

# Peritoneum

**Peritoneum** or peritoneum is a shiny serous membrane, covered by a single-layered epithelium *mesothelium*, which lines the abdominal cavity.<sup>[1]</sup> Under the peritoneum there is a subserosa, which fixes the peritoneum to the substrate.

On the anterior abdominal wall posteriorly in the *tela subserosa*, 3 ligamentous bands run from the bladder to the umbilicus, which are the remnants of the urachus and umbilical arteries. They form 3 plexuses : ***plica umbilicalis mediana, medialis dx. et sin.***

They divide into:

**a) peritoneum parietale** - in the form of duplicates, necks, ligaments passes to the organs in the abdominal cavity

**b) peritoneum viscerale** - the peritoneum

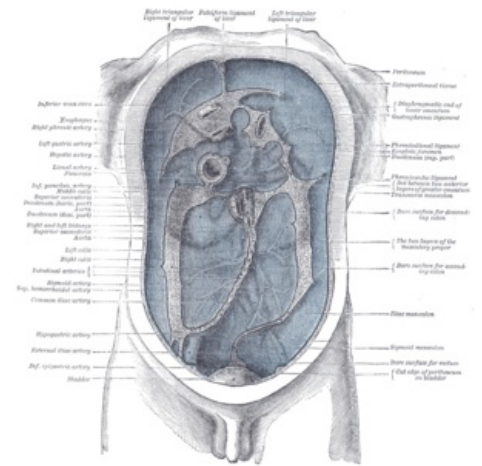
The cavity between the two peritoneums **cavitas peritonealis** is filled with a small amount of fluid **liquor peritonei**.

According to their relationship to the peritoneum, organs are divided into : intraperitoneal, retroperitoneal, subperitoneal, extraperitoneal and secondary retroperitoneal

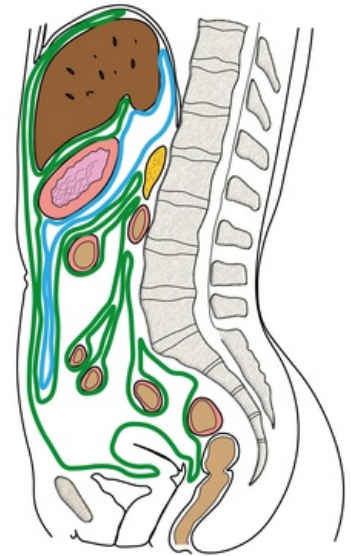
## Hernia :

**a) direct** - anulus inguinalis superficialis, fossa inguinalis medialis

**b) indirect** - anulus inguinalis profundus then through the canalis inguinalis to the anulus inguinalis superficis, fossa inguinalis lateralis



Parietal peritoneum



Sagittal section of the peritoneum

## Breakdown of the peritoneal cavity

- 1. pars supramesocolica** (above the mesocolon transversum, between the mesocolon and the diaphragm):
  - *spatium subphrenicum dx. et sin.* (mezi bránicí a játry);
  - *spatium subhepaticum dx. et sin.*;
  - *bursa omentalis* (communicates with the right subhepatic space via the for. epiploicum).

**Hranice bursa omentalis** : ventral - stomach, omentum minus and lig. gastrocolicum, dorsal - parietal peritoneum, pancreas, great vessels, left kidney and adrenal gland, caudal mesocolon transversum

## 2. pars inframesocolica

The course of the radix mesenterii and the confluence of the colon ascendens and colon descendens and also the mesocolon transversum form 4 spaces:

- 1. right adhesive field** - cranial is mesocolon, right is colon ascendens and caudal is radix
- 2. left adhesive field** - cranial mesocolon, right radix mesenterii, left colon descendens
- 3. right and left paracolic space** - lateral side of colon descendens/ascendens

## Organ Ligaments

- 1. v pars supramesocolica:**
  - coming from the *mesogastrium dorsale*:
    - *lig. phrenicocolienale*;
    - *lig. gastrophrenicum*;
    - *lig. gastrolienale*;
    - *lig. gastrocolicum*;
    - *omentum majus* - from *curvatura gastrica major*, has 2 leaves , the anterior one descends caudally in front of the transverse part of the colon, the posterior leaf returns upwards and attaches to the *taeniae omentales* of the colon
  - arising from the *mesogastrium ventrale*:

- *omentum minus* (*lig. hepatooesophagicum, lig. hepatogastricum et hepatoduodenale*); - duplication between the curvature gastrica minor and the visceral surface of the liver
  - *lig. falciforme hepatis* (in its continuation - *lig. coronarium dx. et sin. et lig. triangulare dx. et sin.*).
2. v *pars inframesocolica*:
- *mesenterium*;
  - *mesoappendix*;
  - *mesocolon transversum* - colon transversum
  - variably mesocolon ascendens, descendens, sigmoideum and mesorectum.

## Peritoneal recessions

Peritoneal recessions are blind pockets in the peritoneal cavity. They are sites of possible internal hernia formation.

1. in the duodenojejunal flexure area:
  - *rec. duodenalis sup. et inf. Treitzii*;
  - *rec. retroduodenalis Waldayeri*;
  - ***rec. paraduodenalis (sinister, venosus*** - runs here v. mesenterica inf.) Gruberi-Landzerti.
2. in the area of the ileocecal transition:
  - *rec. ileocaecalis sup. et inf.*;
  - *rec. retrocaecalis*;
3. *recessus paracolici*;
4. *recessus intersigmoideus Treitzii*.

## Vascular supply

blood vessels of those organs which are surrounded by it

## Nerve supply

Autonomic vasomotor nerves, the visceral is supplied autonomically and the parietal sensory innervates the n.phrenicus, nn. intercostales and plexus lumbalis

## Links=

### External links

- Peritoneum (Czech Wikipedia)
- Peritoneum (English Wikipedia)

### Source

- ČIHÁK, Radomír a Miloš GRIM. *Anatomie 2*. 2. vydání. Praha : Grada Publishing, 2009. ISBN 80-247-0143-X

### Reference

1. ČIHÁK, Radomír a Miloš GRIM. *Anatomie*. 2. upr. a dopl vydání. Praha : Grada Publishing, 2002. 470 s. sv. 2. ISBN 80-247-0143-X.