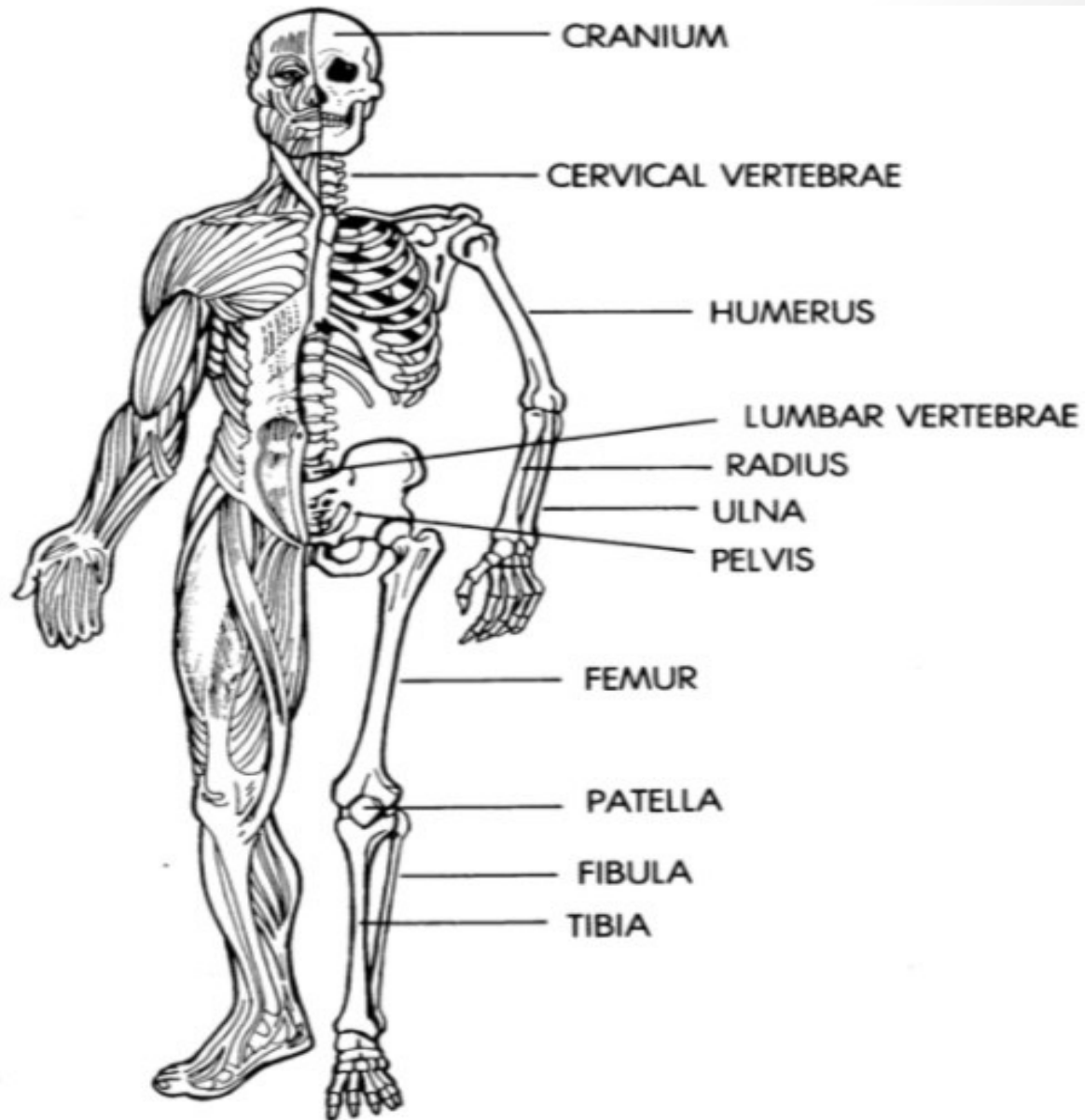


Nur-MT-Lec2-

**Roots for Musculoskeletal,
Integumentary
Respiratory and digestive
systems**

Dr. Amer Alasadi

Roots Pertaining to the Musculoskeletal System



- **The musculoskeletal system includes the bones, muscles, and joints.**

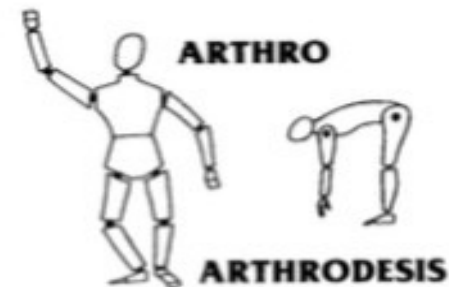
- **Osteo is a root which means bone.**
A person who has osteo-arthritis, for Ex., has inflammation of the _____ and joint. oste-o-arthritis

- **The root, arthro, means joint.**
Arthrodesis means fixation of a _____ by fusion. arthro-desis

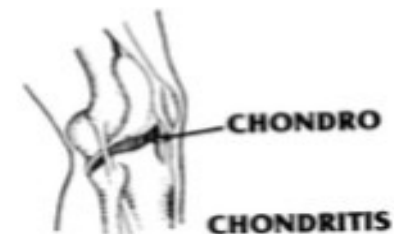
- **The root chondro means cartilage.**
A person with chondritis, for Ex., has inflammation of the _____. chondritis



bone



joint



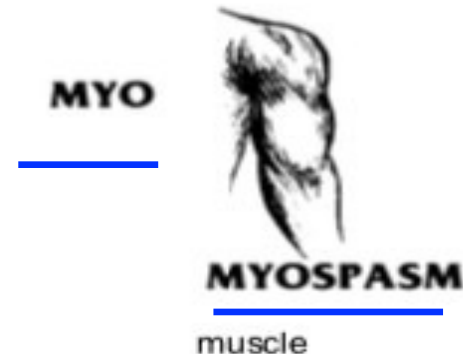
cartilage

- The root myelo means bone marrow or spine. A person who has myelitis has an inflammation of the _____ or _____. Myel-itis



bone marrow/spine

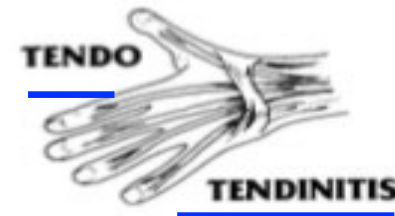
- Myo is a root which means muscle. A myospasm, for Ex., is an involuntary contraction of a _____ myo-spasm



muscle

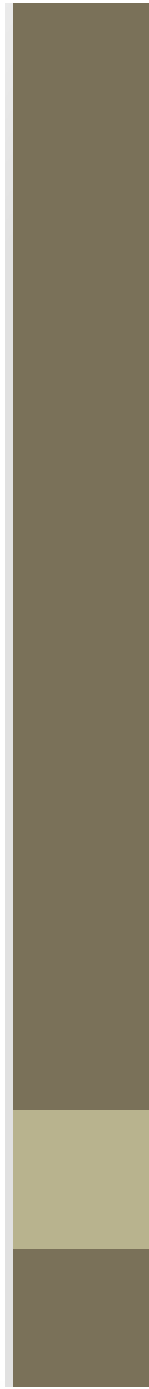
- Tendo is a root which means tendon.

A person with tendinitis has inflammation of a _____. Tendini-tis



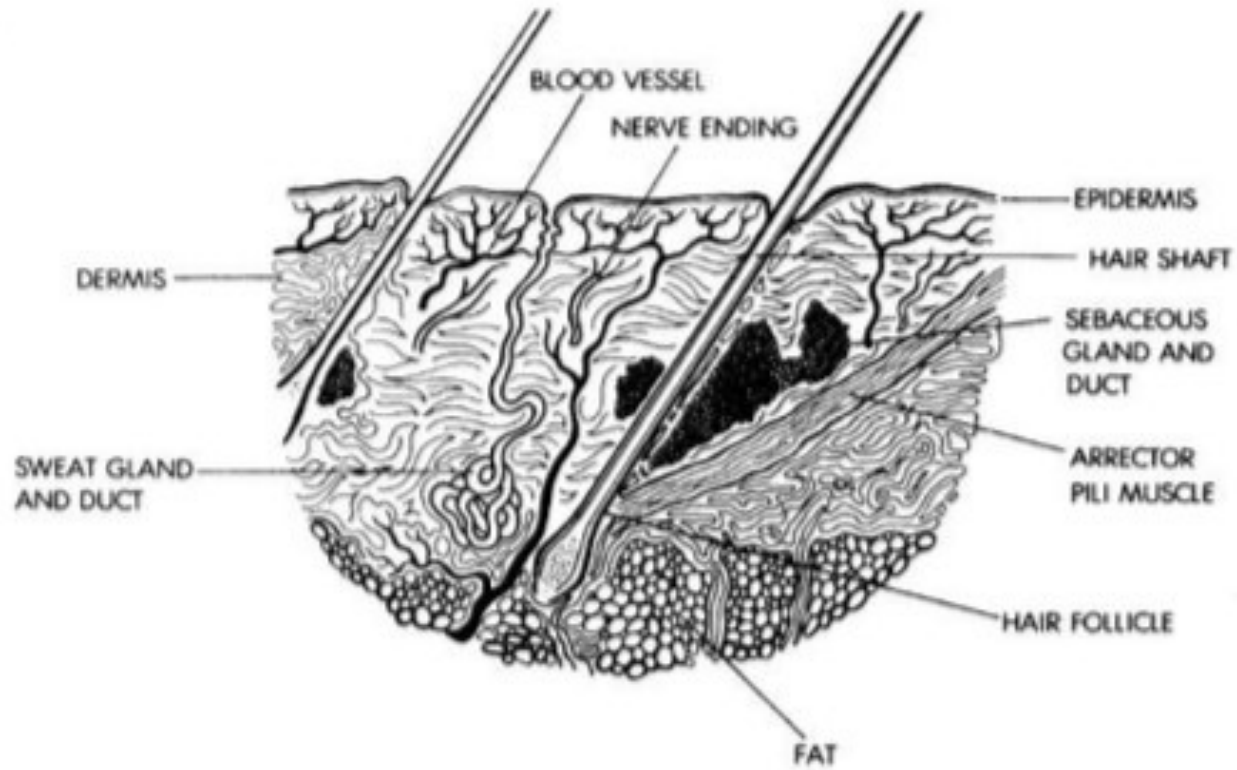
tendon

- Costo is a root which means rib. The intercostal space, for example, refers to the space between the _____. inter-Costal



Roots Pertaining to the Integumentary System

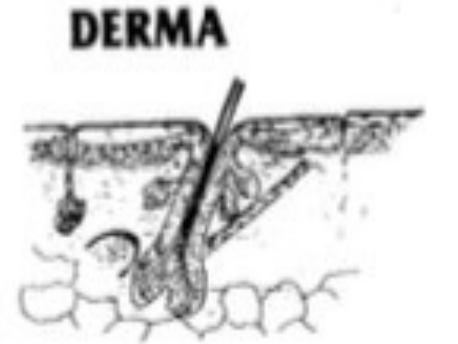
INTEGUMENTARY SYSTEM



- The integumentary system includes the skin and its appendages the hair and nails.

• Derma is a root which means skin. A person with dermatophytosis, for Ex., has a fungus condition of the _____.
dermatophy-tosis

• Onycho is a root which means nail.
Onychectomy means surgical removal of the _____ of a finger or toe. Onychect-omy



DERMA

DERMATOPHYTOSIS

skin

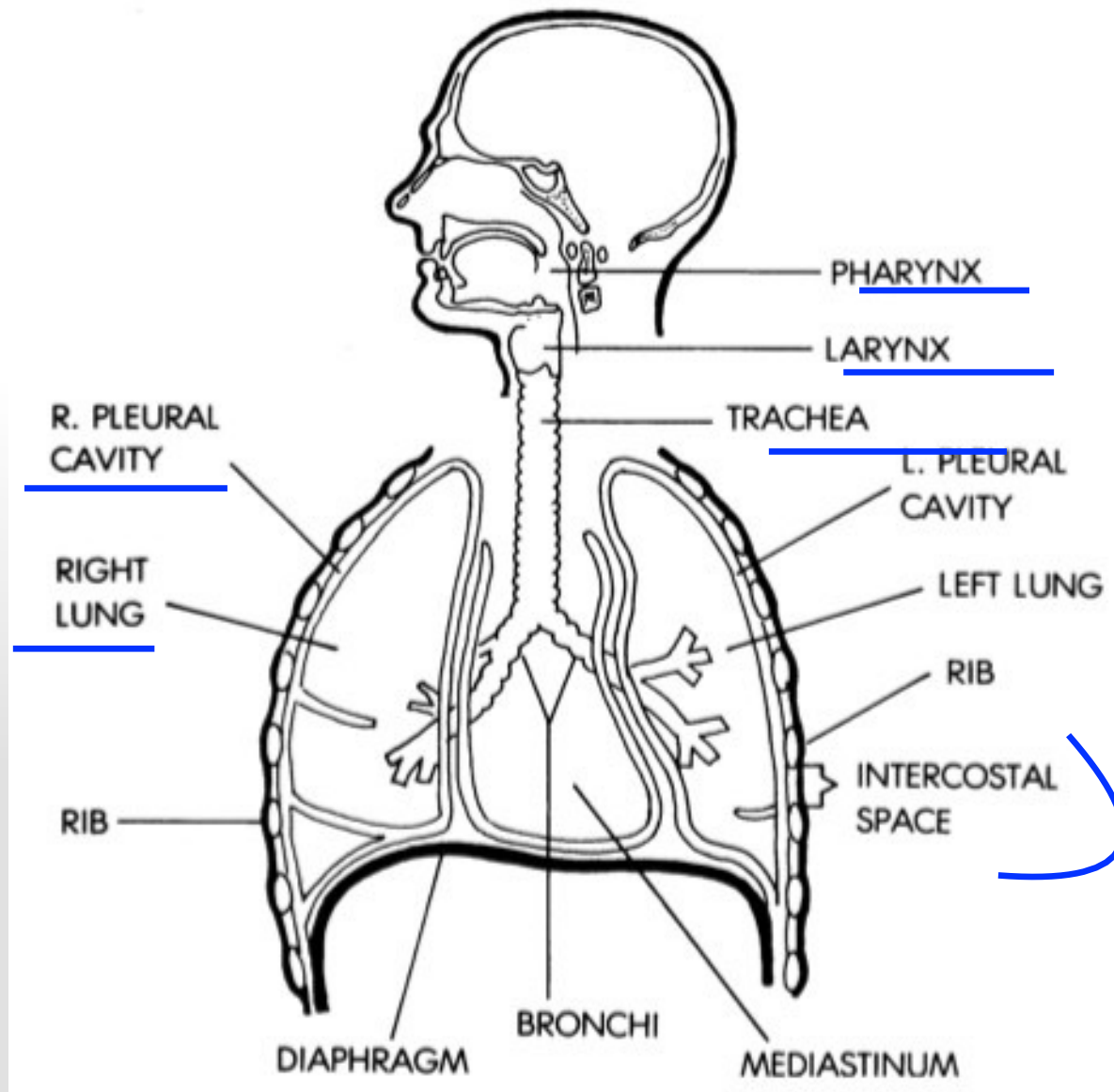
ONYCHO



ONYCHECTOMY

nail

Roots Pertaining to the Respiratory System



- Rhino and naso are root which mean nose. A person who has rhinitis has inflammation of the _____ . Rhinitis

- Laryngo is a root meaning larynx or voice box.
A laryngoscopy is an examination of the interior of the _____ .
Laryngo-scopy.

- Tracheo is a root which means upper windpipe or trachea. A person with tracheitis has an inflammation of the _____ or _____.
Tracheitis



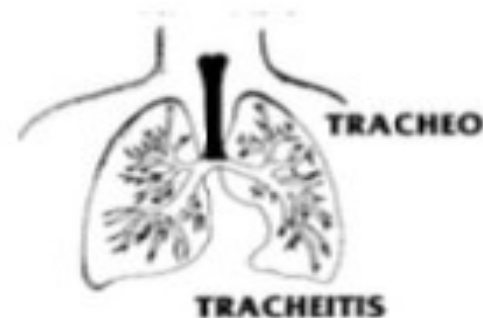
RHINITIS
NASAL BONE

nose



LARYNGOSCOPY

larynx



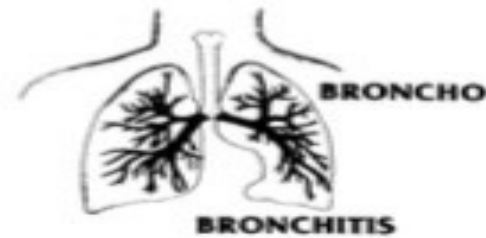
TRACHEO

TRACHEITIS

- **Broncho is a root which means lower windpipe or bronchus.** A person with bronchitis has
- In-flammation of the ___ or ____.
Broncho
- **Pulmo and pneumo are roots which mean lung.** Pulmonary, for Ex., means concerning or involving the _____.

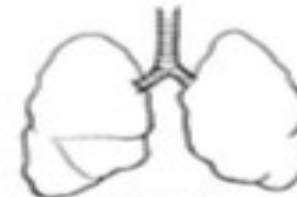
A person with pneumonia has an inflammation of the _____.

- **Pneumonia is a root which also means air.** Pneumonia is the presence of _ or gas in the blood vessel.
Pneumonia



lower windpipe/bronchus

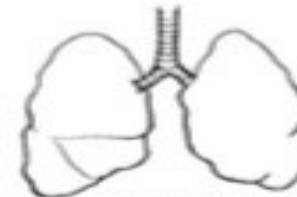
PULMO / PNEUMO



PULMONARY PNEUMONIA

lungs

PULMO / PNEUMO



PULMONARY PNEUMONIA

lungs

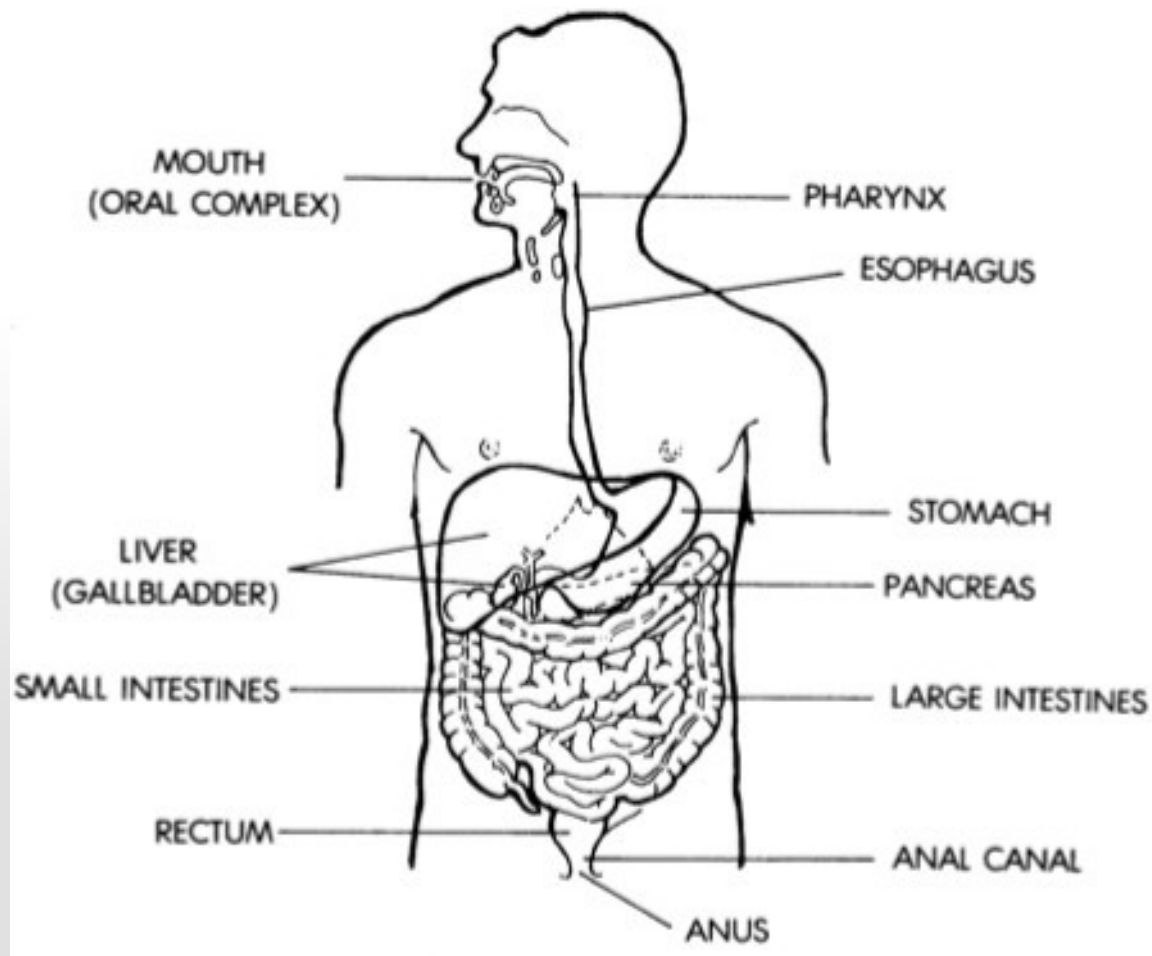


PNEUMO

PNEUMONEMIA

air

Roots Pertaining to the Digestive System



The digestive system or the body and ends with the anus, where solid waste material leaves the body gastrointestinal tract begins with the mouth, where food enters.

•The root stoma means mouth. A person who has stomatitis, for example, has inflammation of the _____.

Stomatitis

•Lingua and glossa are roots which mean tongue. Glossitis means inflammation of the _____ . glossitis.

• Lingual means pertaining to the _____ . lingual

STOMA



STOMATITIS

mouth

LINGUA / GLOSSA



LINGUAL / GLOSSITIS

tongue

LINGUA / GLOSSA



LINGUAL / GLOSSITIS

tongue

- **Dento and odonto are roots which mean tooth.** A person with dentalgia has a pain in the _____ . dentalgia
- **Cheilo is a root which means lip.** A cheiloplasty is the surgical repair of a defect of the _____ . Cheiloplasty
- **Gingivo is a root which means gums.** A person with gingivitis has an inflammation of the _____ . Gingivitis
- **Gastro is a root which means stomach.** A gastrectomy is the surgical removal of the _____ . gastrectomy

DENTO / ODONTO



DENTALGIA
ODONTOID

tooth

CHEILO



CHEILOPLASTY

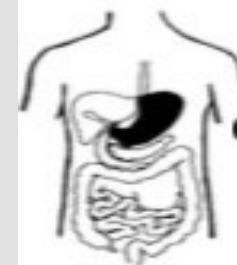
lip

GINGIVO



GINGIVITIS

gums

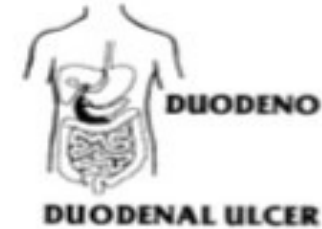
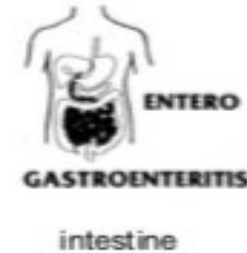


GASTRO

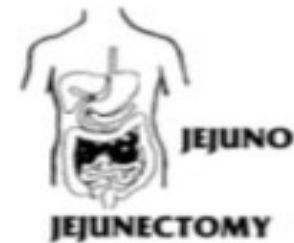
GASTRECTOMY

stomach

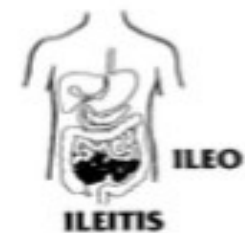
- **Entero is a root which means intestine.** A person with gastroenteritis has inflammation of the stomach and _____. Gastroenteritis
- **Duodeno is a root which pertains to the duodenum or first part of the small intestine.** A duodenal ulcer, for example, is an ulcer which is located in the _____ or----
Duodenal
- **Jejuno is a root which pertains to the jejunum or second part of the small intestine.** A jejunectomy, for example, is an excision of a part of or all of the _____ or_____.
Jejunectomy.
- **Ileo is a root which pertains to the ileum or third part of the small intestine.** Ileitis means inflammation of the _____ or _____. Ileitis



duodenum or first part of the small
intestine



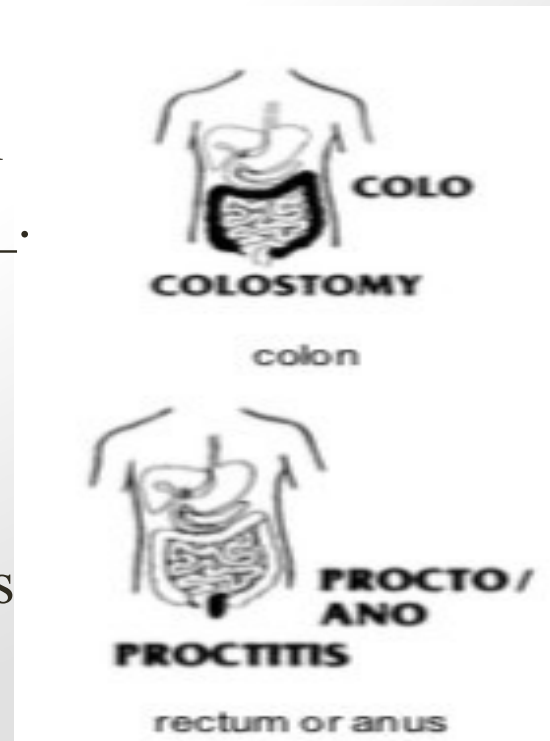
jejunum or second part of the small
intestine



ileum or third part of the small intestine

- **Colo** is a root which means colon. When a colostomy is performed, an incision is made into the _____ colostomy

- **Procto** and **ano** are roots which mean rectum or anus. Proctitis means inflammation of the _____ or _____.
Proctitis



Incomplete Tissue Formation

- **Aplasia** (ah-PLAY-zee-ah) is the defective development, or the congenital absence, of an organ or tissue Compare aplasia with hypoplasia.
- **Hypoplasia** is the incomplete development of an organ or tissue usually due to a deficiency in the number of cells, Compare hypoplasia with aplasia.

Abnormal Tissue Formation

- **Anaplasia** is a change in the structure of cells and in their orientation to each other. This abnormal cell development is characteristic of tumor formation in cancers. Contrast anaplasia with hypertrophy.
- **Dysplasia** is the abnormal development or growth of cells, tissues, or organs.
- **Hyperplasia** is the enlargement of an organ or tissue because of an abnormal increase in the number of cells in the tissues. Contrast hyperplasia with hypertrophy.
- **Hypertrophy** is a general increase in the bulk of a body part or organ that is due to an increase in the size, but not in the number, of cells in the tissues. This enlargement is not due to tumor formation. Contrast hypertrophy with anaplasia and hyperplasia.

Gland

A gland is a group of specialized epithelial cells that can produce secretions. The two major types of glands are

- Exocrine glands secrete chemical substances into ducts that lead either to other organs or out of the body, such as sweat glands (**exo-** means out of, and **-crine** means to secrete).
- Endocrine glands which produce hormones, do not have ducts (**endo-** means within, and **-crine** means to secrete). These hormones are secreted directly into the bloodstream and are then transported to organs and structures throughout the body.

Pathology and Procedures of the Glands

- Adenitis is the inflammation of a gland (**aden** means gland, and **-itis** means inflammation).
- An adenocarcinoma (ad-eh-noh-kar-sih-NOH-mah) is a malignant tumor that originates in glandular tissue (**aden/o** means gland, **carcin** means cancerous, and **-oma** means tumor). **Malignant** means harmful, capable of spreading, and potentially life threatening.

- An adenoma is a benign tumor that arises in or resembles glandular tissue (**aden** means gland, and **-oma** means tumor). **Benign** means not life threatening.
- Adenomalacia is the abnormal softening of a gland (**aden/o** means gland, and **-malacia** means abnormal softening). Adenomalacia is the opposite of adenosclerosis.
- Adenosis is any disease or condition of a gland (**aden** means gland, and **-osis** means an abnormal condition or disease).
- Adenosclerosis is the abnormal hardening of a gland (**aden/o** means gland, and **-sclerosis** means abnormal hardening). Adenosclerosis is the opposite of adenomalacia.
- An adenectomy is the surgical removal of a gland (**aden** means gland, and **-ectomy** means surgical removal).

Outbreaks of Diseases

An epidemiologist is a specialist in the study of outbreaks of disease within a population group (**epi-** means above, **dem/i** means population, and **-ologist** means specialist).

- **Endemic** refers to the ongoing presence of a disease within a population, group, or area (**en-**means within **dem** means population, and **-ic** means pertaining to). For example, the common cold is endemic because it is always present within the general population.
- **An epidemic** is a sudden and wide- spread outbreak of a disease within a specific population group or area (**epi-** means above, **dem** means population, and **-ic** means pertaining to). For example, a sudden widespread outbreak of measles is an epidemic.
- **Pandemic** refers to an outbreak of a disease occurring over a large geographic area, possibly worldwide (**pan-** means entire, **dem** means population, and **-ic** means pertaining to). For example, the worldwide spread of acquired immunodeficiency syndrome (AIDS) is pandemic.

Types of Diseases

A functional disorder produces symptoms for which no physiological or anatomical cause can be identified. For example, a panic attack is a functional disorder.

- An iatrogenic illness is an unfavorable response due to prescribed medical treatment. For example, severe burns resulting from radiation therapy are iatrogenic.
- **An idiopathic disorder** is an illness without known cause (**idi/o** means peculiar to the individual, **path** means disease, and **-ic** means per- taining to). **Idiopathic** means without known cause.
- **An infectious disease** is an illness caused by living pathogenic organisms such as bacteria and viruses.
- **A nosocomial infection** is a disease acquired in a hospital or clinical setting. For example, MRSA infections are often spread in hospitals. Nosocomial comes from the Greek word for hospital.
- **An organic disorder** produces symptoms caused by detectable physical changes in the body. For example, chickenpox, which has a characteristic rash, is an organic disorder caused by a virus.

GENERAL MEDICAL SPECIALTIES RELATING TO HEALTH AND DISEASE

- The study of the medical problems and care of older people is known as geriatrics or as **gerontology**.
- **Postmortem** means after death. A postmortem examination is also known as an autopsy.
- Physicians caring for the well-being of patients during their lifetime include the following specialists:
- **A general practitioner (GP)**, or **family practice physician**, provides ongoing care for patients of all ages.
- An **internist** is a physician who specializes in diagnosing and treating diseases and disorders of the internal organs and related body systems.
- **A pediatrician** is a physician who specializes in diagnosing, treating, and preventing disorders and diseases of infants and children. This specialty is known as **pediatrics**.
- **A geriatrician**, or **gerontologist**, is a physician who specializes in the care of older people.