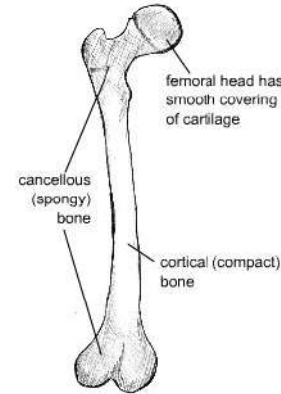
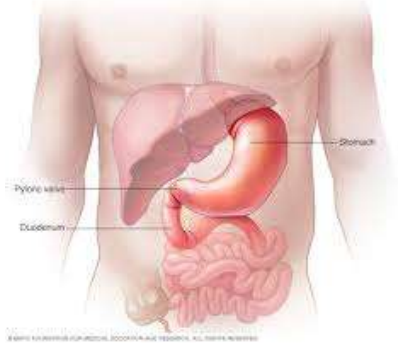

Chapter 1: The Basics and The Body

Definitions

- Anatomy - the study of the structures of the body (ex- names of bones or organs)

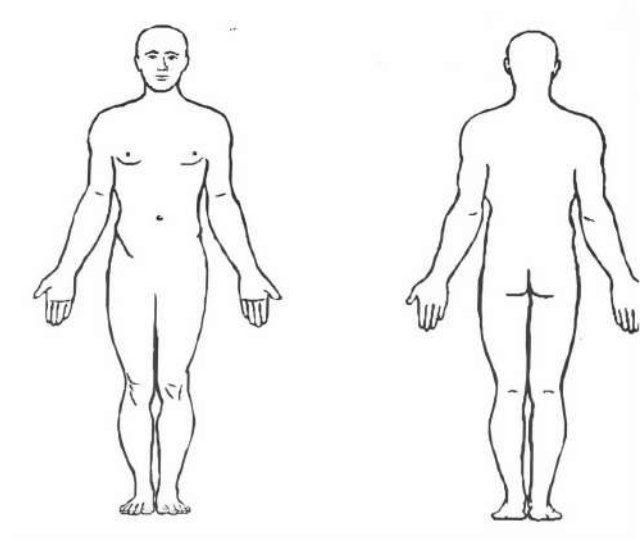


- Physiology - the study of the functions of these structures (ex: the role of the bones in the musculoskeletal system or the role of the stomach in digestion process)

Anatomical Position

- ALL descriptions of the body are based on anatomical position. When referring to anatomical position, that means the person is:

- **Standing**
- **Facing forward**
- **Arms at their sides**
- **Palms facing forwards**



Anatomical Planes

3 imaginary, flat sections

1. Frontal Plane (coronal): vertical plane that divides the body into *front* and *back* sections
2. Midsagittal Plane: vertical plane that divides the body into *equal left and right halves*; the sagittal plane divides the body into unequal left and right sections
3. Transverse Plane: horizontal plane that divides the body into *superior* (upper) and *inferior* (lower) sections

Positional and Directional Terms

- Ventral - front or belly side
- Dorsal - back of body or organ
- Anterior - situated in front
- Posterior - situated in back



Frontal Plane

- Proximal - near the midline or beginning of structure
- Distal - furthest from midline or beginning of structure
- Medial - toward or near the midline
- Lateral - away from the midline



Sagittal Plane

Positional and Directional Terms

- Superior - above, toward the head
- Inferior - below, toward the feet
- Cephalic - toward the head
- Caudal - toward the lower part of body



**Transverse
Plane**

Body Cavities

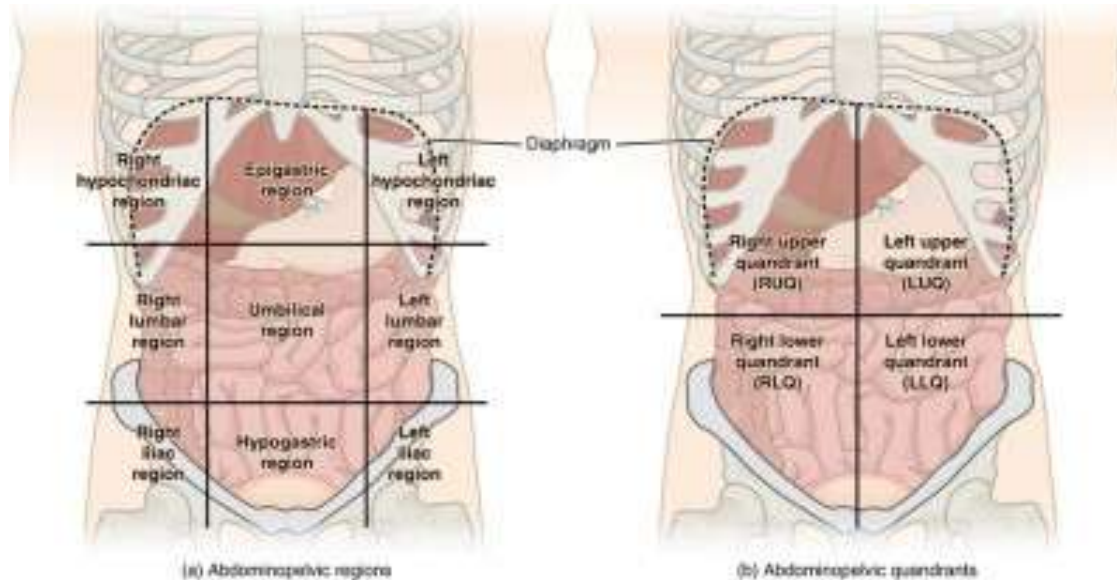
Body Cavities are spaces within the body that contain and protect internal organs

2 main cavities in the human body:

1. Dorsal Cavity: protects the organs and tissues on the *back* side (posterior) of the body and contain 2 sub categories:
 - a. Cranial cavity: located in skull and protects the brain
 - b. Spinal Cavity - located within spinal column and protects the spinal cord
2. Ventral Cavity: protects the organs and tissues on the *front* side (anterior)
 - a. Thoracic (chest) cavity-contains heart, lungs, esophagus, and major blood vessels (aorta)
 - b. Abdominal - stomach, part of large intestine, liver, spleen, gallbladder, pancreas
 - c. Pelvic - portion of large and small intestine, urinary bladder, urethra, reproductive organs

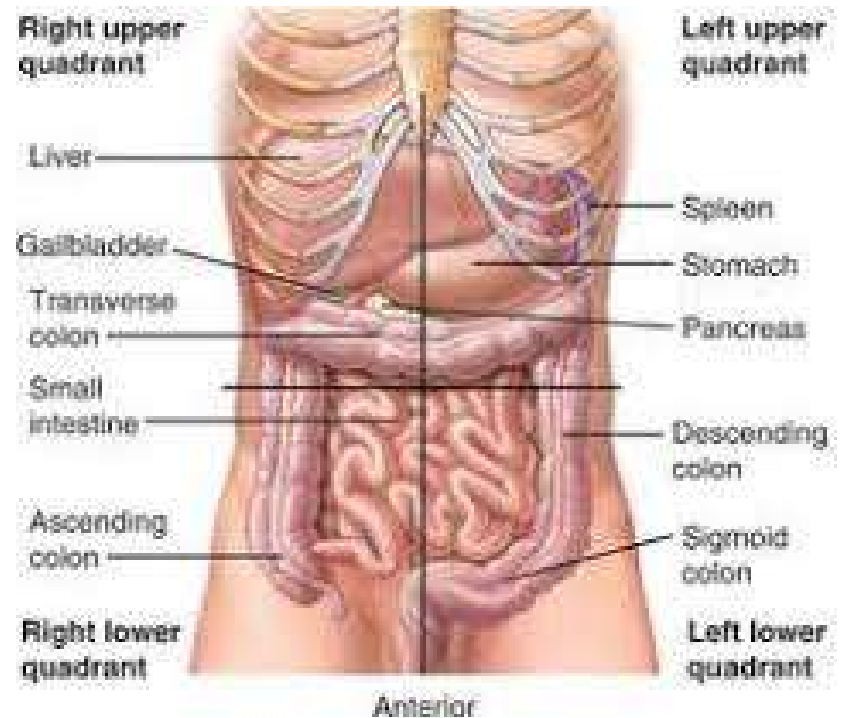
Abdominal Divisions

The abdomin/o/pelv/ic area is divided into 4 quadrants: the belly button serves the intersection point for the horizontal and vertical line dividing the region into 4 quadrants (from the person's viewpoint)



Abdominal Divisions

- RUQ (right upper quadrant)-
 - liver (right lobe)
 - Gallbladder
 - part of pancreas
 - portions of small and large intestines
- LUQ (left upper quadrant)-
 - liver (left lobe)
 - Stomach
 - Spleen
 - part of pancreas
 - part of small and large intestine



Abdominal Divisions

- RLQ (right lower quadrant) -
 - parts of small and large intestine
 - right ovary
 - right fallopian tube
 - right ureter
 - right side of bladder
 - right side of reproductive organs (in males)
- LLQ (left lower quadrant) -
 - portions of small and large intestine
 - left portions of bladder
 - ureter
 - reproductive organs (in males)
 - left ovary

