DIGESTIVE SYSTEM, MOUTH TO STOMACH

revised 29 March 2016
S&M p. 618~, Martini 6th: pp 876-897, 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.
  Likewise at other end. **cloacal membrane** breaks thru.

Peritoneum arrangement, see p 884
  Susended 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, bicuspids, 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.*