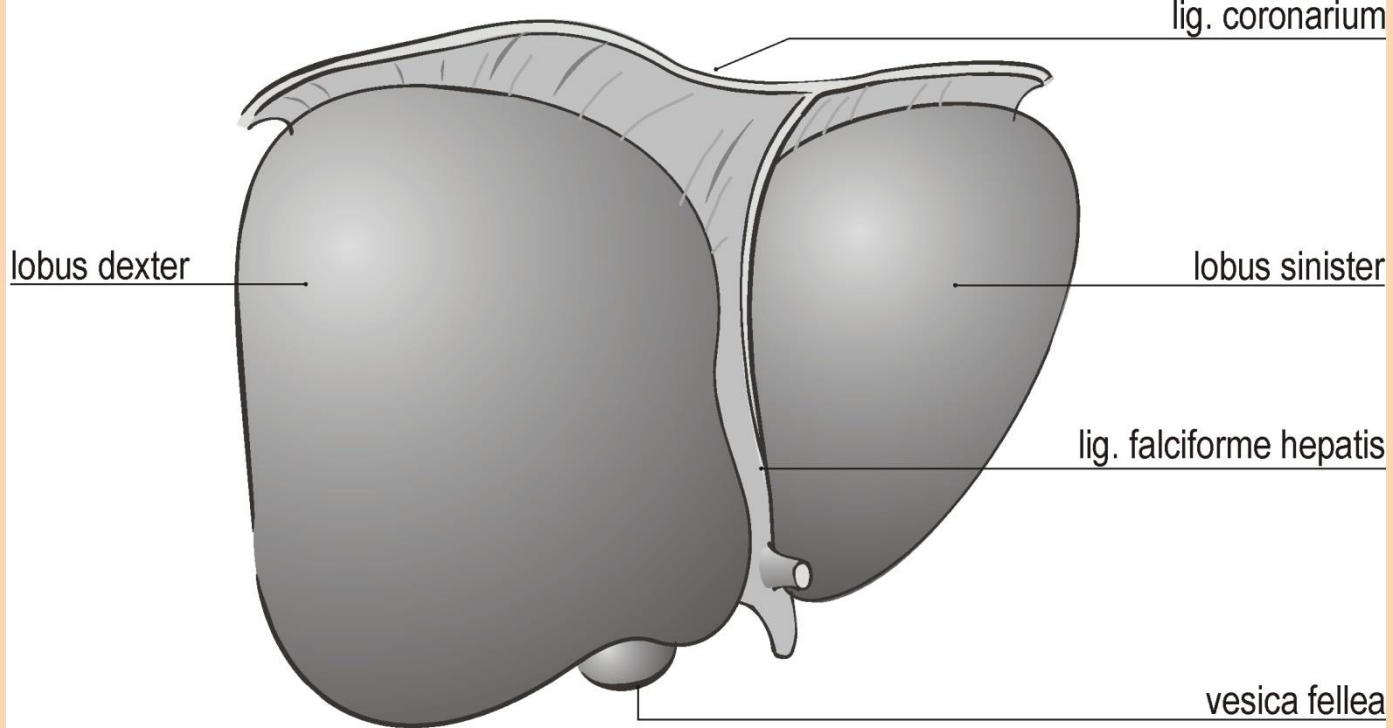


Dr. Szuák
András

Az emésztőrendszer mirigyei

- **Máj (hepar)**
- Pancreas





**Ligamentum
coronarium
dextrum**

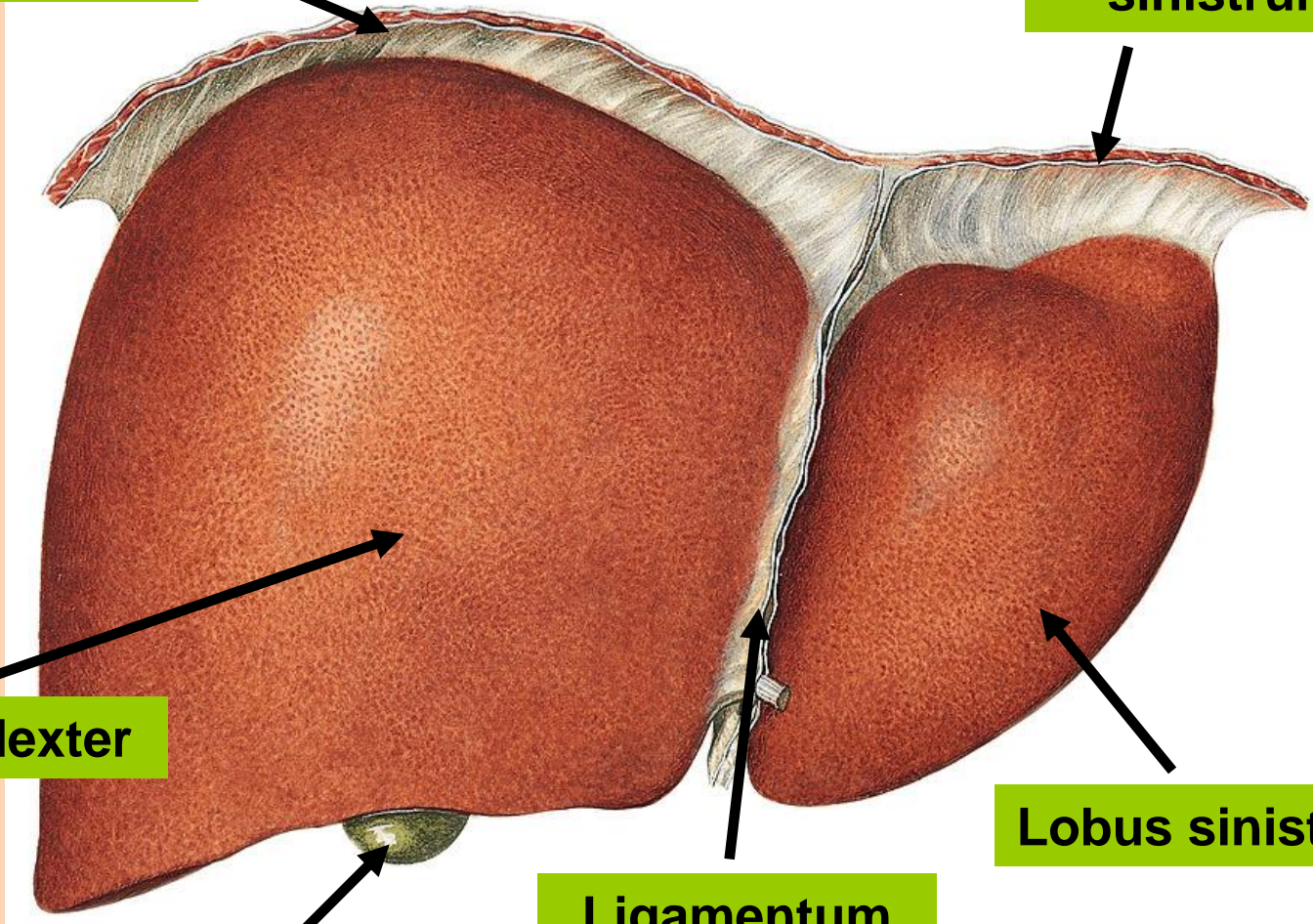
**Ligamentum
coronarium
sinistrum**

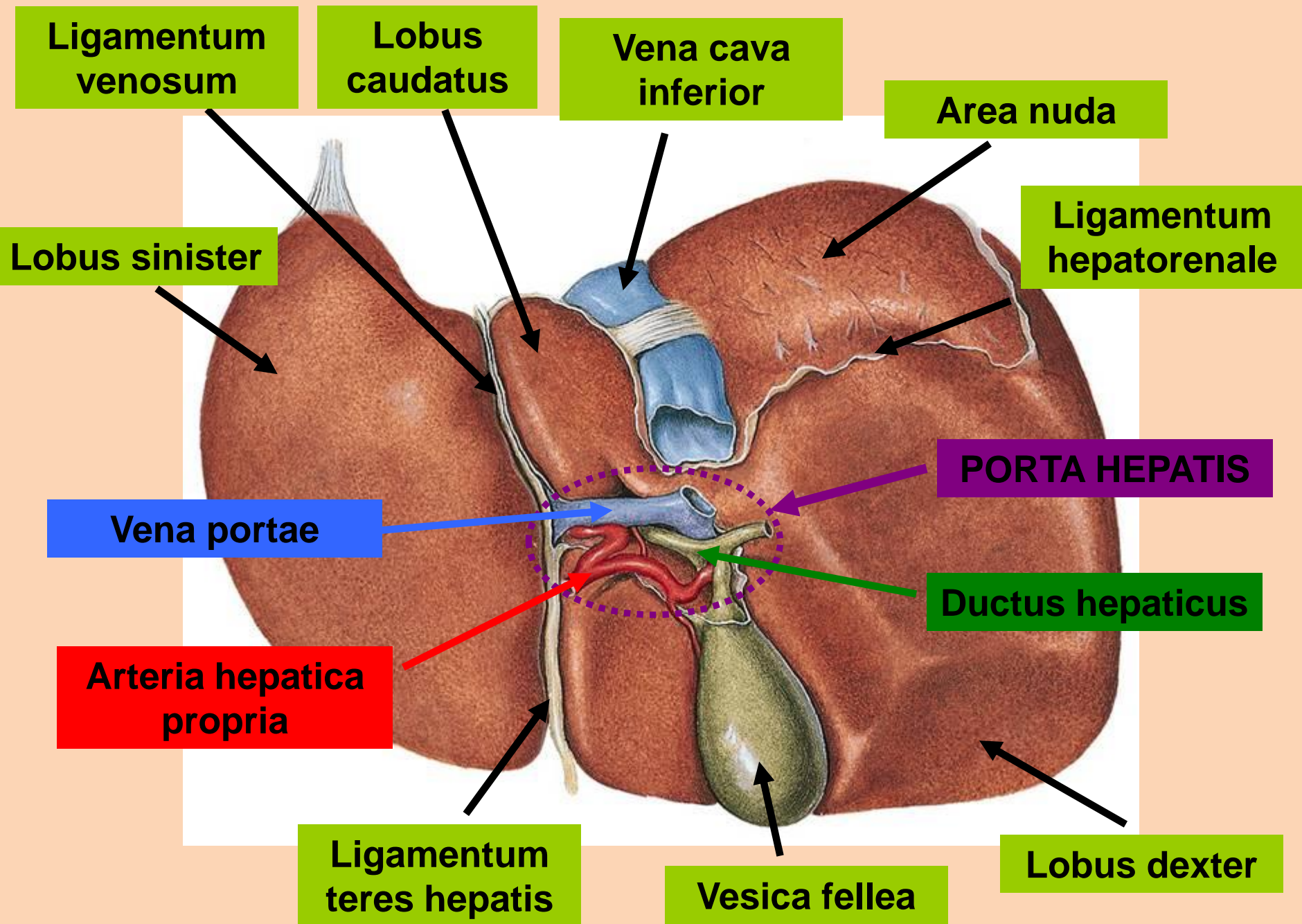
Lobus dexter

Lobus sinister

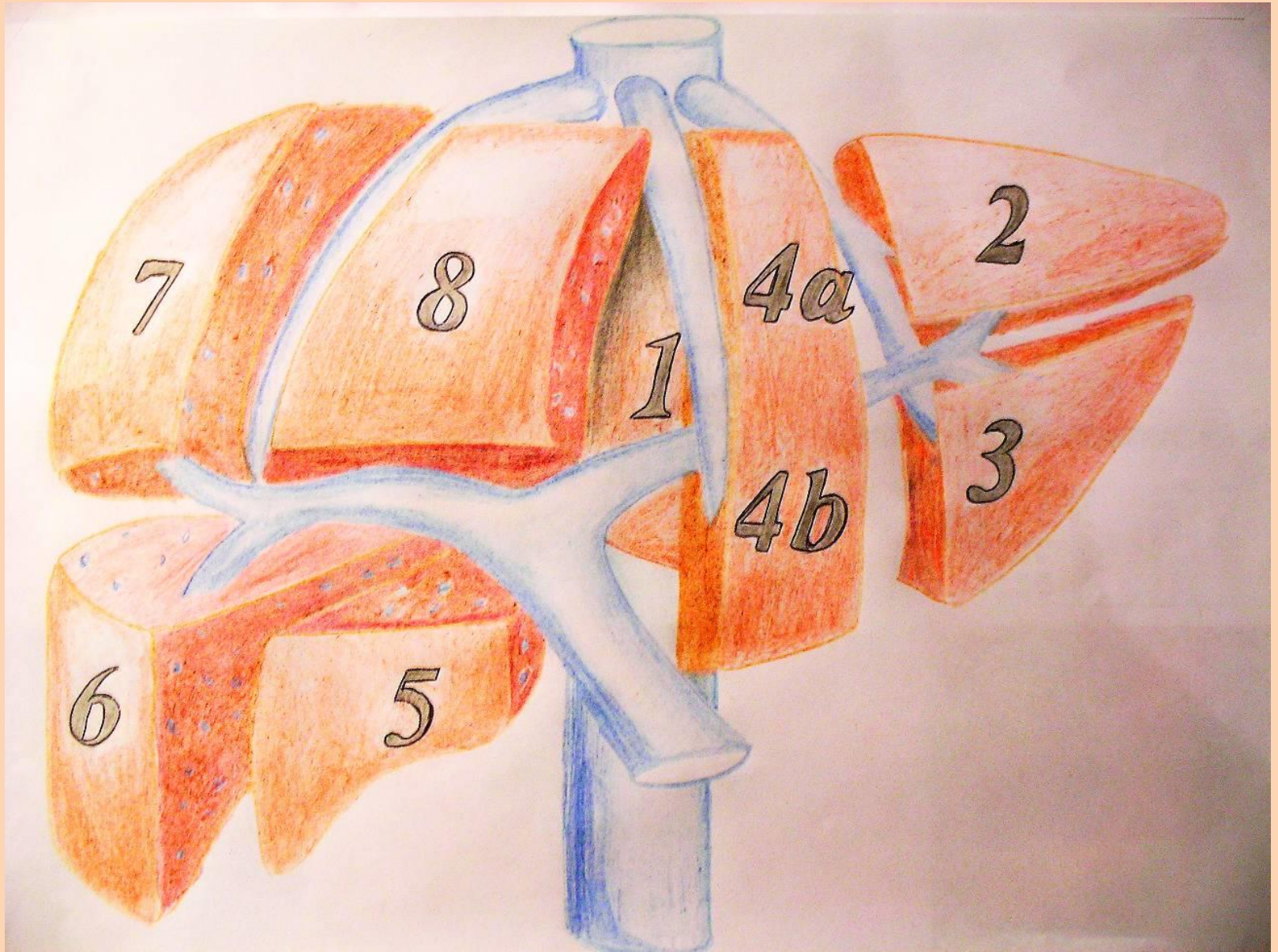
Vesica fellea

**Ligamentum
falciforme
hepatis**



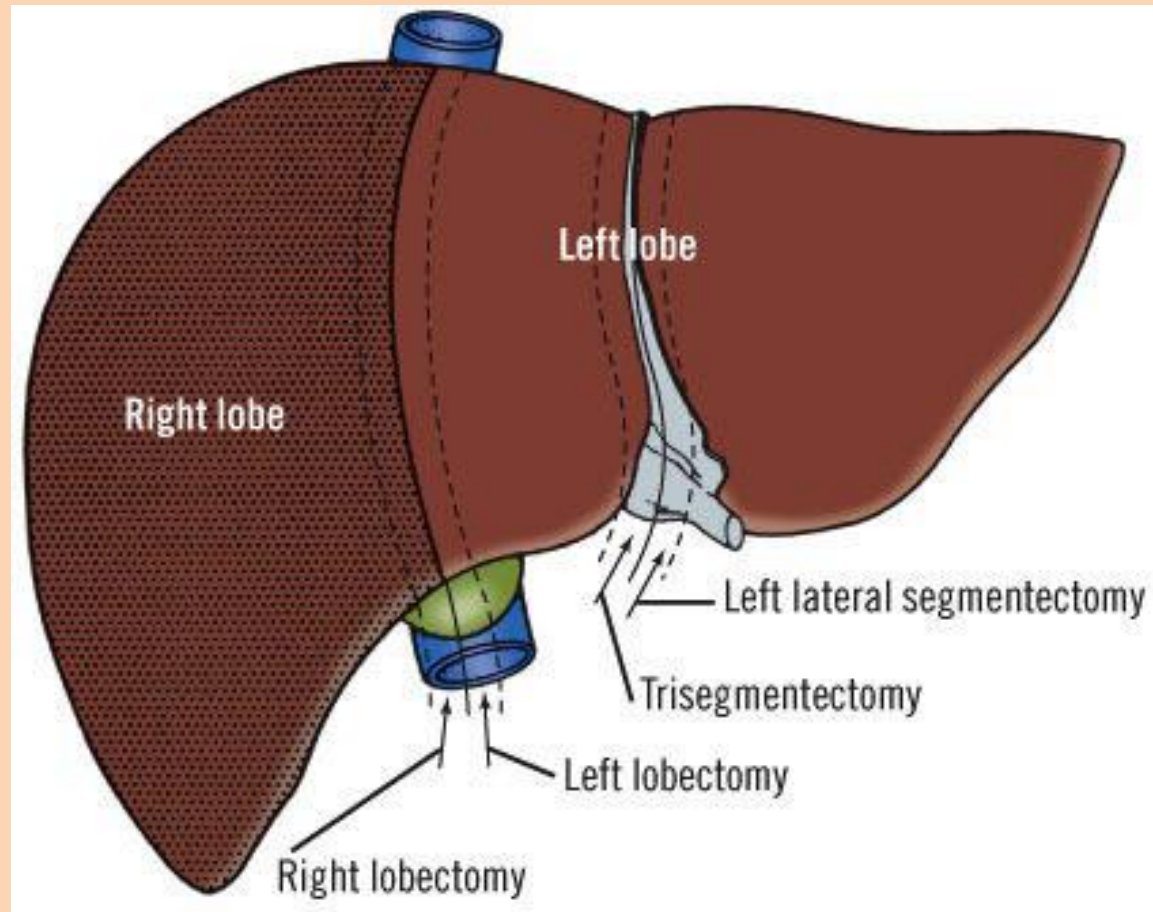


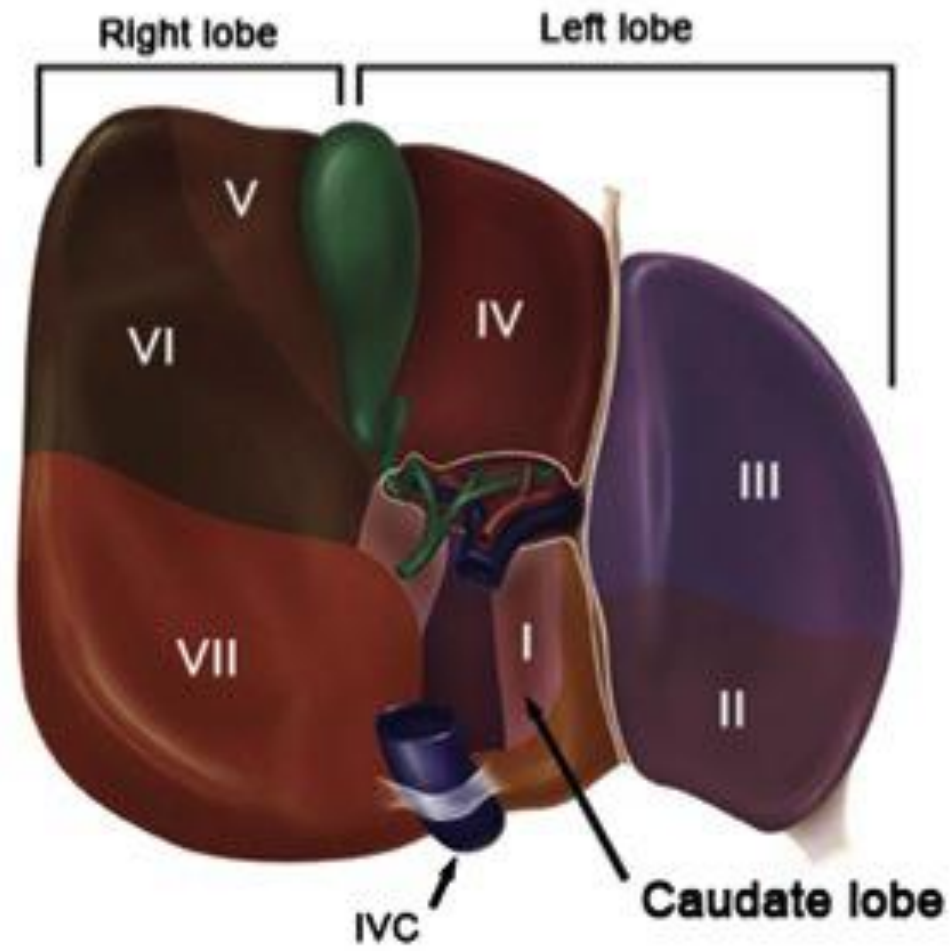
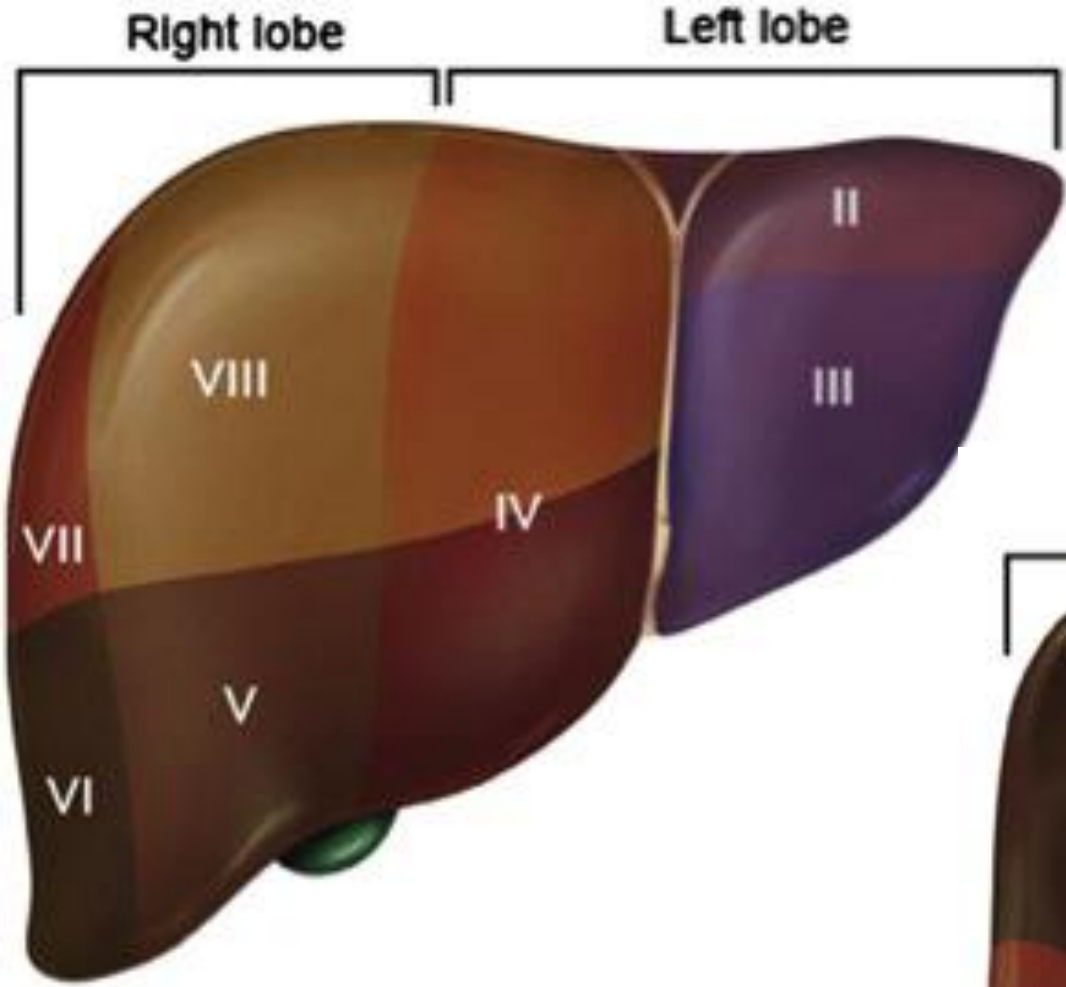
A máj szegmentumai



A máj lebenyei

- A lebenyek közötti határ a Rex-Cantlie vonal
 - vena cava inferior
 - vesica fellea





A máj topográfiája

Diaphragma

Lig. falciforme

Lig. teres
hepatis

Hepar

Vesica fellea

Lig. hepatoduodenale

Omentum minus

Flexura coli dextra

Colon ascendens

Omentum majus

Lig. coronarium sin.

Lien

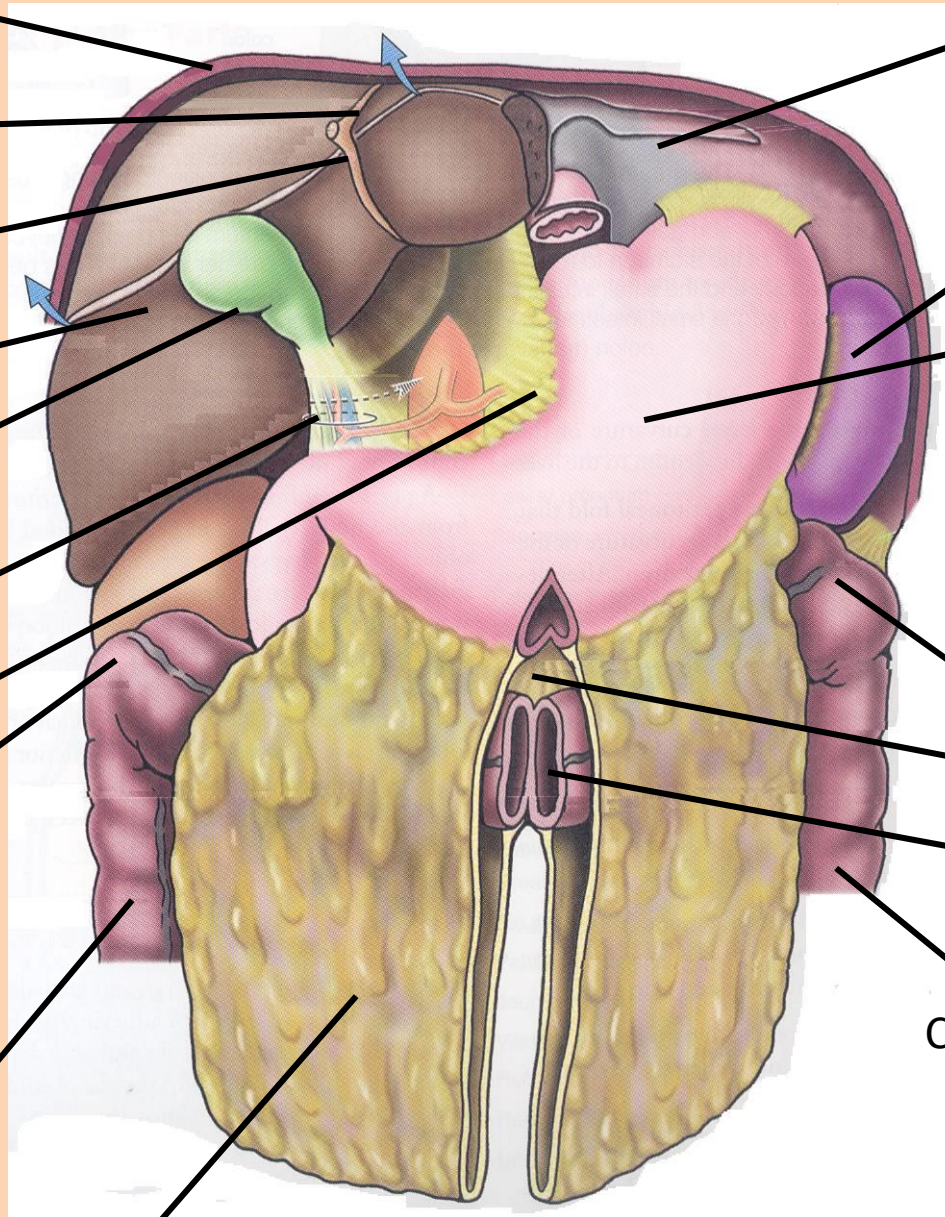
Ventriculus

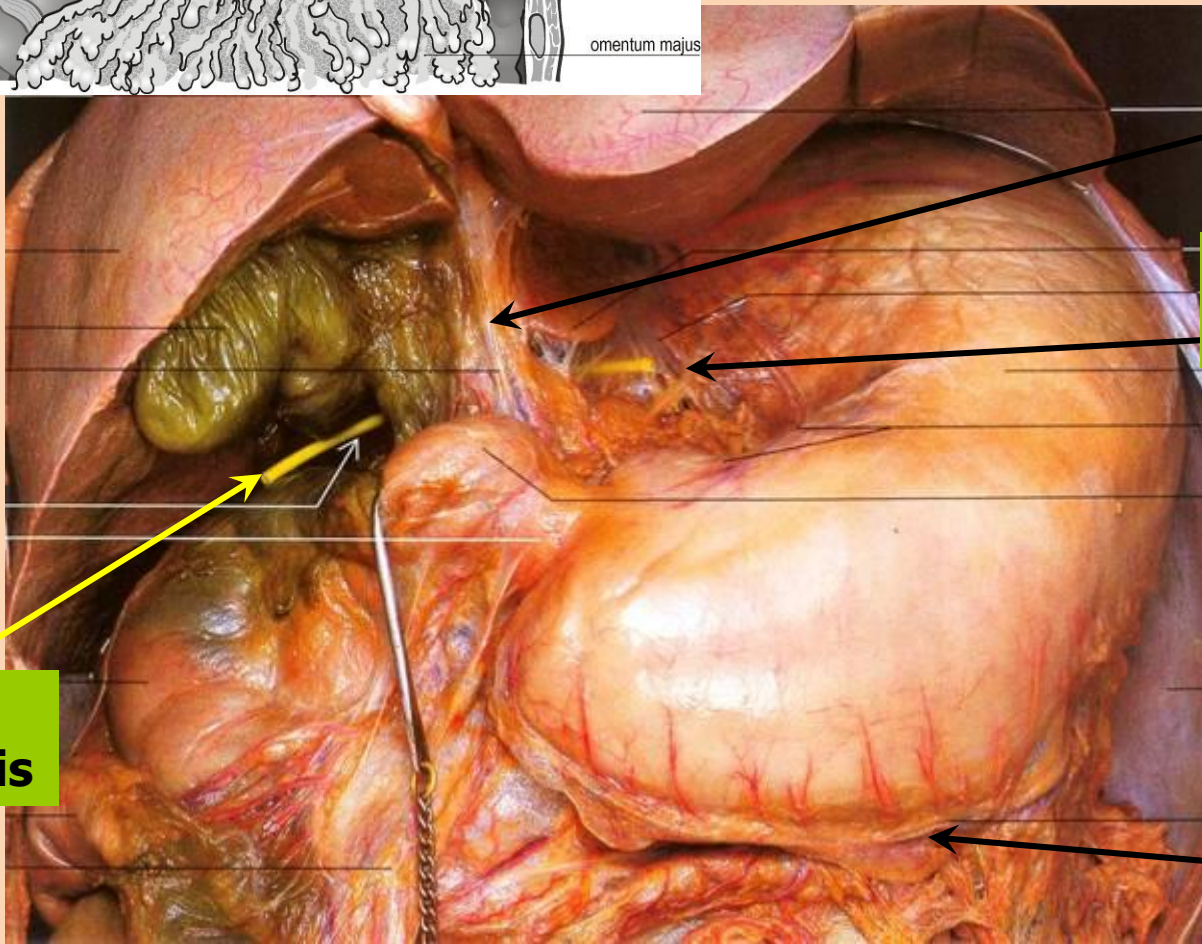
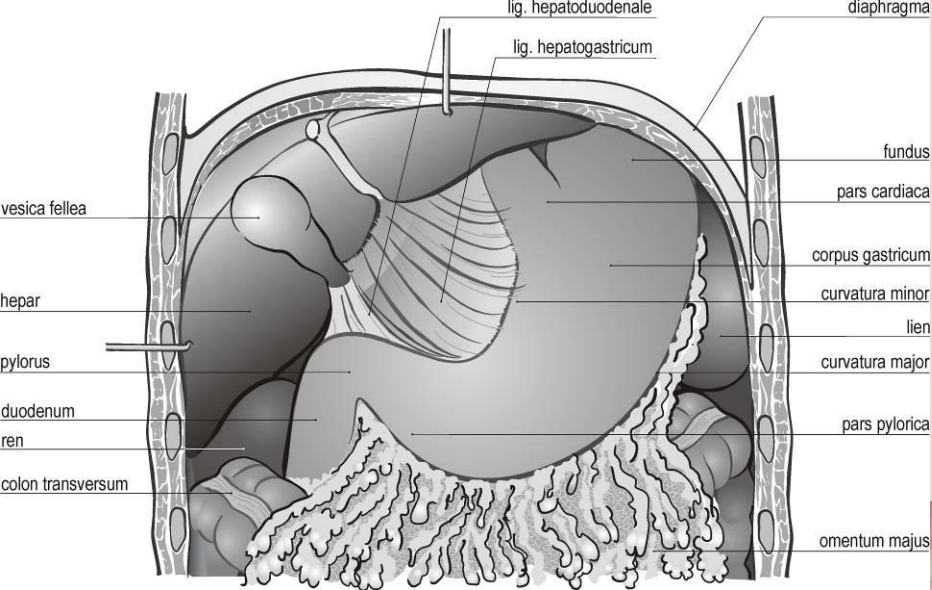
Flexura coli sinistra

Mesocolon transversum

Colon transversum

Colon descendens





**Lig. Hepato-
duodenale**

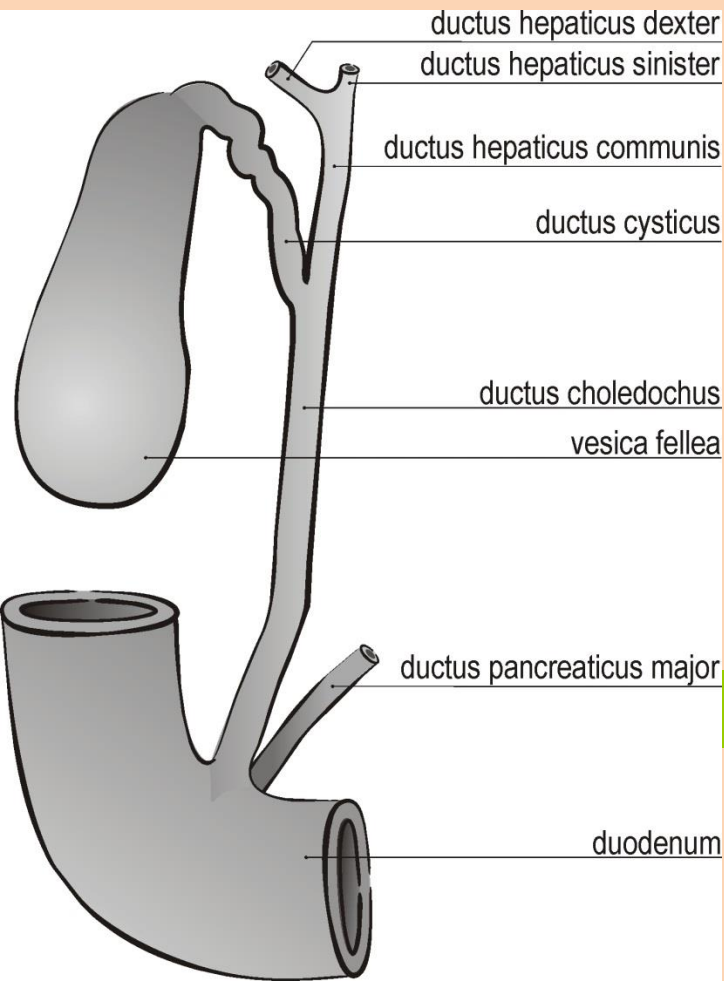
**Lig. Hepato-
gastricum**

**Omentum
majus**

**Bursa
omentalis**

**O
m
e
n
t
u
m
m
i
n
u
s**

Epeutak



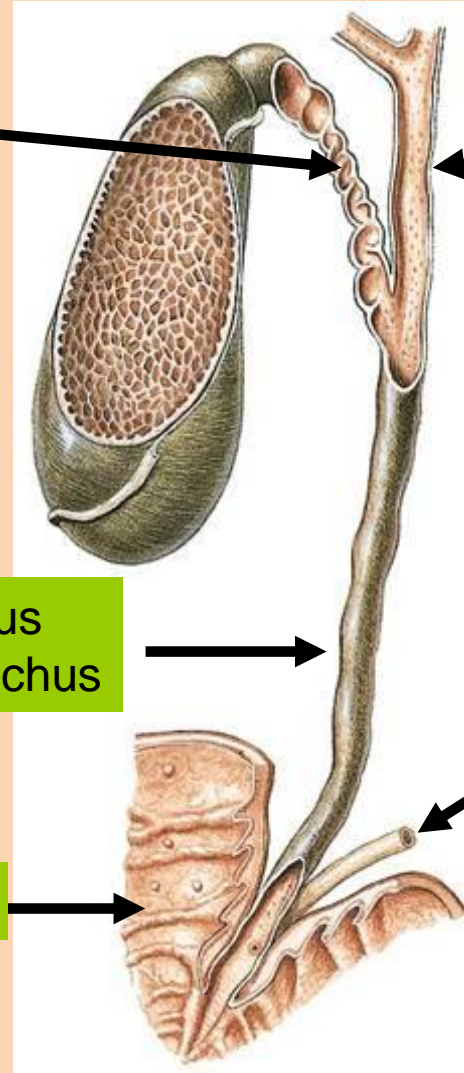
Ductus cysticus

Ductus hepaticus communis

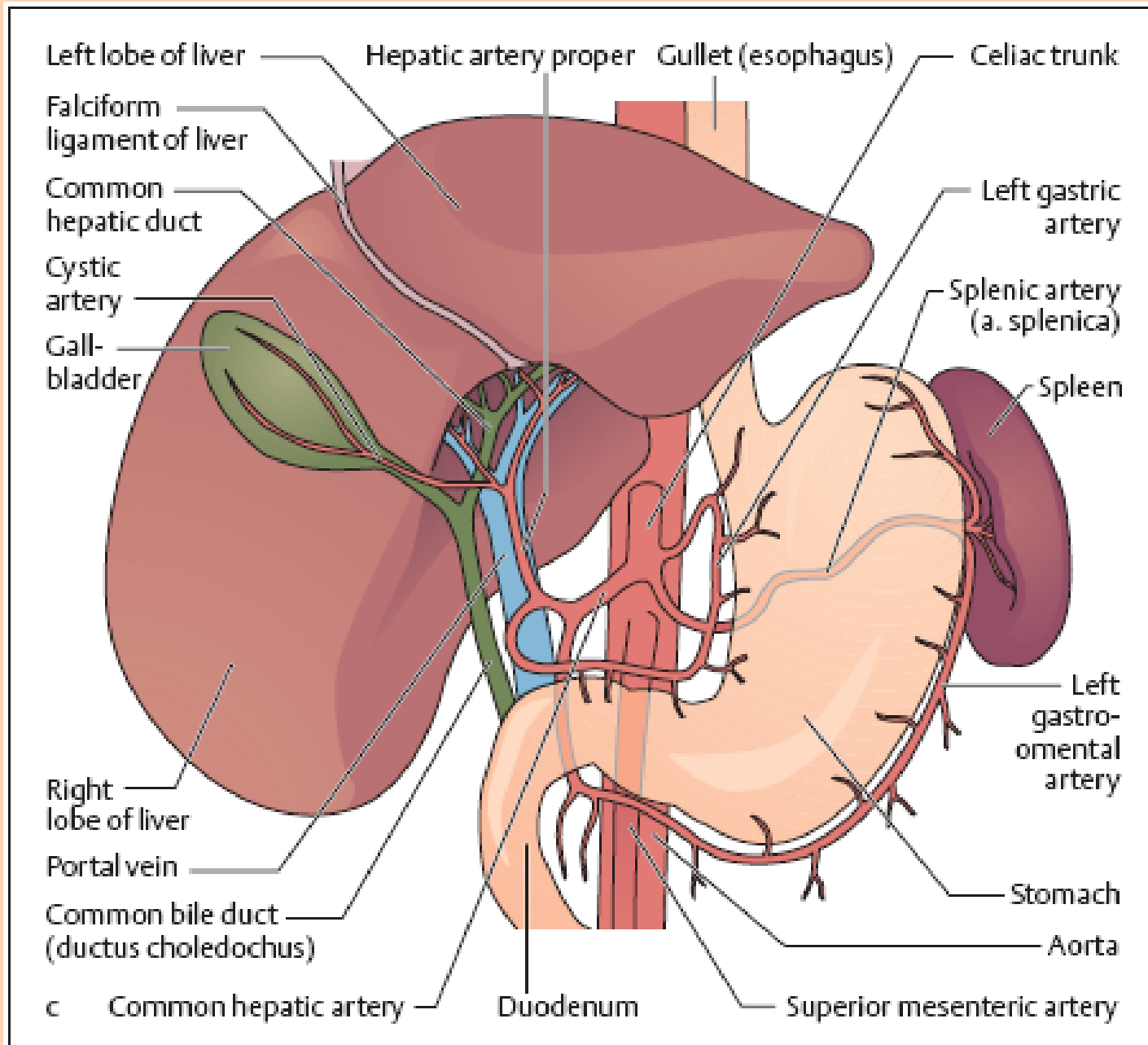
Ductus choledochus

Ductus pancreaticus major

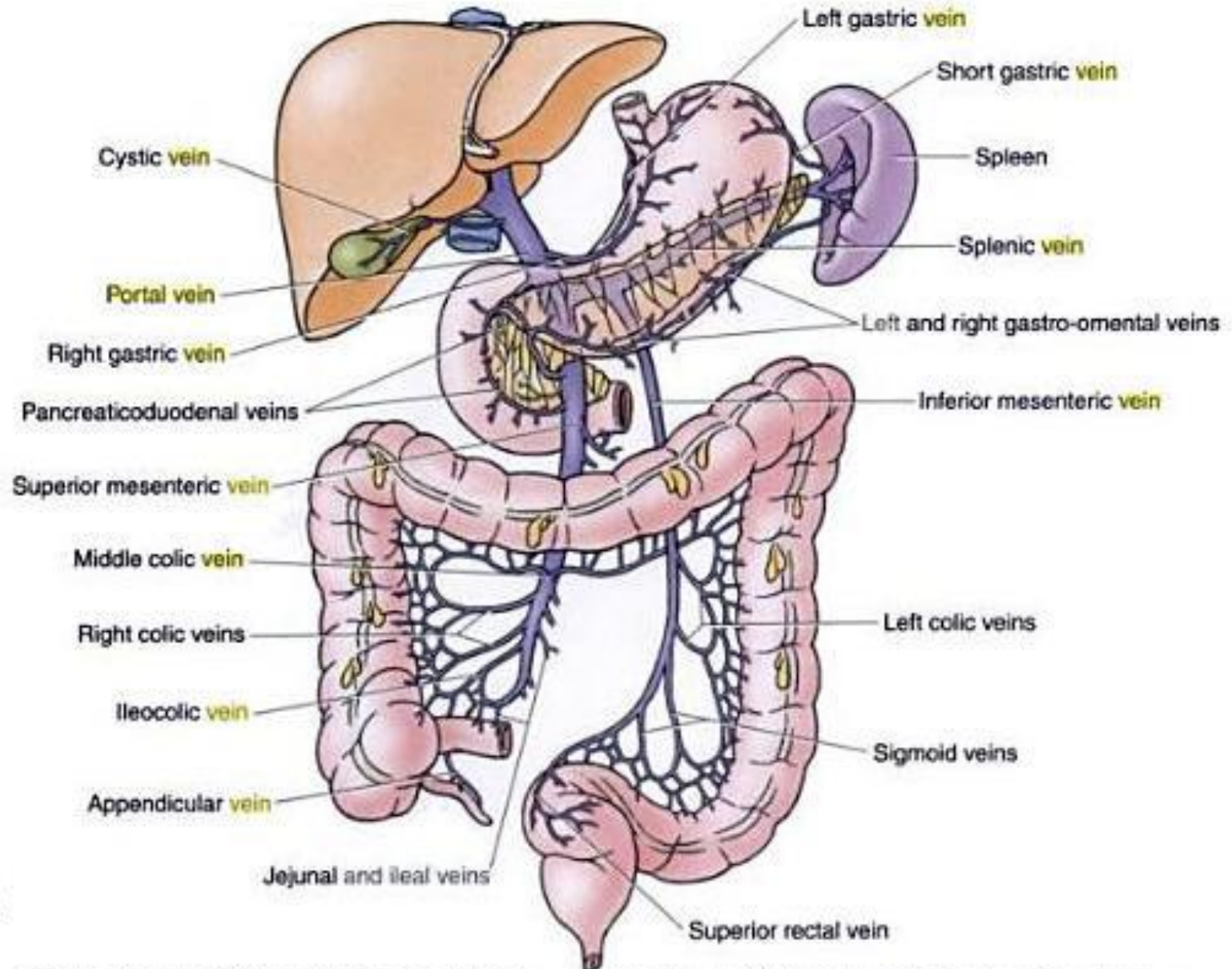
Duodenum



A máj vérellátása

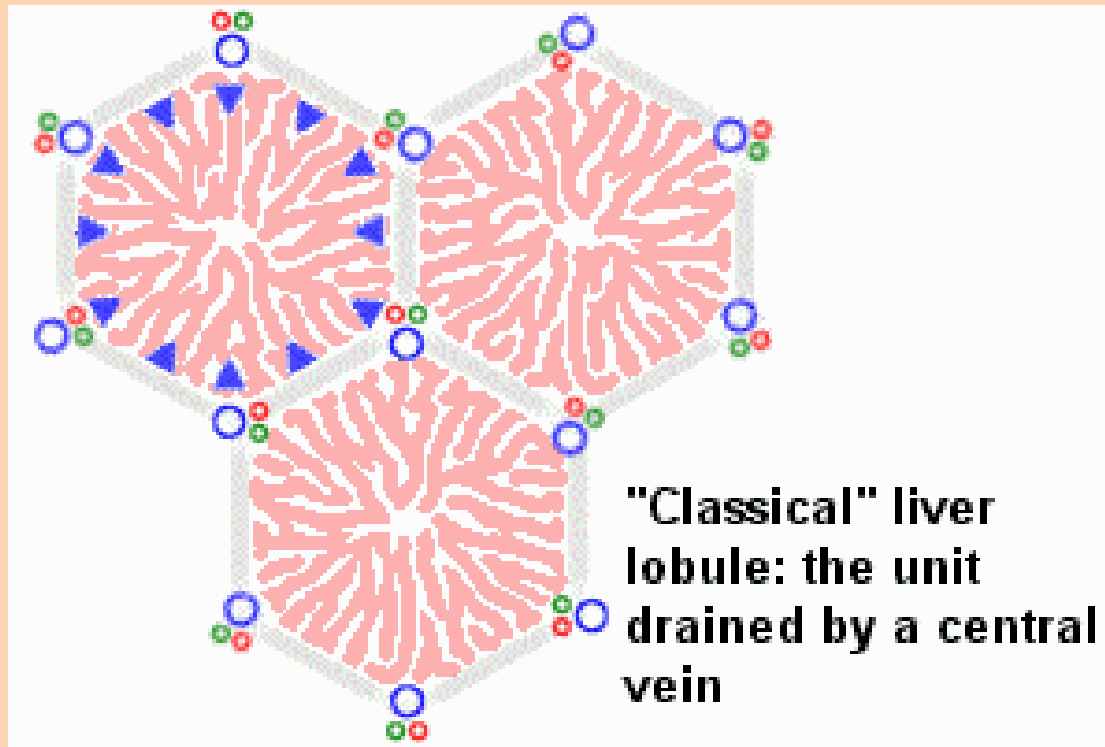
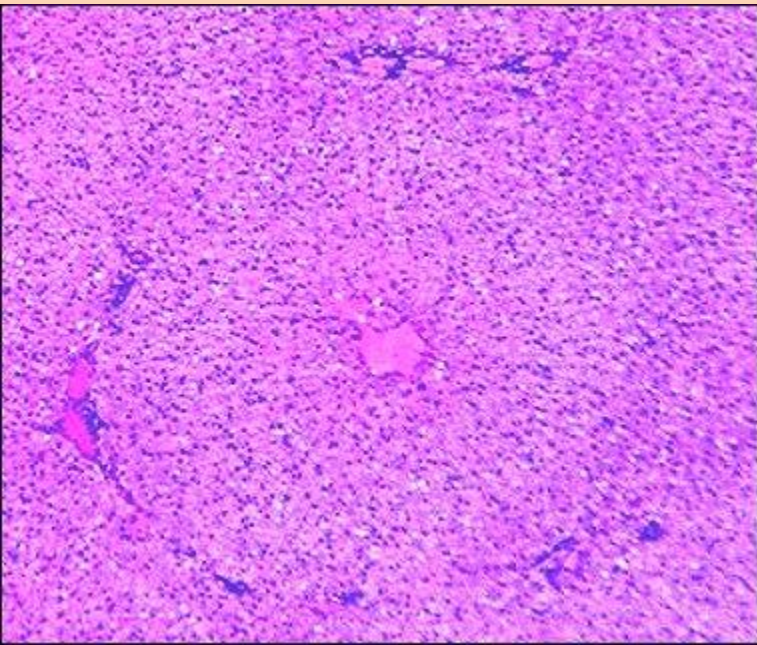


Vena portae

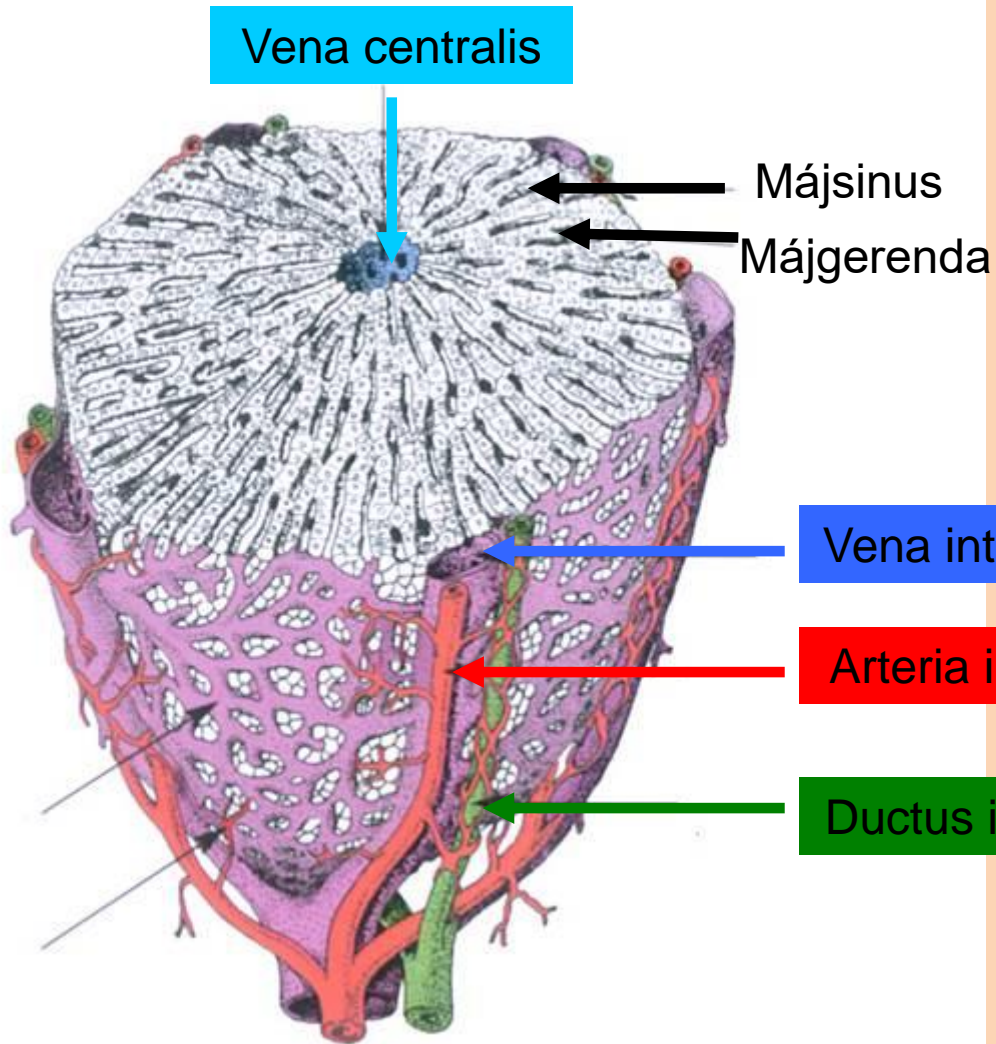
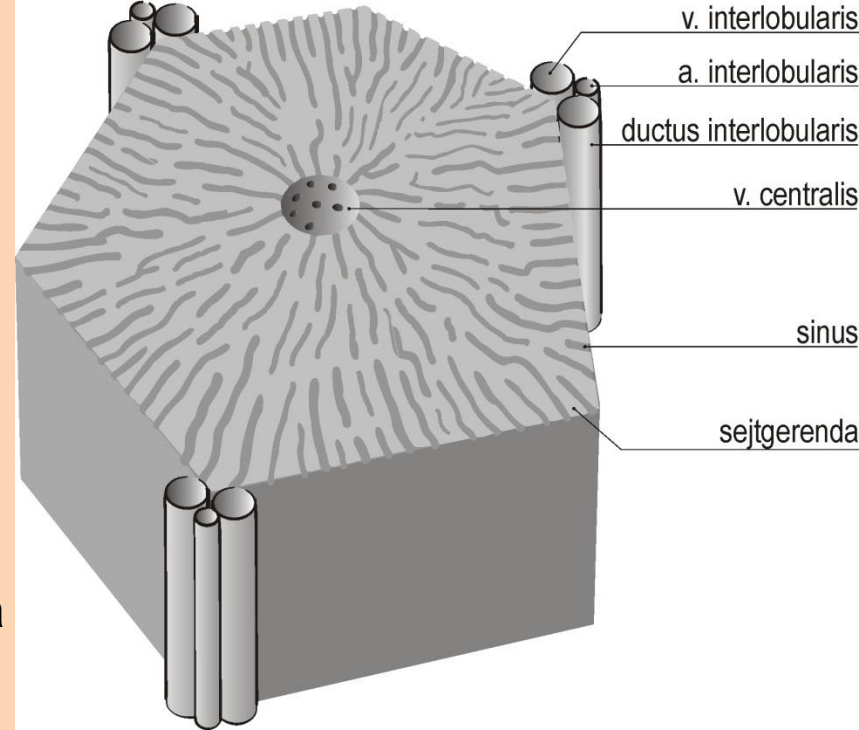


A máj szövettana

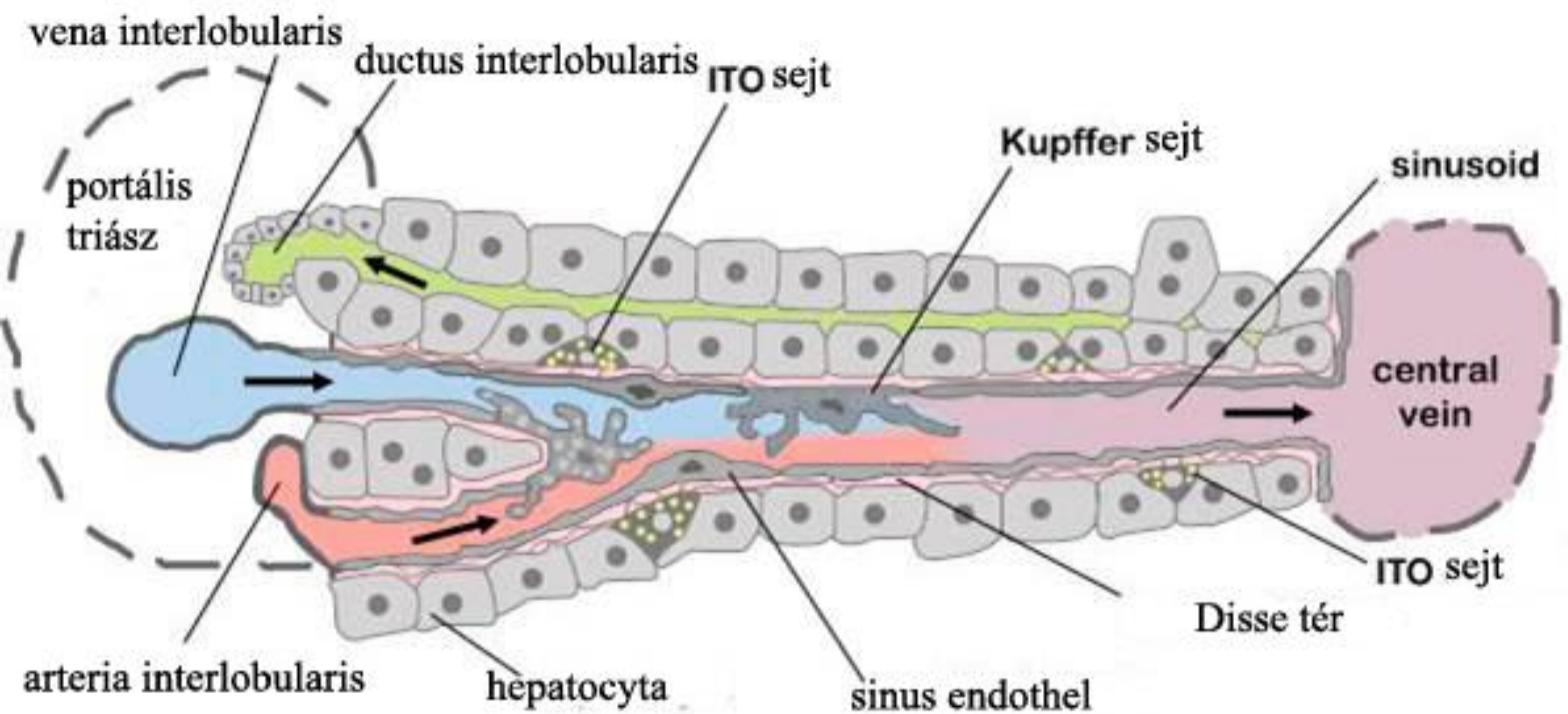
- Lobulus hepatis – hatszögletű szöveti egység (lobulus portalis, acinus)
 - Portális triász – artéria, vena portae, epevezeték
 - Májsinusok a májgerendák között
 - Véna centralis



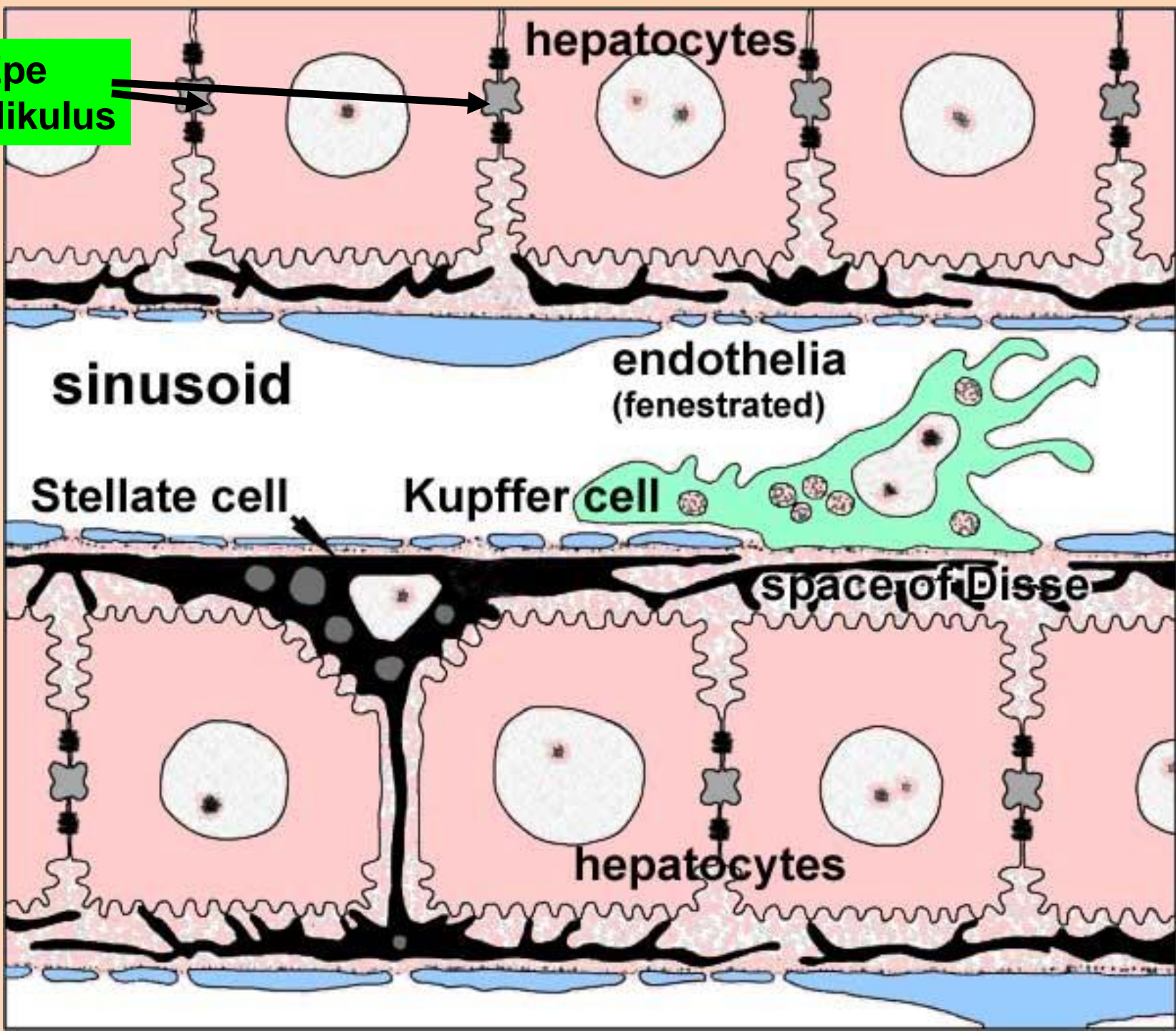
Lobulus hepatis / Májlebenyke



Máj sinus



Epe
kanalikulus



hepatocytes

sinusoid

endothelia
(fenestrated)

Stellate cell

Kupffer cell

space of Disse

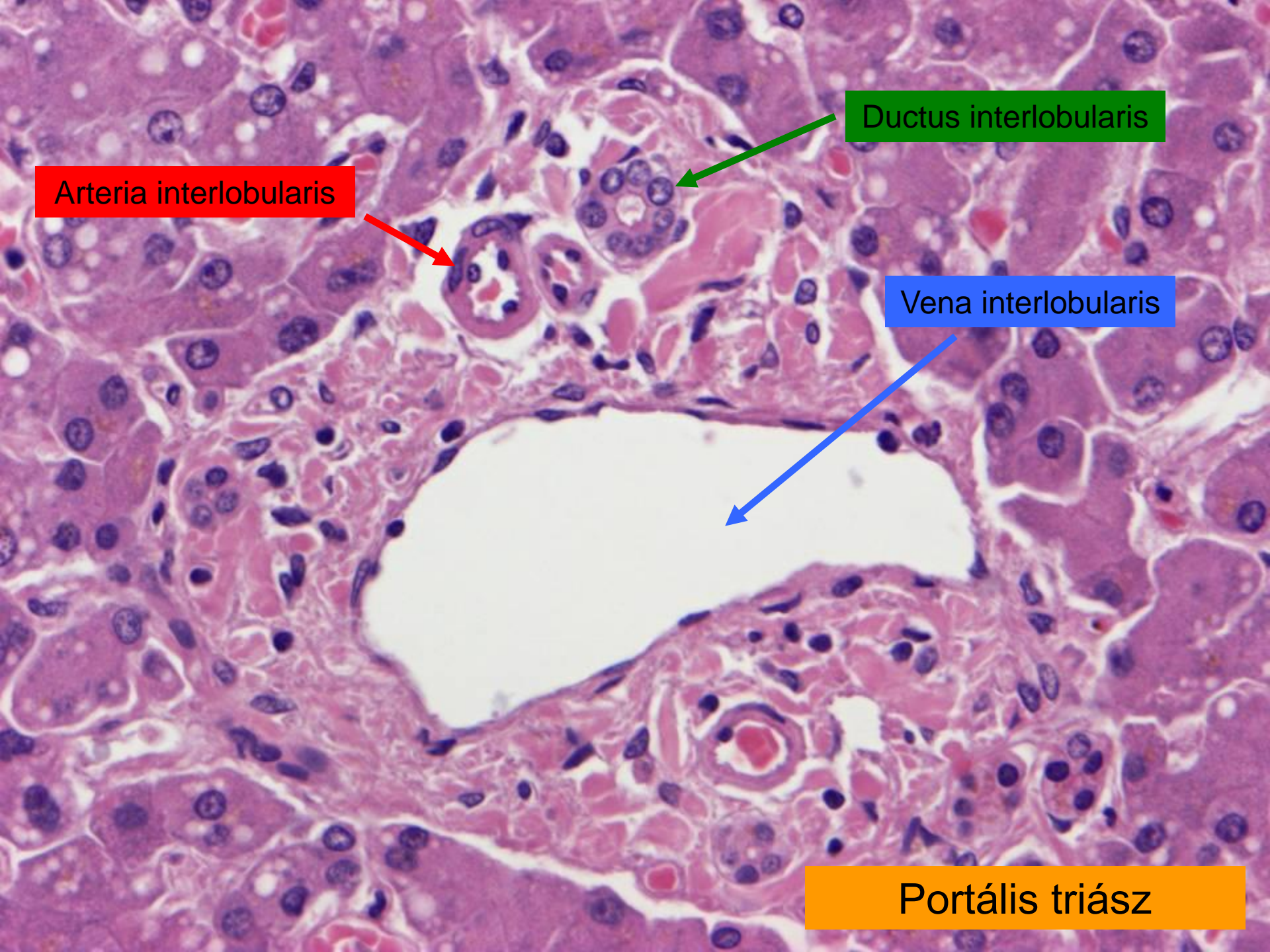
hepatocytes

Portális
triász



Vena centralis



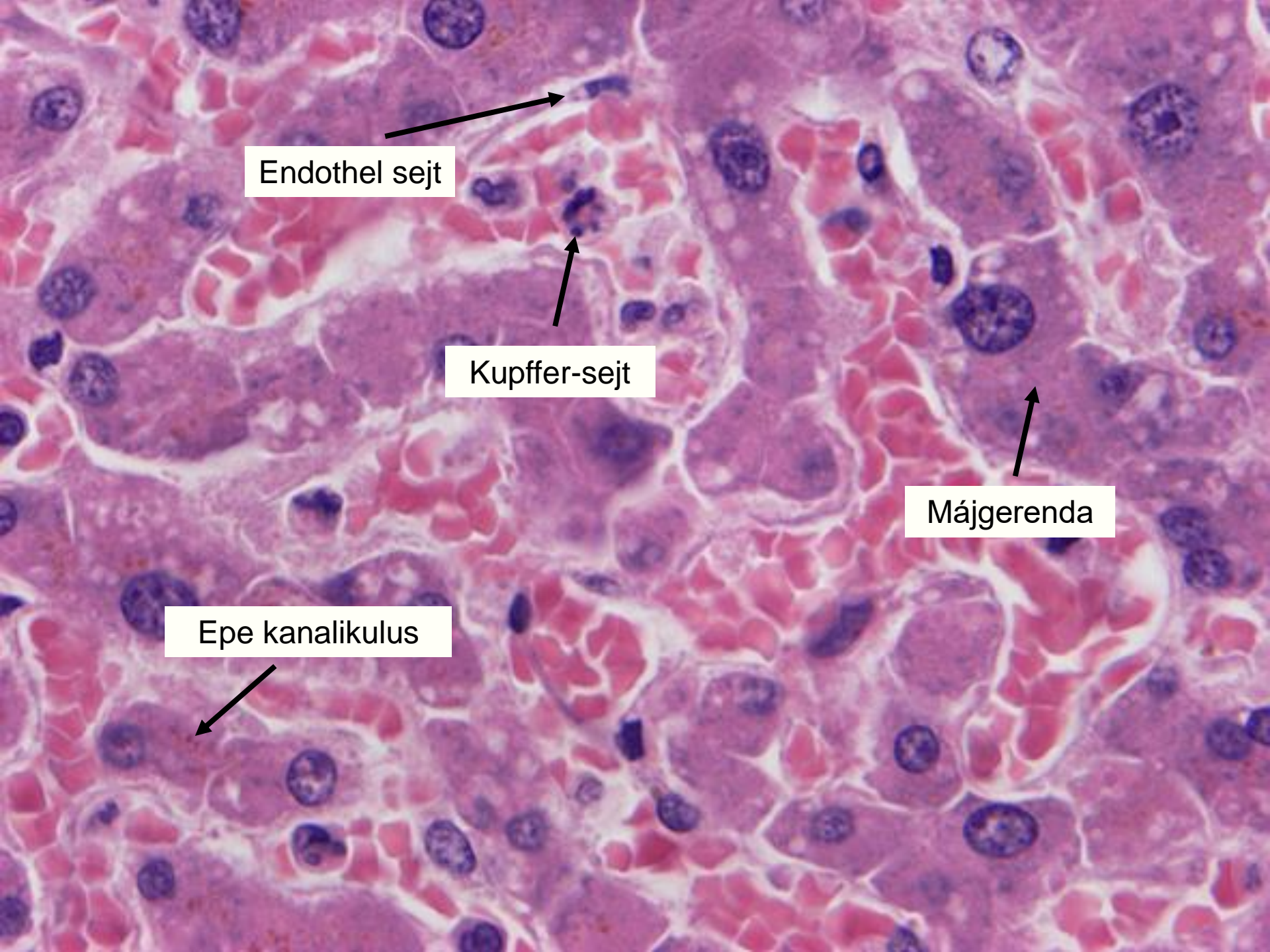


Arteria interlobularis

Ductus interlobularis

Vena interlobularis

Portális triász



Endothel sejt



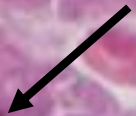
Kupffer-sejt



Májgerenda



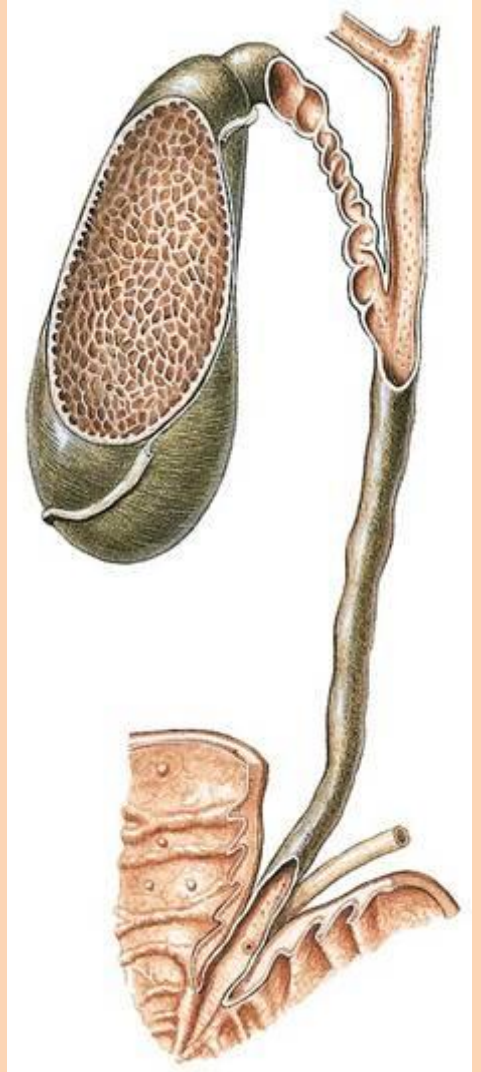
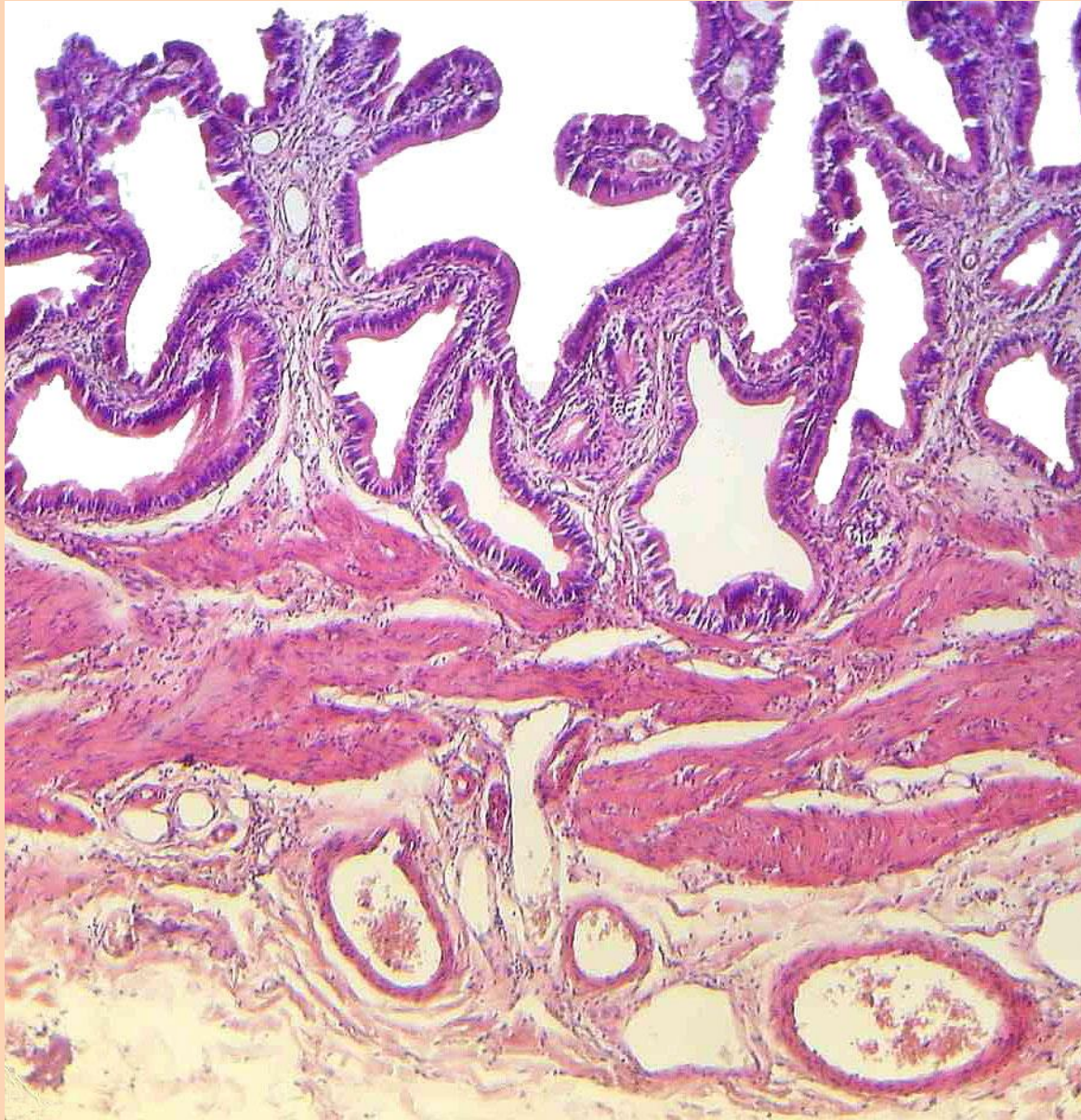
Epe kanalikulus



Vesica fellea

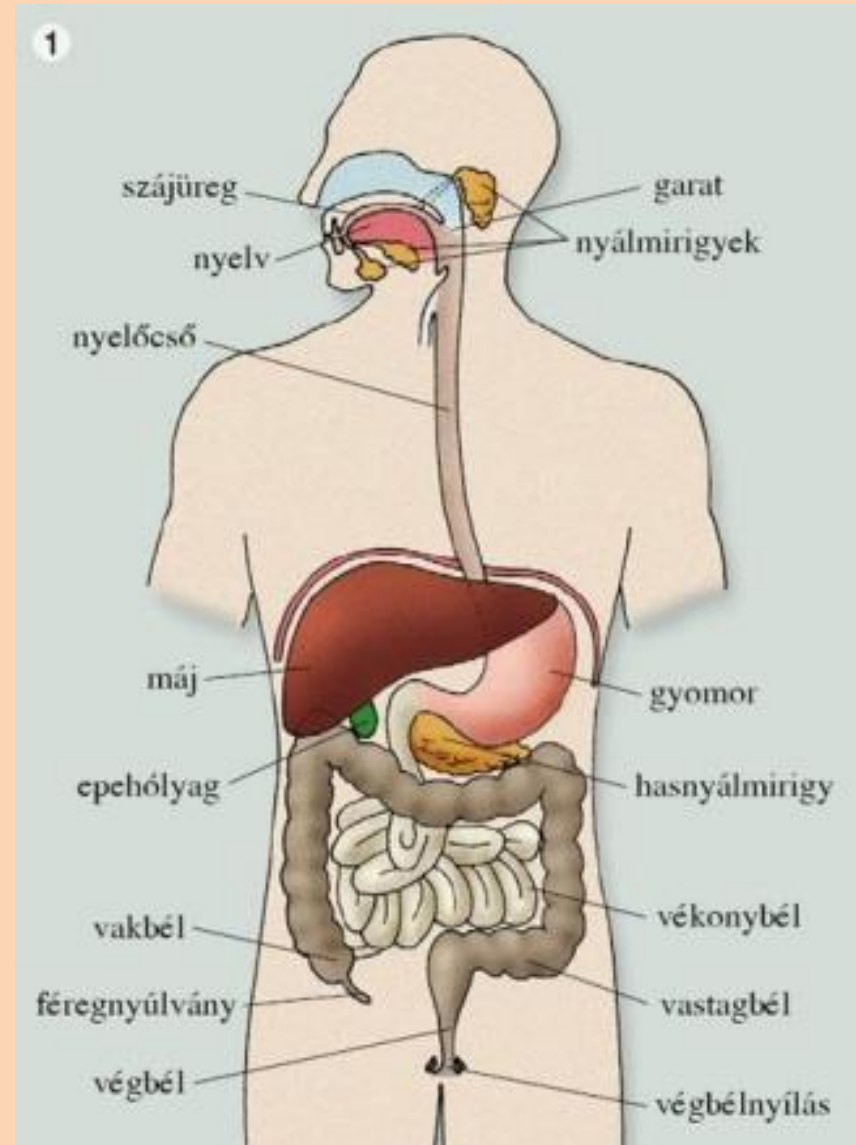
- Egyrétegű hengerhám
- Lamina propria – mirigyek, lymphocyták
- Nincs Muscularis mucosae!
- Nincs Tunica submucosa!
- Tunica muscularis
 - körkörös, hosszanti és ferde lefutás
- Tunica serosa vagy Adventitia

Vesica fellea

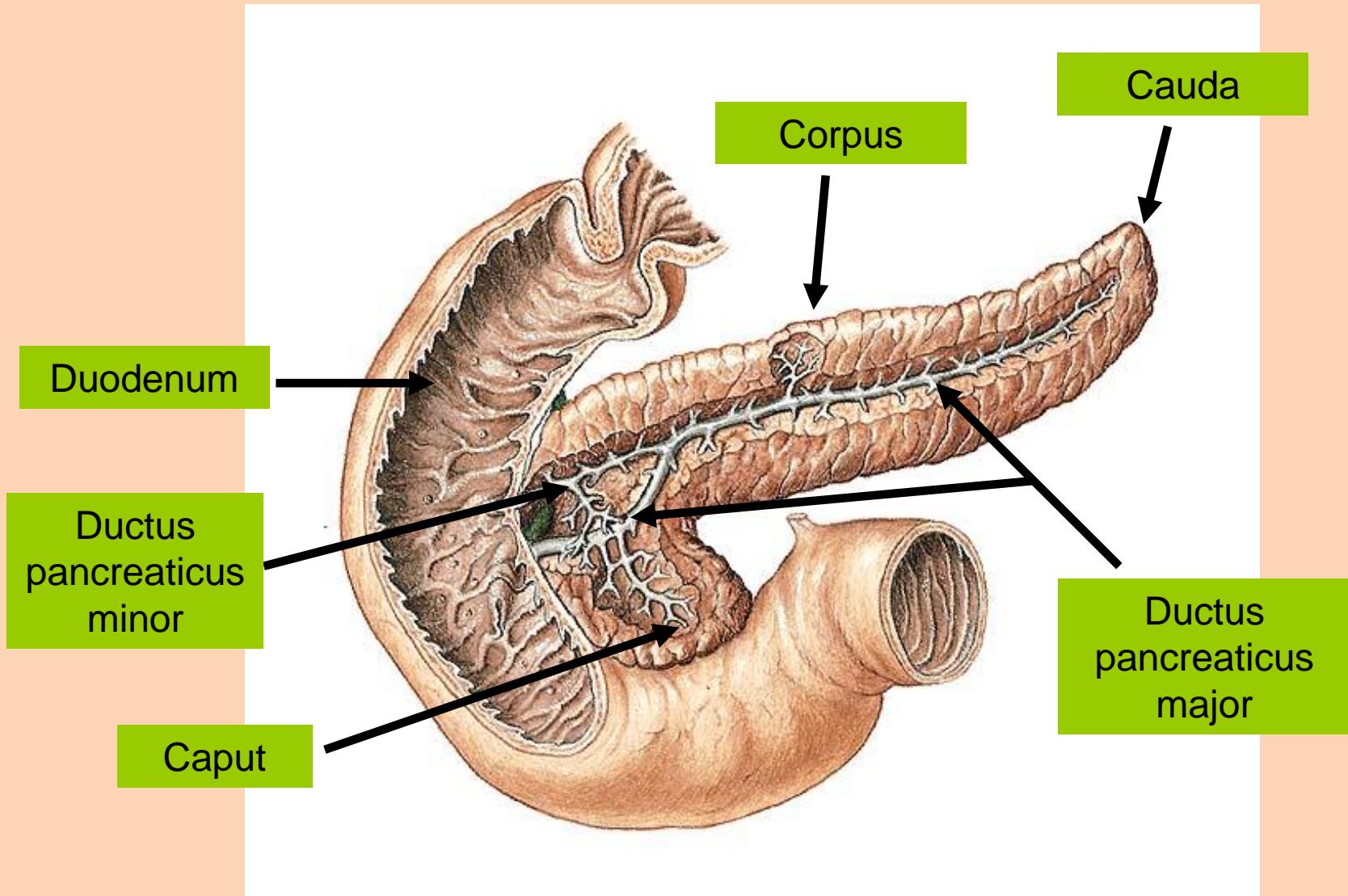


Az emésztőrendszer mirigyei

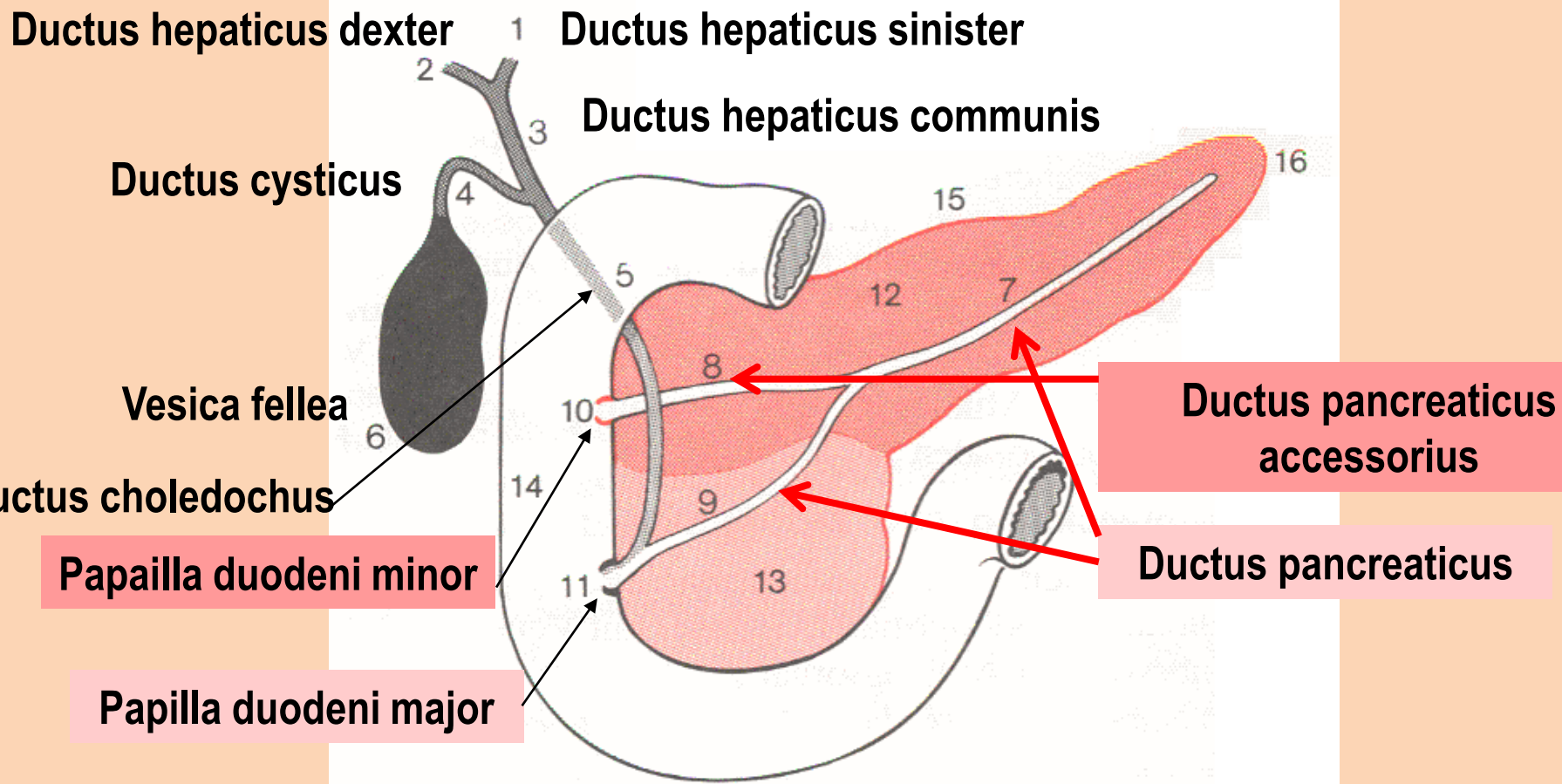
- Máj (hepar)
- **Pancreas**



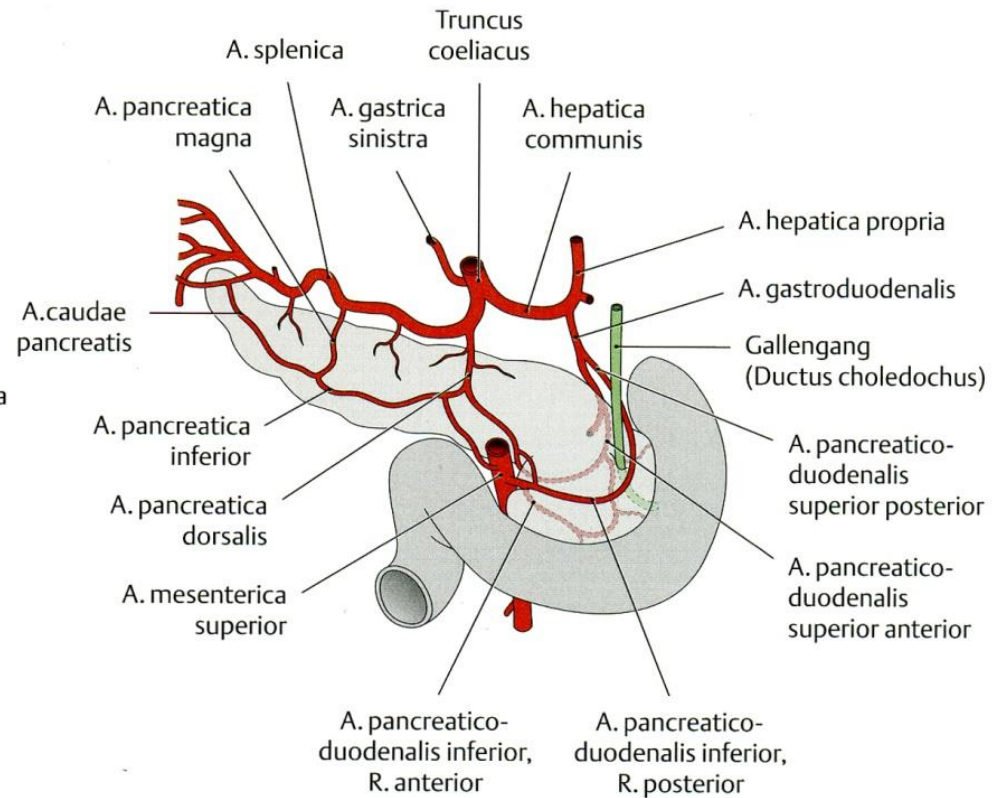
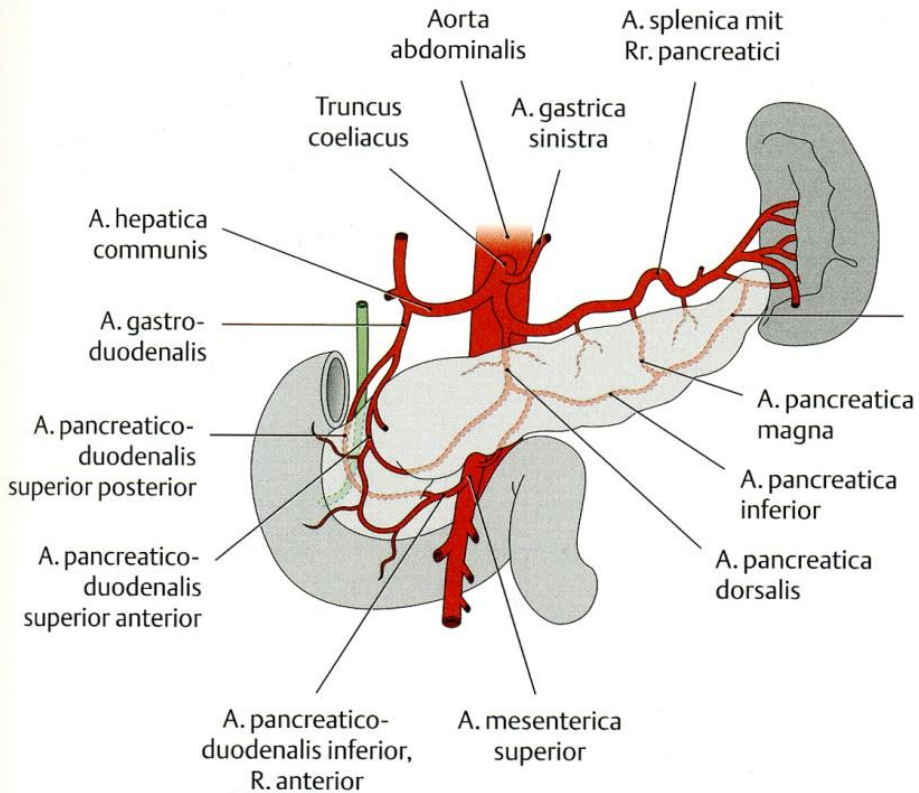
Pancreas / Hasnyálmirigy



A duodenumba nyíló képletek

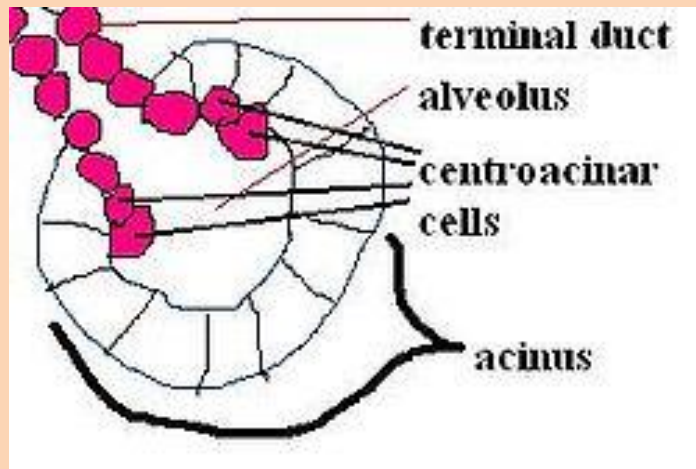


Pancreas - vérellátás



A pancreas szövettana

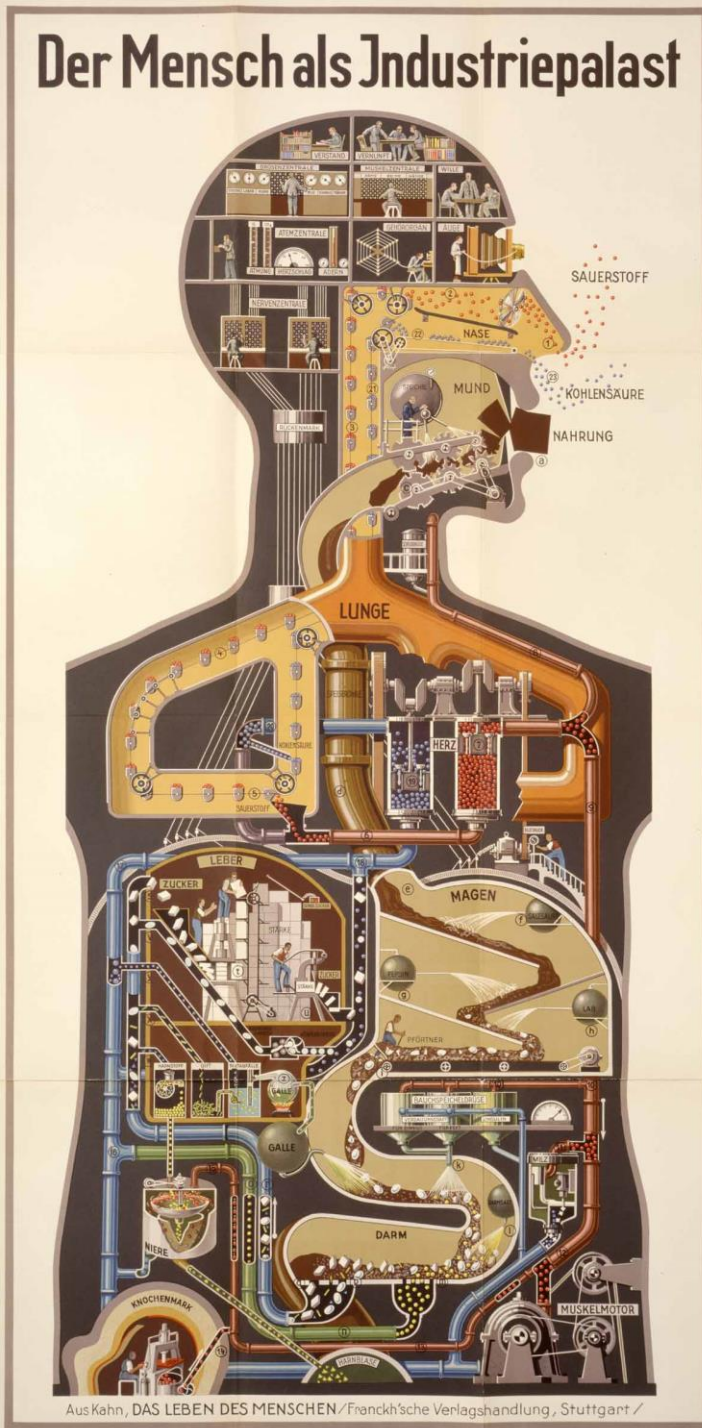
- Szerózus mirigy
- Centroaciner sejt



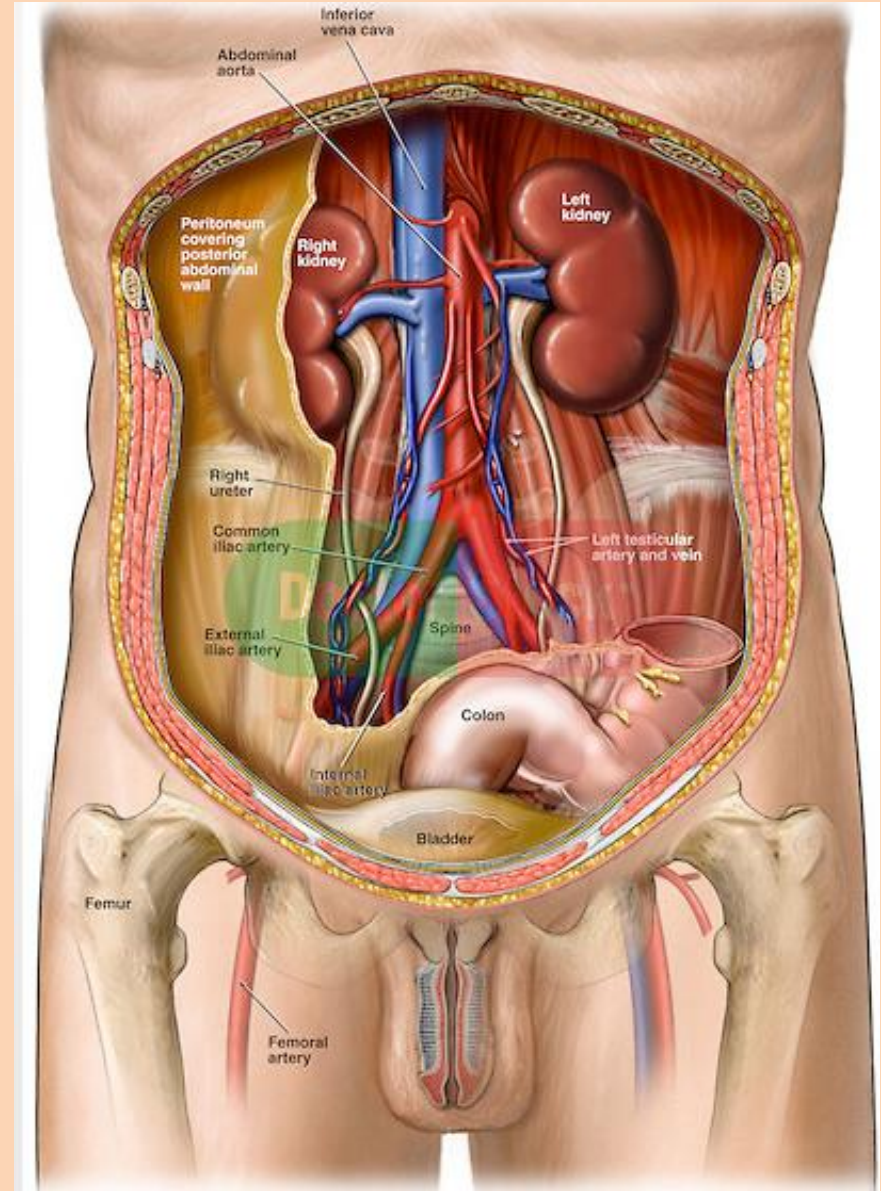
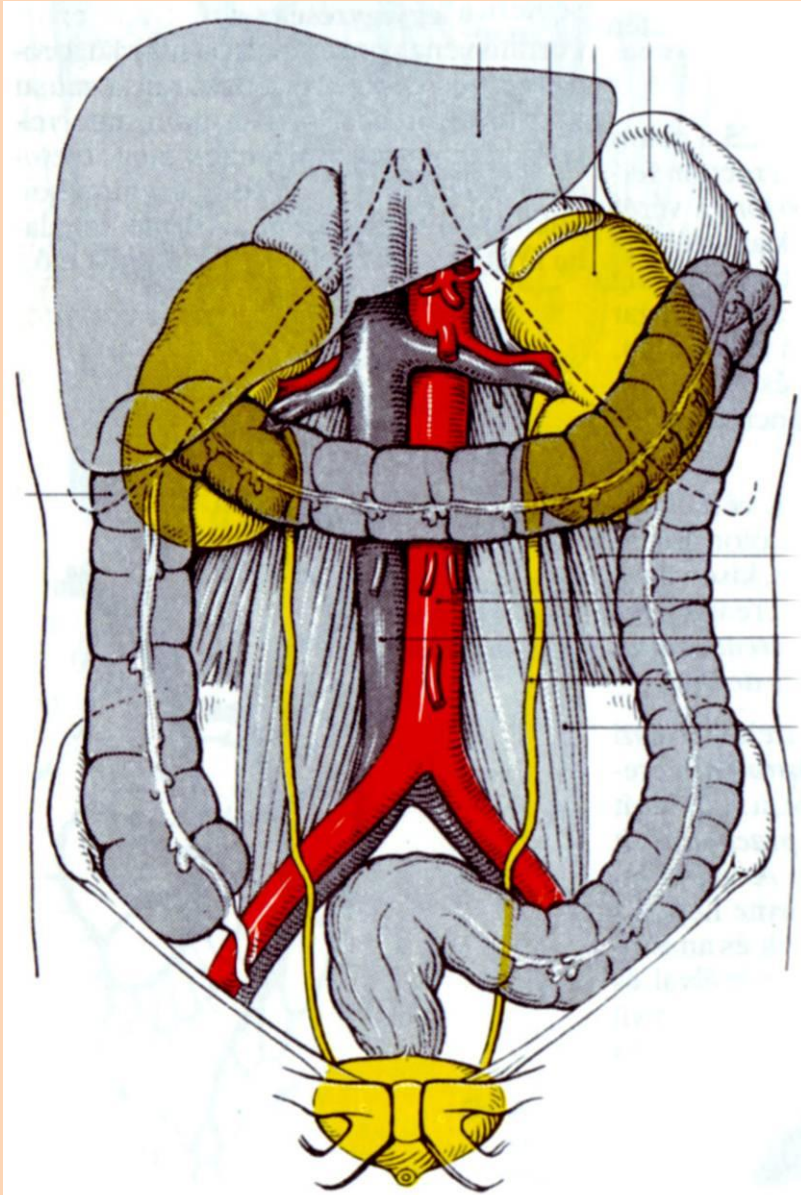
- Langerhans szigetek– endocrin rész

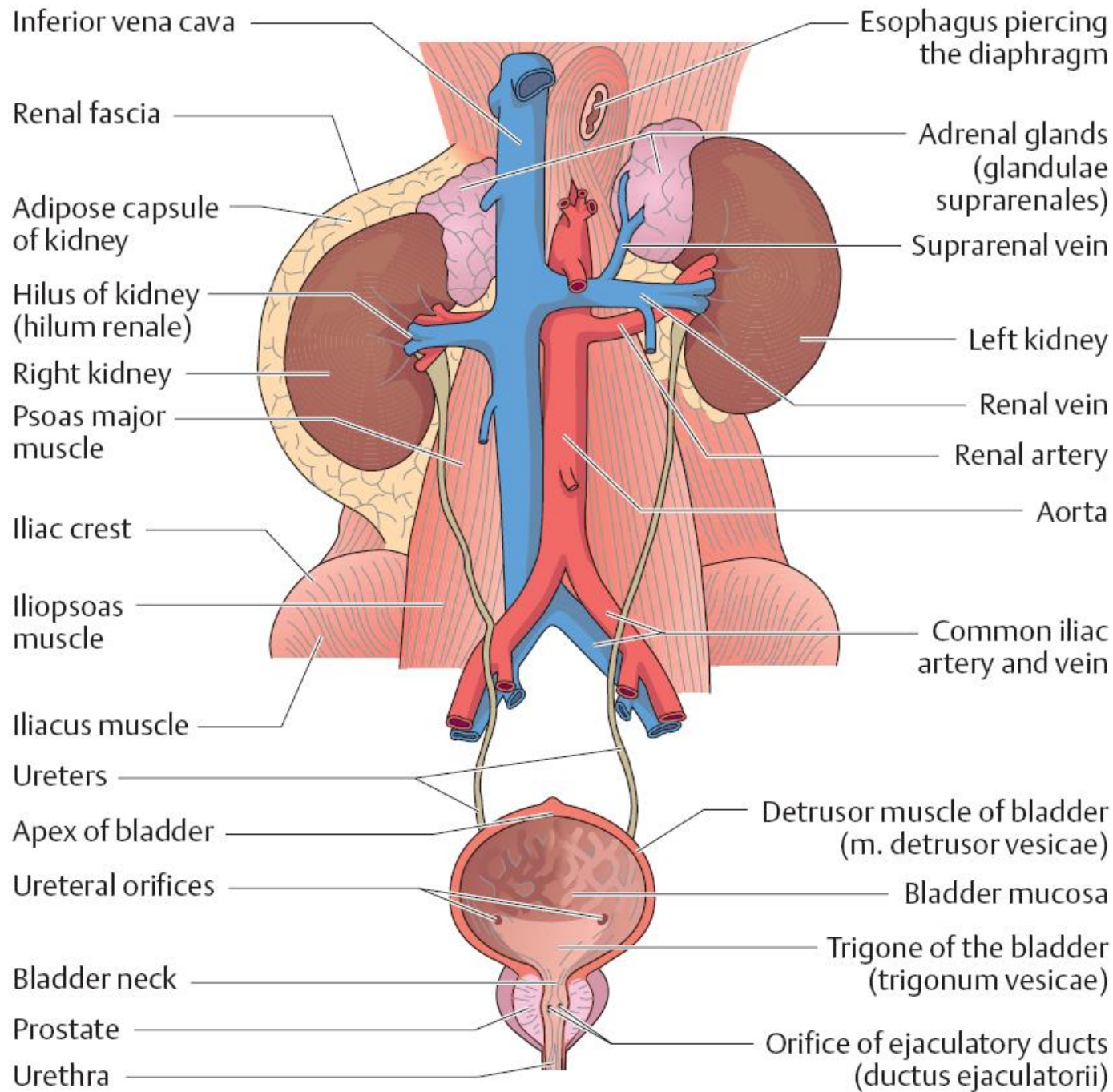
Vese

Vizelet- elvezető rendszer



A vesék helyzete





Vese

Gl. suprarenalis

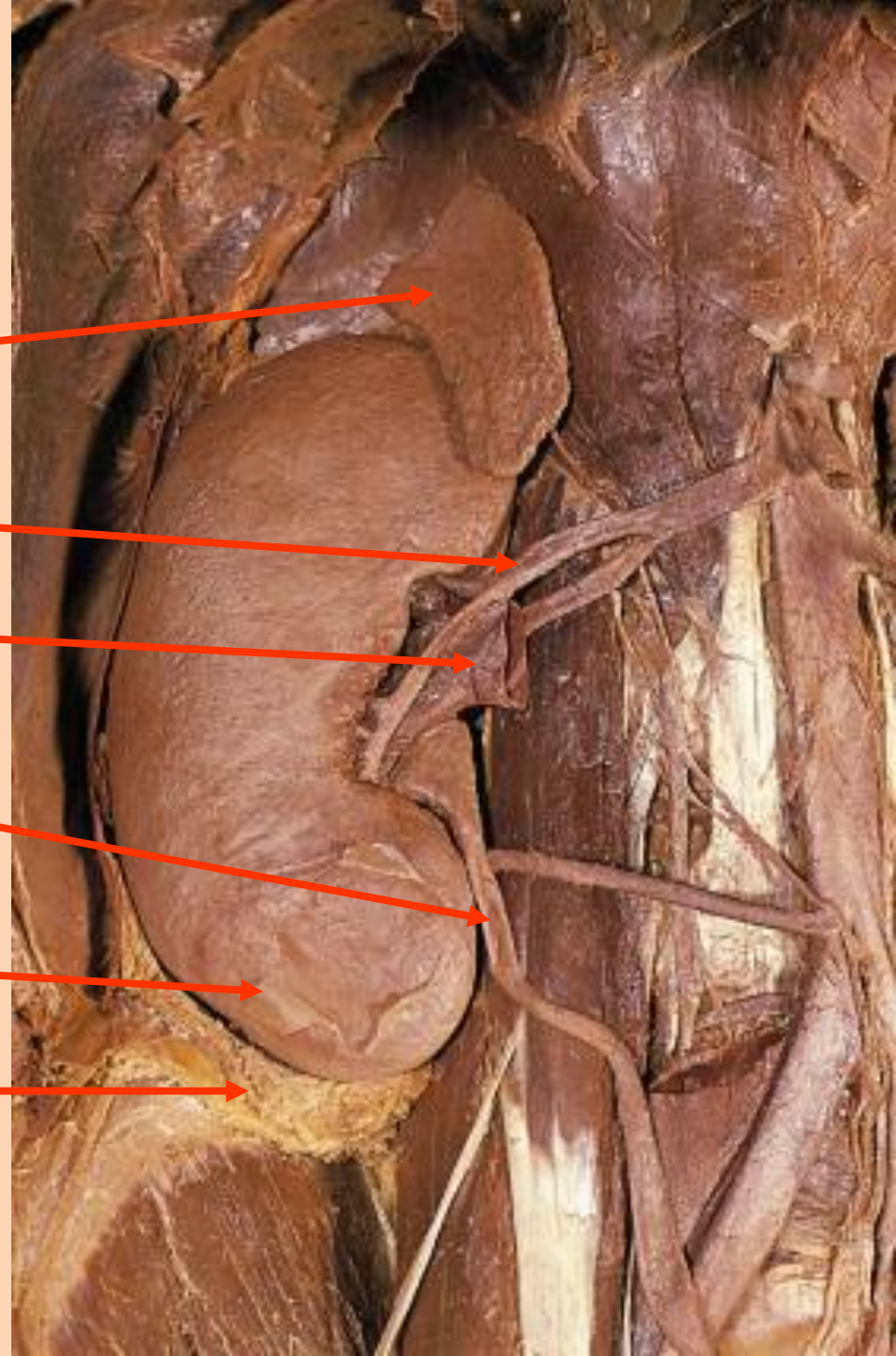
Arteria renalis

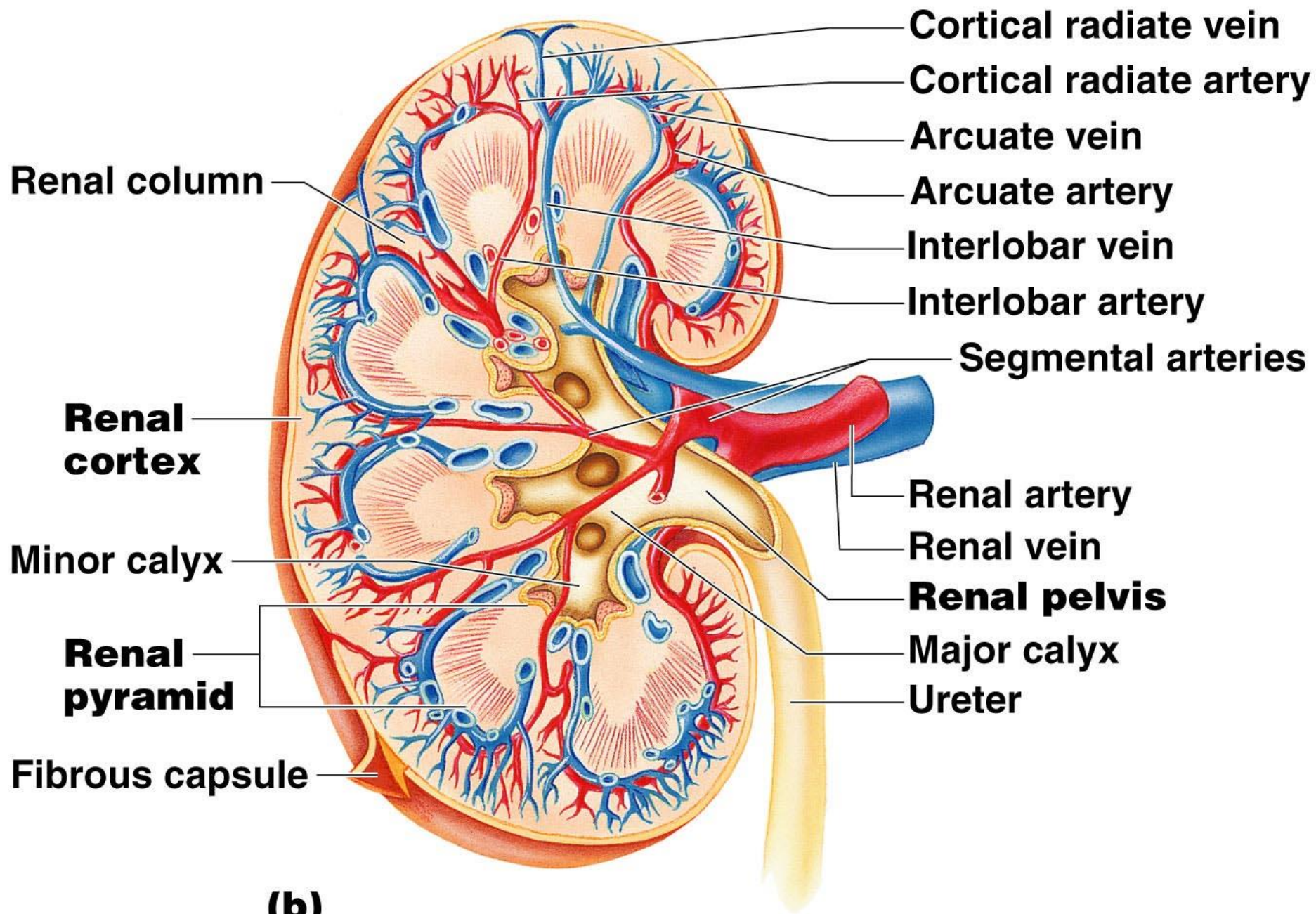
Vena renalis

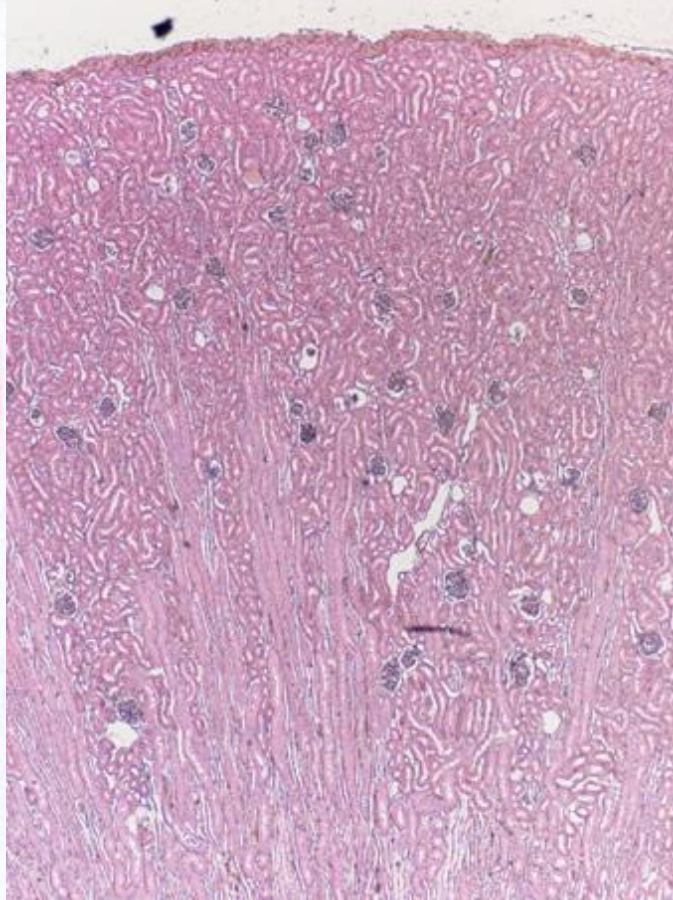
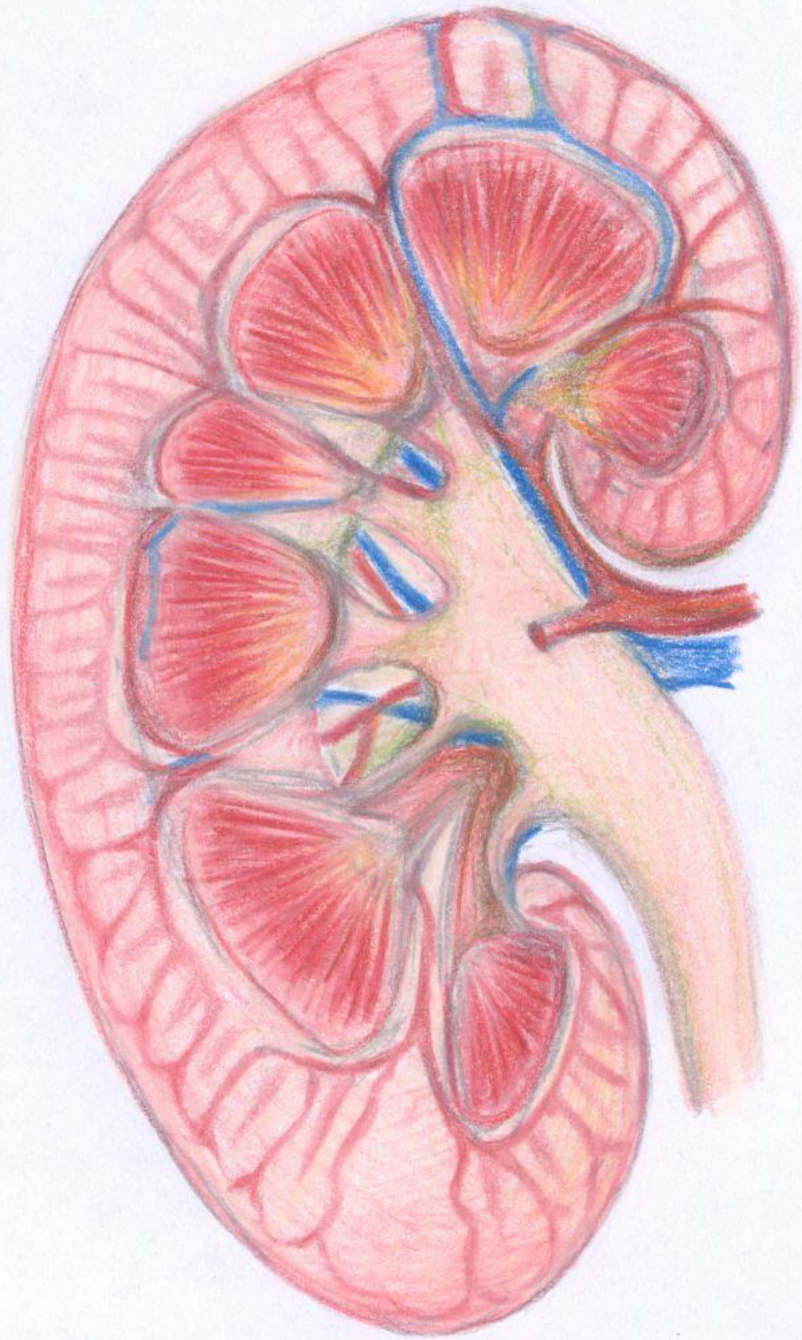
Ureter

Capsula fibrosa

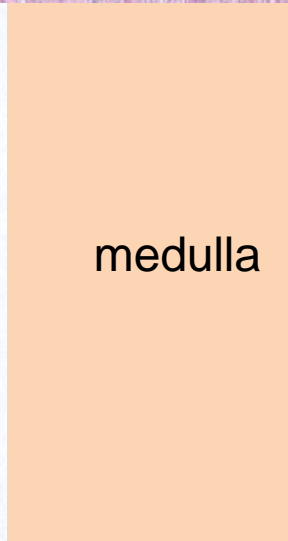
Capsula adiposa



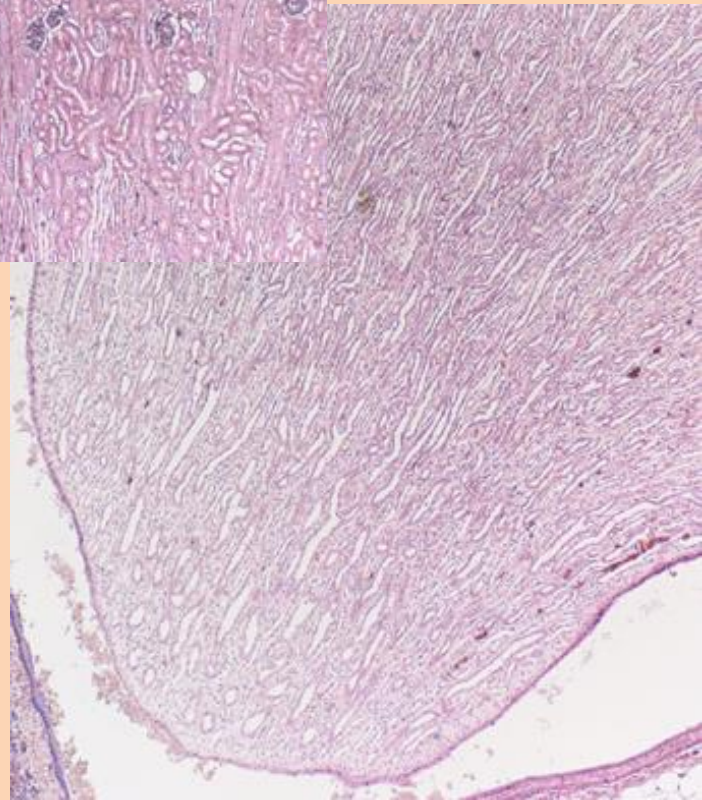




cortex



medulla



Vese

- Medulla – pyramis – lobus renalis
- Cortex – Bertini-oszlop
 - Pars convoluta
 - Pars recta
- Arteria renalis – aa. interlobares – aa. arcuatae – aa. interlobulares

Efferent arteriole

Afferent arteriole

Interlobular artery and vein

Blood vessels supplying the renal medulla

Renal pyramid

Renal artery

Renal vein

Capillary network surrounding the renal tubules

Section shown in Fig. 10.5

Renal cortex

Renal corpuscle

Arcuate artery and vein

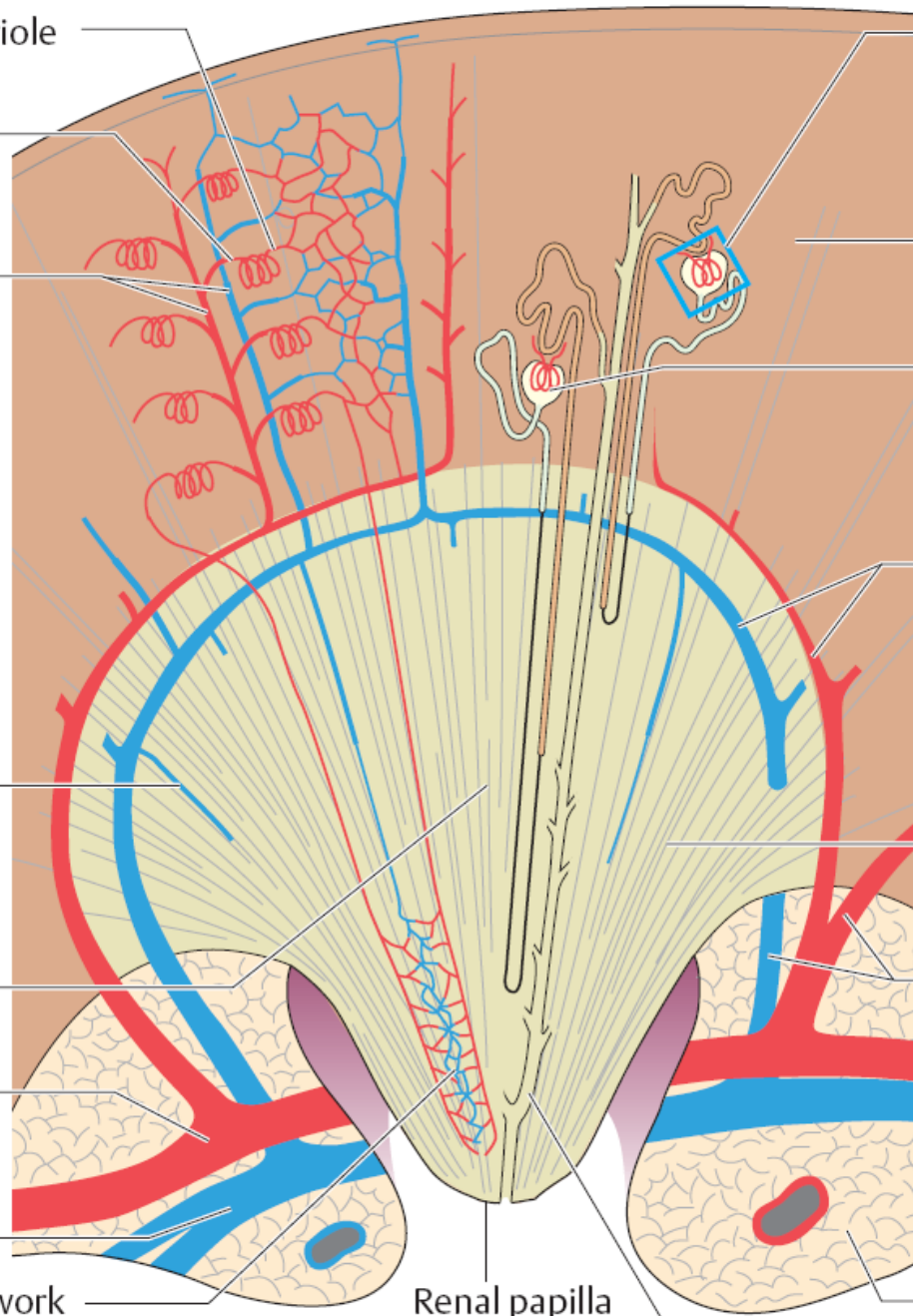
Renal medulla

Interlobar artery and vein

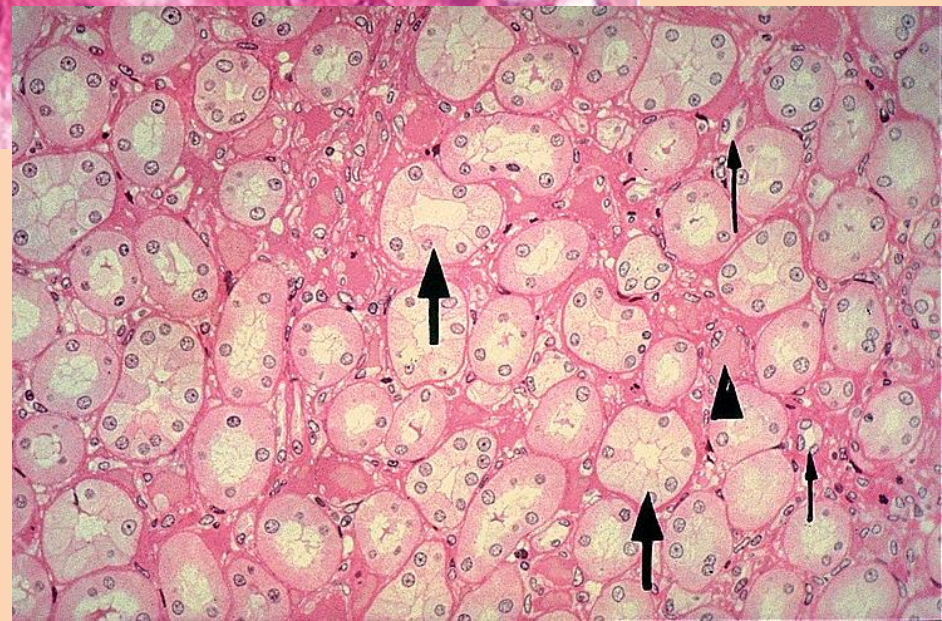
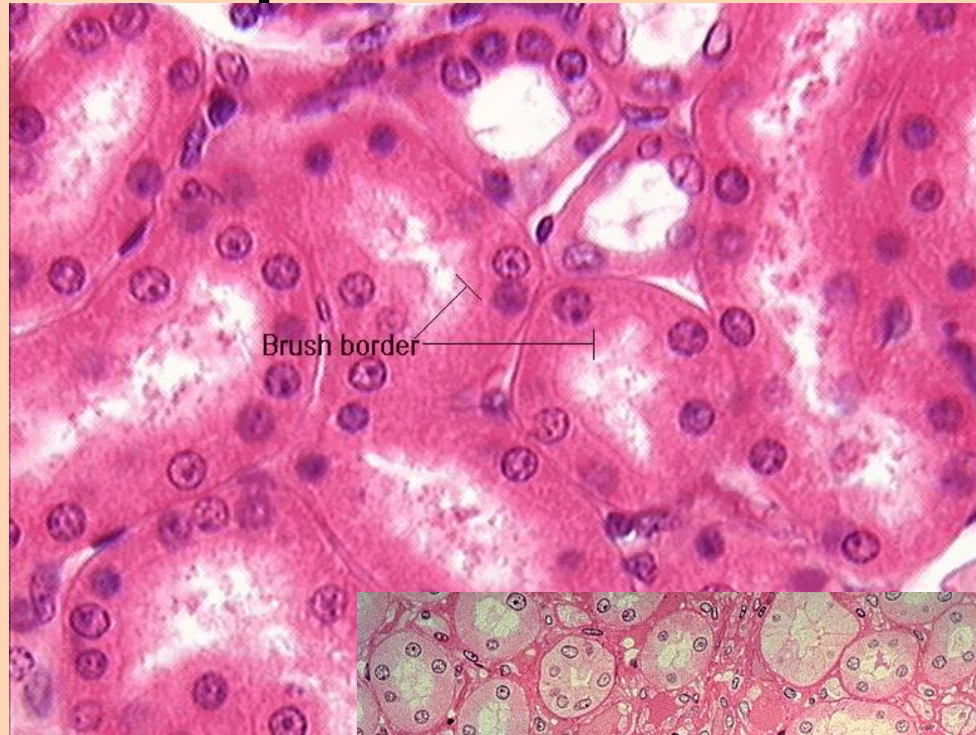
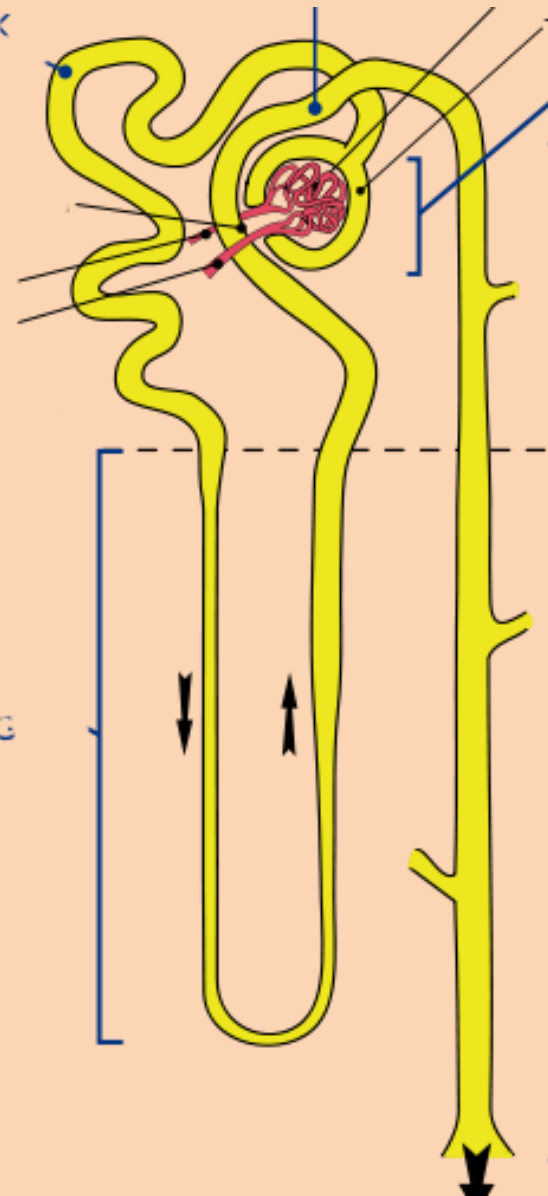
Renal papilla

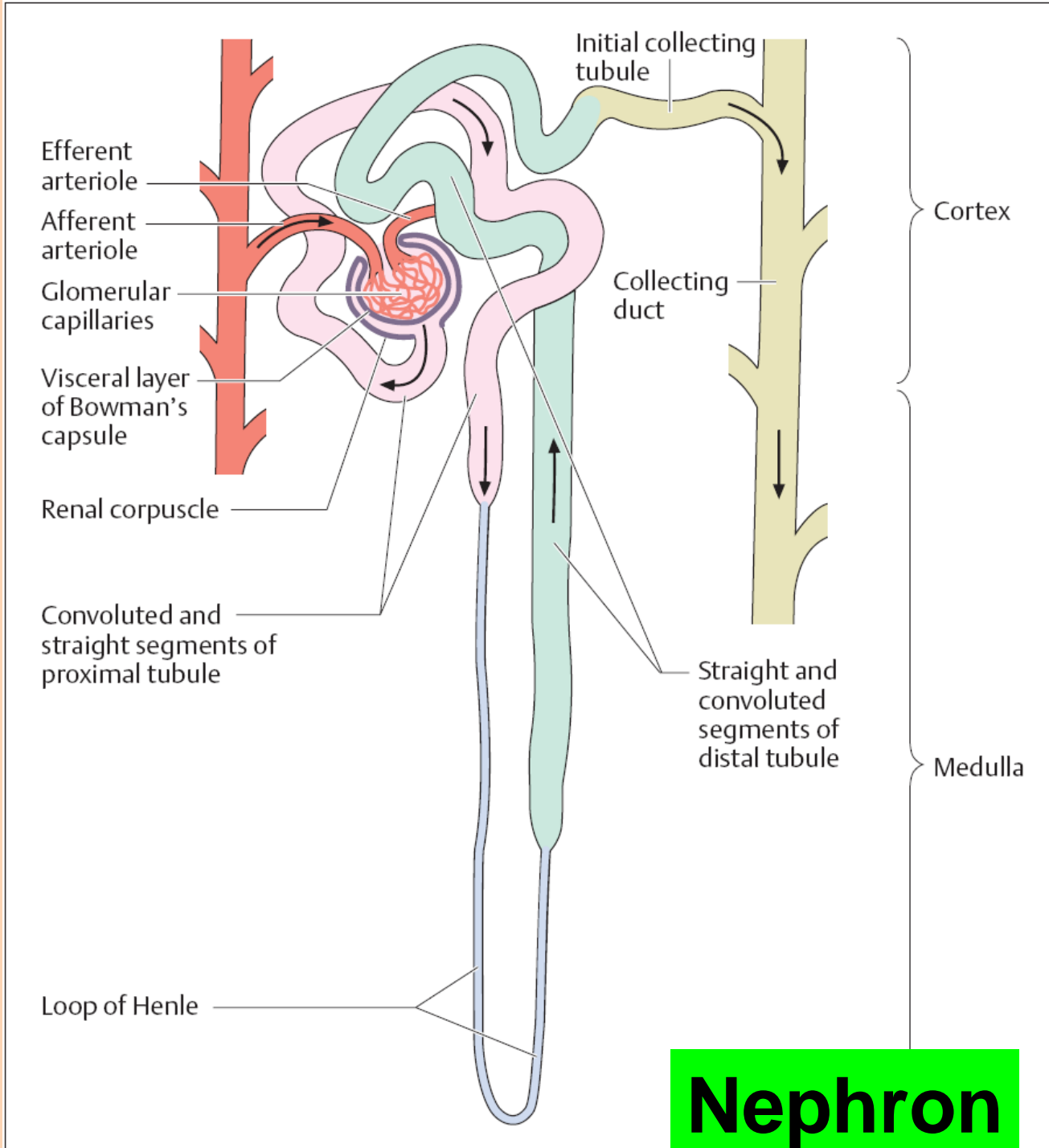
Collecting duct

Fatty tissue in renal sinus

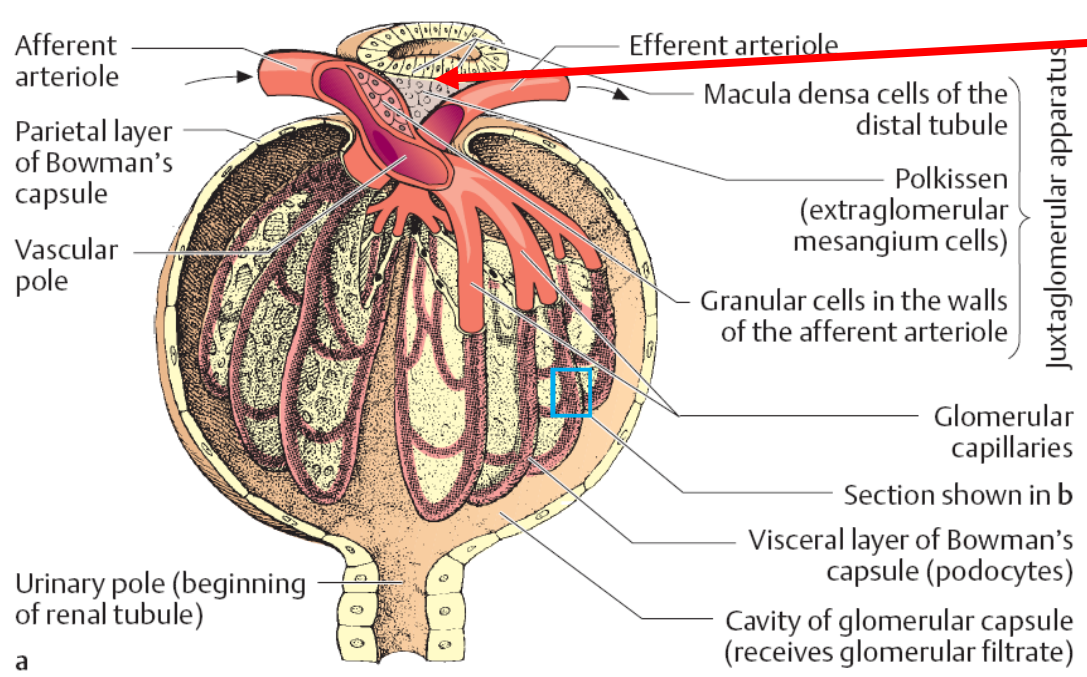


Nephron



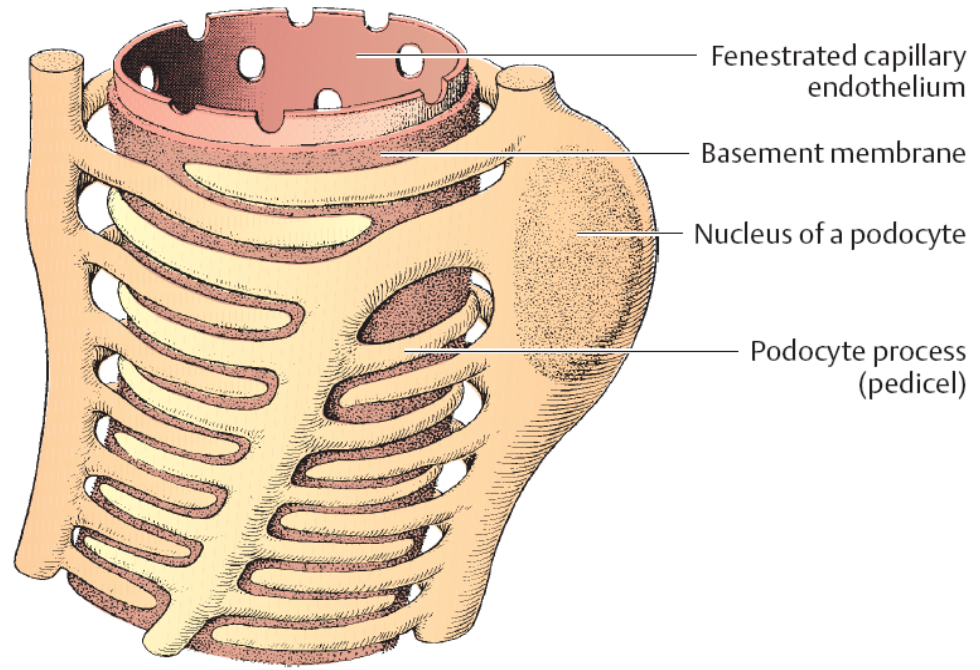


Nephron



Macula densa

Malphigi-féle
vesetestecske



Interdigitáló
podocyták

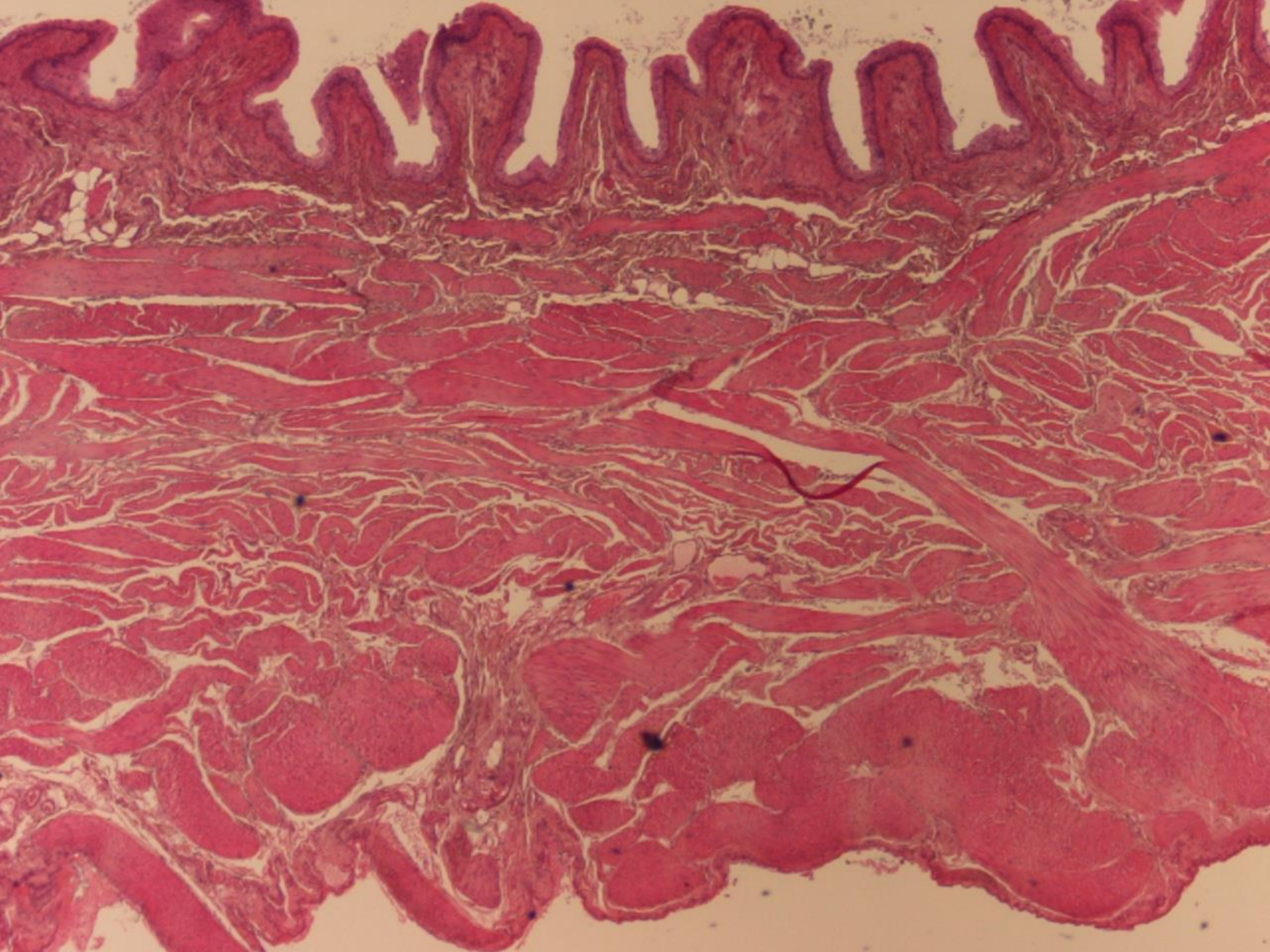
Ureter

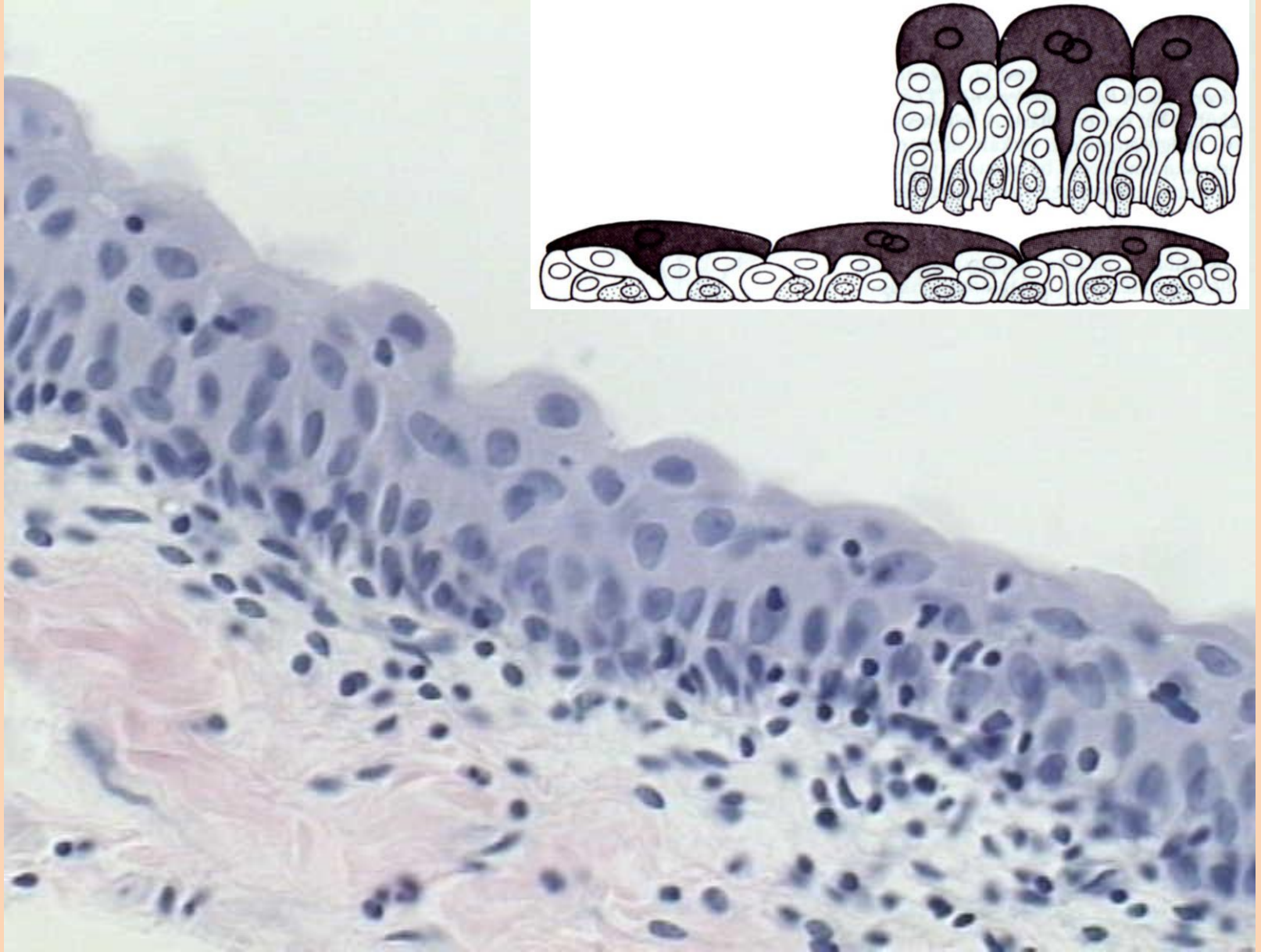
- Urothelium
- Lamina propria: tömött, fibro-elasztikus kötőszövet
- Nincs muscularis mucosae és submucosa!
- Tunica muscularis
 - Belső hosszanti és külső körkörös
 - Tunica serosa vagy Adventitia



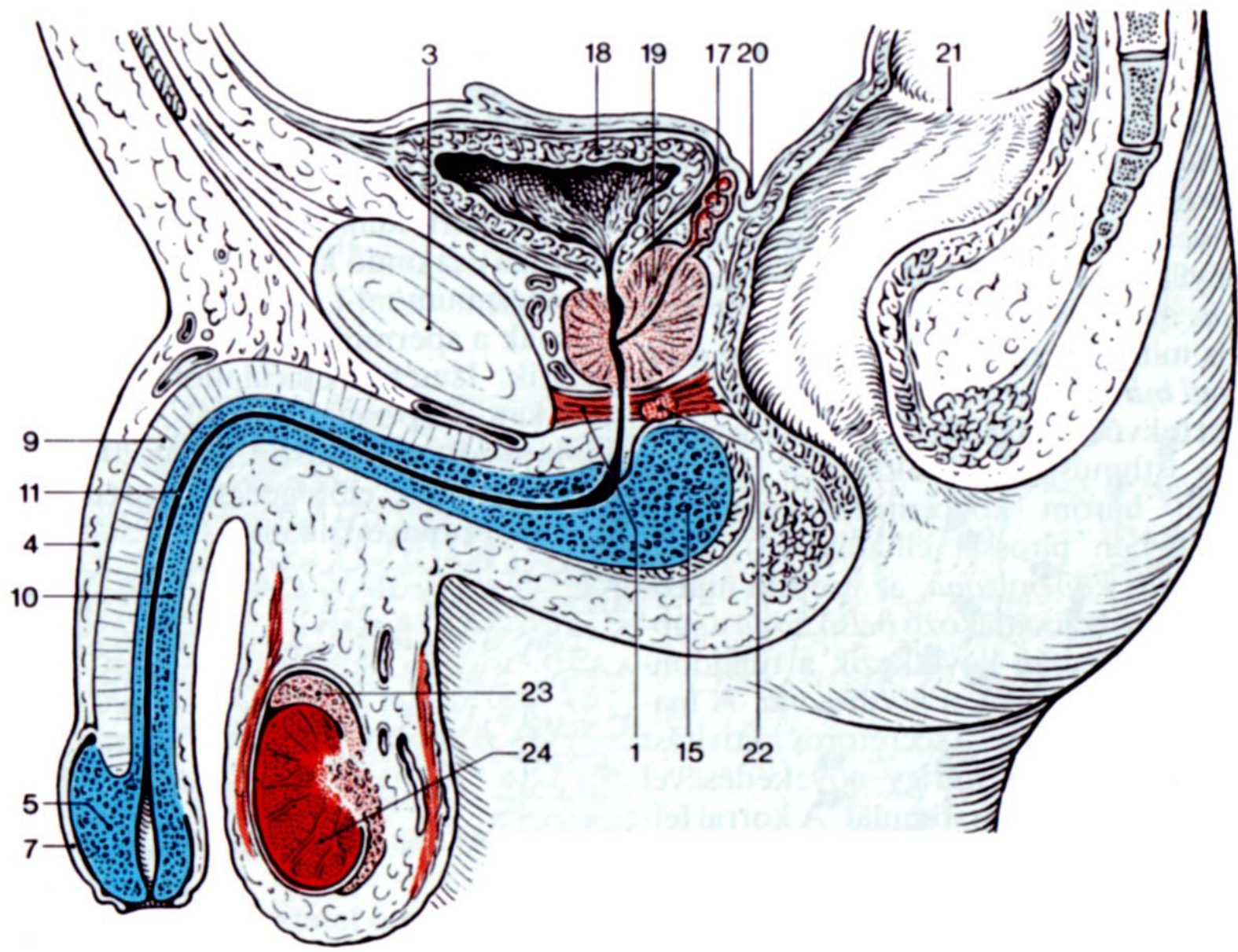
Hugyhólyag

- Urothelium
- Lamina propria: tömött, fibro-elasztikus kötőszövet
- Lamina muscularis mucosae
 - Nem alkot folytonos réteget, a simaizom sejtek szigetszerű csoportokat alkotnak
- Tunica submucosa – laza rostos kötőszövet
- Tunica muscularis
 - Belső és külső hosszanti, középső körkörös rétegek
- Tunica serosa vagy Adventitia

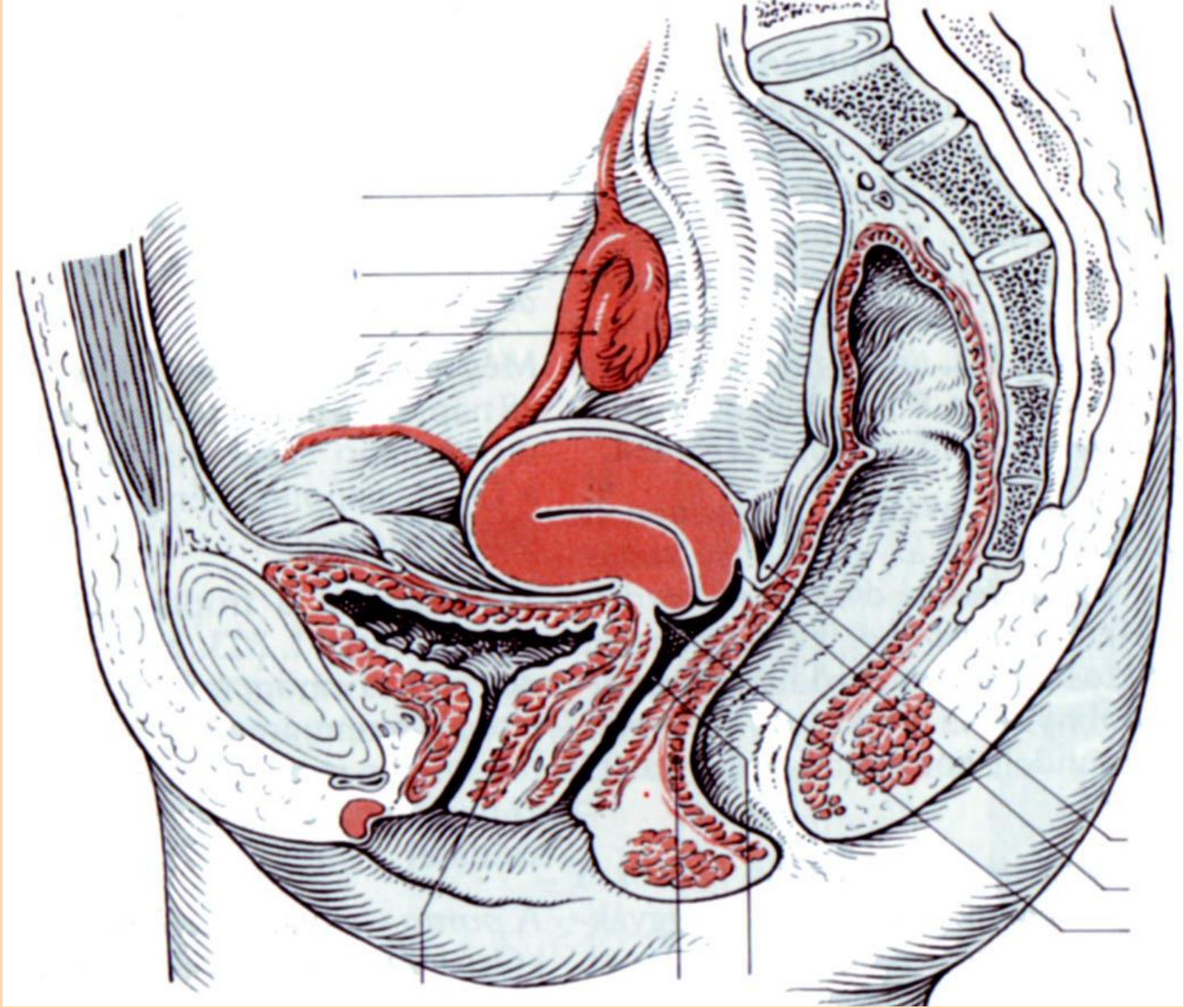




Urothelium, ernyősejtek



Férfi kismencede



Női kismencede

**Köszönöm a
figyelmet!**

