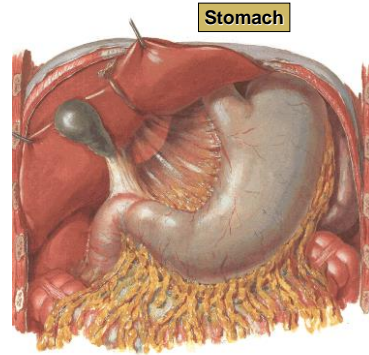


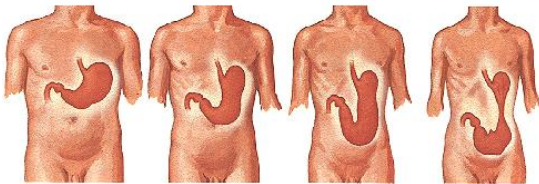
DIGESTIVE SYSTEM II.



Stomach

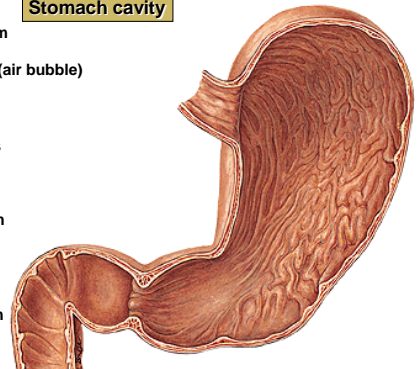
- Cardia
- Fundus (fornix)
- Corpus ventriculi
- Pars pylorica
- Pylorus
- Paries anterior
- Paries posterior
- Curvatura major
- Curvatura minor
- Incisura cardiaca
- Incisura angularis

Shape of the stomach



Stomach cavity

- Ostium cardiacum
- Fornix ventriculi (air bubble)
- Pars cardiaca
- Canalis gastricus
- Pars pylorica
- Antrum pyloricum (sinus gastricus)
- Canalis pyloricus
- Ostium pyloricum



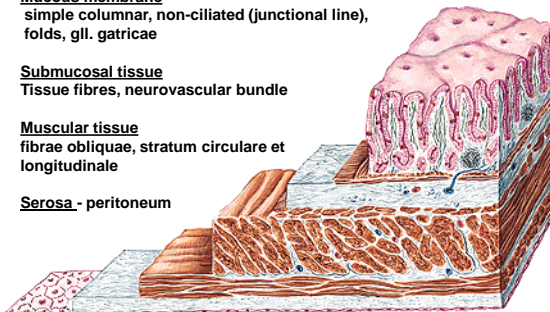
Ultrastructure of the stomach

Mucous membrane
simple columnar, non-ciliated (junctional line), folds, gll. gastricae

Submucosal tissue
Tissue fibres, neurovascular bundle

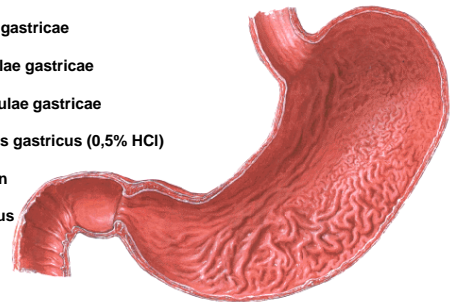
Muscular tissue
fibrae obliquae, stratum circulare et longitudinale

Serosa - peritoneum



TUNICA MUCOSA VENTRICULI

- Plicae gastricae
- Sulcus salivarius
- Areae gastricae
- Foveolae gastricae
- Glandulae gastricae
- Succus gastricus (0,5% HCl)
- Gastrin
- Chymus



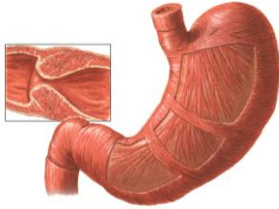
TUNICA MUSCULARIS VENTRICULI

Stratum longitudinale
(taenia curvaturae majoris et minoris)

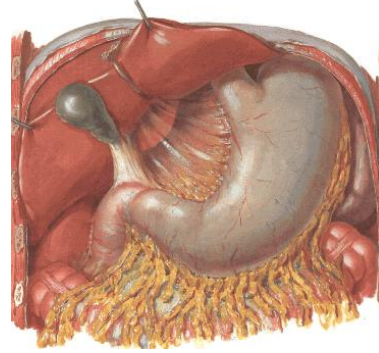


Fibrae obliquae

Stratum circulare
(m. sphincter pylori)



TUNICA EXTERNA VENTRICULI (visceral peritoneum)



Omentum minus

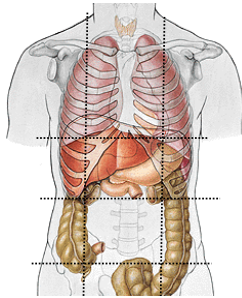
- lig. hepatoduodenale
- lig. hepatogastricum

Omentum majus

- lig. gastrocolicum

Lig. gastrosplenale

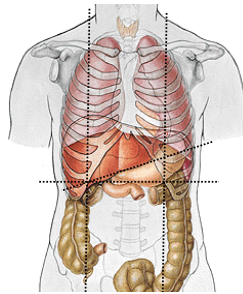
(lig. splenicogastricum)



regio hypochondriaca sin.

cardia – left from Th₁₁₋₁₂

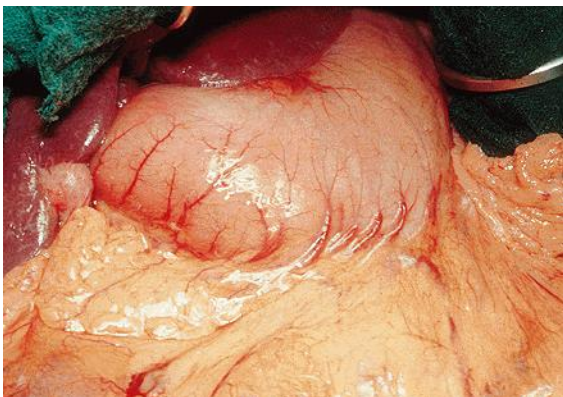
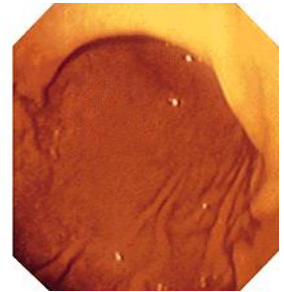
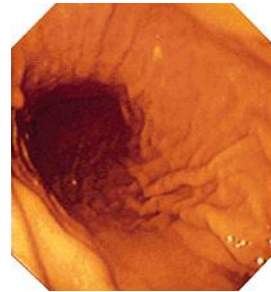
pylorus – right from L₁₋₂



Labbe's triangle

Traube's semilunar space

Gastroscopy



INTESTINE (SMALL, LARGE)

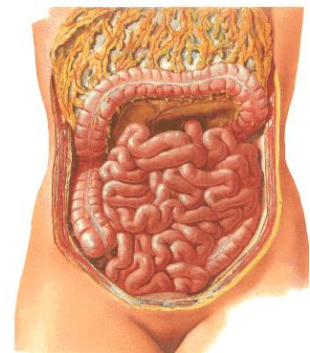
SMALL INTESTINE

3–5 m, intestinal loops

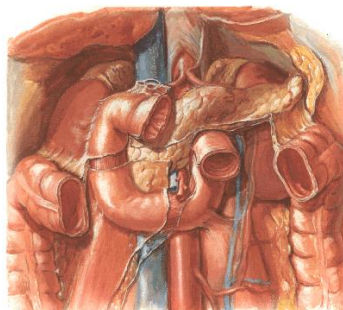
DUODENUM

JEJUNUM

ILEUM



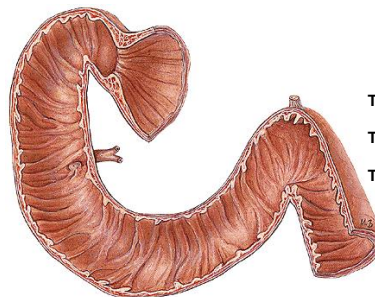
DUODENUM



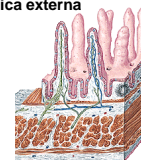
- Pars superior
(ampulla, bulbus duodeni)
- Flexura duodeni sup.
- Pars descendens
- Flexura duodeni inf.
- Pars horizontalis
- Pars dextra et sinistra
- Pars ascendens
- Flexura duodenojejunalis

12 inches (25-30 cm)-Herofilos, makes the loop around L2

Morphology of the duodenal wall



- Tunica musosa
- plicae circulares
- villi intestinales
- glandulae duodenales
- Tunica submucosa
- Tunica muscularis
- Tunica externa



Plica longitudinalis duodeni

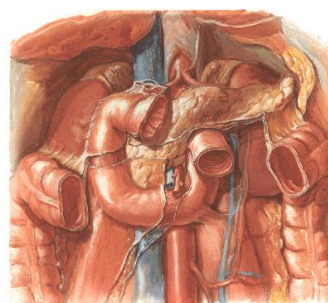
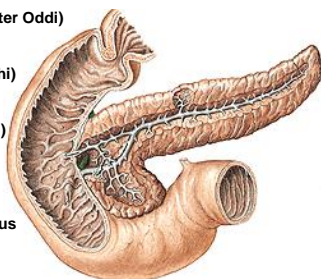
Papilla duodeni major (Vateri)

ampulla hepatopancreatica
(m. sphincter papillae
hepatopancreaticae, m. sphincter Oddi)

ductus choledochus
(m. sphincter ductus choledochi)

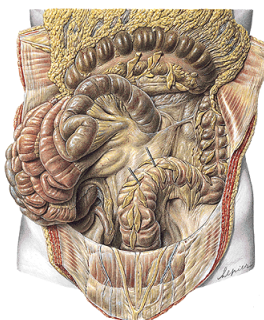
ductus pancreaticus major
(m. sphincter ductus pancreatici)

Papilla duodeni minor
ductus pancreaticus accessorius



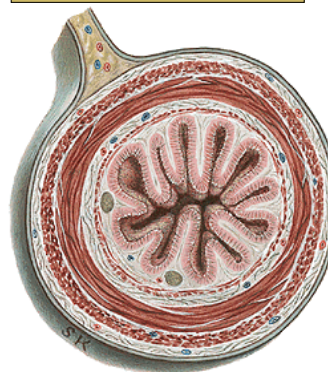
- Pars sup. duodeni
- intraperitoneally
- (lig. hepatoduodenale)
- Other parts - secondary
In retroperitoneum

JEJUNOILEUM



- Ansa intestinalis
- Mesenterium
- Radix mesenterii (12-15 cm)
- Flexura duodenojejunalis
- Ostium ileocaecale

Morphology of the jejunoleum



- Mucous membrane:
- Plicae circulares
- Villi intestinales
- Gl. Intestinales
- Succus entericus
- Folliculi lymphatici
- Submucosal tissue
- Tissue fibres, neurovascular bundle
- Muscular layer
- Str. longitudinale, circulare
- Serosa (intraperitoneally)

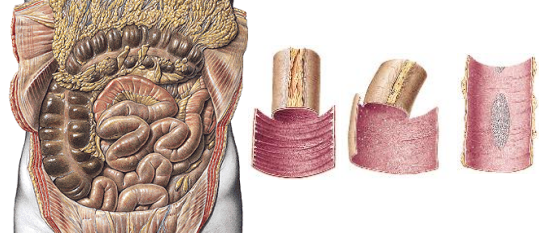
Diverticulum ilei - Meckeli

0,5 – 1m from the ostium iliocaecale

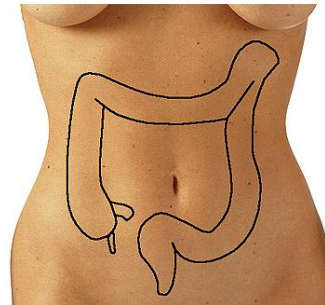
(ductus omphaloentericus = yolk stalk)



JEJUNUM	ILEUM
Upper left part of inframesocolic space	Lower right part of inframesocolic space
wider (3- 4 cm), 3/5 of length	narrower (2- 3 cm), 2/5 of length
Numerous circular folds	Lesser circular folds
1- 2 arterial arcades	2- 3 arterial arcades
folliculi lymphatici solitarii	folliculi lymphatici aggregati

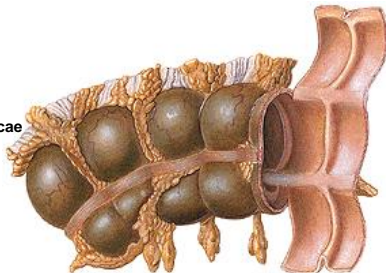


Large intestine



- intestinum caecum
- colon ascendens
- flexura coli dextra (hepatica)
- colon transversum
- flexura coli sinistra (lienalis)
- colon descendens
- colon sigmoideum
- rectum

- Plicae semilunares
- Haustra coli
- Taenia mesocolica
- Taenia omentalis
- Taenia libera
- Appendices epiploicae
- Gli. Intestinales
- Folliculi lymphatici

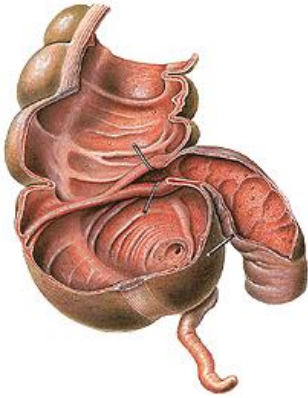


INTESTINUM CAECUM



- Ostium ileocaecale
- Appendix vermiformis
- Mesoappendix
- Recessus retrocaecalis





Ostium ileocaecale
 Valva ileocaecalis

 Appendix vermiformis
 Tonsilla abdominalis

APPENDIX VERMIFORMIS - POSITION

Positio pelvina (lig. appendiculoovaricum)

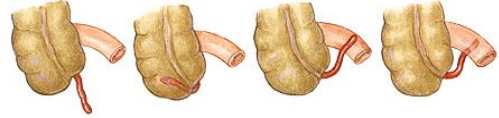
Positio retrocaecalis

Positio ileocaecalis

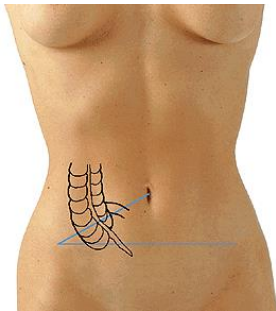
Positio praecaecalis

Positio laterocaecalis

Positio subcaecalis

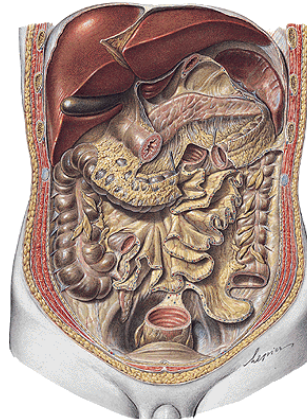


Monroe's line (linea spinumbilicalis dextra) – Mac Burney's point
 Linea bispinalis – Lanz's point



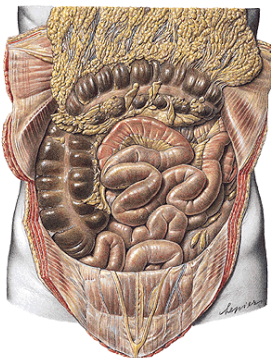
COLON ASCENDENS

Flexura coli dextra (hepatica)
 cartilage of 10th – 11th rib
 impressio colica
 (lobus hepaticus dx.)
 secondary retroperitoneally



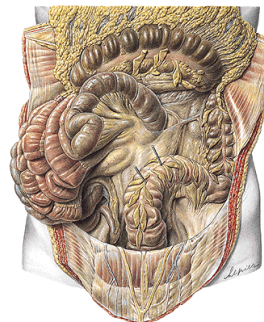
COLON TRANSVERSUM

Flexura coli sinistra (lienalis)
 cartilage of 8th – 9th rib
 impressio colica
 (facies visceralis lienis)
 lig. phrenicocolicum
 Mesocolon transversum
 Omentum majus
 lig. gastrocolicum



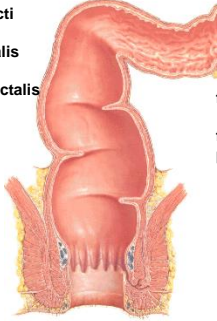
COLON DESCENDENS, SIGMOIDEUM

Mesosigmoideum
 Recessus intersigmoideus

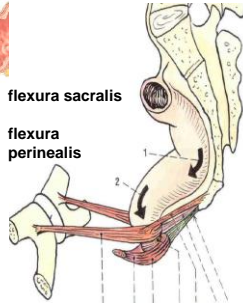


RECTUM

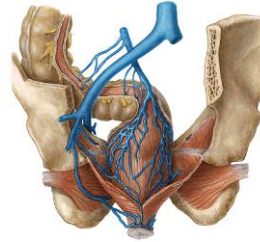
ampulla recti
canalis analis
linea anorectalis



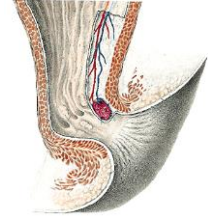
flexura sacralis
flexura perinealis



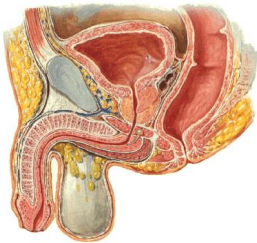
Plexus venosus rectalis
(corpus cavernosum recti)



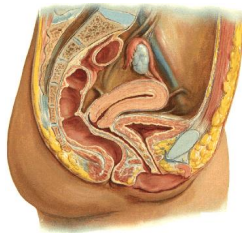
Musculus sphincter ani internus
Musculus sphincter ani externus



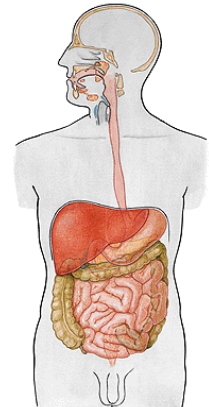
Excavatio rectovesicalis



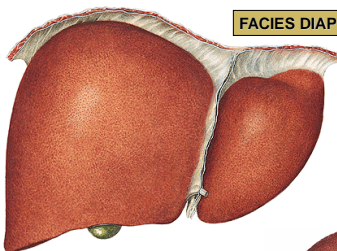
Excavatio rectouterina



Liver (HEPAR)

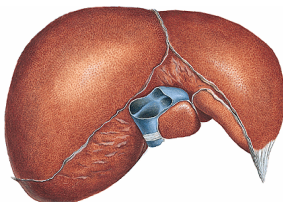


FACIES DIAPHRAGMATICA HEPATIS



lig. falciforme hepatis
lig. teres hepatis
appendix fibrosa hepatis

Pars superior
Pars anterior
Pars posterior (area nuda)
Margo inferior



FACIES VISCERALIS HEPATIS

Fissura sagittalis sin.

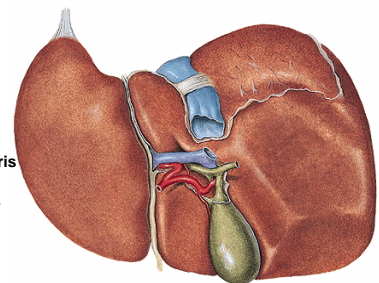
lig. teres hepatis
lig. venosum

Fissura sagittalis dx.

fossa vesicae biliaris
sulcus v. caeve inf.

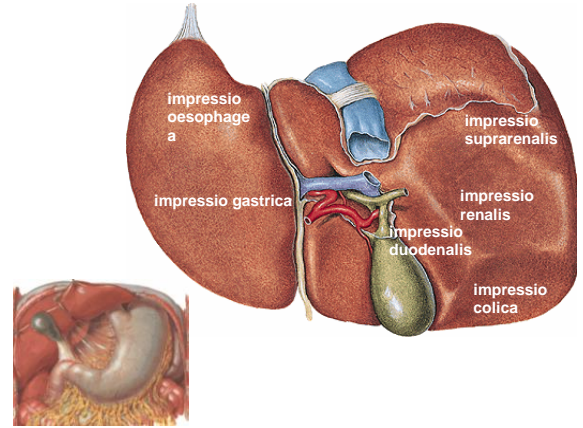
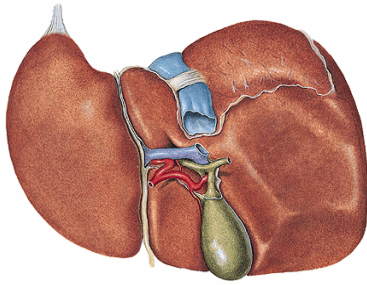
Porta hepatis

vena portae
a. hepatica propria (plexus hepaticus)
ductus hepaticus communis

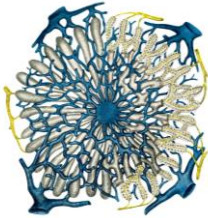


Rozdělení later:

- Lobus sinister
- tuber omentale
- Lobus dexter
- Lobus caudatus
- Lobus quadratus

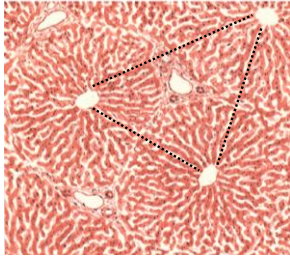


Lobulus venae centralis (lobulus hepatis)

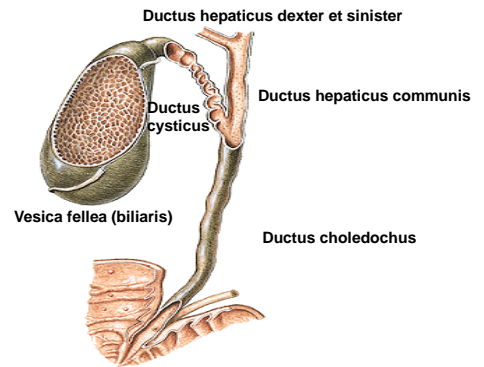


Lobulus venae interlobularis

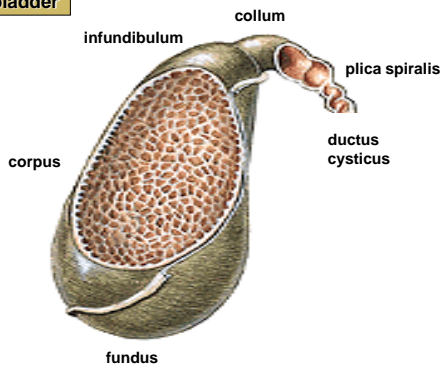
arteriae interlobulares (a. hepatica propria)
 venae interlobulares (z vena portae)
 ductus biliferi interlobulares



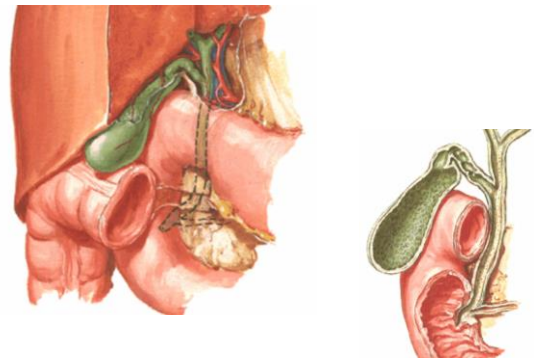
EXTRAHEPATAL BILIARY PATHWAY



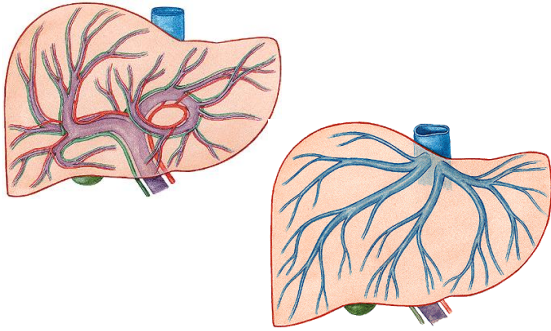
Gallbladder



DUCTUS CHOLEDOCHUS

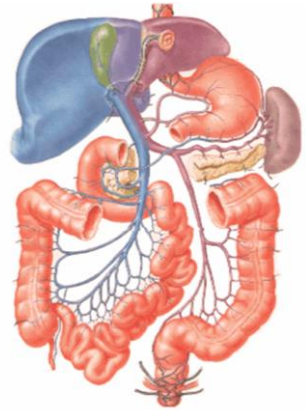


FUNCTIONAL AND NUTRITIVE BLOOD SUPPLY

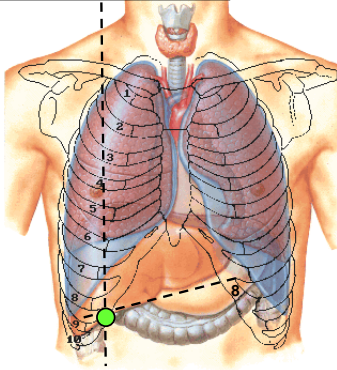


VENA PORTAE

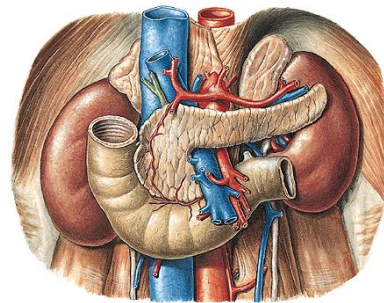
Formed by:
 v. lienalis
 v. mesenterica sup.



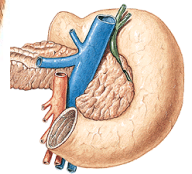
Projection of the gallbladder and liver



PANCREAS

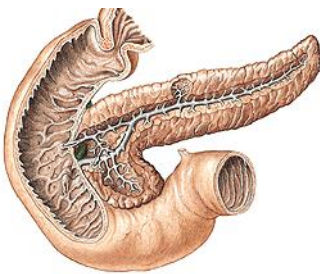


Caput pancreatis
 incisura pancreatis
 processus uncinatus
 Corpus pancreatis
 facies ant., post., inf.
 margo ant., sup., inf.
 Cauda pancreatis



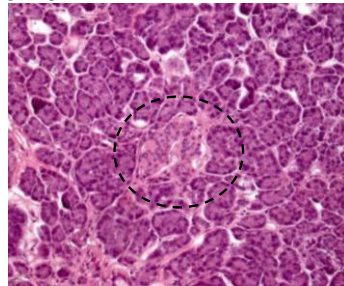
PARS EXOCRINA PANCREATIS

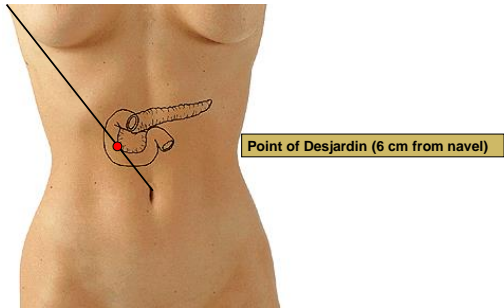
Serosus tuboalveolar gland
 Succus pancreaticus
 Capsula pancreatis
 Septa
 Lobi et lobuli pancreatis
 Intra- a interlobar ducts
 Ductus pancreaticus acces.
 Papilla duodeni minor
 Ductus pancreaticus
 Papilla duodeni major



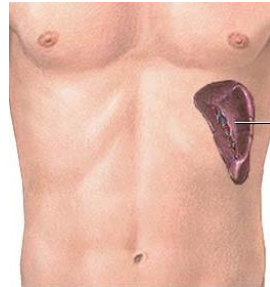
PARS ENDOCRINA PANCREATIS

Insulae pancreaticae – Islets of Langerhans
 Insulin, glukagon





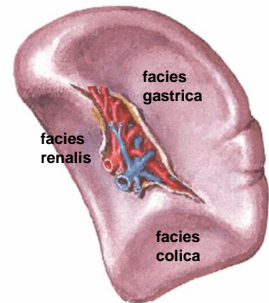
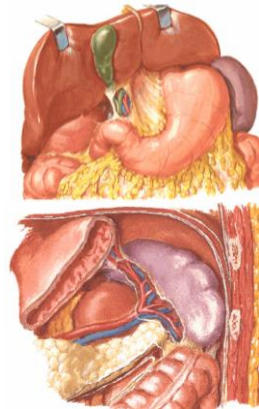
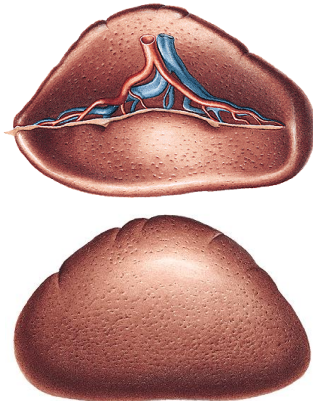
Spleen



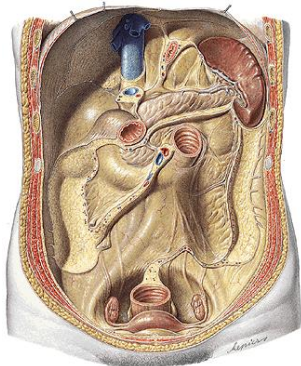
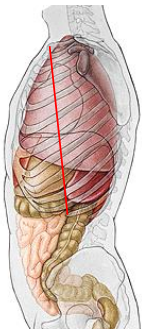
- Supramesocolic part of peritoneal cavity
- Storage of blood
- Erythrocyte degradation
- Production of lymphocytes
- Hematopoiesis (children)

LIEN (SPLEN)

- extremitas anterior
- extremitas posterior
- facies diaphragmatica
- facies visceralis
- hilum lienis
- margo superior (acutus)
- crenae lienis
- margo inferior (obtusus)



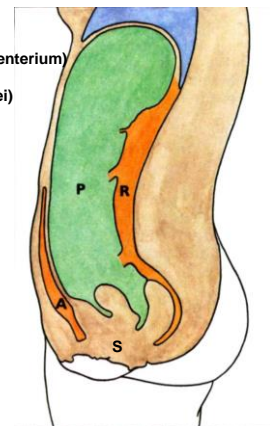
Linea costoarticularis



PERITONEUM

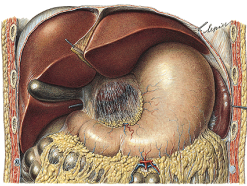
Peritoneum parietale et viscerale (mesenterium)

- P – cavitas peritonealis (liquor peritonei)
- A – spatium praeperitoneale
- R – spatium retroperitoneale
- S – spatium subperitoneale (infra-)

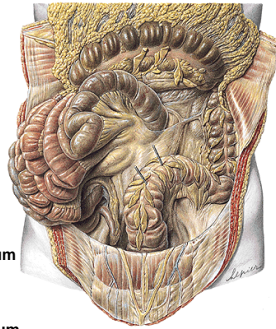


INTRAPERITONEAL ORGANS

Fixed on the folds



liver, spleen, stomach
 pars superior duodeni, jejunum, ileum
 appendix
 colon transversum, colon sigmoideum

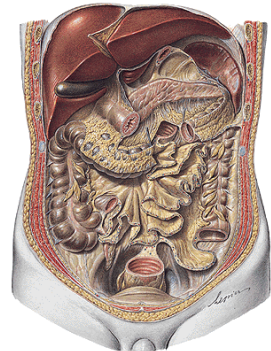


RETROPERITONEAL ORGANS

Primary retroperitoneal (kidney, suprarenal glands, genital glands)

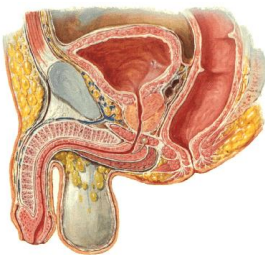
Sekundary retroperitoneal:

- Duodenum (except pars sup.)
- Pancreas
- Caecum
- Colon ascendens
- Colon descendens



SUBPERITONEAL ORGANS

Rectum

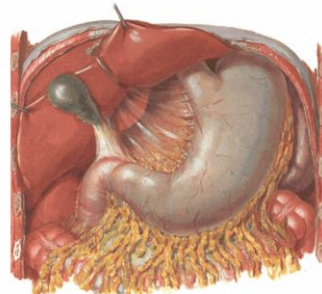


Excavatio rectovesicalis



Excavatio rectouterina

PERITONEAL FOLDS OF STOMACH



Omentum minus

- lig. hepatoduodenale
- lig. hepatogastricum
- lig. hepatooesophageum

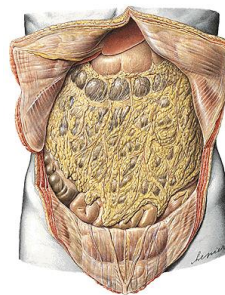
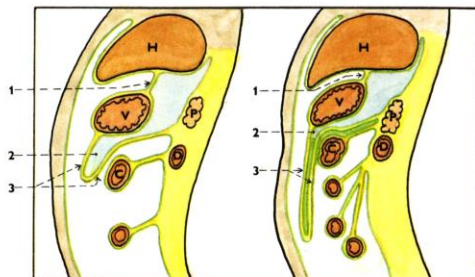
Omentum majus

- lig. gastrocolicum

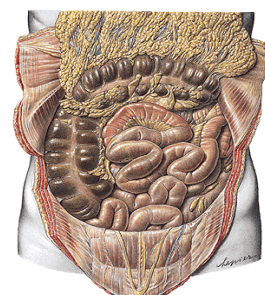
Lig. gastrolienale

(lig. gastrosplenicum)

Omentum majus

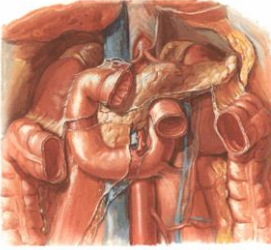


Omentum majus

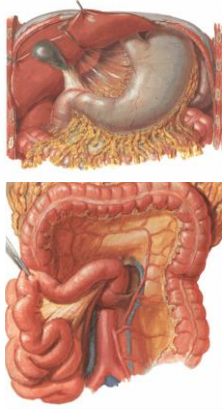


Lig. gastrocolicum

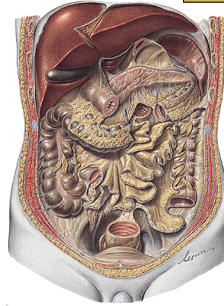
MESOCOLON TRANSVERSUM



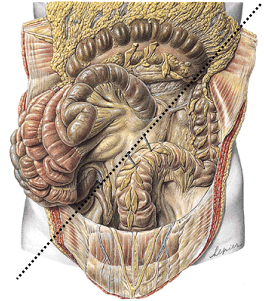
pars supramesocolica et inframesocolica



MESENTERIUM

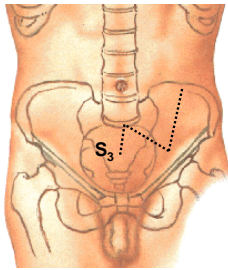


radix mesenterii

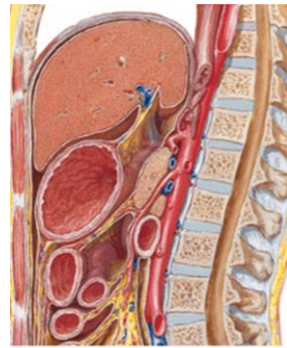


Pars inframesocolica dextra et sinistra

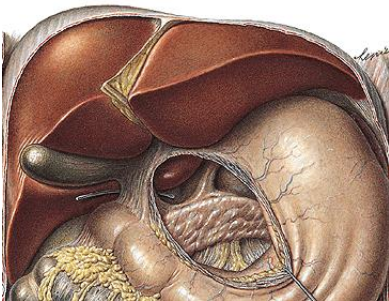
MESOSIGMOIDEUM



BURSA OMENTALIS



Foramen epiploicum (omentale)



- lig. hepatoduodenale
- plica hepatorenalis
- lobus quadratus jater
- bulbus duodeni