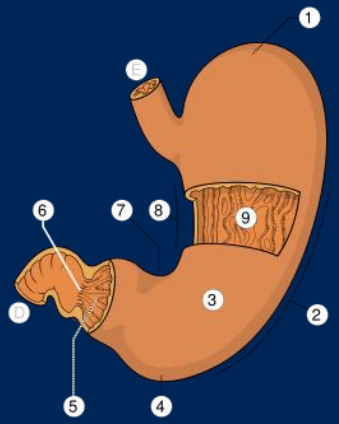
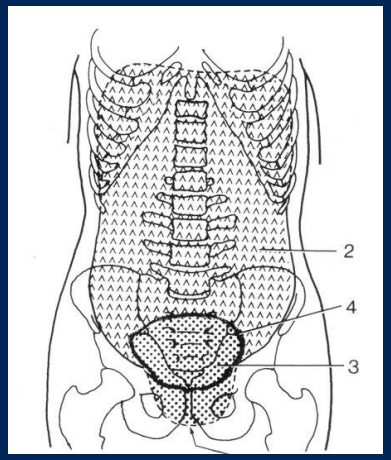
Mave og tarmsystem

- med gennemgang af lag





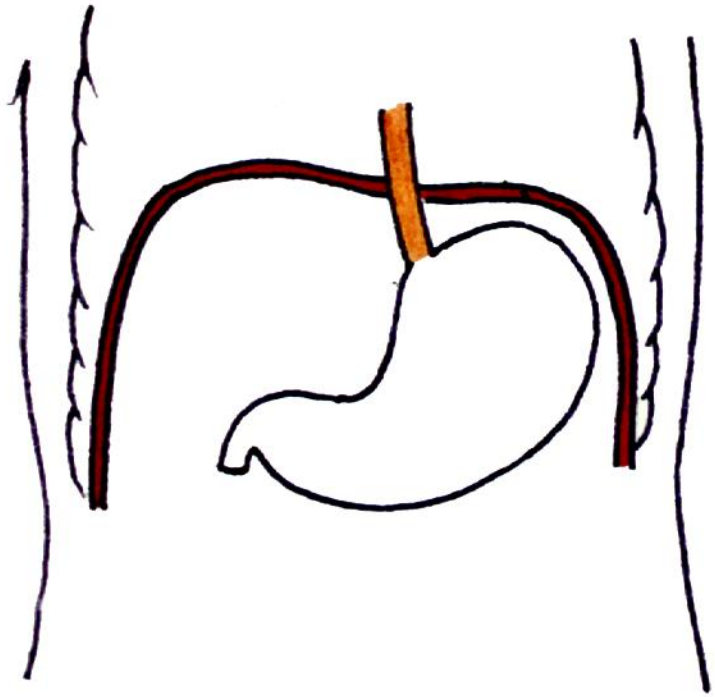
ANATOMI

HENRIK LØVSCHALL
LEKTOR, PHD, TANDLÆGE

MAVESÆK

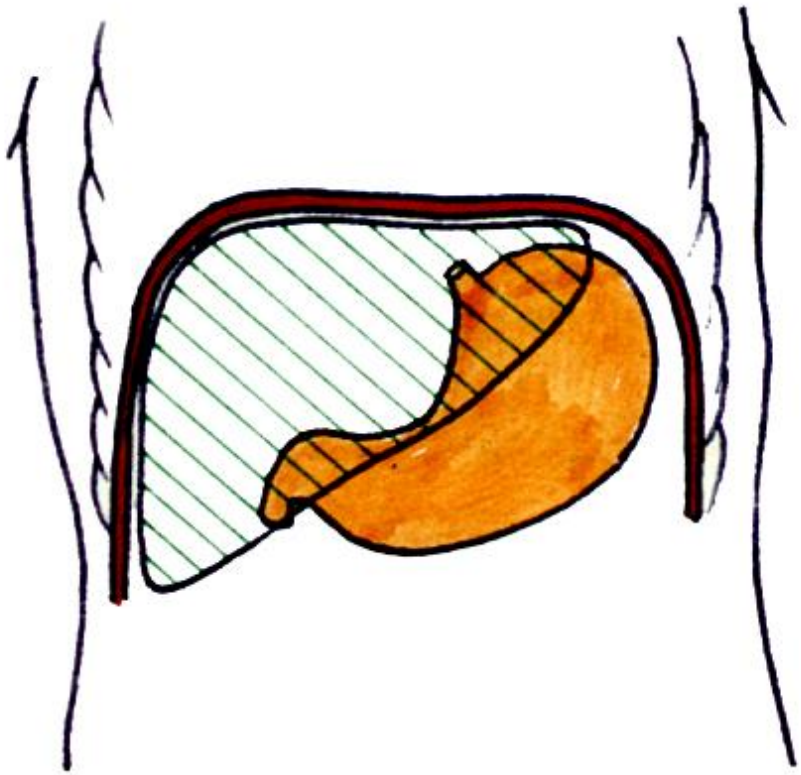
Gaster

- ventriklen / ventriculus
- ligger ud for nederste brysthvirvler



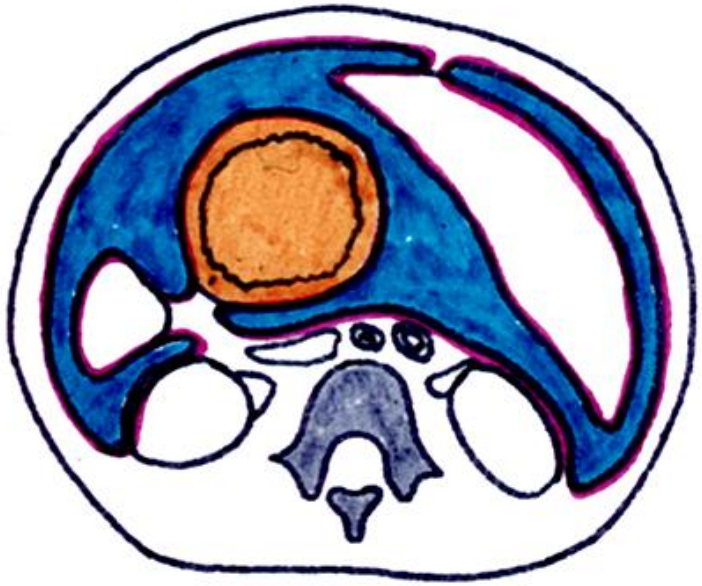
MAVESÆK

- ligger opad til venstre
- under diafragma



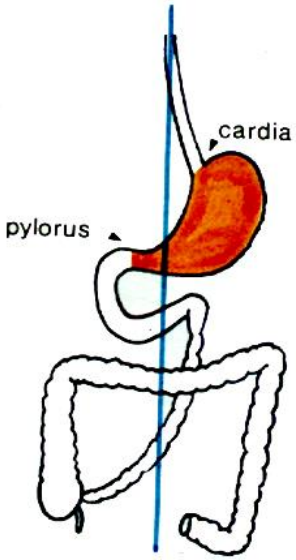
MAVESÆK

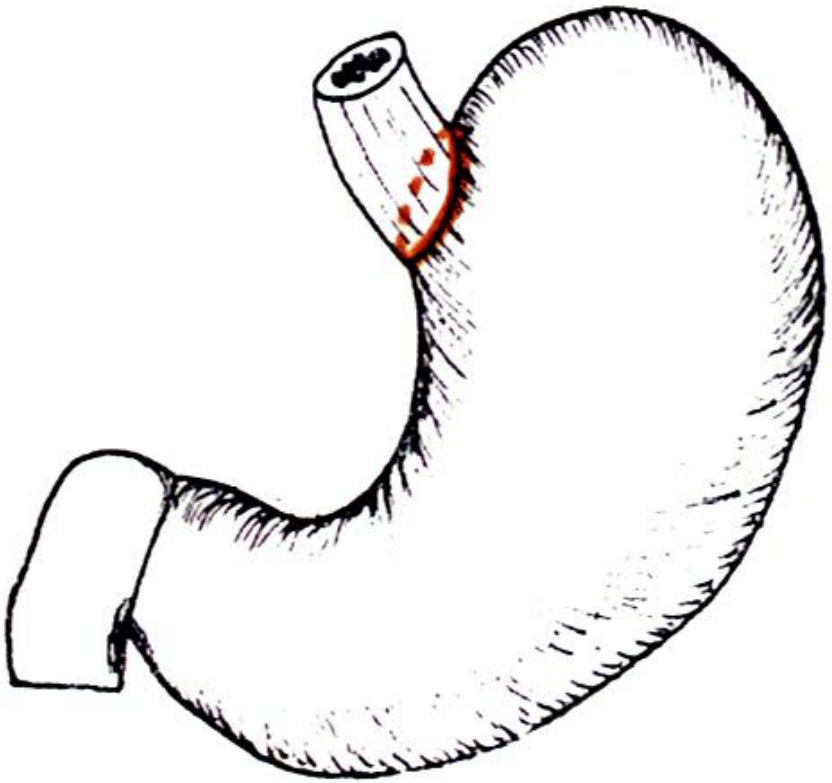
- ligger i spatium peritoneale



MAVESÆK

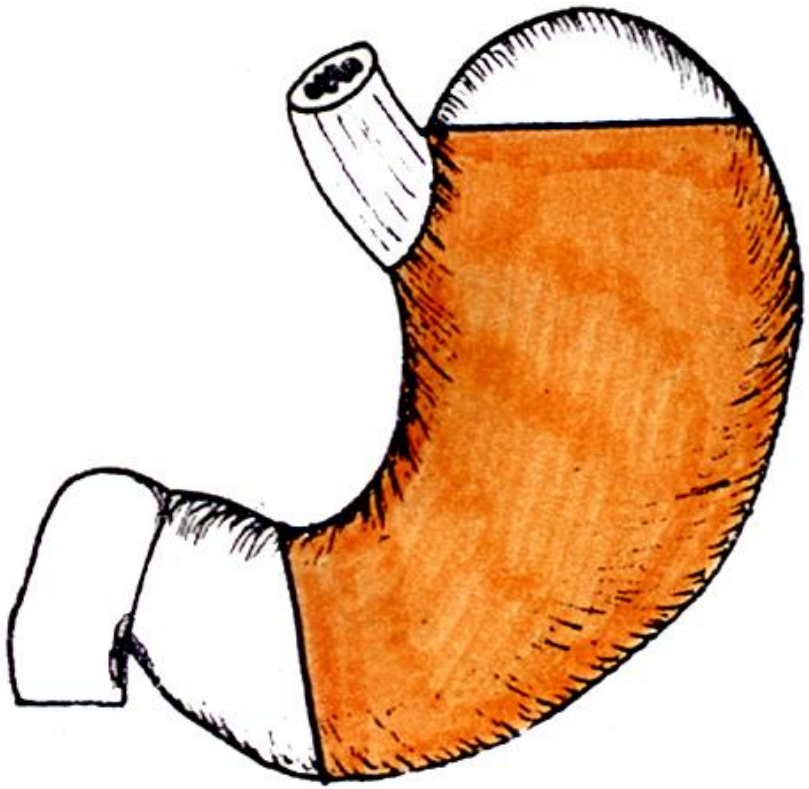
- <u>cardia</u> (mavemunden) ligger til venstre for midtlinjen





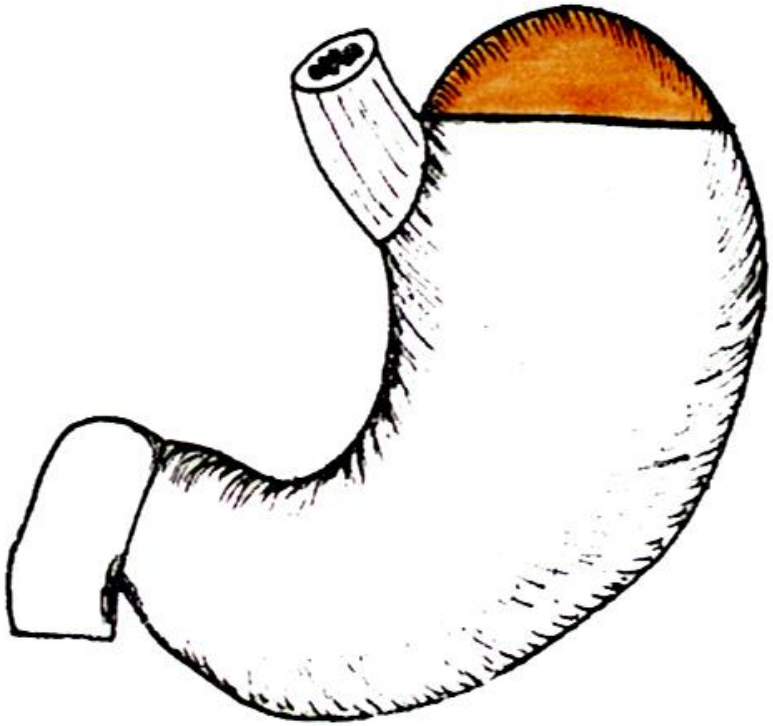
MAVESÆK

- corpus gastricum
  (kropsdel)



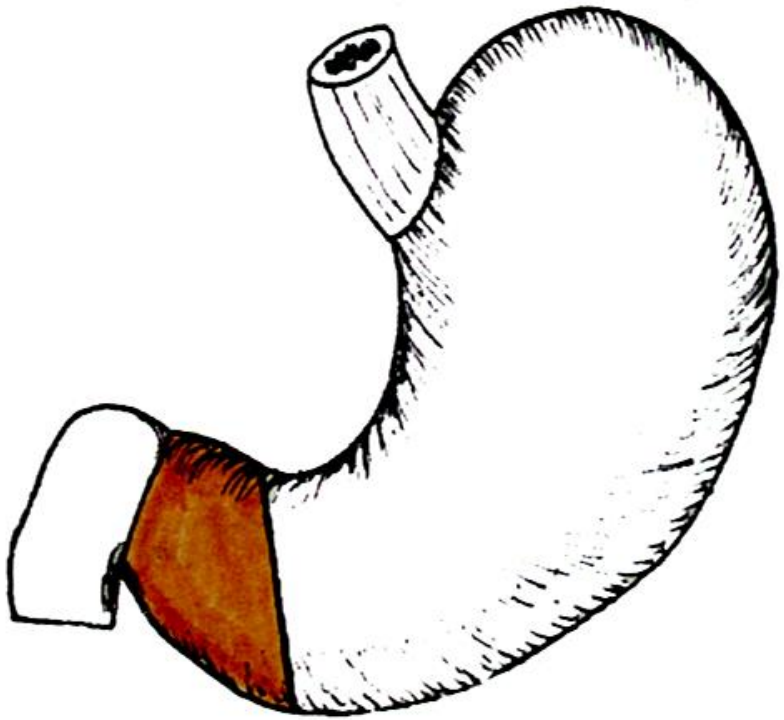
MAVESÆK

- fundus gastricus (kuppeldel)



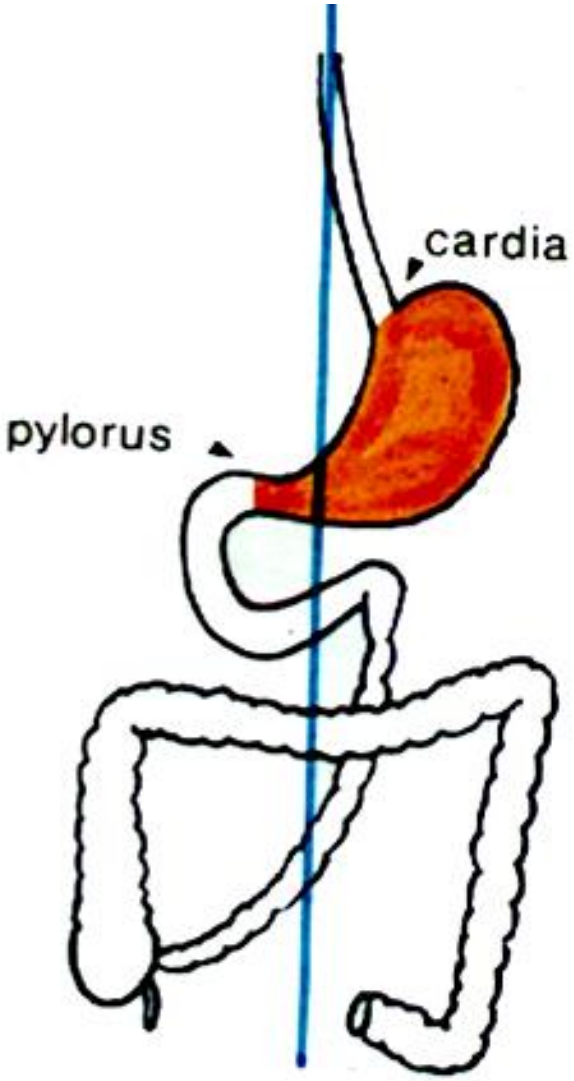
MAVESÆK

- pars pylorica
  (nedre del)



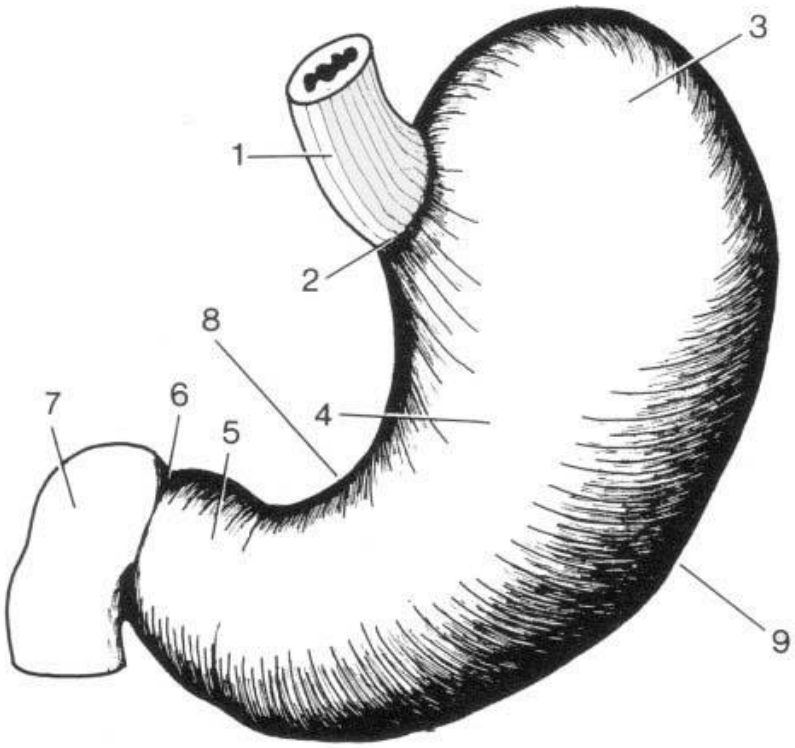
MAVESÆK

- pylorus (maveporten)
  - til højre for midtlinjen
  - ud for øverste lændehvirvel
  - bemærk fordøjelsessystemets sik-sak-forløb
  - start i en side og slut i den anden



MAVESÆK

- to flader
  - forflade
  - bagflade



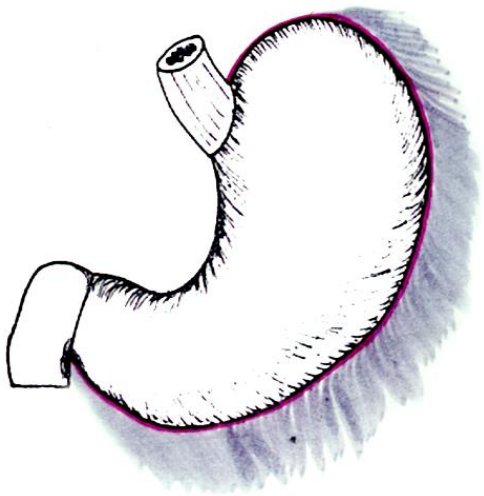
MAVESÆK

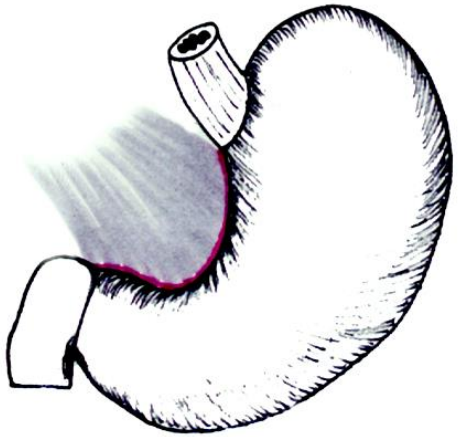
curvatura major (til venstre)

- her afgår omentum majus
- der hænger ned foran tarmene

curvatura minor (til højre)

- her afgår omentum minus,
- der forbinder mavesæk og lever

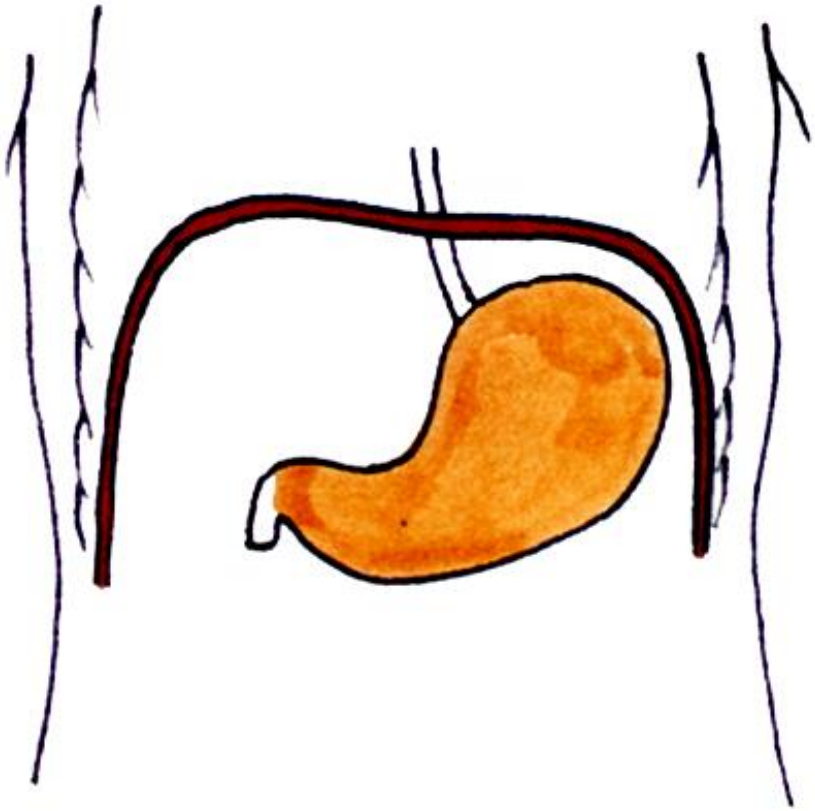




MAVESÆK

<u>relationer</u>

- diafragma opadtil og fortil



MAVESÆK

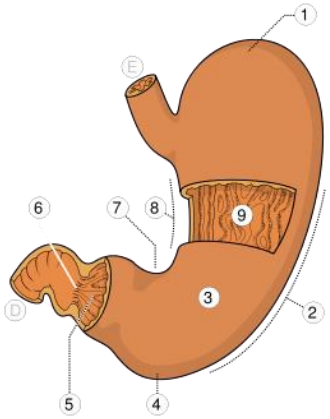
relationer

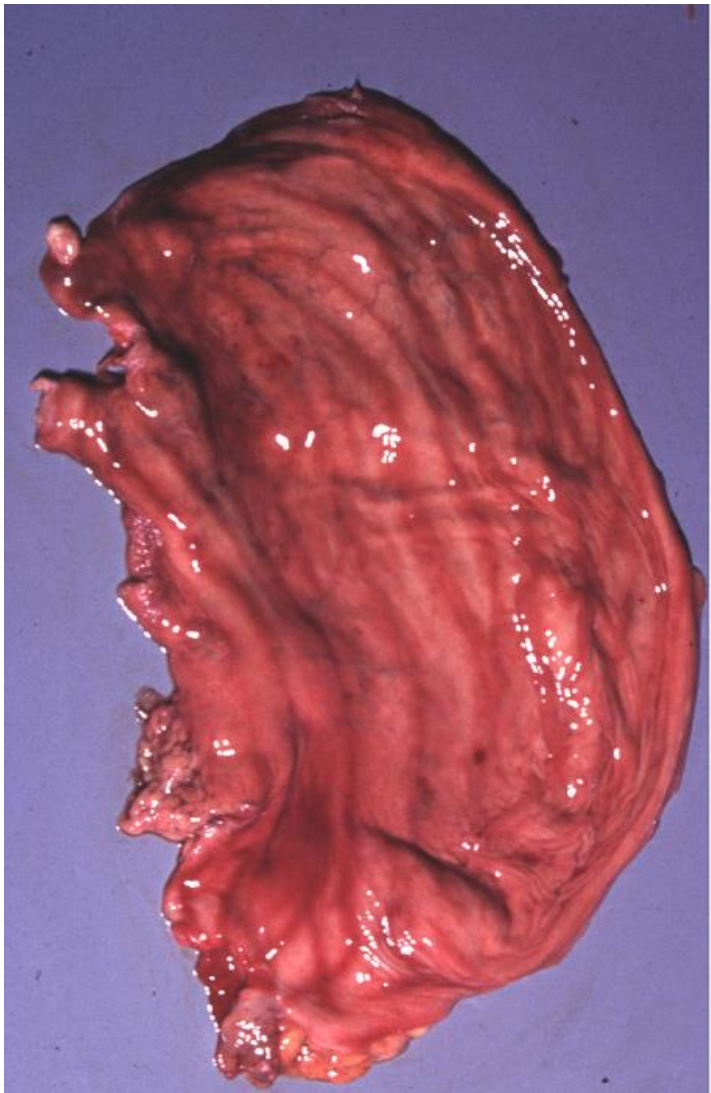
- lever fortil
- bugspytkirtel, milt og venstre nyre bagtil

MAVESLIMHINDENS OVERFLADERELIEF

MAVESÆKKEN:

- længdefolder (plicae gastricae)
- også mavetragte (foveolae gastricae)





VÆGGENES PRINCIPIELLE OPBYGNING I FORDØJELSESSYSTEMET

- *Slimhinde*
- *Underslimhinde*
- *Muskelkappe*
- *Afsluttende lag*

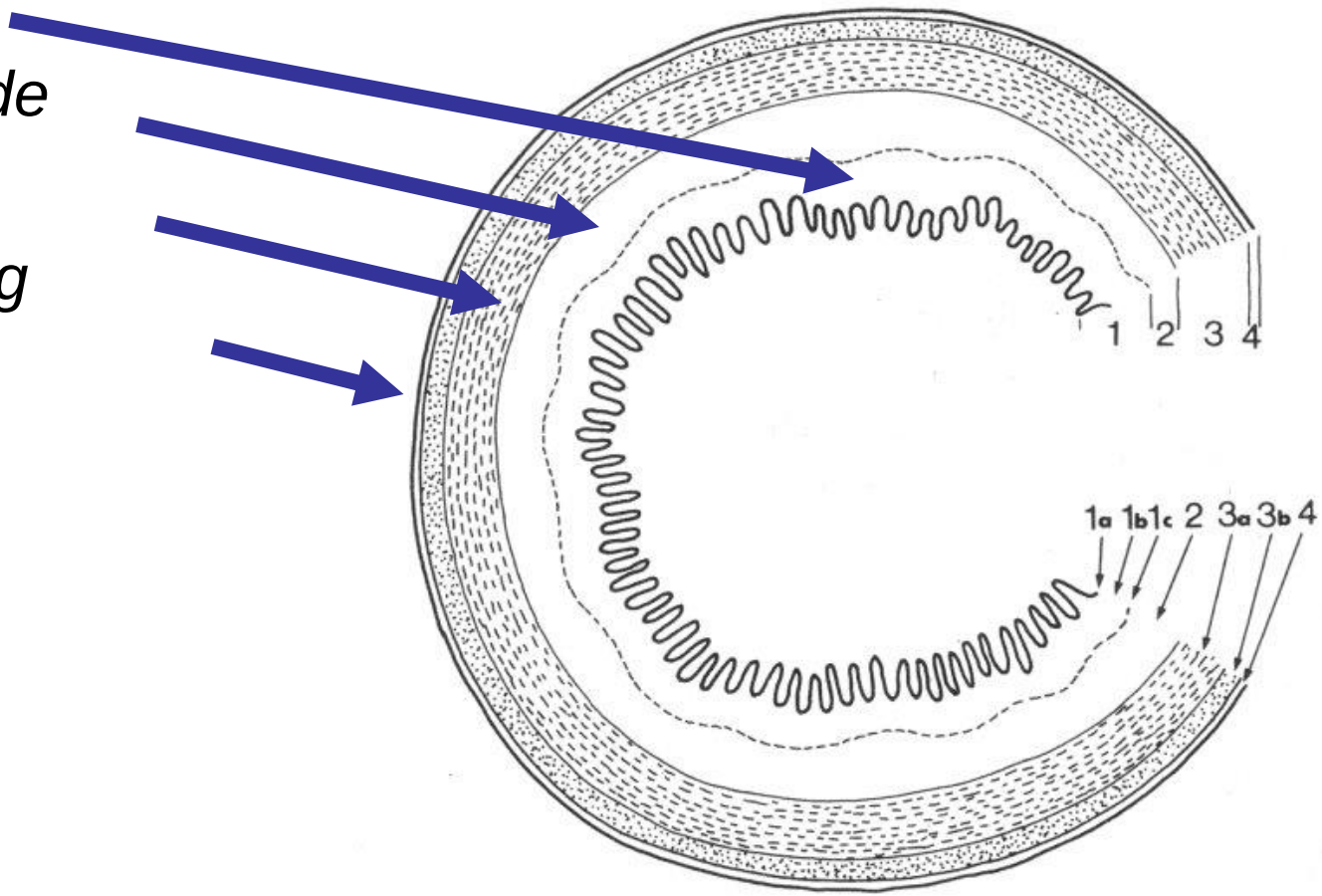


FIG. 4

VÆGGENES PRINCIPIELLE OPBYGNING I FORDØJELSESSYSTEMET

Tunica mucosa

Tela submucosa

Tunica muscularis

Tunica serosa

/Adventitia

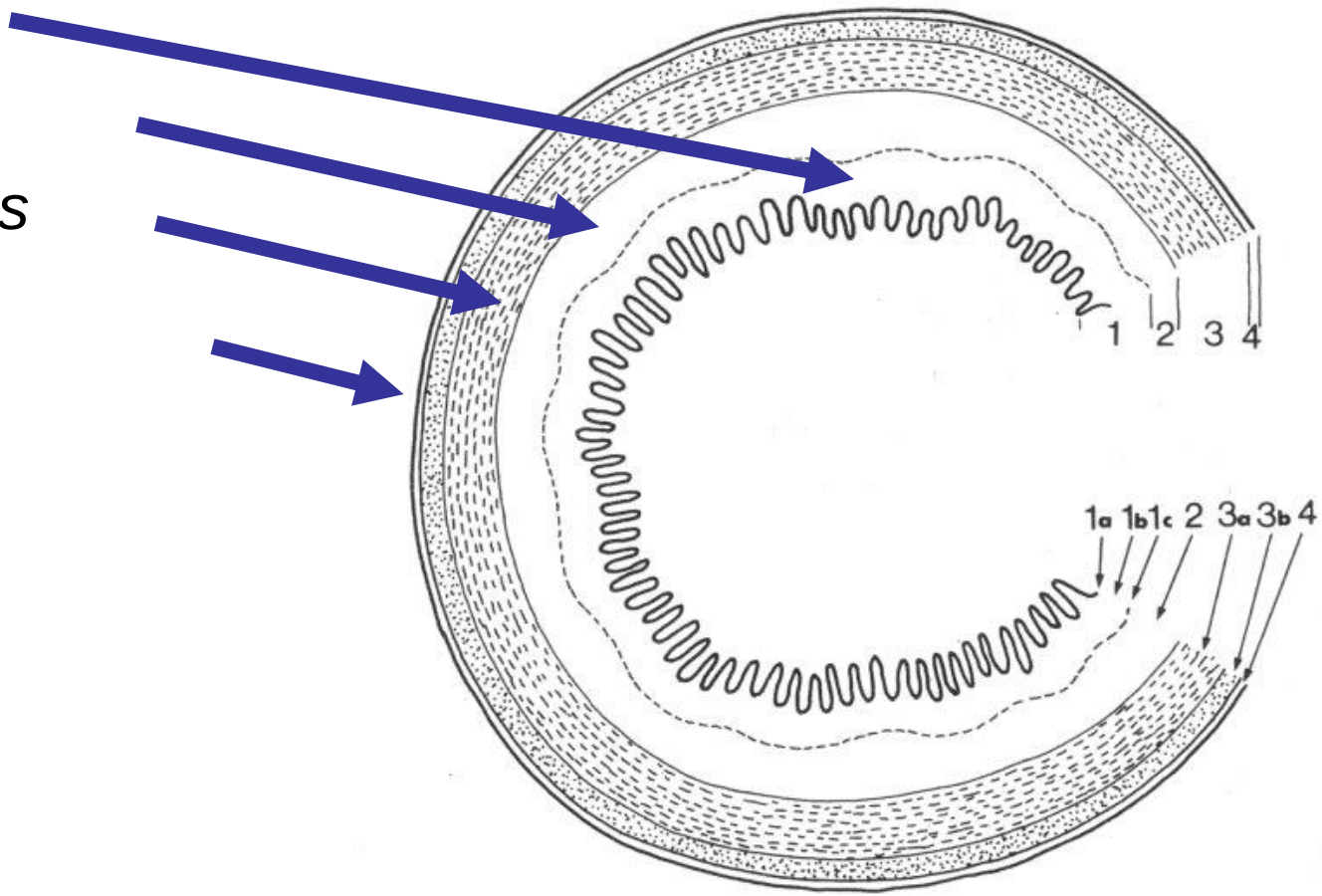


FIG. 4

Tunica mucosa
Tela submucosa
Tunica muscularis
Tunica serosa

LAG i GASTER

Tunica mucosa:

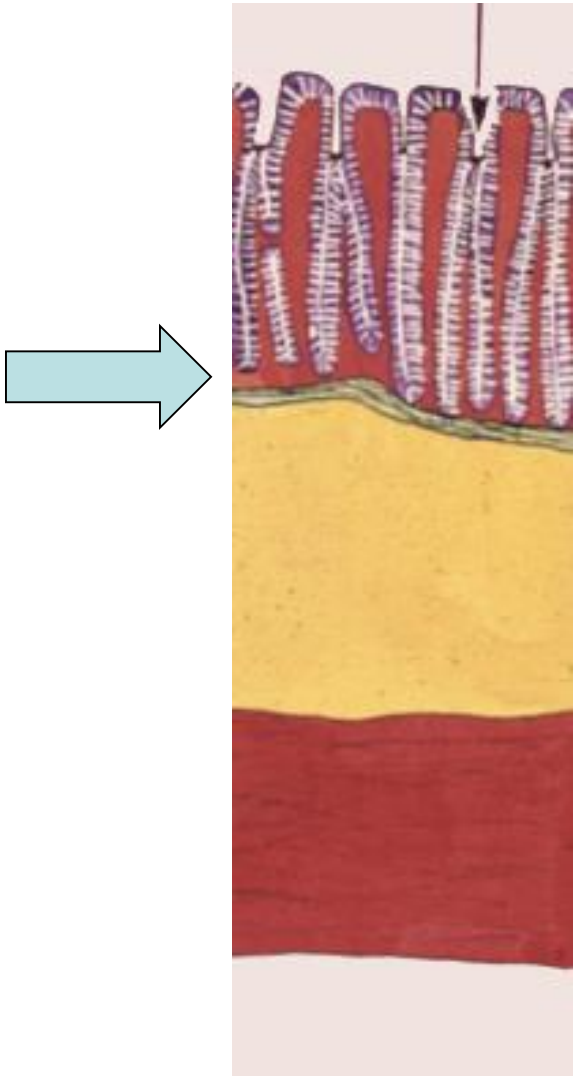
- <u>lamina epithelialis</u>
  - enlaget prismatisk epitel
  - epitelet fungerer både som dækepitel og kirtel
  - udsondrer sekret der beskytter

Tunica mucosa
Tela submucosa
Tunica muscularis
Tunica serosa

LAG i GASTER

Tunica mucosa:

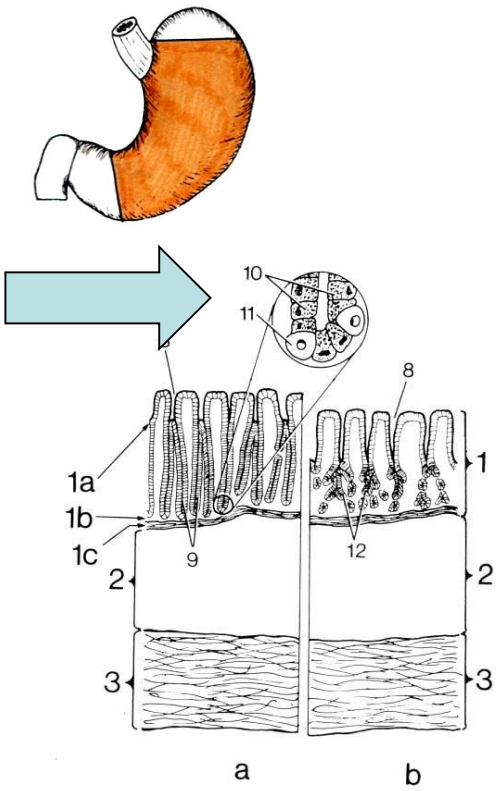
- lamina propria
  - indeholder rørformede kirtler
  - gll gastricae
  - tømmer sig i tragte



LAG i GASTER

Tunica mucosa:

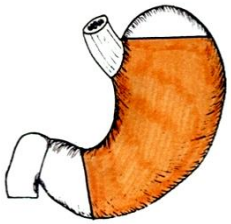
- lamina propria
  - indeholder rørformede kirtler
  - gll gastricae
  - tømmer sig i tragte
  - i corpus
    - Hovedceller (10)

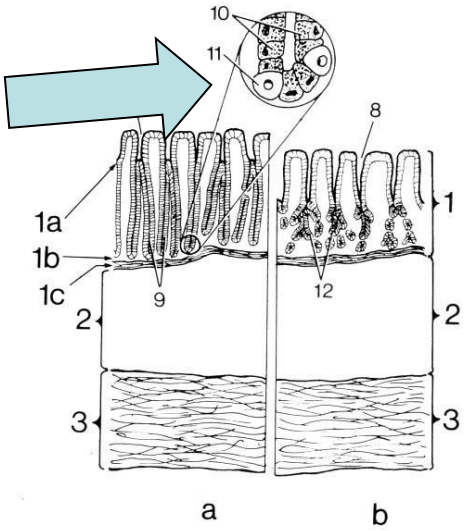


LAG i GASTER

Tunica mucosa:

- lamina propria
  - indeholder rørformede kirtler
  - gll gastricae
  - tømmer sig i tragte
  - i corpus
    - hovedceller (enzym)
    - dækceller (11, HCl)

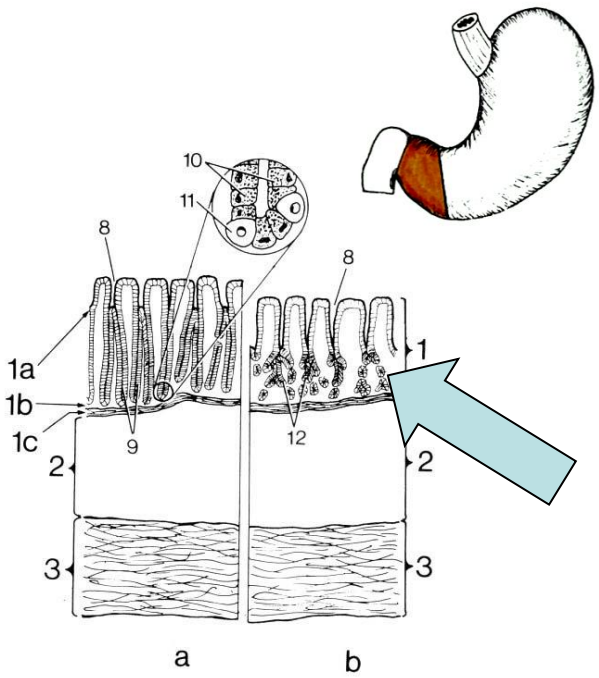




LAG i GASTER

Tunica mucosa:

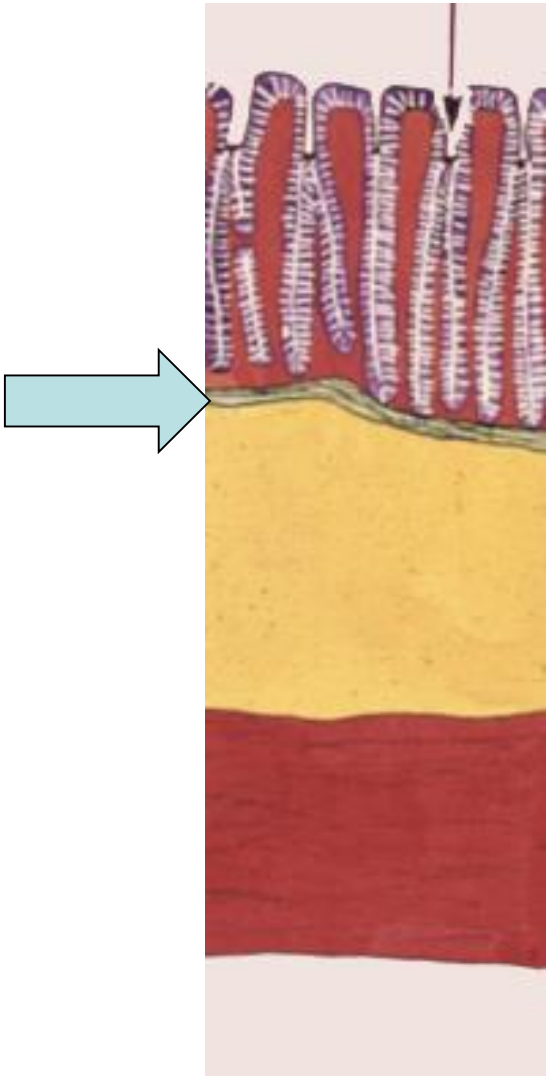
- lamina propria
  - indeholder rørformede kirtler
  - gll gastricae
  - tømmer sig i tragte
  - i corpus
    - hovedceller (enzym)
    - dækceller (HCl)
  - i pars pylorica
    - slimproducerende celler



LAG i GASTER

Tunica mucosa:

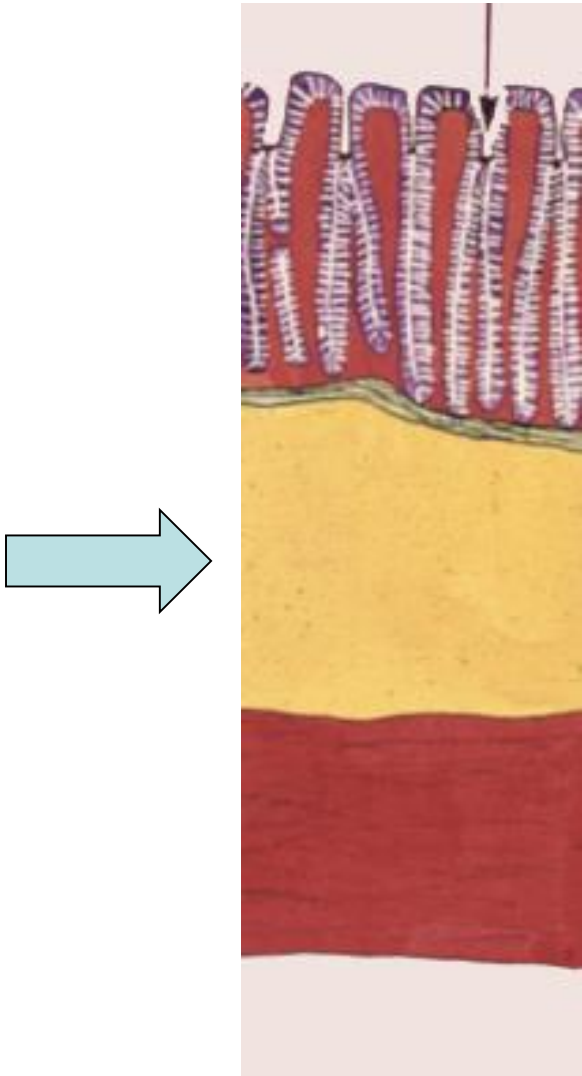
- lamina muscularis mucosae



Tunica mucosa
Tela submucosa
Tunica muscularis
Tunica serosa

LAG i GASTER

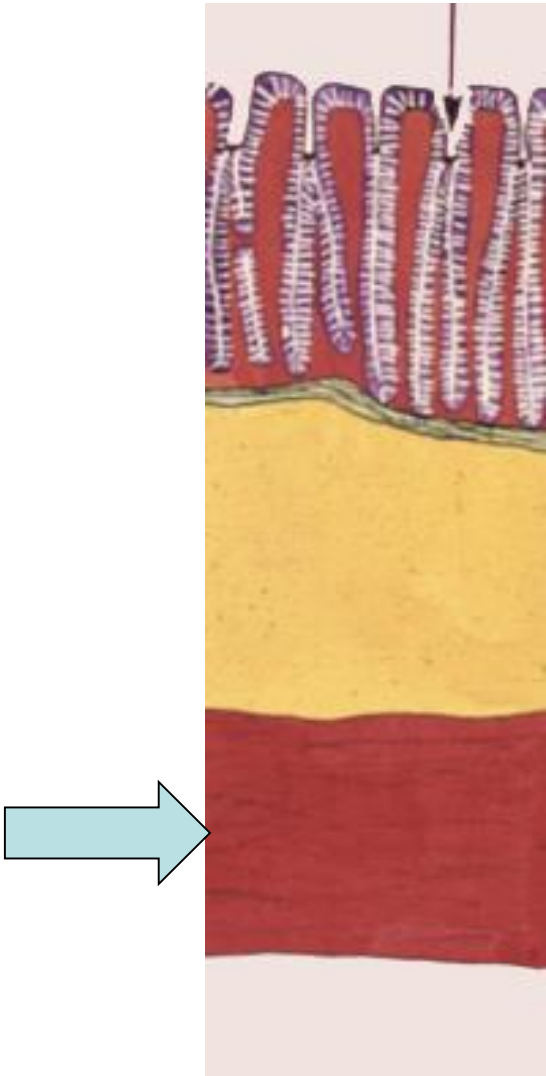
- Tela submucosa
  - løst bindevæv
  - med kar og nerver
  - uden kirtler



Tunica mucosa
Tela submucosa
Tunica muscularis
Tunica serosa

LAG i GASTER

- Tunica muscularis
  - veludviklet muskelkappe
  - stratum longitudinale og circulare



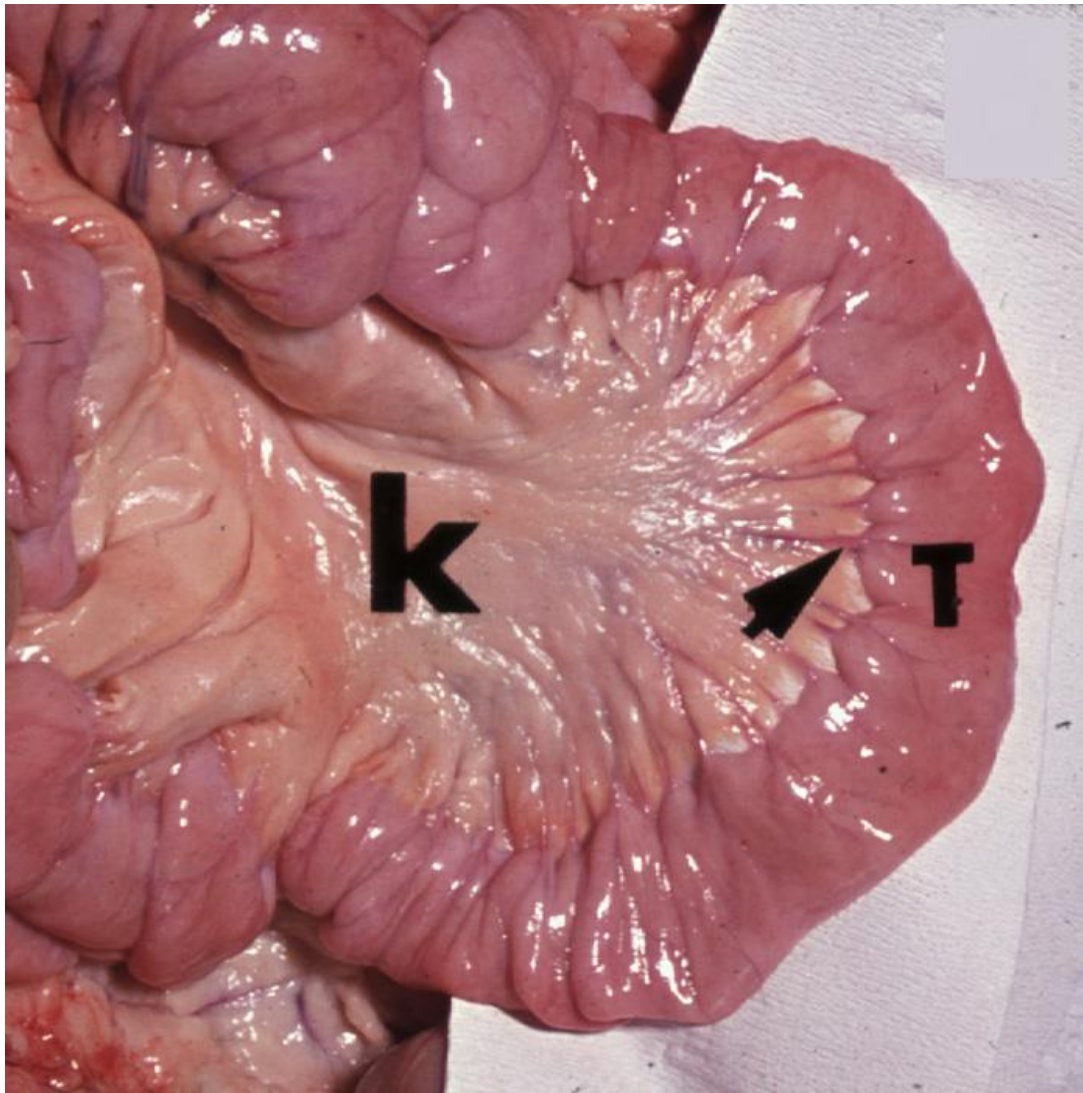
Tunica mucosa
Tela submucosa
Tunica muscularis
Tunica serosa

LAG i GASTER

- Tunica serosa
  - peritoneum viscerale
  - på ventriklens overflade

TYNDTARM

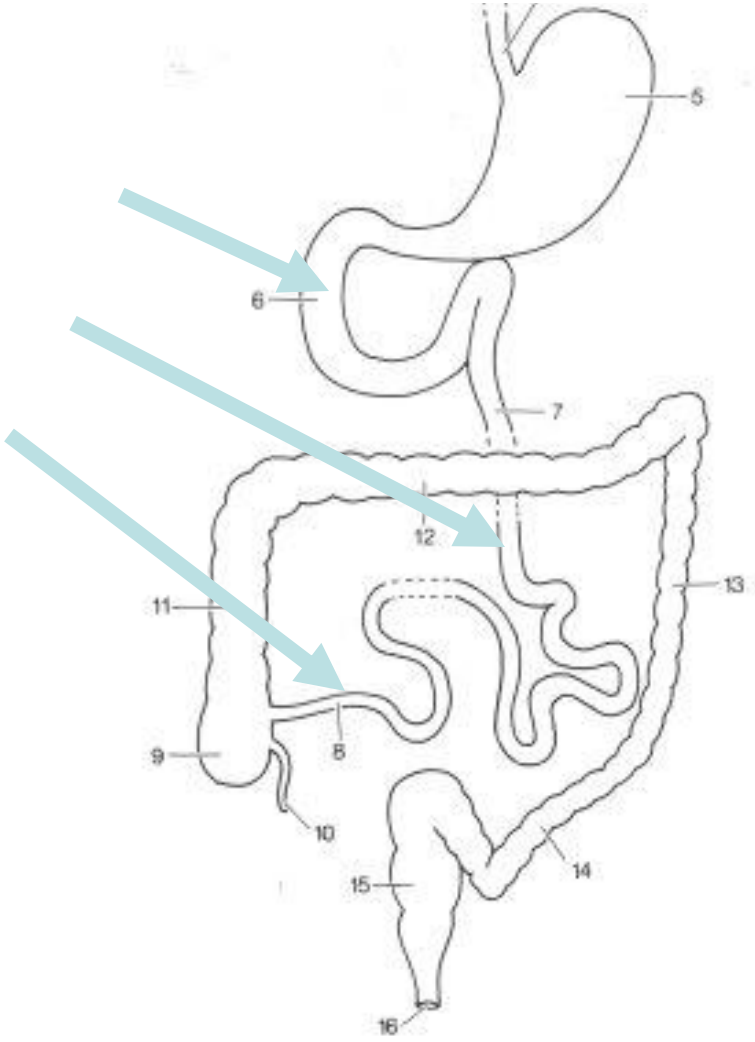
- 3-4m lang
- 6-8 m i afslappet tilstand



FORDØJELSESKANALEN

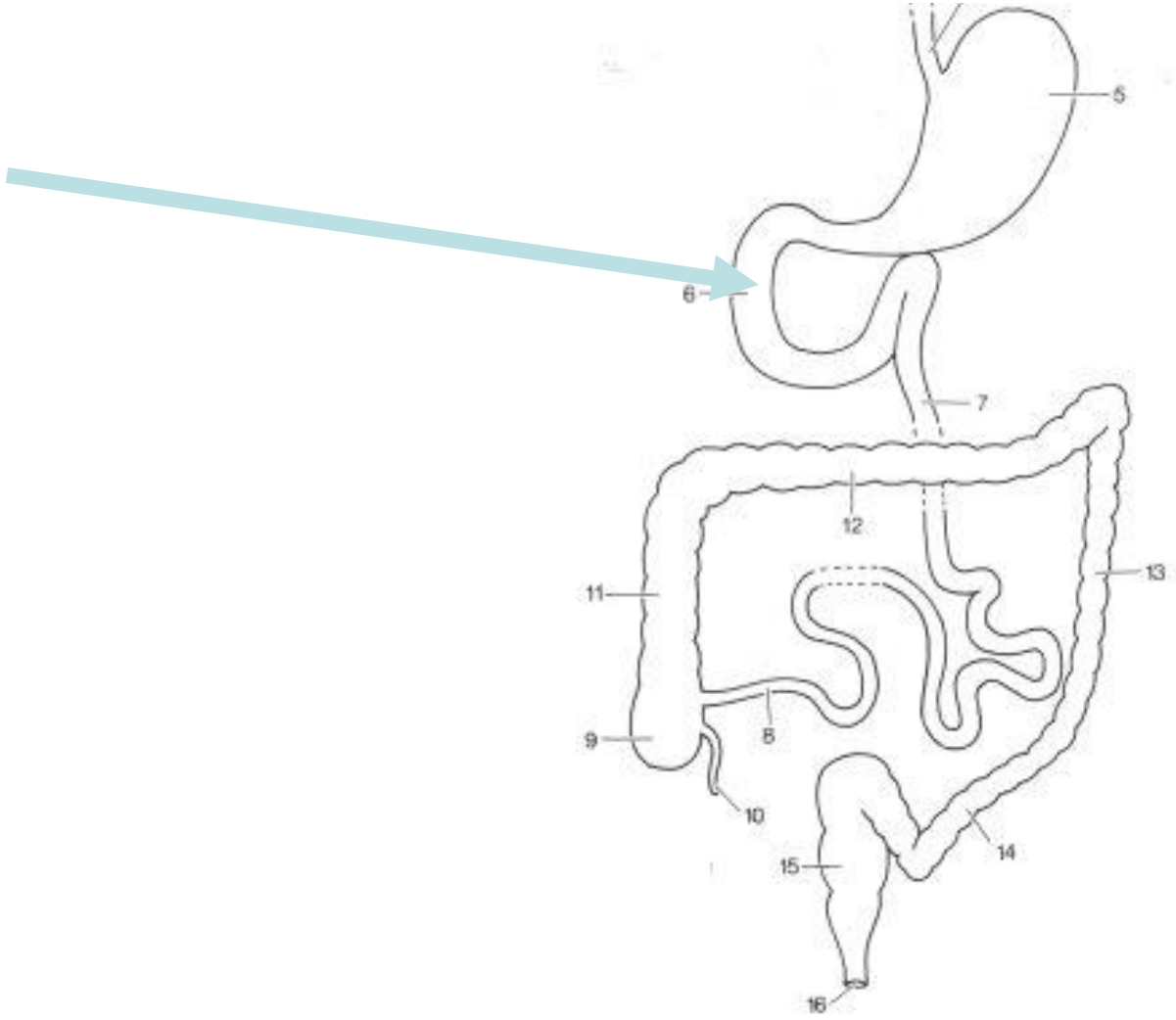
TYNDTARMEN

- tolvfingertarmen
- den tomme tarm
- den snoede tarm



DUODENUM

”Tolvfingertarmen”



DUODENUM

- Første 25 cm af tyndtarm
  - begynder til højre for midtlinjen ud for første lændehvirvel
  - løber i hesteskoformet bue, der er konveks mod højre
  - ender lavere og til venstre for midtlinjen

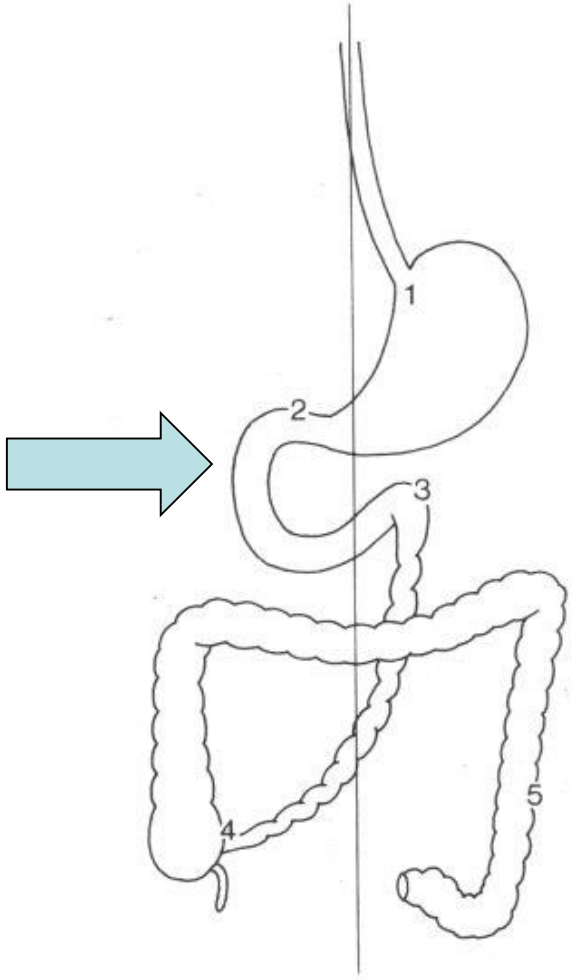


FIG. 50

DUODENUM

- Sekundært retroperitonealt organ:
  - bag intraperitoneale organer (lever)
  - foran primært retroperitoneale organer (nyre)

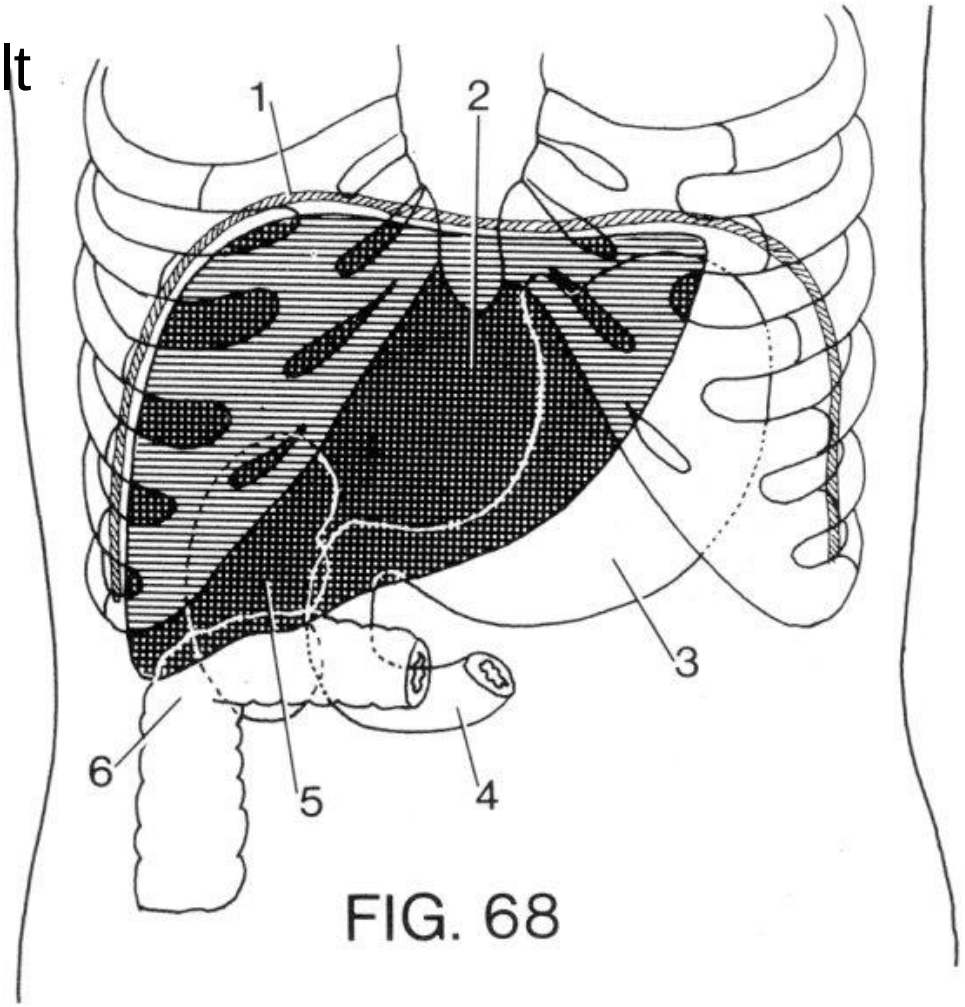


FIG. 68

DUODENUM

- <u>Galdegangen:</u>
  - ligger bag begyndelses-stykket

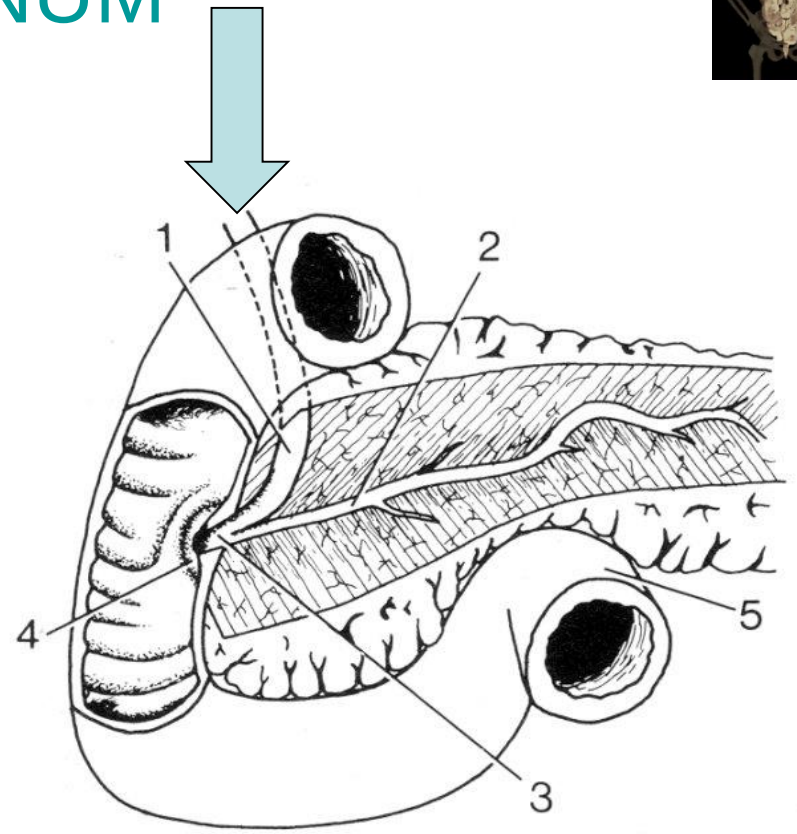


FIG. 53

DUODENUM

- <u>Pancreas:</u>
  - ligger i konkavitet

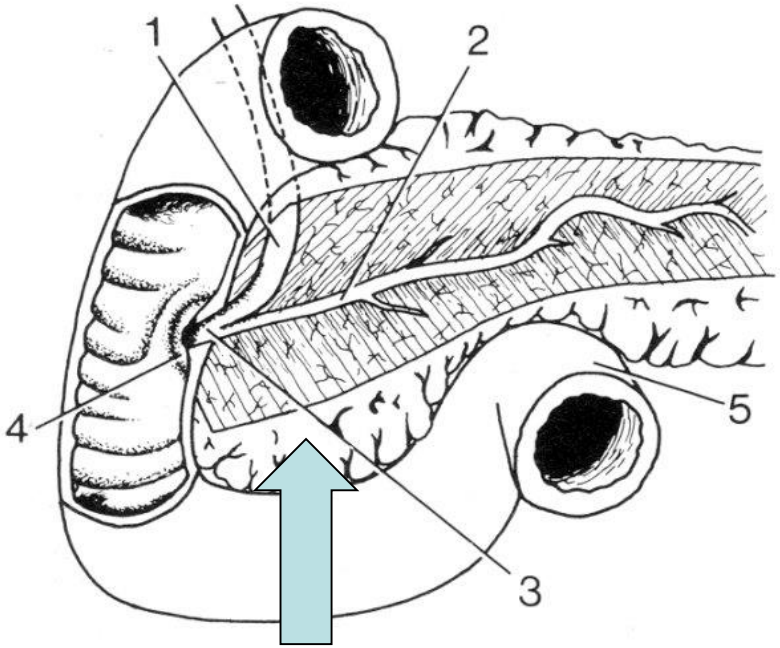


FIG. 53

DUODENUM

1. Galdegangen ductus biliaris
2. Pancreasgang ductus pancreaticus
3. Fællesgangen
4. Fællesåbning papilla duodeni major

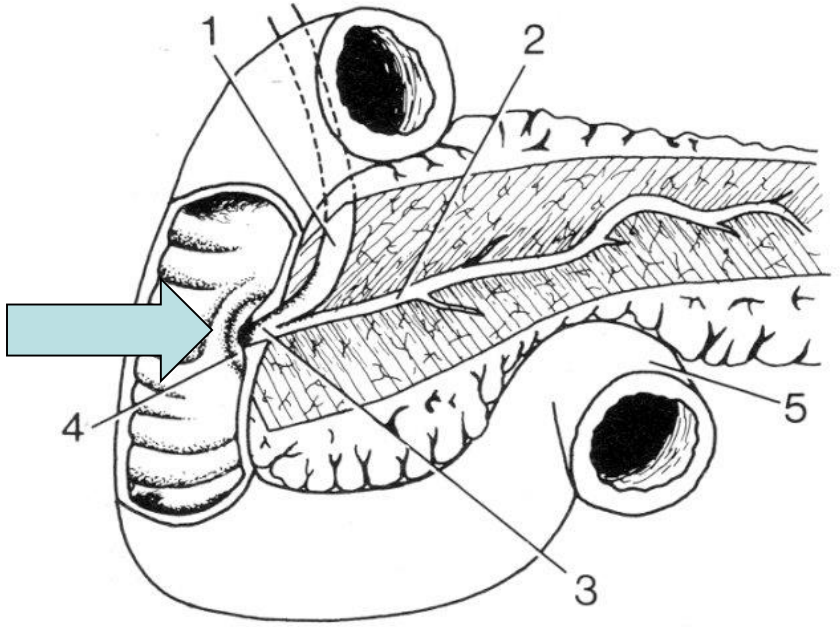
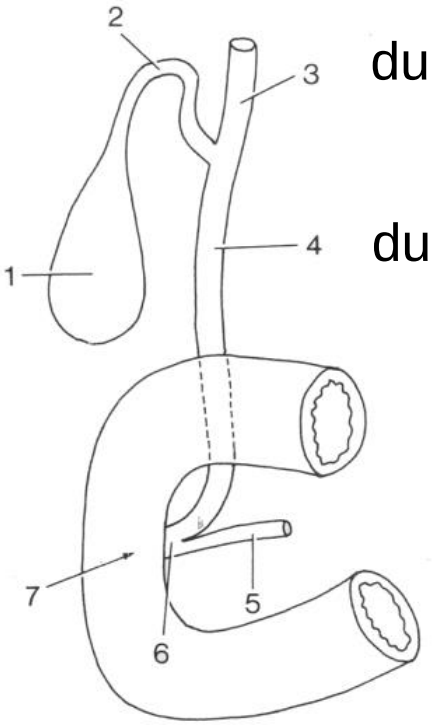


FIG. 53

DUODENUM

ductus cysticus



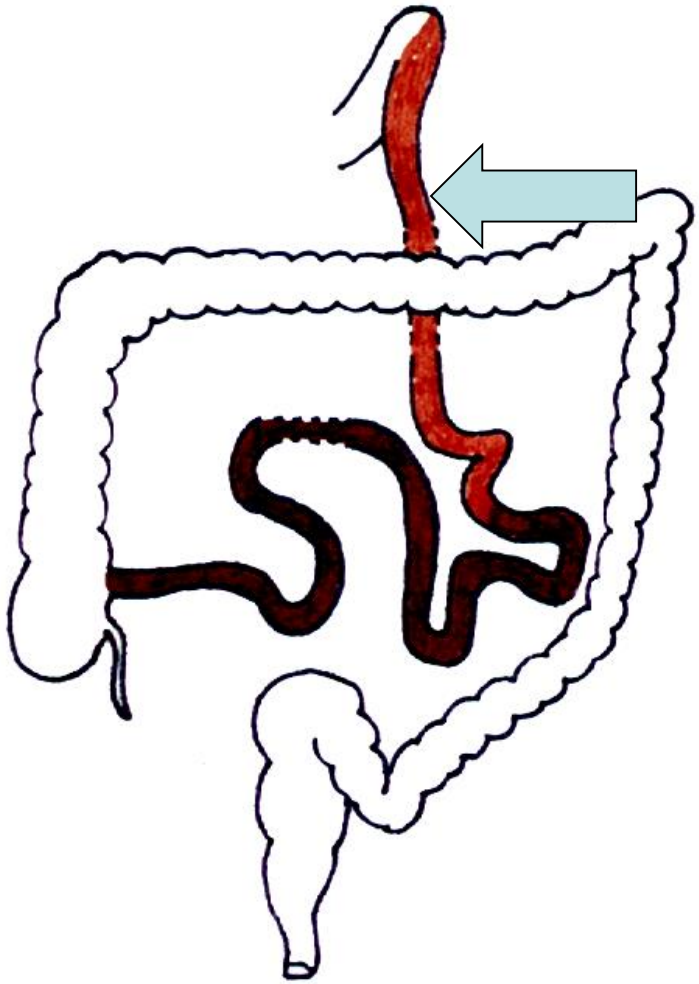
ductus hepaticus

ductus biliaris

vesica biliaris

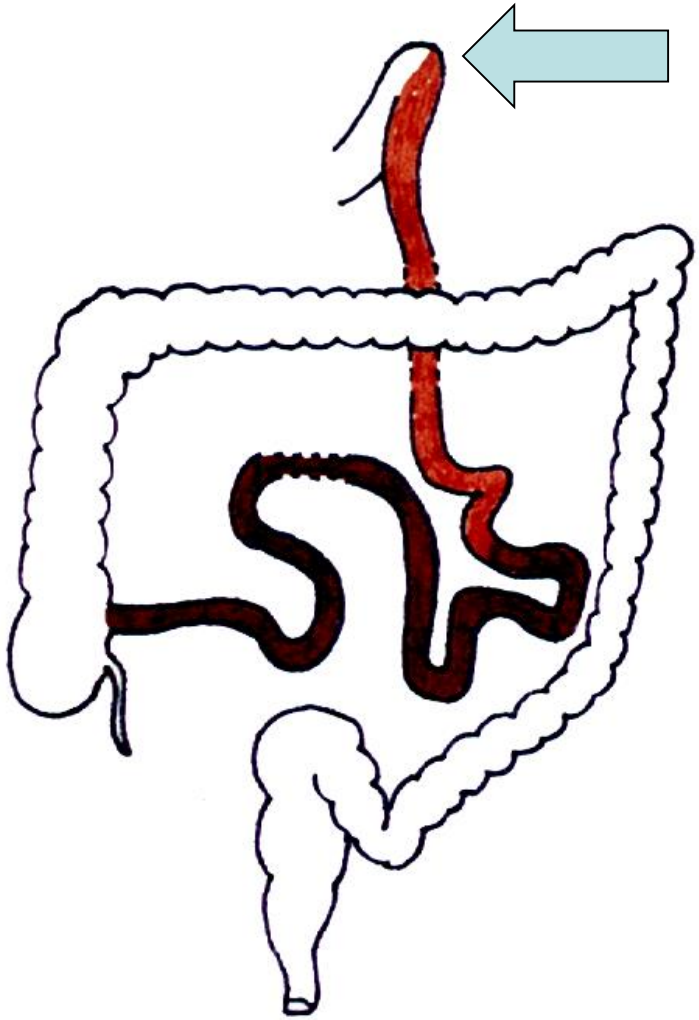
JEJUNUM

- "Den tomme tarm"
  - ..opad-til-venstre
  - ..første 2/5 af den krøsbærende tyndtarm (intestinum tenue mesenteriale)



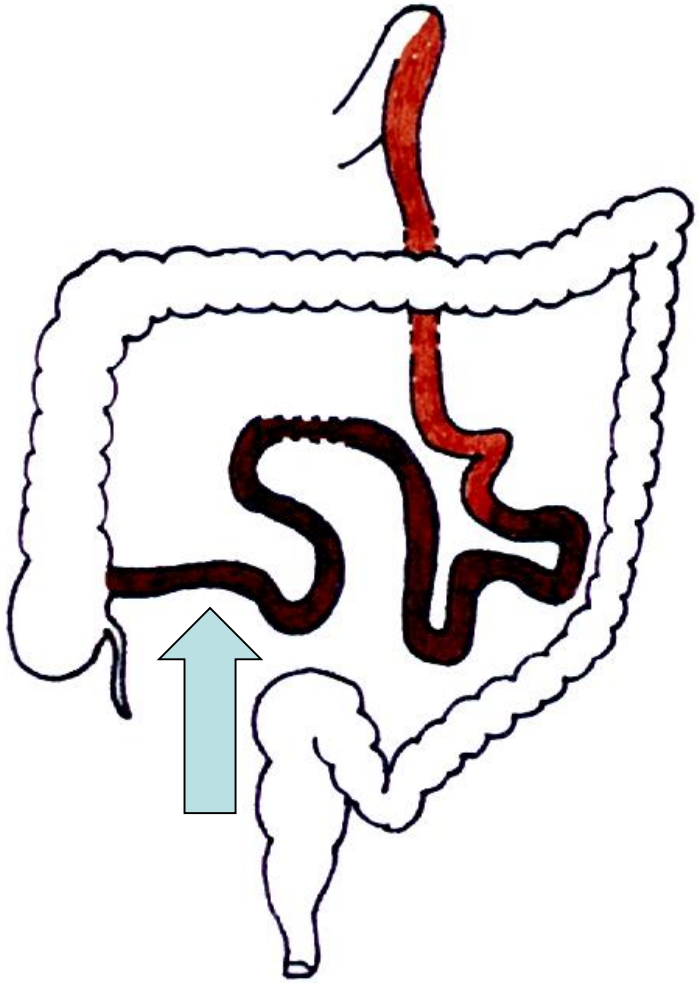
JEJUNUM

- flexura duodeno-jejunalis
  - overgang til duodenum
  - ingen speciel overgang til ileum



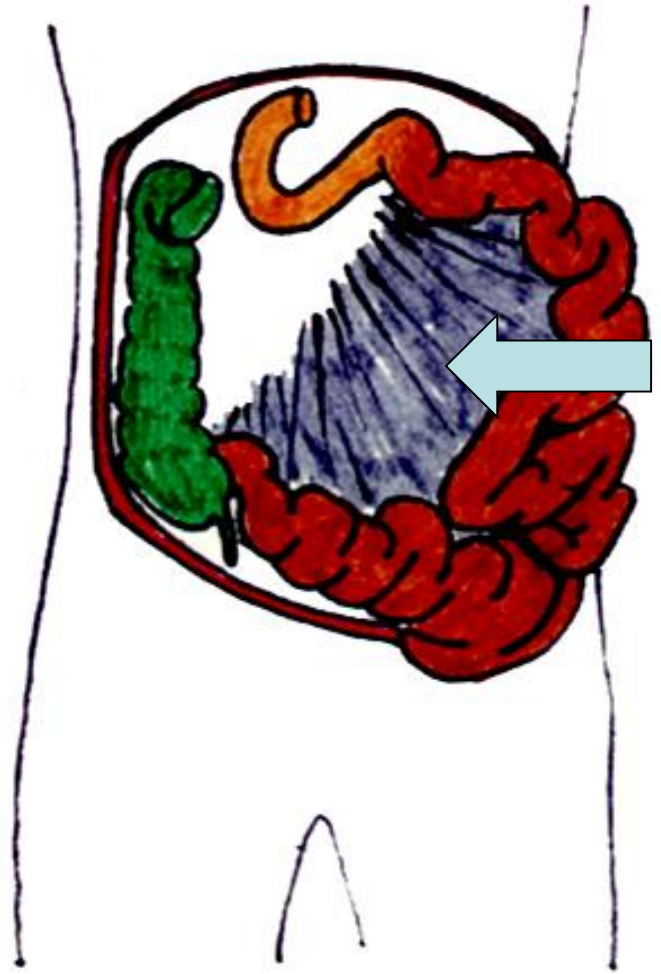
ILEUM

- "den snoede tarm"
  - ..nedad-til-højre
  - sidste 3/5 af intestinum tenue mesenteriale



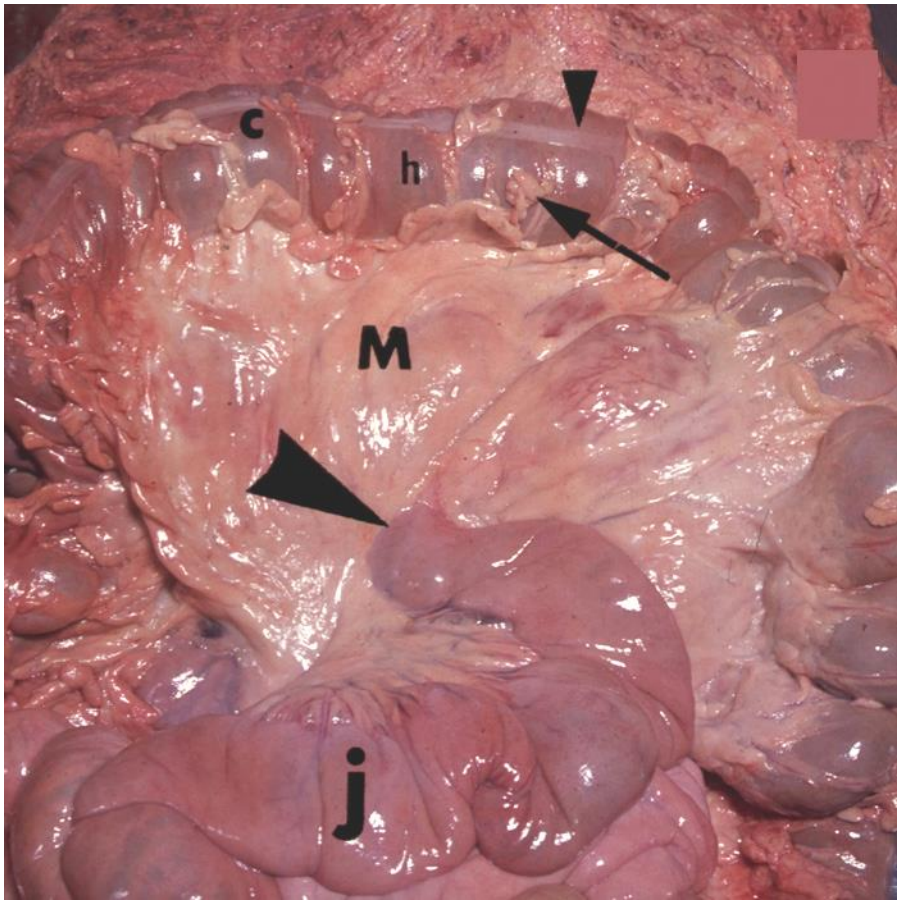
Mesenterium

- krøs
- 2 blade af peritoneum viscerale
- vifteformet og meget foldet



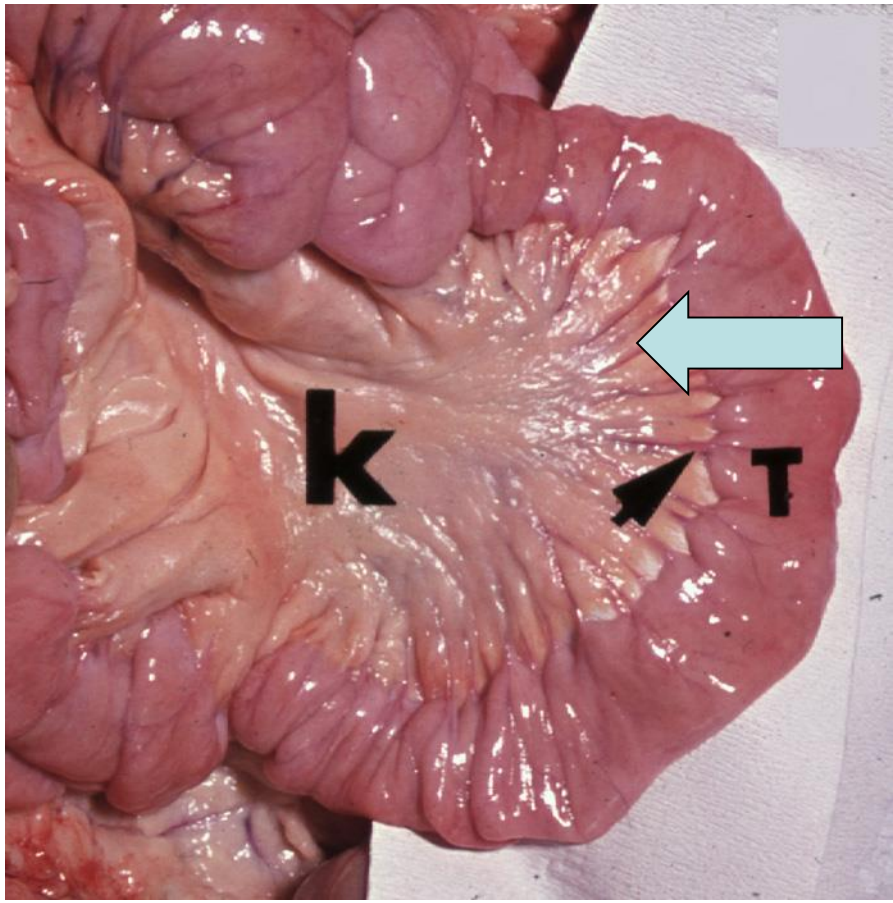
Intestinum tenue mesenteriale

- ligger i “ramme” dannet af colon



Mesenterium

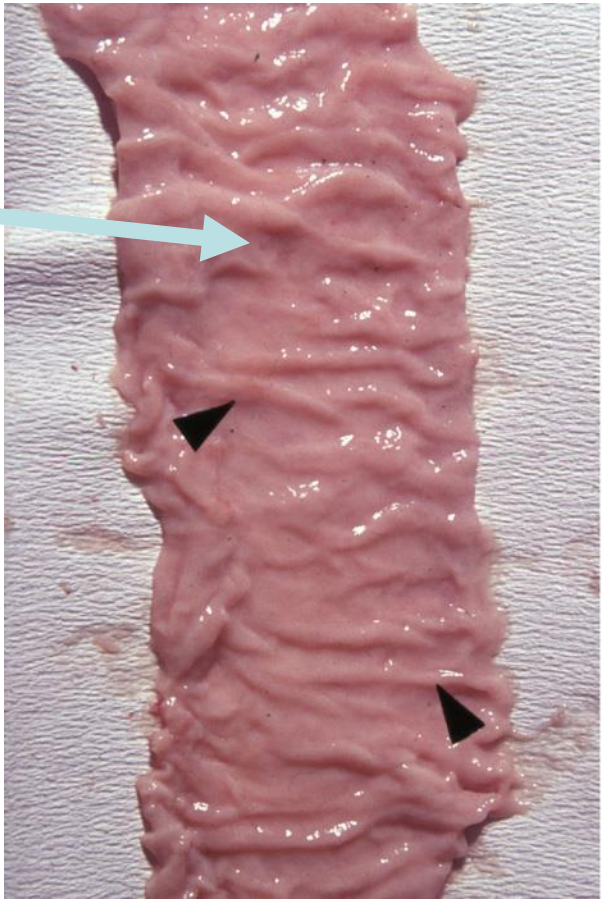
– fedt, kar og nerver mellem bladene



TYNDTARMENS INDRE OVERFLADERELIEF

CIRCULÆRE FOLDER:

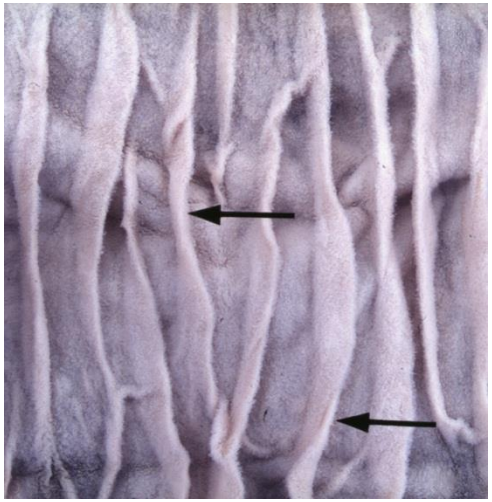
- Plicae circulares

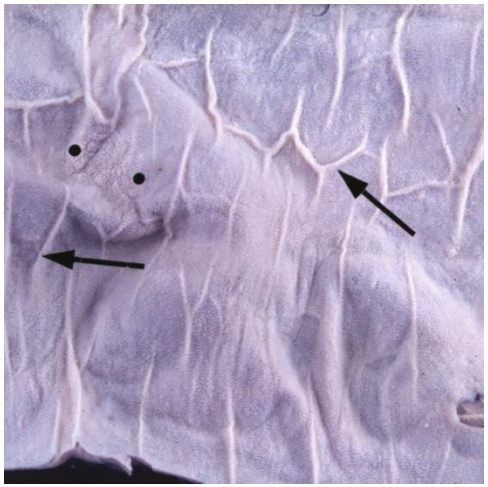


TYNDTARMENS INDRE OVERFLADERELIEF

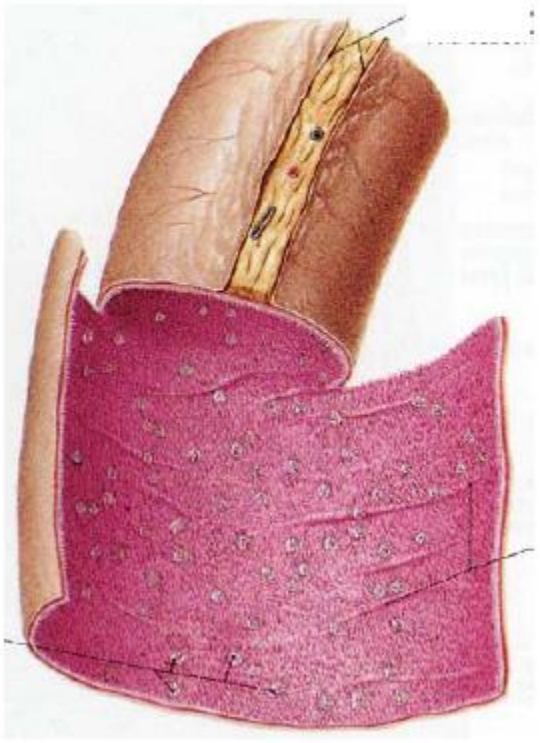
CIRCULÆRE FOLDER:

- ca 1 cm høje
- består af Tunica mucosa og Tela submucosa
- aftager i størrelse i anal retning

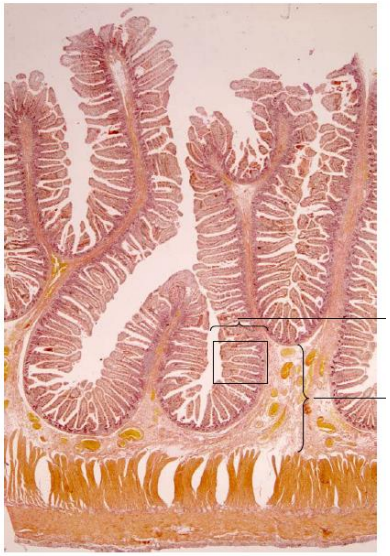




Jejunum



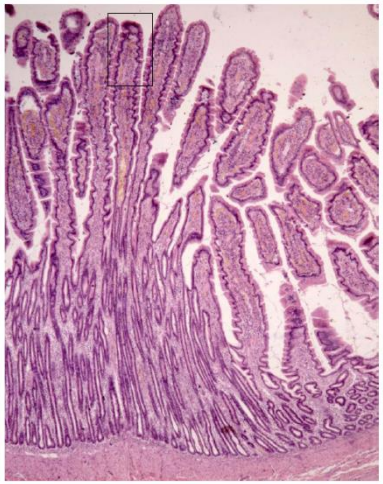
Ileum

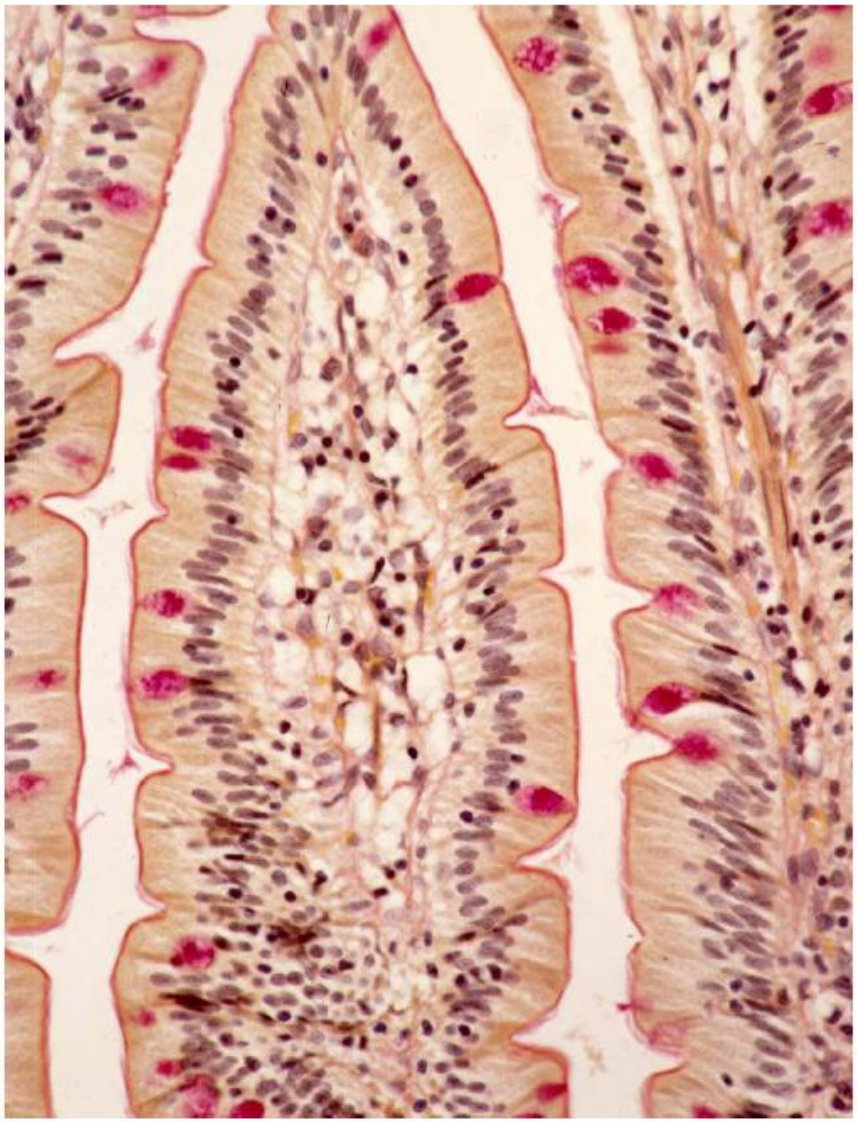


Tunica mucosa

Tela Submucosa

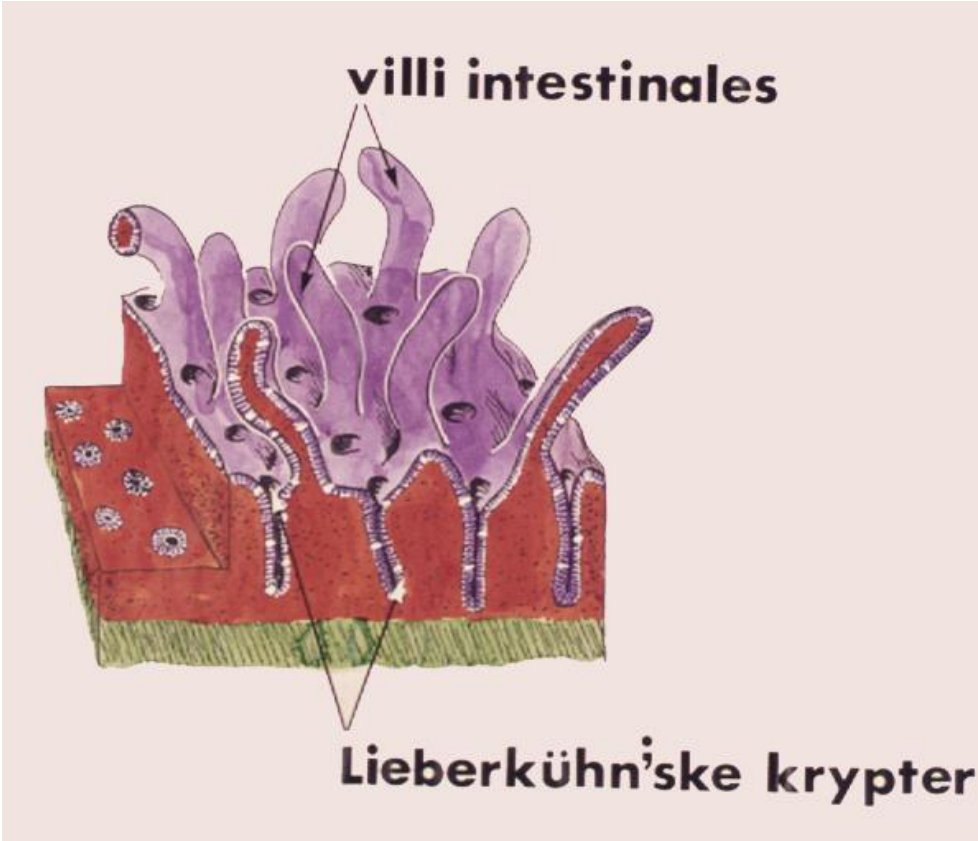
Tunica muscularis
Tunica serosa





TYNDTARMENS INDRE OVERFLADERELIEF

TARMTRÆVLER



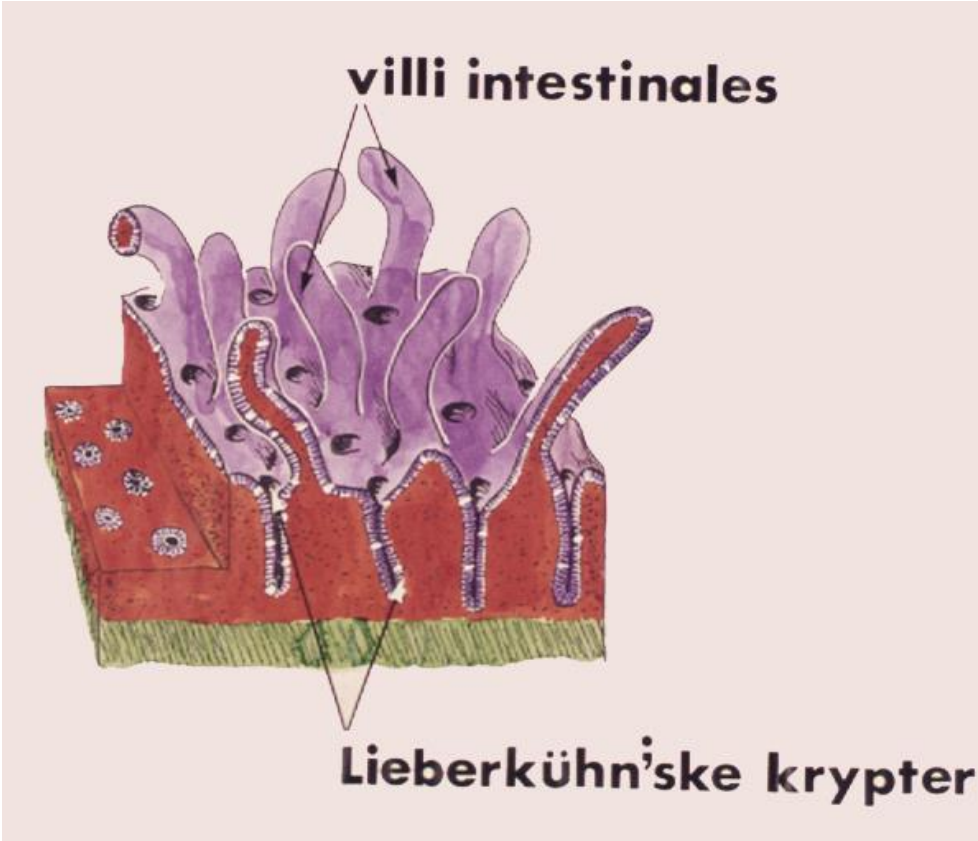
TYNDTARMENS INDRE OVERFLADERELIEF

TARMTRÆVLER

- ca 1 mm høje
- består af lamina epitelialis og lamina propria

TARMKRYPTER

- ca ½ mm dybe



LYMFATISK VÆV

LYMFENODULI

- enkelte lymfeknuder (folliculi lymphatici) i hele tyndtarmen
- desuden er der grupper af lymfeknuder (Peyers plaques) i ileum

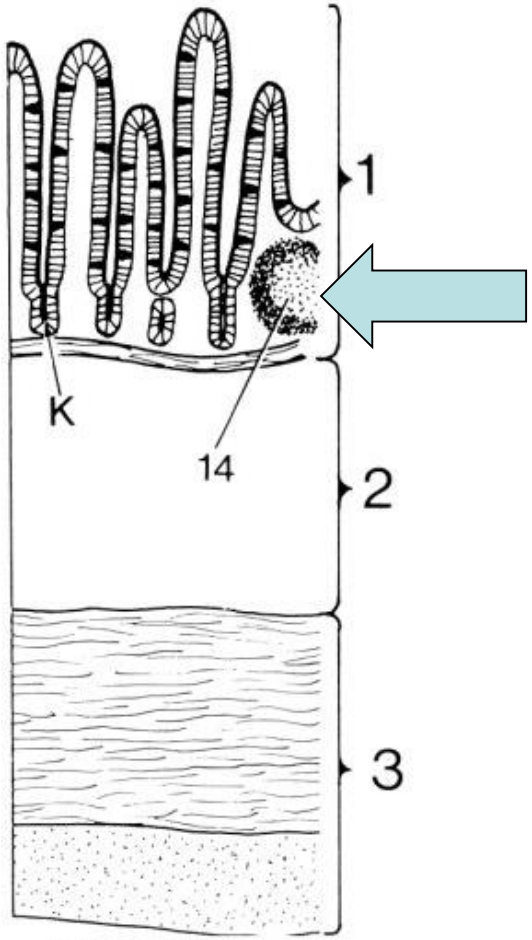
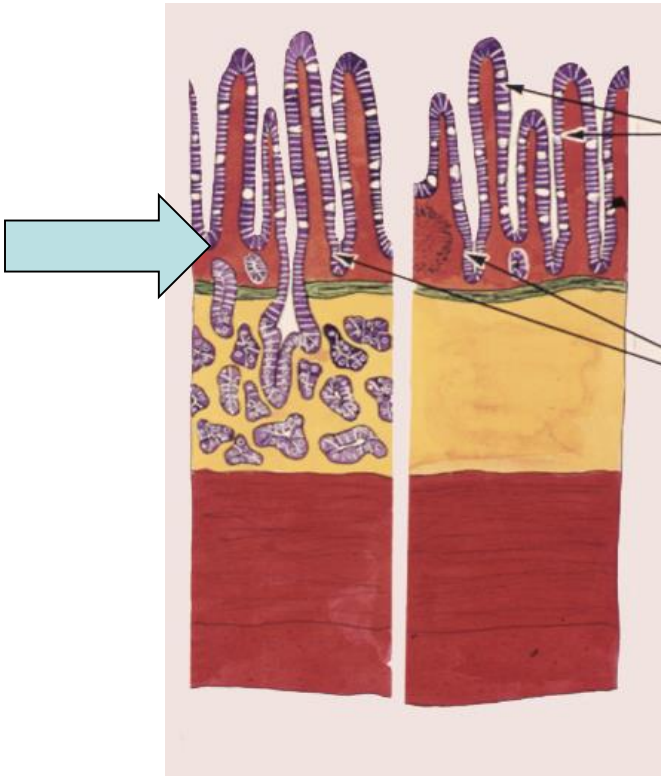


FIG. 9b

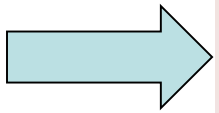
TYNDTARMENS LAG

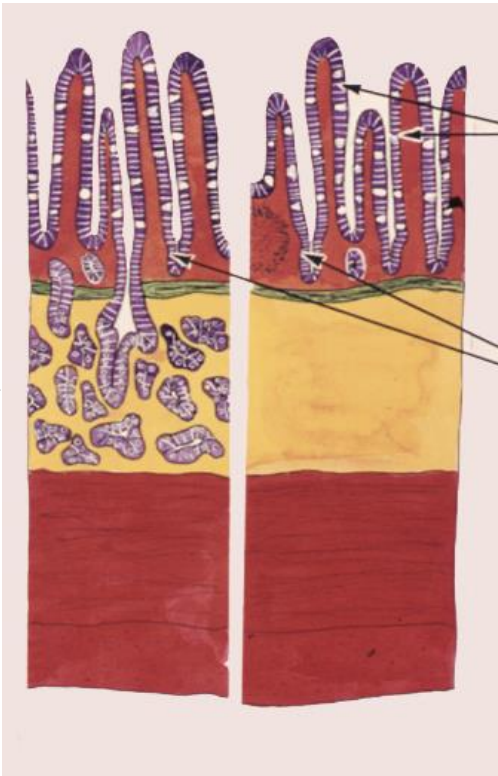
- <u>Tunica mucosa</u>
  - Lamina epitelialis
    - enlaget prismatisk epitel
    - secernerende bægerceller
  - Lamina propria
    - løst bindevæv (også retikulært)
  - Lamina muscularis mucosae
    - glat muskulatur



TYNDTARMENS LAG

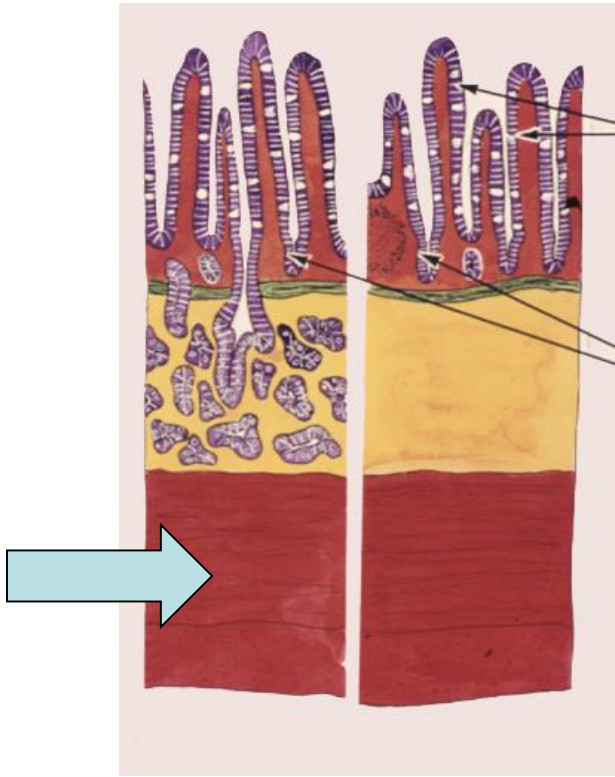
- Tela submucosa
  - kun kirtler i duodenum (Brunners)





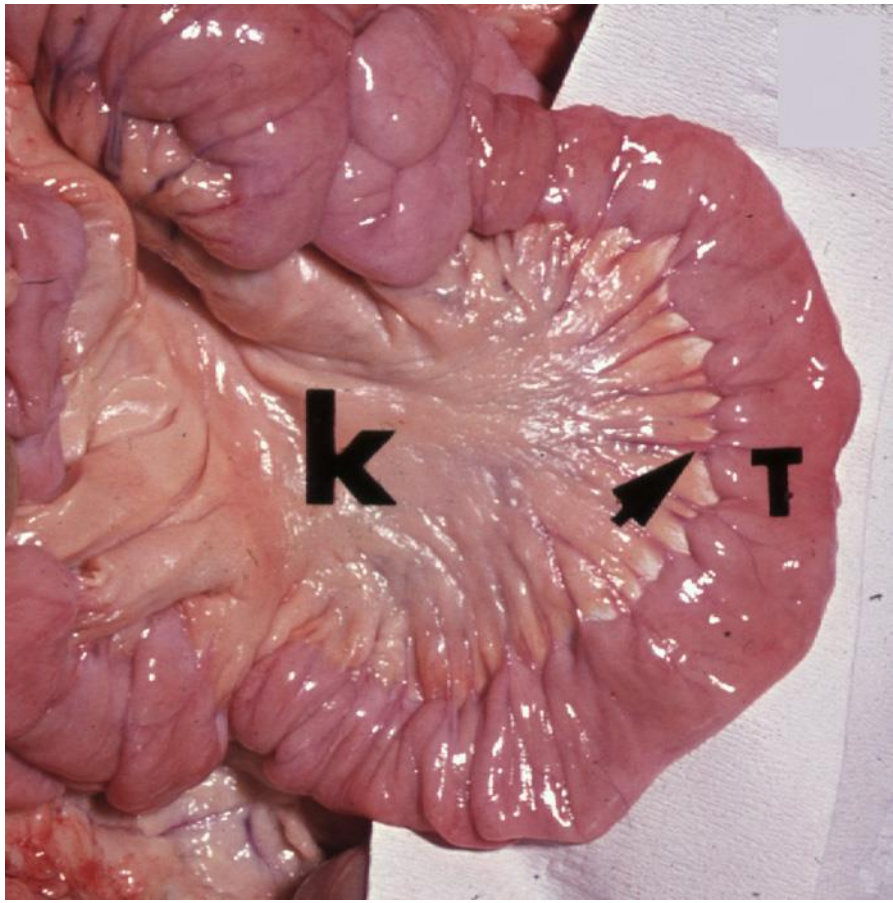
TYNDTARMENS LAG

- Tunica muscularis
  - glat muskulatur
  - stratum circulare (tykt)
  - stratum longitudinale (tyndt)



TYNDTARMENS LAG

- Tunica serosa
  - på næsten hele overflade
  - dog kun på forflade af duodenum



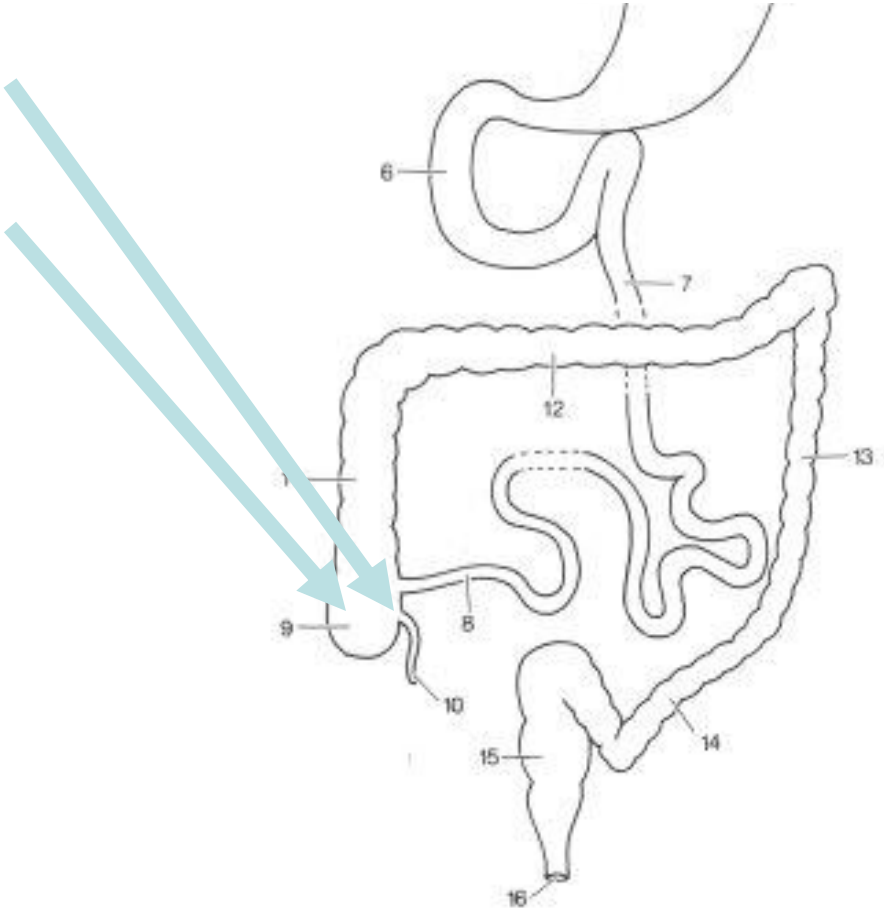
IOOS, AU

peristaltik

https://www.youtube.com/watch?v=Ujr0UAbyPS4

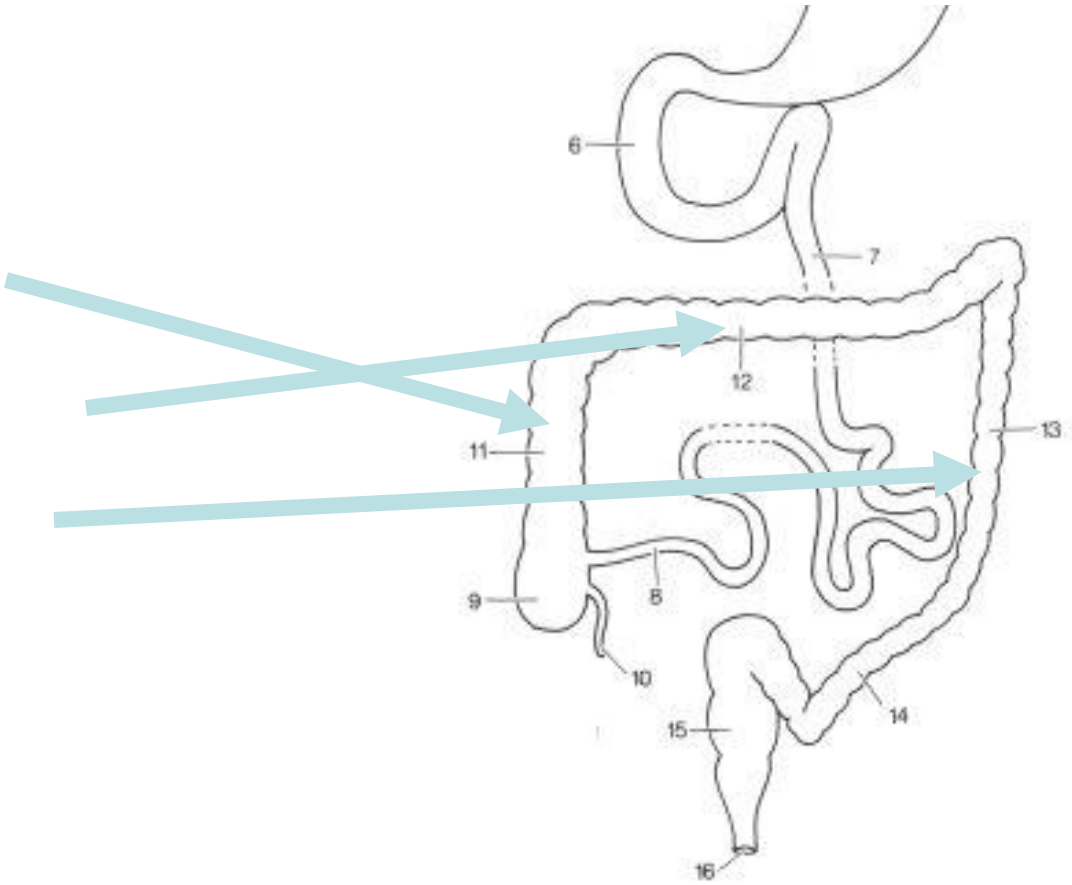
TYKTARMEN

- appendix vermiformis
- caecum (blindtarmen)



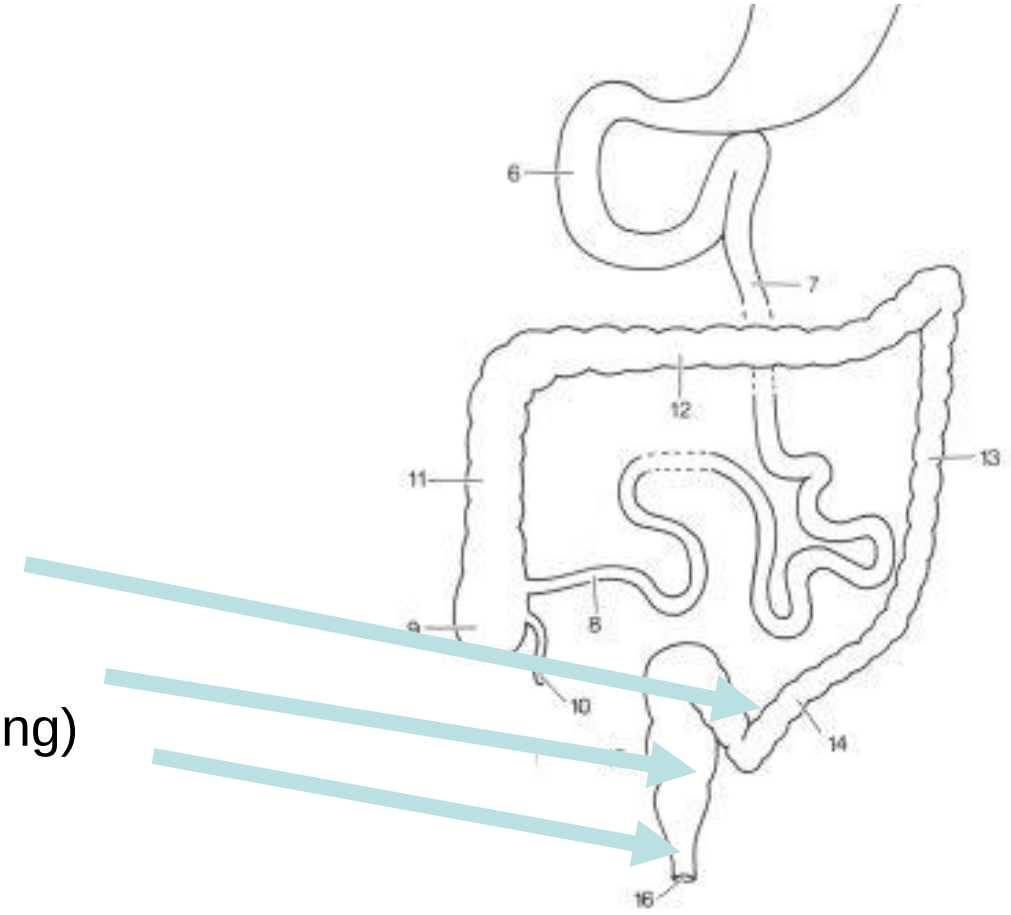
TYKTARMEN

- colon ascendens
- colon transversum
- colon descendens



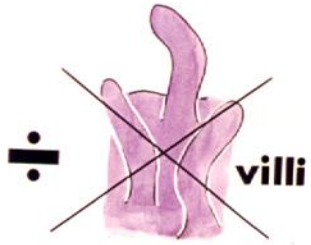
TYKTARMEN

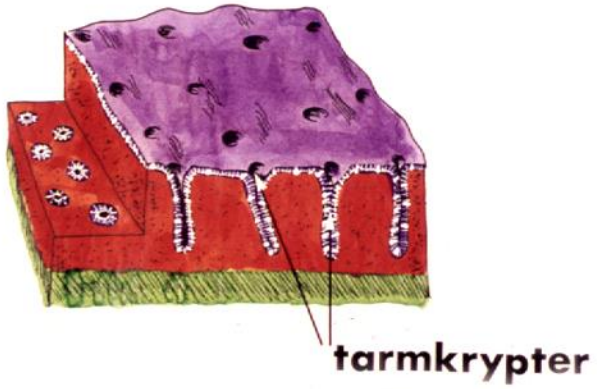
- colon sigmoideum
- rectum (endetarm)
- anus (endetarmsåbning)



TYKTARMEN

- ingen villi intestinales
- mange dybe tarmkrypter
- meget lymfatisk væv



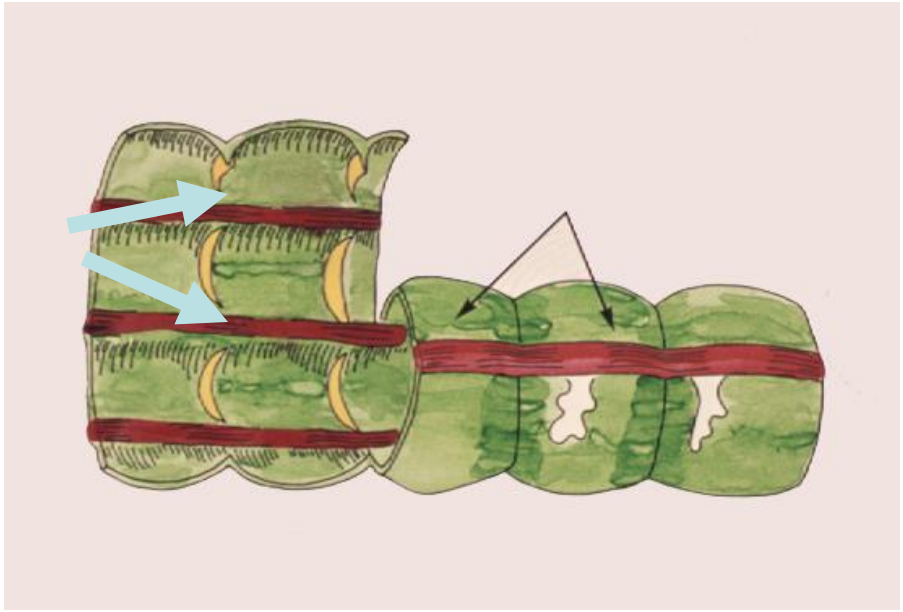


TYKTARMEN

- meget lymfatisk væv

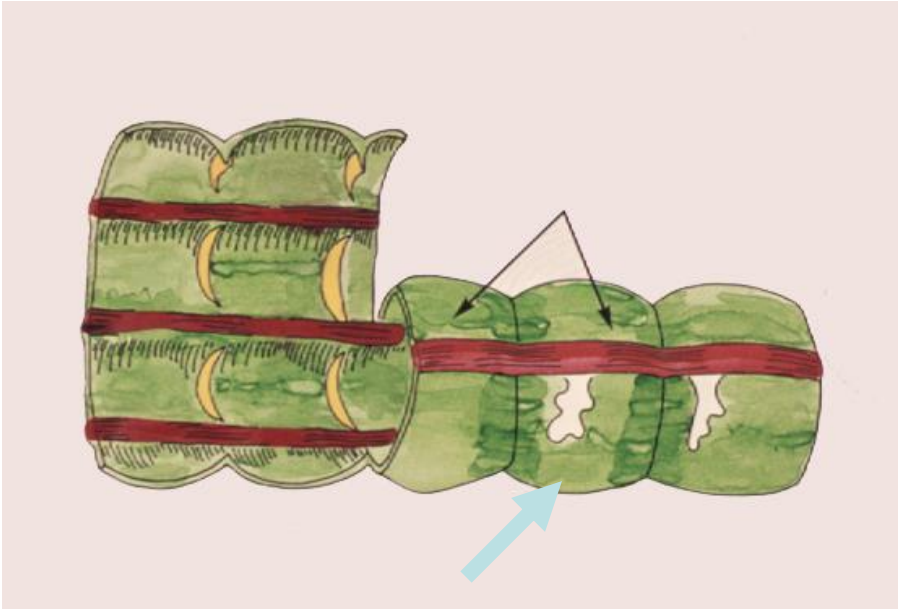
TYKTARMENS YDRE

- stratum longitudinale er samlet i 3 længdegående muskelbånd (taeniae)



TYKTARMENS YDRE

- stratum longitudinale er samlet i 3 længdegående muskelbånd (taeniae)
- udposninger: ml ydre furer (haustra)



TYKTARMENS YDRE

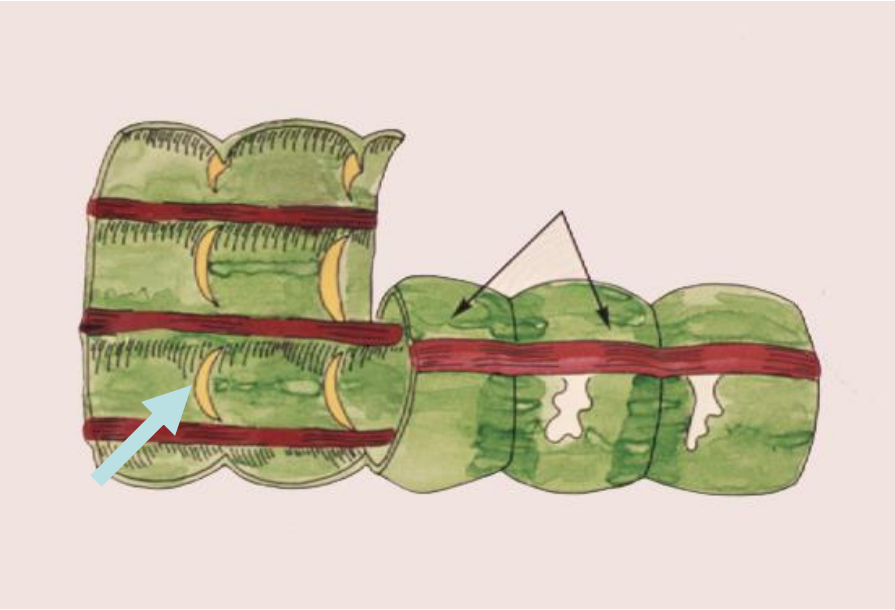
- stratum longitudinale er samlet i 3 længdegående muskelbånd

  taeniae

- udposninger: ml ydre furer **haustra**

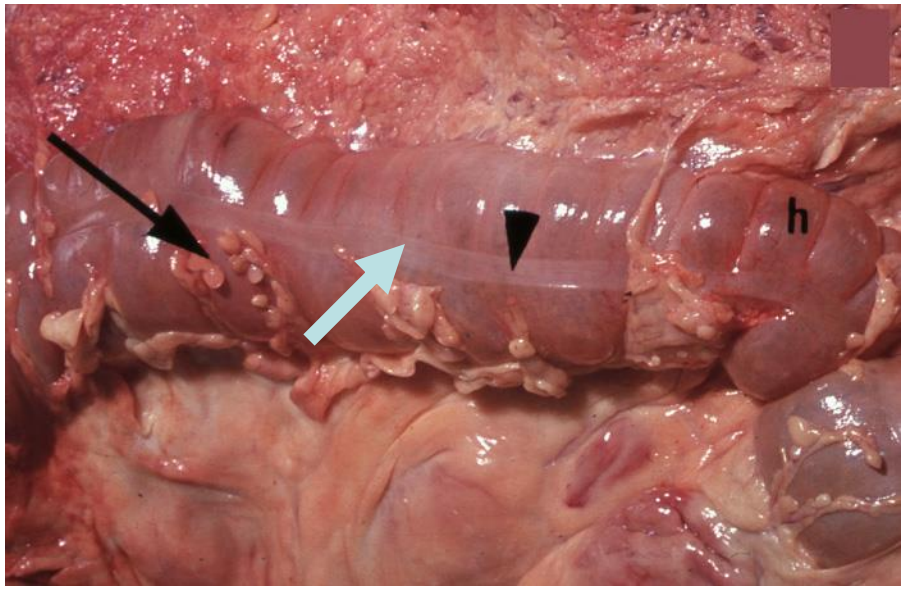
- indre halvmåneformede folder

  plicae semilunare



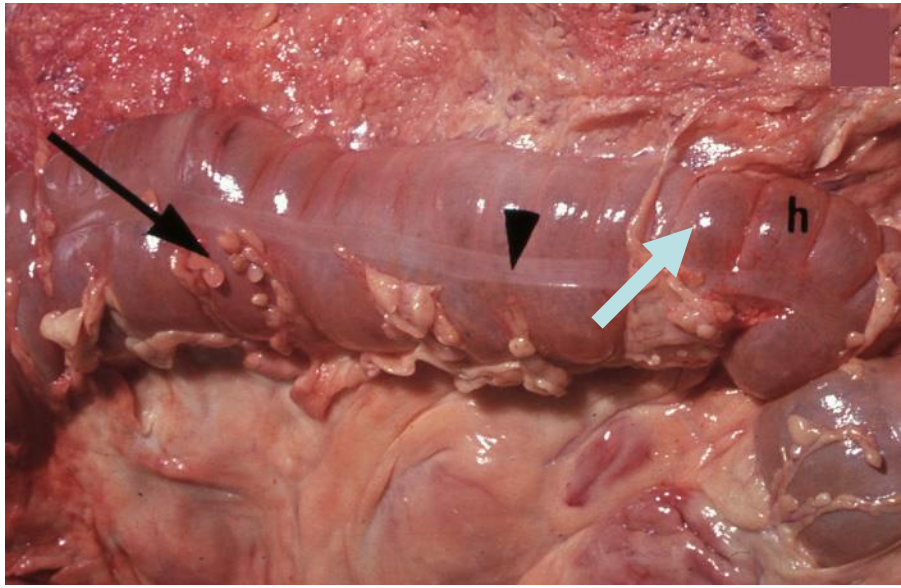
TYKTARMEN

- stratum longitudinale i tre bånd **taeniae**



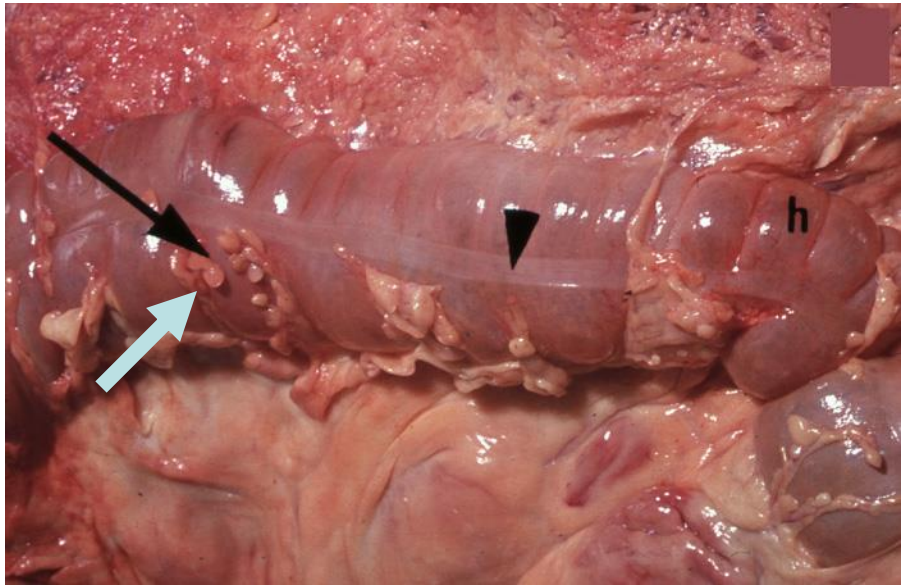
TYKTARMEN

- stratum longitudinale i tre bånd taeniae
- udposninger **haustra**



TYKTARMEN

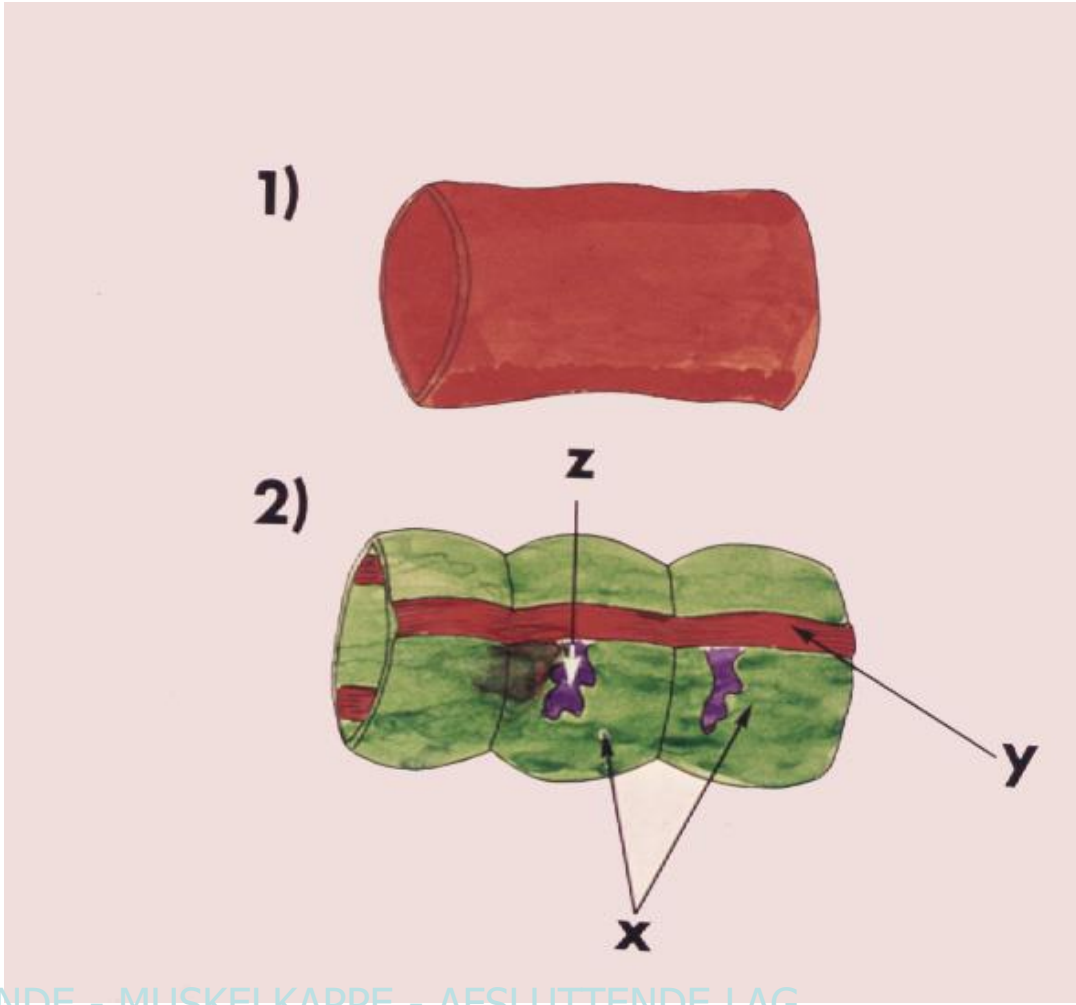
- stratum longitudinale i tre bånd (taeniae)
- udposninger (haustra)
- dråbeformede fedtfyldte sække **appendices epiploica**



TARMENES YDRE

TYNDTARM

TYKTARM



SLIMHINDE - UNDERSLIMHINDE - MUSKELKAPPE - AFSLUTTENDE LAG

TARMENES YDRE

TYKTARMEN HAR:

- haustra
- taeniae
- appendices epiploica