

Embryology: GIT & Development Anomalies Revision Schedule

ORGAN / REGION	ANOMALY	DESCRIPTION / CAUSE
Tongue		
Tongue	Aglossa	Failure of development of the tongue. [cite: 20]
Tongue	Macroglossia	Large sized tongue which protrudes from the mouth (as in mongolism and cretinism). [cite: 20]
Tongue	Microglossia	Small sized tongue. [cite: 20]
Tongue	Bifid tongue	Due to failure of fusion of the 2 lateral lingual swellings. [cite: 21]
Tongue	Tongue-tie (Ankyloglossia)	The tongue is adherent to the floor of the mouth. [cite: 22]
Tongue	Short frenulum	Due to incomplete separation of tongue (common). [cite: 23]
Tongue	Long frenulum	Due to excess separation of the tongue; causes the tongue to fall back and close the pharynx and larynx (suffocation). [cite: 23, 24]
Stomach		
Stomach	Congenital pyloric stenosis	Due to excessive hypertrophy (thickening of circular muscles) of pylorus; leads to obstruction and projectile vomiting. [cite: 37]
Stomach	Hourglass stomach	Due to abnormal constriction of the middle of the body of the stomach. [cite: 39]

ORGAN / REGION	ANOMALY	DESCRIPTION / CAUSE
Stomach	Congenital hiatus hernia	Part of the stomach above the diaphragm due to short esophagus. [cite: 40]
Stomach	Congenital micromastia	The stomach fails to develop, resulting in an underdeveloped, small, and tubular structure. [cite: 42]
Stomach	Gastric diverticulum	Pouch or sac that forms on the stomach wall. [cite: 43]
Stomach	Volvulus	The stomach fails to fixate in its normal position, potentially leading to twisting and obstruction. [cite: 44]
Stomach	Gastric atresia	A complete blockage in the stomach, often presenting as total gastric outlet obstruction. [cite: 45]
Duodenum		
Duodenum	Atresia & Stenosis	Due to failure or defect in recanalization. [cite: 68]
Duodenum	Diverticulae	Outpouchings from the duodenal wall. [cite: 68]
Duodenum	Persistence of mesoduodenum	Results in abnormal mobility of the duodenum; may lead to internal hernia. [cite: 68]
Midgut & Intestines		
Intestine	Atresia / Stenosis	Due to failure or defect in recanalization. [cite: 85]
Intestine	Diverticulosis	Due to a weak intestinal wall. [cite: 85]
Intestine	Duplication	Common in the ileum. [cite: 85]
Intestine	Omphalocele	Congenital umbilical hernia; failure of return of physiological umbilical hernia or wide umbilical orifice. [cite: 85]

ORGAN / REGION	ANOMALY	DESCRIPTION / CAUSE
Intestine	Congenital volvulus	Due to excessive rotation (more than 270°). [cite: 86]
Intestine	Incomplete rotation	90° anticlockwise only; caecum/colon on left side, small intestine on right side. [cite: 86]
Intestine	Reversed rotation	90° in clockwise direction; duodenum lies in front of transverse colon. [cite: 86]
Vitelline Duct		
Vitelline Duct	Vitelline fistula	Umbilical faecal fistula due to persistence of the entire duct; faecal discharge at umbilicus. [cite: 88]
Vitelline Duct	Meckel's diverticulum	Persistence of the proximal part of the duct (2% of people, 2 inches long, 2 feet from ileocaecal valve). [cite: 88]
Vitelline Duct	Vitelline sinus	Due to persistence of the distal part of the vitelline duct. [cite: 89]
Vitelline Duct	Vitelline cyst	Due to persistence of the middle part of the vitelline duct. [cite: 89]
Vitelline Duct	Fibrous cord	Failure of degeneration of the obliterated duct; may cause intestinal obstruction. [cite: 89]
Caecum, Appendix, Liver & Gallbladder		
Caecum/Appendix	Abnormal position	Sub-hepatic or Rt lumbar position due to failure of or arrest during descent. [cite: 90]
Caecum/Appendix	Fetal shape retention	Retention of fetal shape with an apical appendix. [cite: 90]
Liver	Agensis / Hypogenesis	Failure of formation of hepatic diverticulum or incomplete development of hepatic bud. [cite: 20]
Liver	Abnormal lobe number	Due to abnormal division of the pars hepatica. [cite: 20]

ORGAN / REGION	ANOMALY	DESCRIPTION / CAUSE
Gallbladder	Agensis / Double / Mobile	Failure of cystic bud development, abnormal division into 2 parts, or complete separation from liver. [cite: 20]
Biliary Ducts	Atresia	Narrowing due to failure of canalization; associated with congenital jaundice. [cite: 20]
Rectum & Anal Canal		
Rectum	Rectal atresia	Obliteration of the lower part of the rectum. [cite: 103]
Rectum	Rectal fistulae	Rectovesical, rectourethral, or rectovaginal; due to incomplete growth of urorectal septum. [cite: 103]
Anal Canal	Imperforate anus	Anal membrane fails to rupture and persists as a diaphragm at the level of anal valves. [cite: 103]
Colon/Rectum	Primary megacolon	Hirschsprung's disease; aganglionic segment due to failure of neural crest cell migration. [cite: 104]