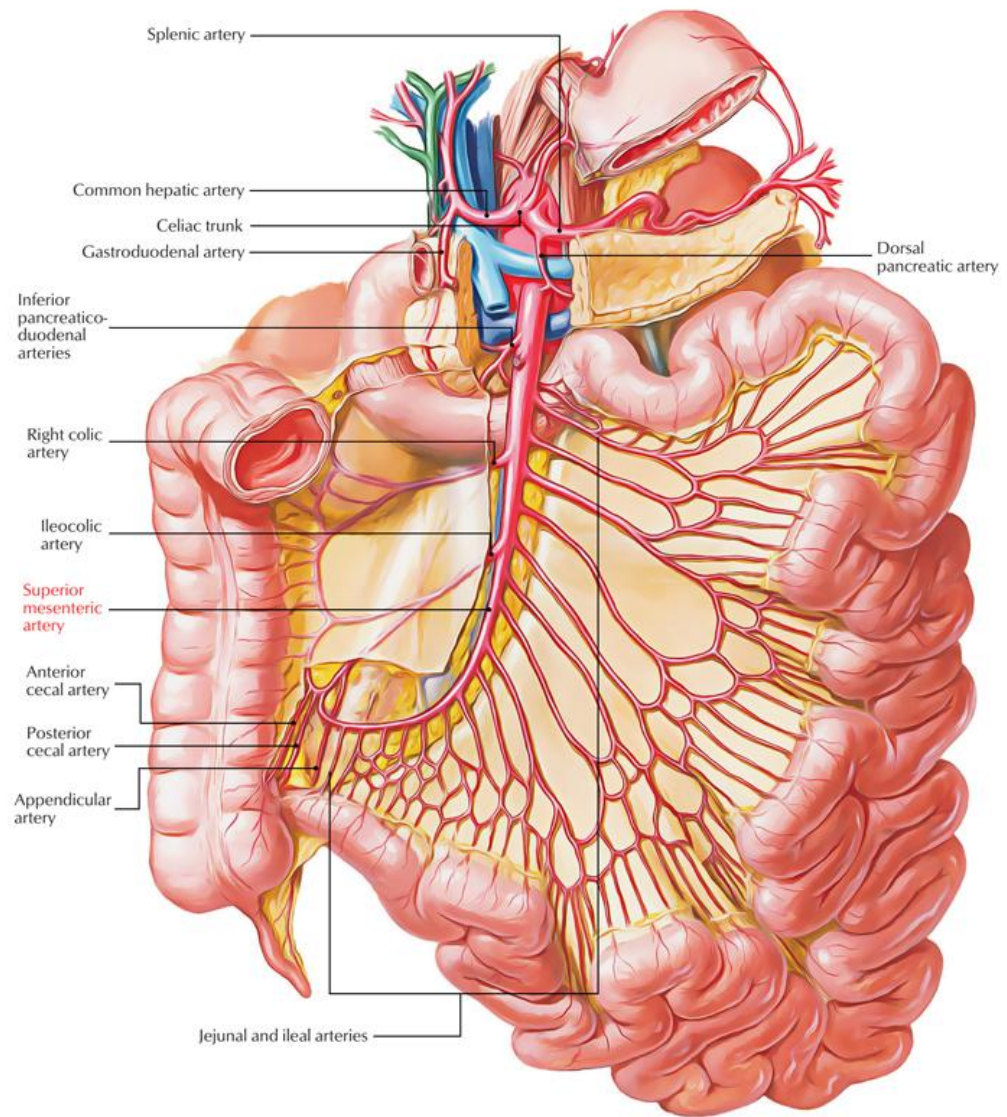
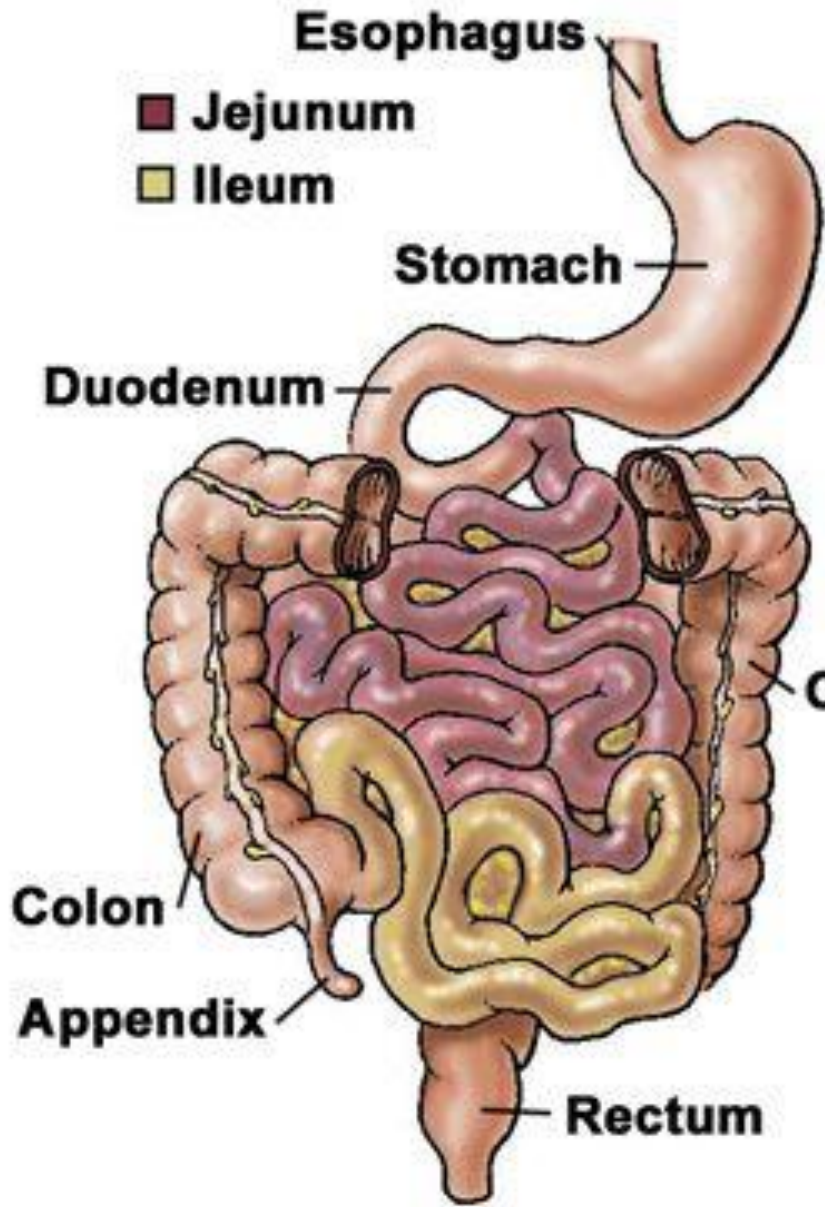


# A jejunioileum anatómiája, A vékonybelek szövettana

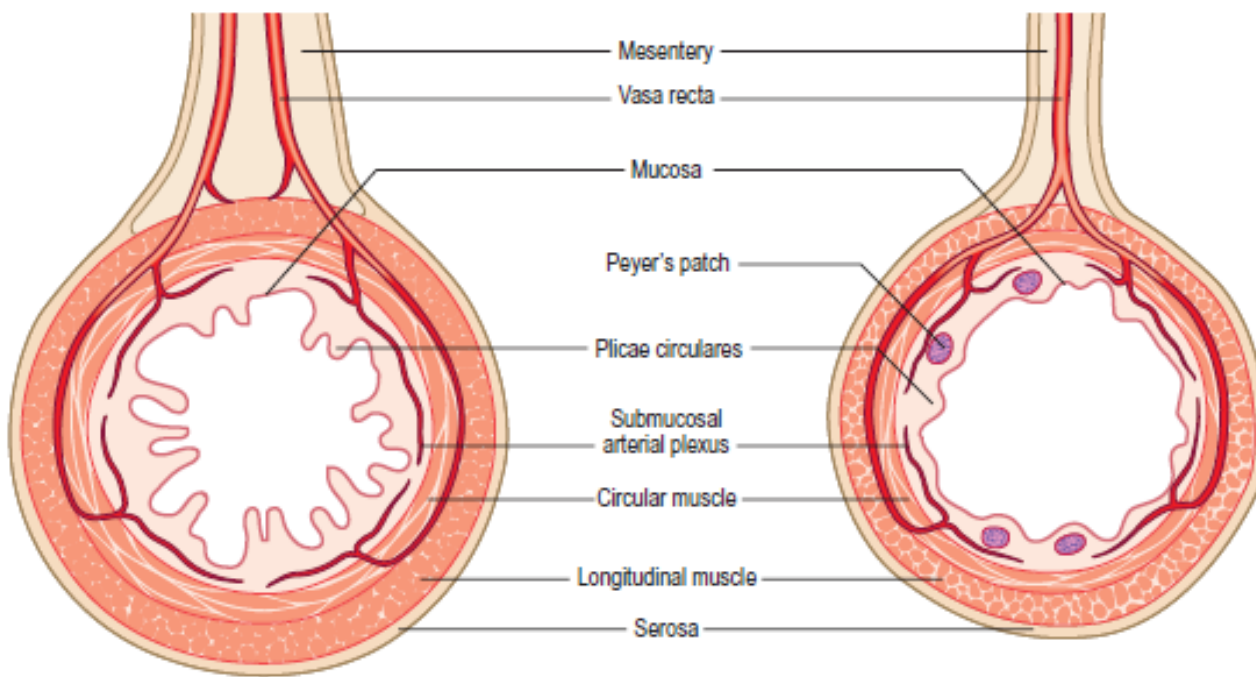
Dr. Ádám Ágota



# jejunum

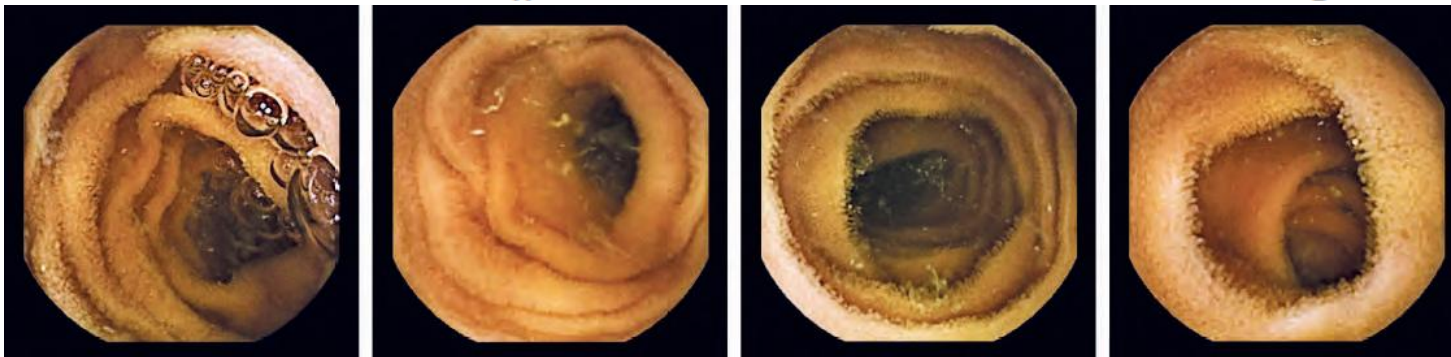
- vastagabb fal
- szélesebb mesenterium
- 2 artéria lép be a bélfalba

# ileum



A

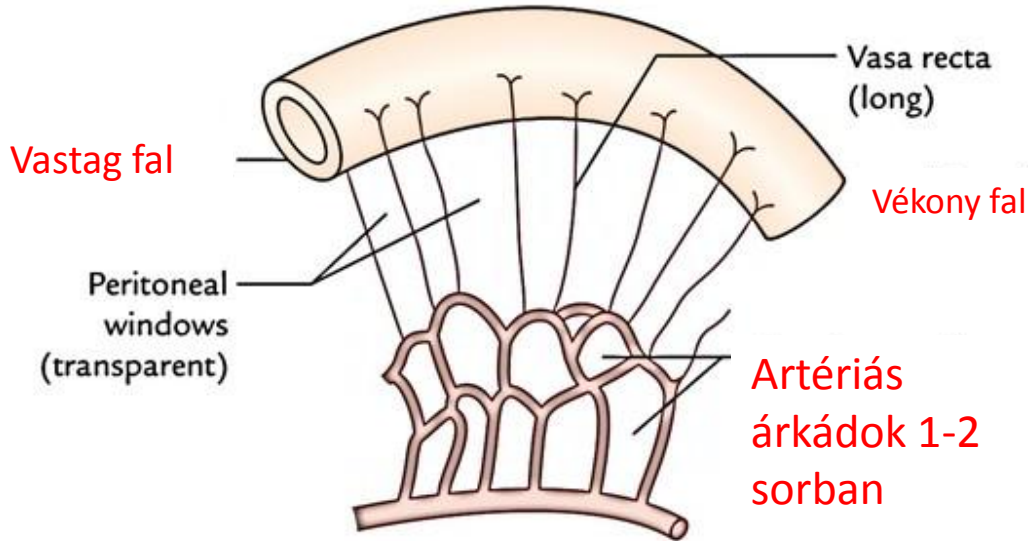
B



Kapszulás  
endoscopia

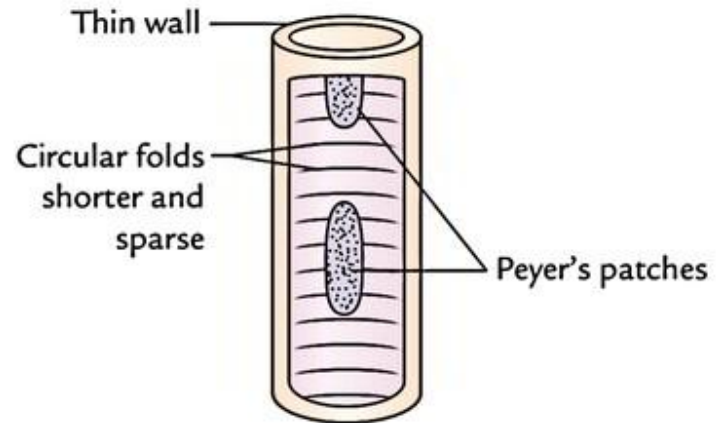
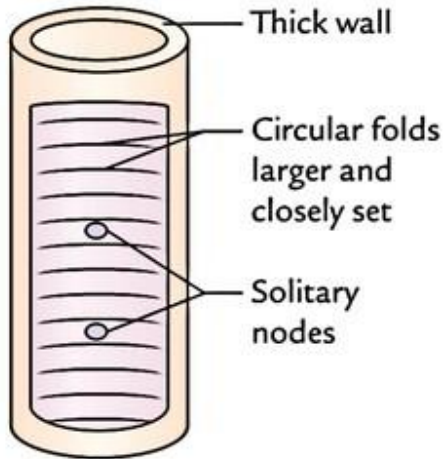
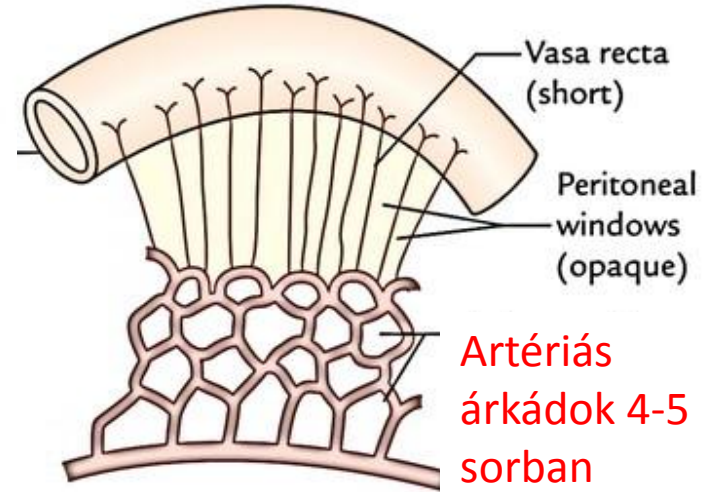
# jejunum

Jejunum



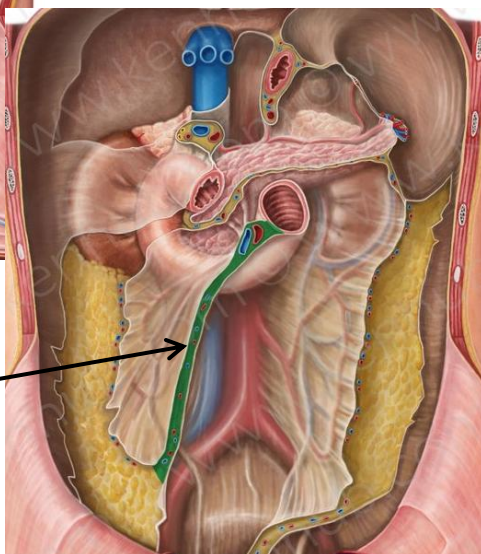
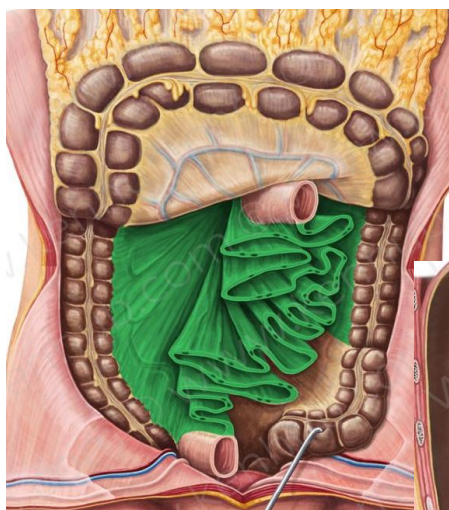
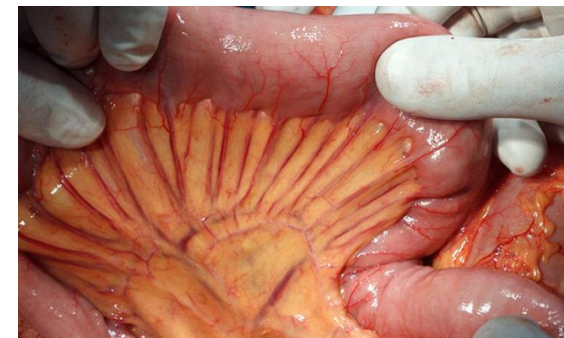
# ileum

Ileum



# Mesenterium – „az új szerv”

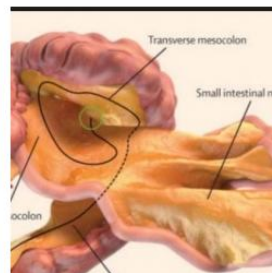
- Peritoneum-kettőzet; közte: zsíros kötőszövet erekkel, idegekkel
- Feladat: A jejunum és az ileum felfüggesztése
- **Radix mesenterii**: a mesenterium rögzülése a hátsó hasfalhoz.  
Hossza: kb. 15 cm (felnőtt);  
Kiterjedés: L2 bal oldalán, a flexura duodenojejunalistól a jobb art. sacroiliacáig terjed



## Meet Your New Organ: The Mesentery



By Josh Bloom — February 14, 2017



If you're working at a DMV office, you'd better get busy. The old organ donor cards just aren't going to cut it any more. We have a new organ. Instead of 78, the number is now 79. So, if someone comes in and wants to donate his or her mesentery, you will need to be prepared (1).

Also, these guys need to get to work, or at the very least, fix the title (2,3):

### Related articles

Octane Rating and Lead: Explaining The Chemistry of Gasoline

Gluten Isn't Always the Culprit  
Appendicitis: Not so fast with the scalpel

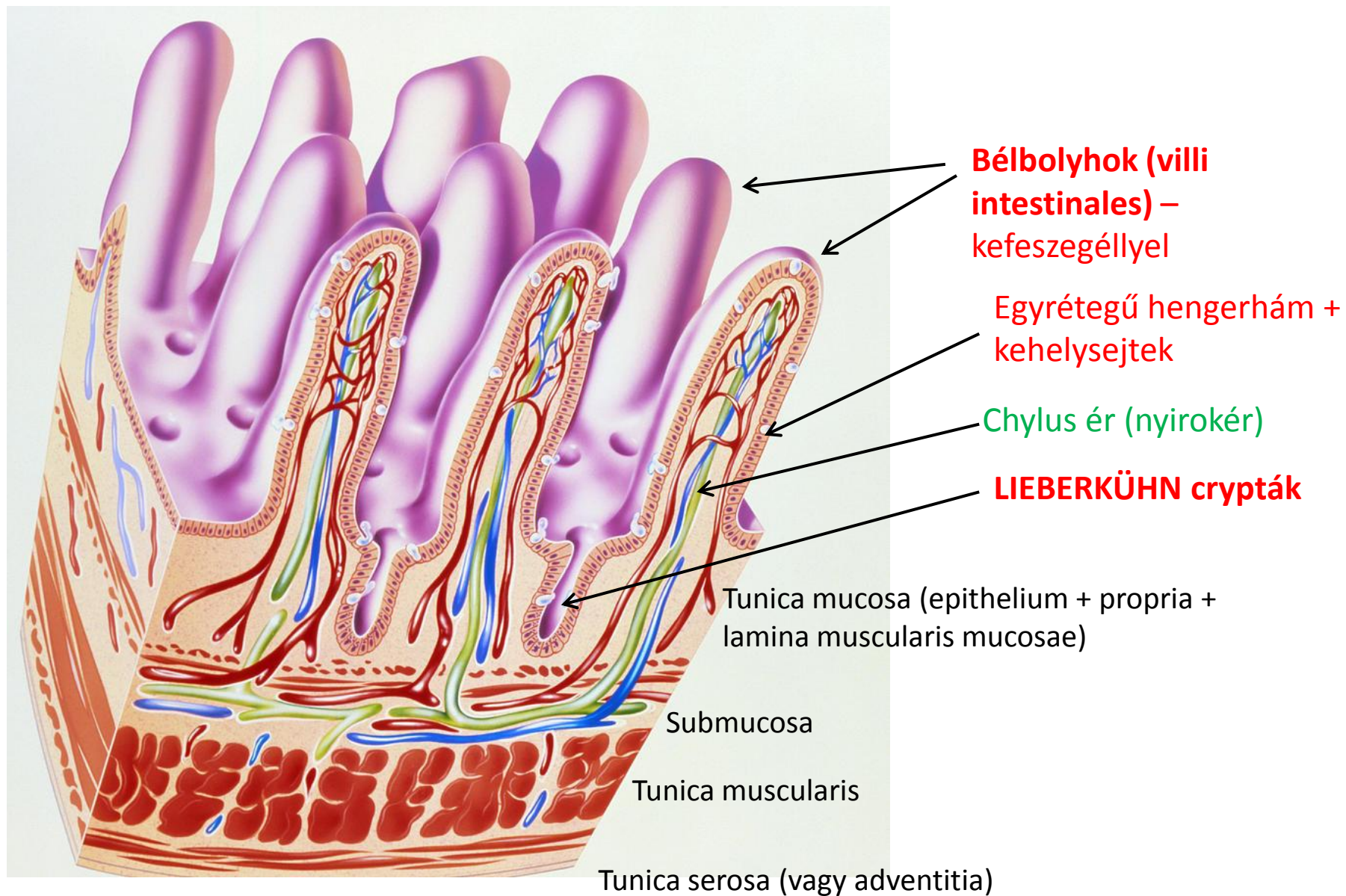
HBV vaccine gets a 25-year boost

Are You Sicka Zika? Sorry, 50 US Cities Could See It

The Mesentery- Photo: The Guardian

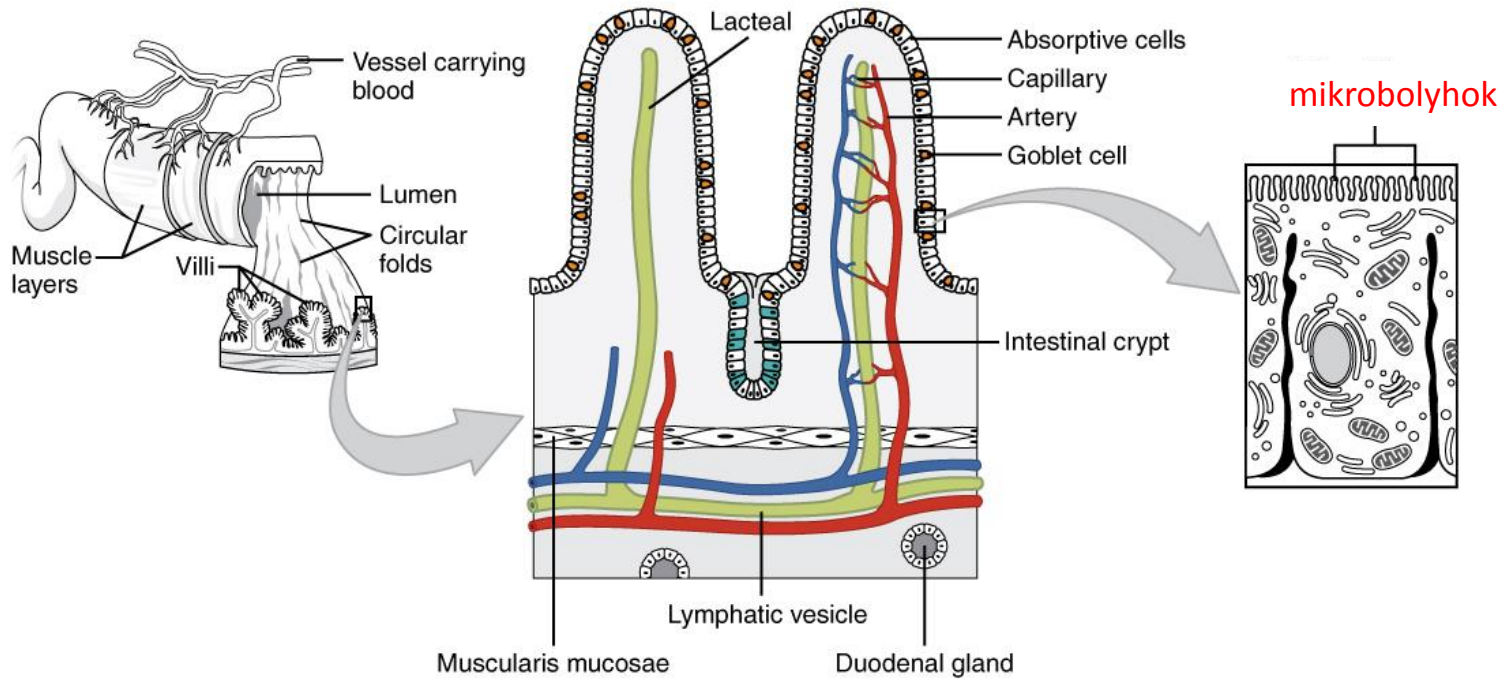
Radix mesenterii

# A vékonybél szövettana



# A vékonybél szövettana – Felületnövelő struktúrák

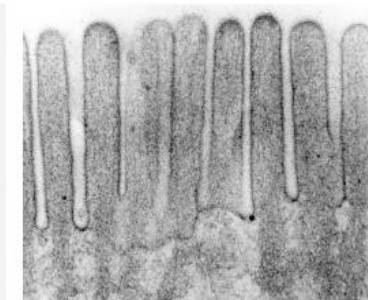
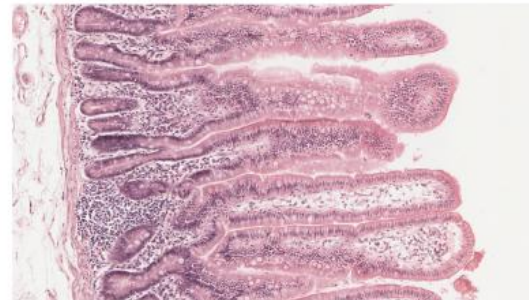
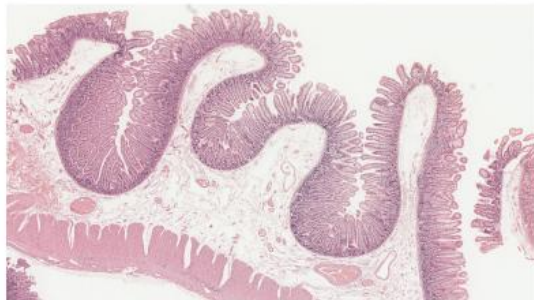
3 szint: mikroboholy – bélboholy (villi intestinales) – Kerckring redő (plicae circulares)



Kerckring redő (mucosa + submucosa)

bélbolyhok

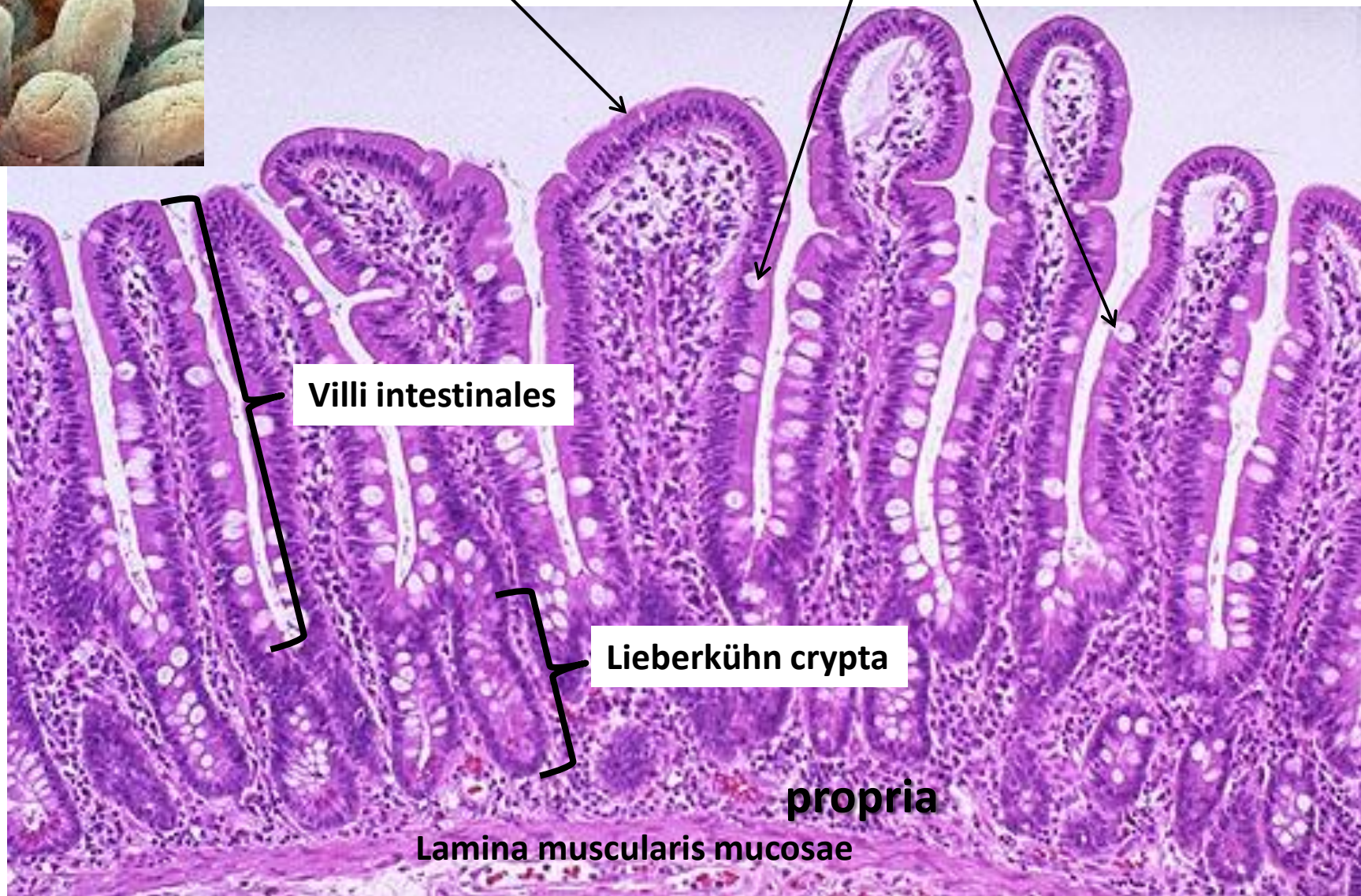
mikroboholy





kefeszegély

kehelysejt



Villi intestinales

Lieberkühn crypta

propria

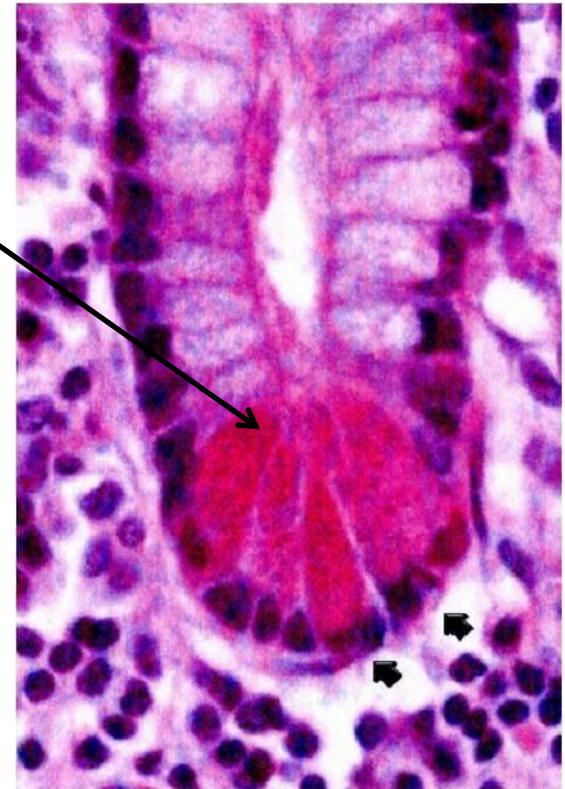
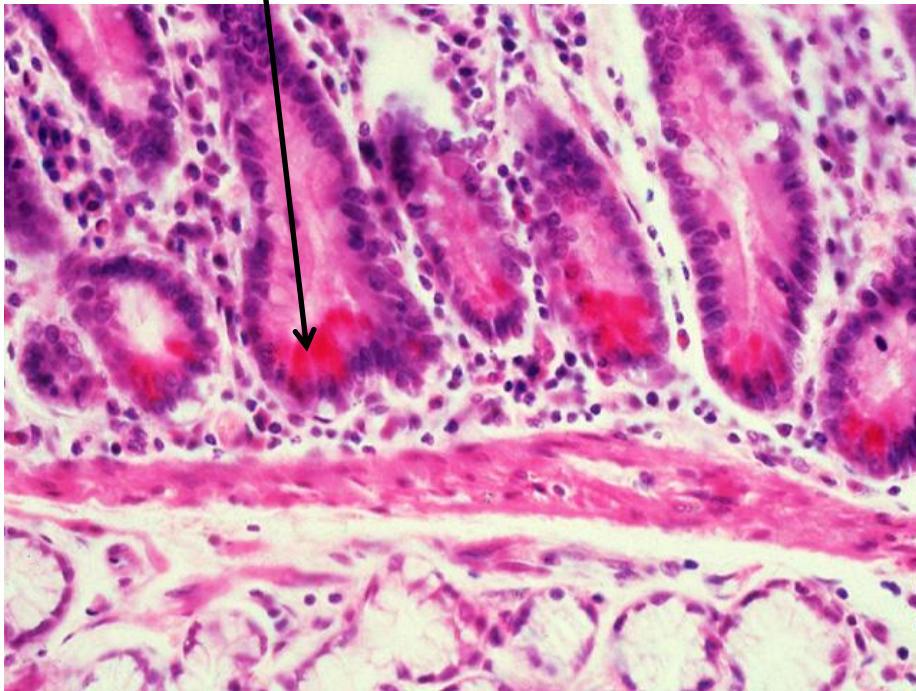
Lamina muscularis mucosae



# A vékonybél hámjában előforduló sejtípusok

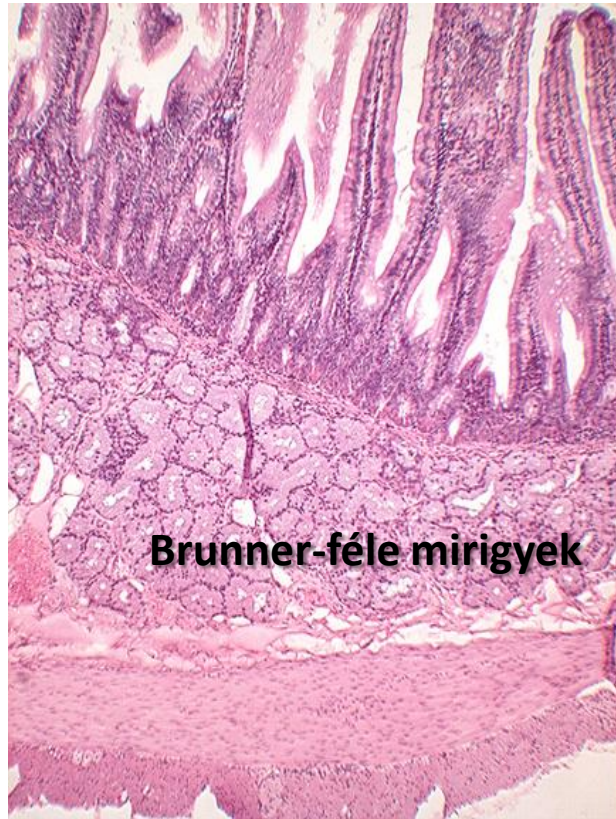
1. **Enterocyták** (egyrétegű hengerhámsejt, kefeszegély)
2. **Kehelysejtek**
3. **Enteroendocrin sejtek** (→ bioactív peptidek: gastrointestinalis hormonok, pl.: cholecystokinin, secretin, gastric inhibitory polipeptide, motilin)
4. **Paneth sejtek** – a crypták legalján; nagy eosinophil granulomok anti-microbialis hatású vegyületekkel (lizozim, TNF- $\alpha$ ) – védelem + a normál bélflóra regulációja

5. **Őssejtek** (multipotensek – A bélhám minden sejtípusát pótolni tudják)
6. **M-sejtek** („microfold cells”) – csak a Peyer-plakkok felett – a antigén transzport a lumentől a folliculushoz



# A vékonybél melyik részét látom a metszeten? – Nézd meg a submucosát!

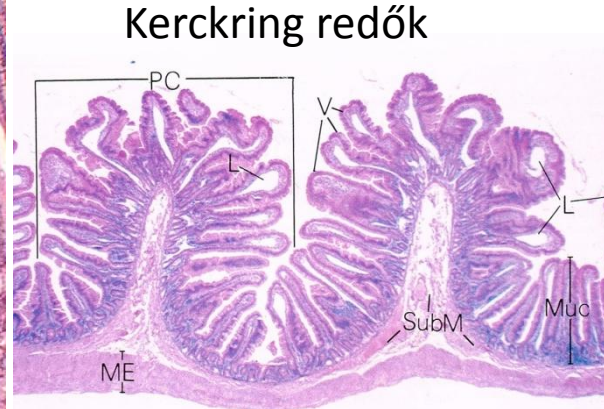
Duodenum



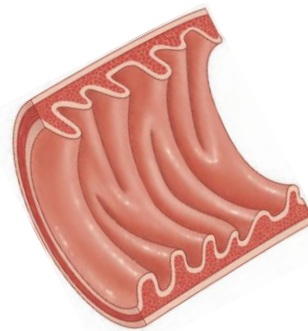
**Brunner-féle mirigyek**

**Brunner-féle mirigyek** a submucosában! –bázikus mucin a duodenum nyálkahártya védelmére (gyomorsav közönbösítése)

Jejunum



Kerckring redők



'semmi különös'

Ileum



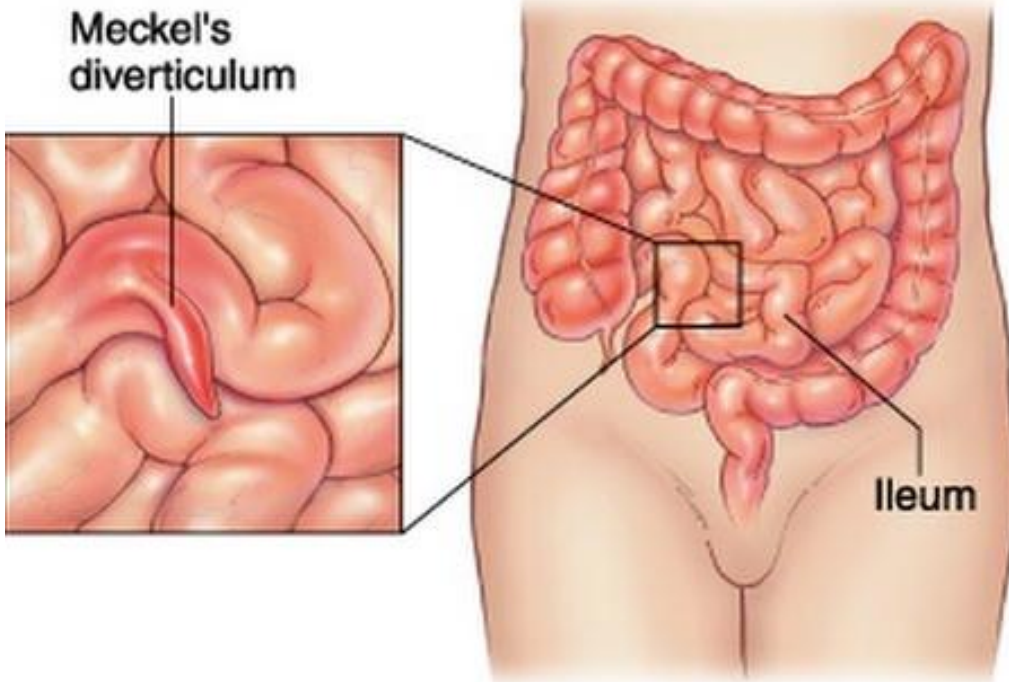
Peyer plakk

**Peyer plakkok** a submucosában! - aggregált nyiroktüszők; GALT részei; B-dependens zónák  
*Csak az anti-mesenterialis oldalon!*

# Klinikai vonatkozások

**Meckel-féle diverticulum** – ductus vitellinus (vitellointestinalis) maradványa  
(az emberek 2-3%-ában)

50-100 cm-re az ileocecalis szájadéktól



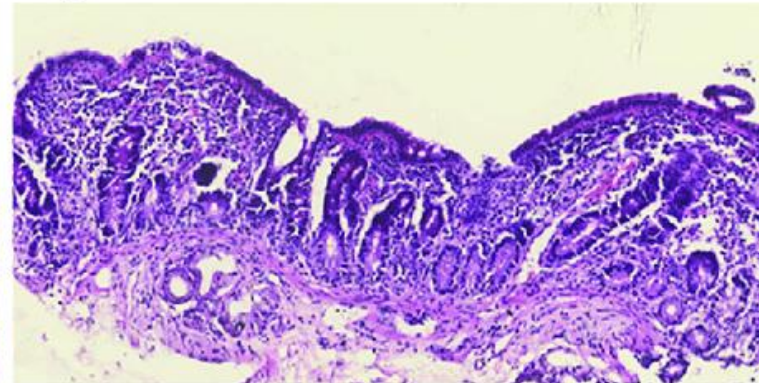
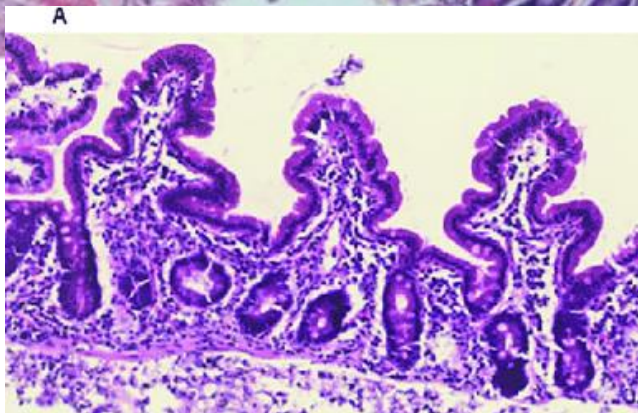
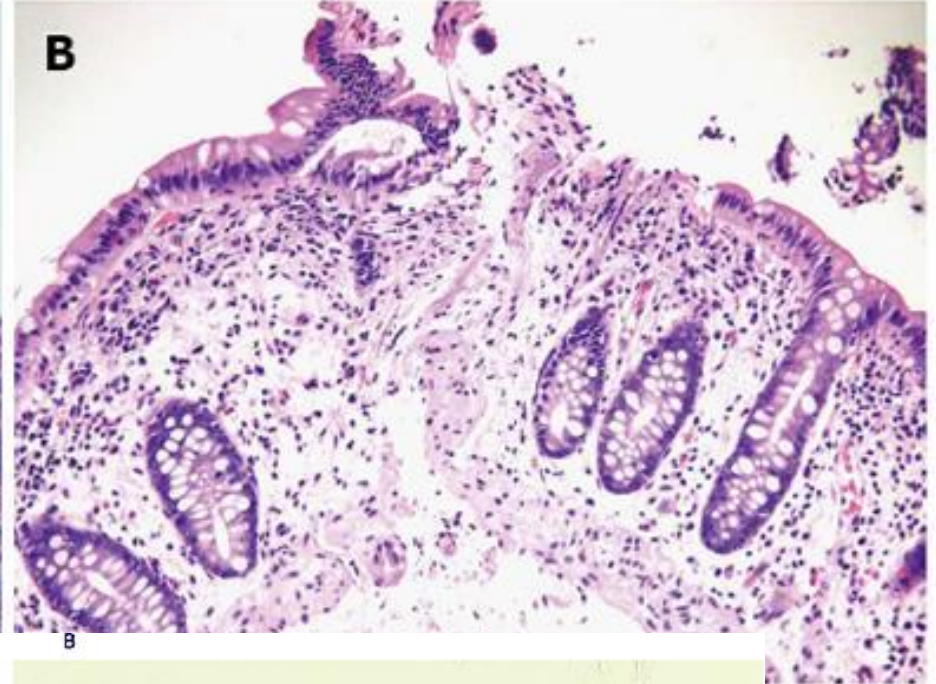
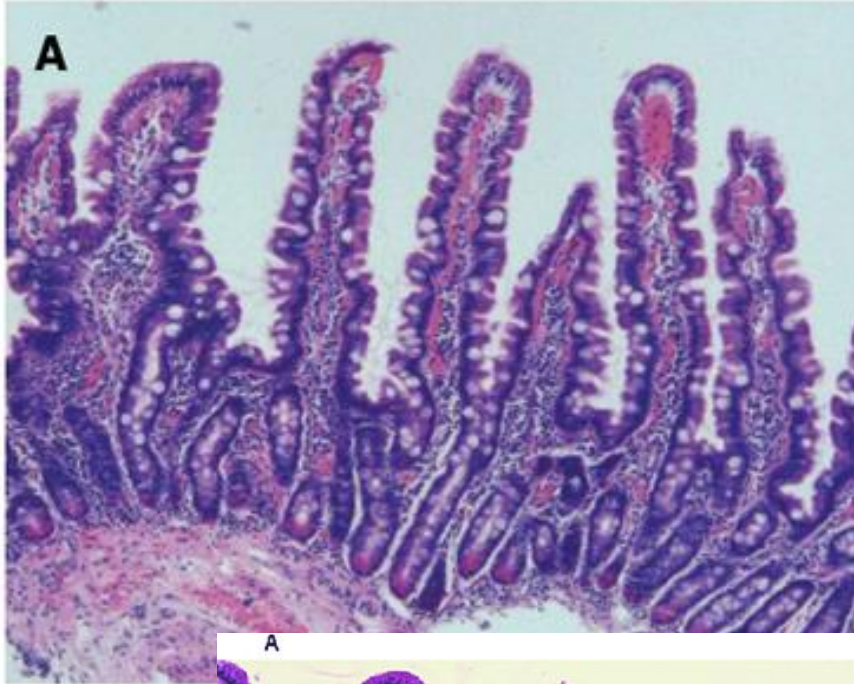
# Klinikai vonatkozások

**Coeliakia** = glutén érzékenység

Autoimmun betegség; glutén tartalmú ételek hatására a bélbolyhok sorvadása figyelhető meg

normál

coeliakia



**Köszönöm a figyelmet!**

