

PHARYNX

Fornix pharyngis
Recessus pharyngeus
Cavitas pharyngis
Fascia pharyngobasilaris

Pars nasalis pharyngis (nasopharynx)

Choanae
Ostium pharyngeum tubae auditivae - torus tubarius - plica salpingopharyngea, plica salpingopalatina, torus levatorius
Tonsilla pharyngealis - fornix pharyngis
Tonsilla tubaria
Waldeyer's lymphoepithelial ring

Pars oralis pharyngis (oropharynx)

- Isthmus faucium

Pars laryngea pharyngis (laryngopharynx)

- Aditus laryngis - epiglottis, aryepiglottic folds
- Recessus piriformis
- Plica n. laryngei superioris

Muscles of the pharynx

Constrictors - raphe pharyngis

M. constrictor pharyngis superior:

1. Pars pterygopharyngea –lamina medialis proc. pterygoidei
2. Pars buccopharyngea –raphe pterygomandibularis
3. Pars mylopharyngea –linea mylohyoidea mandibulae
4. Pars glossopharyngea – transverse muscle of the tongue

M. constrictor pharyngis medius:

1. Pars chondropharyngea –cornu minus ossis hyoidei
2. Pars ceratopharyngea - cornu majus ossis hyoidei

M. constrictor pharyngis inferior:

1. Pars thyropharyngea –linea obliqua of the thyroid cartilage
2. Pars cricopharyngea – cricoid cartilage

Levators:

M. stylopharyngeus – from the processus styloideus caudally and medially - the fissure between the superior and middle constrictors.

M. palatopharyngeus

M. salpingopharyngeus – from the cartilaginous part of the auditory tube

The pharynx actively participates in swallowing, respiration and phonation. During swallowing the muscles of the soft palate open the auditory tube to ventilate the tympanic cavity.

Mechanism of the deglutition

The first stage of the swallowing is voluntary: the anterior part of the tongue is raised and pressed against the hard palate. A bolus is pushed dorsally. The hyoid bone is moved up and forwards by the suprahyoid muscles. The root of the tongue is drawn up and back and palatoglossal arches are approximated, pushing the bolus through the isthmus of the fauces into the oropharynx.

The second stage is involuntary. The soft palate is elevated, tightened and firmly approximated to the posterior pharyngeal wall (by the upper pharyngeal constrictor). Then the larynx and pharynx is drawn up (stylopharyngeus, palatopharyngeus, thyrohyoid muscles). Simultaneously, the aryepiglottic folds are approximated and epiglottis bends back onto the laryngeal inlet excluding the bolus from the larynx. The bolus slips into the lowest part of the pharynx.

The last stage is the expulsion of the bolus into the oesophagus, by the inferior constrictors.

OESOPHAGUS

1) **Pars cervicalis**

2) **Pars thoracica**

pars retrotrachealis

pars retropericardiaca

3) **Pars abdominalis** - cardia - gastrooesophageal junction

3 physiological constrictions

Hiatus oesophageus

adventitia, serosa

oesophagoscopy, oesophagography

STOMACH (GASTER, VENTRICULUS)

Regio hypochondriaca sinistra

J-shaped stomach, steer horn (transverse type)

Cardia

Pars cardiaca

Fundus (fornix) gastricus - stomach bubble

Incisura cardialis

Corpus gastricum - canalis gastricus

Pars pylorica - antrum pyloricum, canalis pyloricus

Pylorus - ostium pyloricum

Paries anterior

Paries posterior

Curvatura minor - incisura angularis

Curvatura major

Functionally:

Pars digestoria (digestive segment) - fundus and canalis gastricus.

Pars egestoria (evacuating segment) - gastric sinus (antrum) and canalis pyloricus

Plicae gastricae – sulcus salivarius

Mucinous glands – mucus

Tubulous glands - succus gastricus

Areae gastricae - foveolae gastricae

Musculature – fibrae obliquae

- stratum circulare - m. sphincter pylori
- stratum longitudinale

After the stomach is filled the musculature contracts and is in the rest (peristole), the mucosa adheres to the content (20 min). Then rhythmical contractions (peristalsis) begin. Peristaltic waves start in the cardia each 15 -30 seconds and get to the pylorus in 60 seconds. Four waves may be seen together at the X-ray picture. Peristalsis serves for the mixing of the content to the pulpy chyme that in small portions is emptied to the duodenum.

Omentum minus – lig. phrenicogastricum, hepatogastricum, hepatoduodenale

Omentum majus - lig. gastrocolicum, lig. gastrolienale

INTESTINUM

Intestinum tenue

Ansae intestinales

Duodenum

Pars superior - bulbus duodeni

Flexura duodeni sup.

Pars descendens duodeni

Flexura duodeni inf.

Pars horizontalis

Pars ascendens

Flexura duodenojejunalis

Plicae circulares Kerkringi

Villi intestinales

Crypts of Lieberkühn – glandulae intestinales

Glandulae duodenales Brunneri

Plica longitudinalis duodeni - papilla duodeni major Vateri

- papilla duodeni minor

Jejunum and ileum - jejunoileum

JEJUNUM	ILEUM
upper left part of the inframesocolic space	lower right part of the inframesocolic space
wider (3-4 cm)	narrower (2-3 cm)
more plicae circulares	fewer plicae circulares
1-2 arcades	2-3 arcades
noduli lymph. solitarii	noduli lymph. aggregati

Mesenterium

Ostium ileale - papilla ilealis

M. sphincter ani internus

M. sphincter ani externus – voluntary control of defecation.