

Digestive system

**oral cavity, pharynx, esophagus, stomach, small and large intestines,
liver, gallbladder, pancreas**

Oral cavity

borders	roof: hard palate and soft palate behind: oropharyngeal isthmus (fauces) floor: oral diaphragm = mylohyoid m. in front: upper and lower lips laterally: checks content: tongue
division:	1/ oral vestibule 2/ proper oral cavity between them: superior and inferior dental arches, gingiva, teeth
Oral vestibule (vestibule of mouth)	upper lip – nasolabial sulcus, philtrum, tubercle of upper lip lower lip – mentolabial sulcus rima oris (oral fissure), commissure of lips (angle of mouth) superior fornix of vestibule, inferior fornix of vestibule frenulum of upper lip, frenulum of lower lip parotid papilla (opening of parotid duct at the level of 2nd upper molar)
Gingiva (gum)	gingival margin interdental papilla gingival sulcus
Teeth	superior and inferior dental arches enamel, dentin, cementum permanent and deciduous teeth crown of tooth, neck of tooth, root of tooth root apex – apical foramen pulp of tooth in pulp cavity: pulp chamber + root canal 1/ incisors 2/ canines 3/ premolars 4/ molars
Proper oral cavity	tongue, oral diaphragm, hard palate, soft palate, oropharyngeal isthmus
tongue	1/ dorsum of tongue root of tongue – lingual tonsil median and lateral glossoepiglottic folds, epiglottic valleculae body of tongue – median sulcus, terminal sulcus, foramen cecum apex of tongue vallate papillae, fungiform papillae, filiform papillae margin of tongue – foliate papillae
	2/ inferior surface of tongue fimbriated fold, frenulum of tongue, deep lingual v.

	muscles of tongue	1/ extrinsic muscles genioglossus m. hyoglossus m. palatoglossus m. styloglossus m.
		2/ intrinsic muscles superior and inferior longitudinal mm. transverse m. vertical m.
		aponeurosis of tongue, septum of tongue
Floor of month		sublingual fold, sublingual caruncula, geniohyoid m. mylohyoid m. (oral diaphragm) anterior belly of digastric m.
Palate	1/ hard palate – transverse palatine folds (rugae palatinæ) palatine raphe, incisive papilla, palatine glands	
	2/ soft palate	palatine aponeurosis, uvula tensor veli palatini m., levator veli palatini m., palatoglossus m., palatopharyngeus m., uvulae m.
Oropharyngeal isthmus (fauces)	uvula palatoglossal arch palatopharyngeal arch semilunar fold, triangular fold tonsilar fossa – palatine tonsil, supratonsillar fossa	
Salivary glands	minor salivary gll. labial gll., buccal gll., lingual gll. (anterior lingual gl.), palatine gll., molar gll. major salivary gll. parotid gl. (parotid duct on parotid papilla) sublingual gl. (minor sublingual ducts on sublingual fold major sublingual duct on sublingual caruncula) submandibular gl. (submandibular duct on sublingual caruncula)	

Pharynx

parts	1/ nasal part (nasopharynx) – base of skull to C2 = respiratory system 2/ oral part (oropharynx) – C2-C4 = respiratory system and digestive 3/ laryngeal part (laryngopharynx) – C4-C6 aditus laryngis (laryngeal inlet), piriform recess, laryngeal fold
pharyngeal muscles	constrictors: 1/ superior pharyngeal constrictor m. pterygopharyngeal part buccopharyngeal part mylopharyngeal part glossopharyngeal part

2/ middle pharyngeal constrictor m.
chondropharyngeal part
ceratopharyngeal part

3/ inferior pharyngeal constrictor m.
thyropharyngeal part
cricopharyngeal part
pharyngeal raphe

levators:

1/ stylopharyngeus m.
2/ salpingopharyngeus m.
3/ palatopharyngeus m.

Esophagus

parts	cervical part – at level of C6-Th2 vertebrae thoracic part – at level of Th2-Th10 vertebrae abdominal part – at level of Th10-Th11 vertebrae
constrictions	1/ pharyngooesophageal constriction 2/ bronchoaortic constriction 3/ diaphragmatic constriction
blood supply	arteries: inferior thyroid a. (from thyrocervical trunk) posterior intercostal aa. esophageal brr. (from thoracic aorta) left gastric a. (from coeliac trunk)
drainage	veins: esophageal vv. (to azygos v.), inferior thyroid v. (to left brachiocephalic v.) azygos v. (to superior v. cava), hemiazygos vv. (to azygos v.), gastric vv. (to portal v.) lymph: deep cervical lnn. tracheobronchial lnn. posterior mediastinal lnn. left gastric lnn.
innervation	parasympathetic – vagus n. sympathetic – sympathetic trunk

Stomach

parts	anterior wall – hepatic, diaphragmatic, free surfaces posterior wall – splenic, renal, suprarenal, pancreatic, colic, mesocolic surfaces cardiac part (cardia) – cardiac orifice, cardiac notch fundus (fornix) of stomach body of stomach – gastric folds, gastric canal, greater curvature, lesser curvature, angular notch pyloric part – pyloric antrum, pyloric canal, pyloric orifice – sphincter pylori m.
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blood supply	arteries: right and left gastric a. right and left gastroepiploic a. short gastric aa.
drainage	veins: right and left gastric v. right and left gastroepiploic v. short gastric vv.
	lymph: right and left gastric lnn. right and left gastroepiploic lnn. coeliac lnn. splenic lnn. intestinal trunk
innervation	parasympathetic – vagus n. anterior and posterior vagal trunks sympathetic – sympathetic trunk greater and lesser splanchnic nn.

Small intestine

parts	1/ duodenum 2/ jejunum 3/ ileum circular folds
Duodenum	1/ superior part (ampulla, bulb of duodenum) – at level of L1 vertebra superior duodenal flexure; intraperitoneal location 2/ descending part (at level of L1-L3 vertebrae) – longitudinal fold major duodenal papilla (Vater's) – bile duct and pancreatic duct minor duodenal papilla (Santorini's) – opens accessory pancreatic duct inferior duodenal flexure; retroperitoneal location 3/ horizontal part (at level of L3 vertebra); retroperitoneal location 4/ ascending part (at level of L3-L2 vertebrae) – duodenojejunal flexure lig. of Treitz; intraperitoneal location
Jejunum	
Ileum	mesentery, root of mesentery, intraperitoneal location
blood supply	arteries: jejunal and ileal aa.(from superior mesenteric a.) straight aa.
drainage	veins: jejunal and ileal vv. (to superior mesenteric v.) lymph: superior mesenteric lnn. solitary lymphatic nodules (jejunum) aggregated lymphatic nodules (ileum)
innervation	parasympathetic – vagus n. sympathetic – sympathetic trunk splanchnic nn. to coeliacum ggl. superior and inferior mesenteric ggl.

Large intestine

features	semilunar folds, haustra of colon, omental (epiploic) appendices, teniae of colon – free, mesocolic, and omental tenia
parts	1/ caecum 2/ ascending colon 3/ transverse colon 4/ descending colon 5/ sigmoid colon 6/ rectum
Caecum	ileocecal orifice – ileal (ileocecal) valve, superior and inferior lip frenulum of ileocecal valve vermiform appendix – orifice of vermiform appendix, mesoappendix
Ascending colon	from right iliac fossa to right 10th/11th rib – right (hepatic) colic flexure retroperitoneal location
Transverse colon	from right 10th/11th rib to left 8th rib – left (splenic) colic flexure, transverse mesocolon; intraperitoneal location
Descending colon	from left colic flexure to left iliac crest retroperitoneal location
Sigmoid colon	from left iliac crest to S2-S3, sigmoid mesocolon intraperitoneal location
blood supply	arteries: superior mesenteric a. (for ascending and transverse colon) inferior mesenteric a. (for descending and sigmoid colon)
drainage	veins: portal v. lymph: superior and inferior mesenteric lnn., coeliac lnn.
innervation	parasympathetic vagus n. (ascending and transverse colon) pelvic splanchnic nn. (descending and sigmoid colon) sympathetic – sympathetic trunk
Rectum	sacral flexure, perineal flexure and lateral flexures
parts	1/ rectal ampulla – transverse rectal folds: superior, middle (Kohlrausch's), inferior 2/ anal canal – anal columns, anal sinuses, anal valves, anorectal line, internal and external anal sphincter m.
blood supply	arteries: superior rectal a. (from inferior mesenteric a.) middle rectal a. (from internal iliac a.) inferior rectal a. (from internal pudendal a.)
drainage	veins: inferior rectal vv. to internal pudendal vv.
lymph	internal iliac lnn.

Liver

lobi	1/ right lobe 2/ left lobe 3/ quadrate lobe 4/ caudate lobe – papillary process, caudate process
surfaces	1/ diaphragmatic surface cardiac impression, bare area inferior margin falciform lig. right coronary lig. – right triangular lig., left coronary lig. – left triangular lig. – fibrous appendix 2/ visceral surface fissure for round lig. fissure for venous lig. fossa for gallbladder groove for inferior v. cava omental tuber, esophageal and gastric impressions, suprarenal and renal impressions, duodenal and colic impressions porta hepatis – common hepatic duct, proper hepatic a., portal v.

Gallbladder	fundus – at level of transpyloric line body – in fossa for gallbladder neck – spiral fold, cystic duct bile duct = common hepatic duct + cystic duct
blood supply	arteries: proper hepatic a. cystic a. for gallbladder
drainage	veins: portal v., hepatic vv. lymph: hepatic lnn., celiac lnn., intestinal trunk, cisterna chyli

Pancreas

parts	1/ head of pancreas – pancreatic notch (superior mesenteric vessels), uncinate process 2/ body of pancreas – anterior, posterior, and inferior surfaces omental tuber (through abdominal aorta) 3/ tail of pancreas – intraperitoneal location (only) pancreatic duct – major duodenal papilla accessory pancreatic duct – minor duodenal papilla
blood supply	arteries: pancreatic brr. from superior and inferior pancreaticoduodenal a. splenic a.
drainage	veins: superior mesenteric v., splenic v. lymph: hepatic lnn. (from head of pancreas) coeliac lnn. (from body and tail of pancreas) pancreaticosplenic lnn. (from head and tail of pancreas)