

# Bowel development

## Front intestine

- From the oropharyngeal membrane below the outlet of the liver and pancreas,
- epithelium and glands - endoderm of the yolk sac,
- muscles - ectomesenchym of pharyngeal arches, splanchnic (lateral) mesoderm,
- sublingual and submandibular salivary gland, esophagus, stomach, part of duodenum, liver, gallbladder, pancreas.

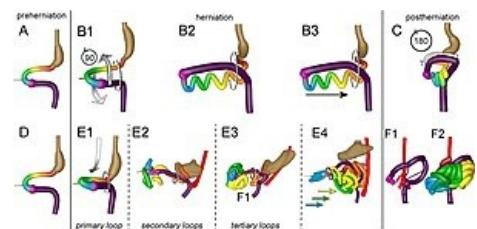


Diagram showing the normal process by which the intestine "rotates" and herniates during development

## Middle intestine

- reaches the Cannon-Boehm point (in the area of flexura lienalis = flexura coli sinistra),
- part of the duodenum, jejunum, ileum, caecum, ascending and most of the transverse colon.

## Hind intestine

- Terminated by a cloacal membrane (linea dentata canalis analis),
- descending colon, rectum.

## Another structures

### Structures attaching the primitive intestine

- Ventral mesogastrium (disappears for middle and hindgut)
- > omentum minus a ligamentum falciforme hepatis - boundaries of the bursa omental.
- Dorsal mesogastrium (complete, allow rotation of organs in the peritoneal cavity) -> omentum majus, mesenterium, mesoappendix, mesocolon transversum, mesocolon sigmoideum, Treitz retropancreatic membrane.

## Three body cavities

The coelom cavity is gradually divided into:

- pericardial cavity (pericardial),
- pleural cavity,
- peritoneal cavity.