The Aging Digestive System

shows significant senescence in old age:
less saliva
  ⊳ food less flavorful, harder swallowing

~half of those over 65 yrs wear dentures

gastric mucosa secretes less acid
  ⊳ reduces absorption of Calcium iron, zinc and folic acid

gastric mucosa secretes less intrinsic factor
  ⊳ reduces absorption of vitamin B12
  ⊳ leads to pernicious anemia

Heartburn becomes more common

most common digestive complaint of older people is constipation
  ⊳ due to:
  less muscle tone
  weaker colon peristalsis
  reduced sensitivity to neurotransmitters
  less fiber & water in diet
  less exercise

activity of liver, gall bladder and pancreas are reduced only slightly in old age
Digestive Problems

1. Choking
   food in air passages
   usually meats, hot dogs, grapes, carrots, hard candy, popcorn, peanut butter
   may not be able to make a sound
   DON'T hit on back

2. Vomiting
   symptom of many diseases
   waves of reverse peristalsis
   if severe may empty duodenum as well
   rest and drink small amounts of fluids
   guard against massive fluid loss

3. Bulemia
   self induced vomiting
   may cause damage and infection of esophagus, pharynx, or salivary glands
   erosion of teeth, more dental caries
   esophagus may rupture or tear

4. Diarrhea
   frequent loose watery stool
   intestinal contents moving too fast for fluid absorption to occur
   main danger is fluid loss
   also upsets acid/base balance

5. Constipation
   caused by:
   lifestyle ± inadequate water input
   lack of physical activity
   side effect of medication

   controlled by increase in fiber, prunes, laxatives
   ± attracts water ± softens stool
Colonic Irrigation
alternative medical practice
potentially harmful
unnecessary
can rupture the intestine

frequent use of laxatives and enemas:
can lead to dependency
upset body’s fluid balance

mineral oil
can interfere with absorption of fat soluble vitamins

6. **Belching**
results from swallowed air
carbonated drinks and chewing gums can contribute
occasionally can be a sign of a more serious disorder: gall bladder pain, colonic distress
eat slowly, chew thoroughly
relax while eating

7. **Hiccups**
repeated spasms of diaphragm
may be triggered by eating or drinking too fast

8. **Gas**
large intestine generates 7-10 L of gas/day and normally we expel ~500ml of gas/day
the rest is reabsorbed
most is odorless
1% are “volatile” gasses
high carb foods known to produce excess gas

9. **Heartburn (& gastroesophageal reflux disease)**
cardiac sphincter doesn’t close properly
affects 50% of US, esp white males
eat or drink too much
clothing too tight
cure: eat small meals
drink liquids 1 hr before or 1 hr after meal
don’t lie down or bend over
lose weight if overweight
don’t smoke
use antacids but sparingly

10. Peptic Ulcers
a lesion of stomach or duodenum caused by acids or pepsin
‡ duodenal ulcers are the most common
perforated ulcer extend through entire wall of GI tract
cased by:
bacterial infection, *Helicobacter pylori*, is important cause of
most ulcers
‡ in all patients with duodenal ulcers
‡ in 80% of patients with gastric ulcers
probably disrupt mucosal barrier
use of some antiinflammatory drugs
disorders that cause excessive gastric secretions
reduced mucosal defense
diet therapy used to be main cure, now antibiotics
also advised to stop smoking and avoid alcohol and caffeine

11. Celiac Disease
chronic disorder in which the mucosa of small intestine is
damaged by ingestio fo certain cereal grains, eg. wheat,
barley, rye, & oats
disease 1st reported in second century by Aretaeus of Cappadochia
these grains have large amounts of a protein, =gluten,
causes loss of villi & brush border, and increased numbers of
WBC’s
leads to inadequate intestinal absorption
symptoms: diarrhea, weight loss, abdominal distension and
bloating and weakness
due to genetic and environmental factors
patients with such sensitivity must adhere to gluten-free diet
substitute: corn, millet, buckwheat, sorghum & rice