

DIGESTIVE SYSTEM, MOUTH TO STOMACH

revised 29 March 2016

S&M p. 618~, Martini 6th: pp 876-907, 7th: 863-888, 8th: 874-897, 10th: 880-901

EMBRYOLOGY: p 884: early, hollow cylinder, lined with **endoderm**: fore-, mid- and hind gut
Until 5th wk, midgut opens into yolk sac.

Anterior of foregut opens into **pharyngeal pouches**, contacts ectoderm

stomodeum [mouth, a way] becomes oral membrane, breaks thru 4th wk.

proctodeum Likewise at other end. **cloacal membrane** breaks thru.

Peritoneum arrangement, see p 884

Suspended by **lesser omentum** [fat skin] from liver, **greater omentum** drapes down

GENERIC GI TRACT: Serosa (in abdominal cavity only)
p 885 Muscularis externa (outer: longitudinal, inner: circular)
Sub mucosa
Mucosa

Hollow buds form along tract, become: salivary glands
parathyroid
thyroid
liver
gallbladder
pancreas

Mouth: (883) **lips non-keratinized** (pink) therefore evaporation occurs, must lick lips

Salivary glands: p 891: 1000-2000 ml/day. Saliva contains mucin, salivary amylase, buffers, IgA antibodies, lysozyme

parotid [beside ear] duct opens next to 2nd upper molar
submandibular duct opens near frenulum
sublingual duct opens underside of tongue

Teeth: incisors, canine, bicuspid, molars (ICBM).
20 deciduous, replaced between 6 - 17 yr old.

Mastication

illustrate tooth: (892)

root, root canal, cementum, periodontal ligament, dentin, enamel, pulp cavity, gingival sulcus.

Tongue: **frenulum** (bridle) ties down

taste buds: fungiform, circumvallate, filiform

Esophagus: 887 (Lit. carry food) lined with stratified squamous, becomes columnar at stomach

peristalsis p 890

(swallowing) initiated by skeletal muscle in prox portion of pharynx then smooth.

enters abdomen through **esophageal hiatus** in diaphragm

STOMACH 892 **cardiac orifice entrance** and **pyloric sphincter** exit

Anatomy: lesser curvature (lesser omentum), greater curvature (omentum), body, fundus, pyloric region, rugae.

gastric pits lined with:

mucous neck cells mucus

893 chief cells pepsinogen

parietal cells HCl

distention of stomach causes release of **gastrin** (see below)

Gastrin stimulates release of gastric fluids from gastric pits

Peptic ulcers due 80% to *Helicobacter pylori*.

