DIGESTIVE SYSTEM
Structure
Mouth

• where the digestive process begins break down (chewing, mashing, grinding by the teeth)
Salivary Glands

• Under the tongue, near the jawbone, and back of the throat

• Produces a secretion that dissolves food and coats food with a mucus that allows it to pass through esophagus more easily
Pharynx

- Back of the oral cavity
- Passage way for food
Epiglottis

- Flap covers the trachea when food/water is swallowed
- Keeps food and water out of the lungs
Esophagus

• A tube 10 to 12 inches long that carries food from the mouth to the stomach
• Moves food with rhythmic wavelike motion called peristalsis
Cardiac Sphincter

• Ring of muscle fibers located where the esophagus meets the stomach
• Keeps stomach contents from moving upward
Stomach

• a hollow, muscular, J-shaped organ
• holds food from 3 to 4 hours while digestive juices break down food into chyme
Pyloric Sphincter

- Ringlike muscle found at the far end of stomach
- Keeps food in stomach long enough to become chyme
Small intestines

- 20 ft long
  - First 10-12 inches is the duodenum
    - Gets juices from the pancreas, liver and gallbladder
      - Aid in further chemical breakdown of the chyme
        » final breakdown completes digestion
  - Jejunum
  - Ileum
- where most of the food the body needs are absorbed into the bloodstream
Pancreas

• located behind the stomach

• aids in the digestion of food

• produces insulin
Liver

• The largest gland in the body

• helps control the amount of protein and sugar in the body by changing and storing excess amounts
Gallbladder

• a small hollow sac that is attached to the underside of the liver

• it releases bile from the liver into the small intestine to help digest a fatty meal
Large Intestines

• Receives food substances that are little use to the body

• where most water, vitamins, minerals are absorbed, wastes are changed into solid form to be excreted from the body

• Secrets mucus to aid in the movement of feces
Rectum

- Last 6-8 inches of alimentary canal
- Storage area of feces
Anus

• The end of the alimentary canal
• Fecal matter is evacuated from the body
Common Conditions of the Digestive System
Malignancies

• very common

• symptoms depend on location
  – indigestion
  – vomiting
  – constipation
  – obstruction
  – bloody stool
Stage 0

Stage I

Stage IIA

Stage III

Stage IV

Mucosa

Submucosa

Muscle

Lymph node

Cancer

Spread to other organs and distant lymph nodes

National Cancer Institute
Ulcerations

• a sore or tissue breakdown

• common places: colon, stomach, duodenum
Hernias

• the intestine pushes through a weakened area of the abdominal wall
Gallbladder Conditions

• cholecystitis: inflammation of the gallbladder

• cholelithiasis: formation of stones in the gallbladder
Common Problems Related to the Lower Bowel

• diarrhea: multiple watery stools

• constipation: when stool passes through the colon too slowly – most severe form: fecal impaction

• bowel incontinence: involuntary passage of fecal material from the anus
Procedures Related to the Digestive System
Nasogastric Tube

- End of nasogastric tube
- Nasal cavity
- Nasogastric tube
- Gullet (oesophagus)
- Stomach
NG Tube cont.

• may be placed for stomach decompression (ex. – during CPR)

• to give stomach rest

• to relieve nausea
Normal CT of Abd
CT Scans

- CTs may be done of abd/pelvis, with or without contrast (IV or PO)

- used to diagnose abnormalities/conditions of digestive system