

Module 1

Introduction to the Human Body

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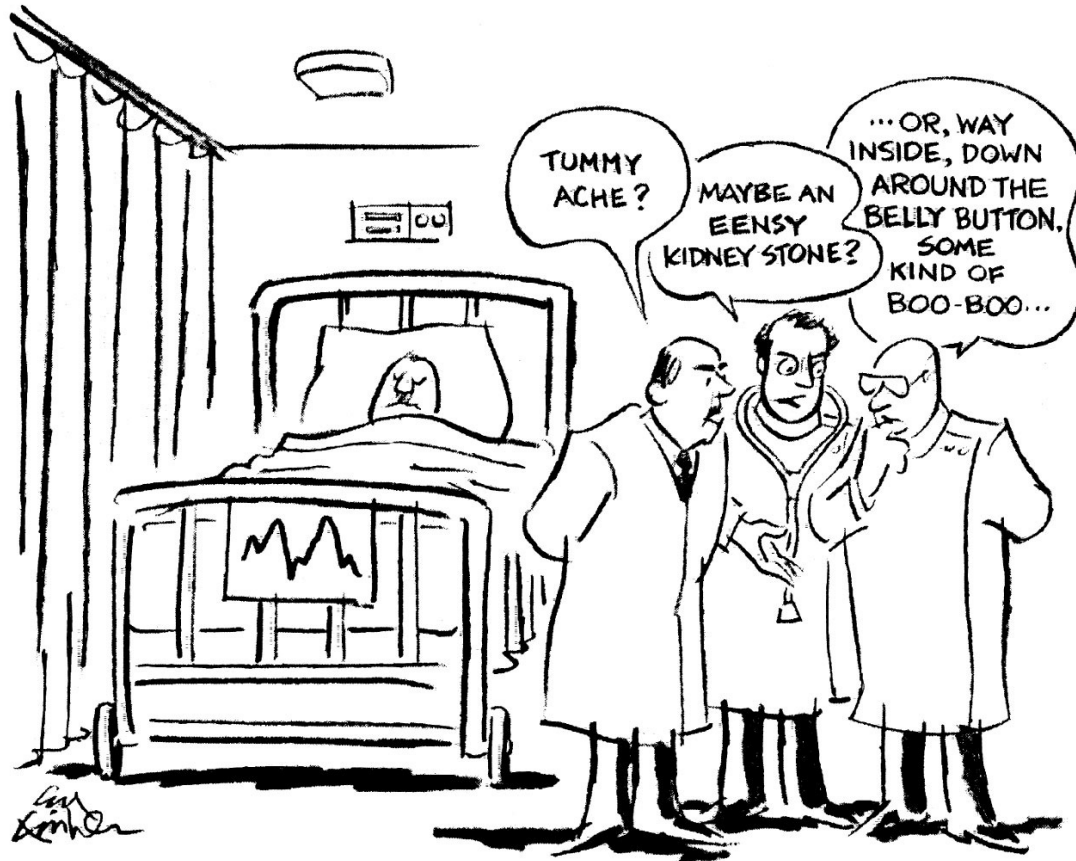
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Learning Outcomes

1. Define and differentiate anatomy and physiology
2. Levels of body organization
3. Life processes
- 4. Anatomical terminology and body planes**
5. Body cavities and cavity membranes
6. Abdominopelvic regions and quadrants
7. Homeostasis

4. Anatomical Terminology and Body Planes

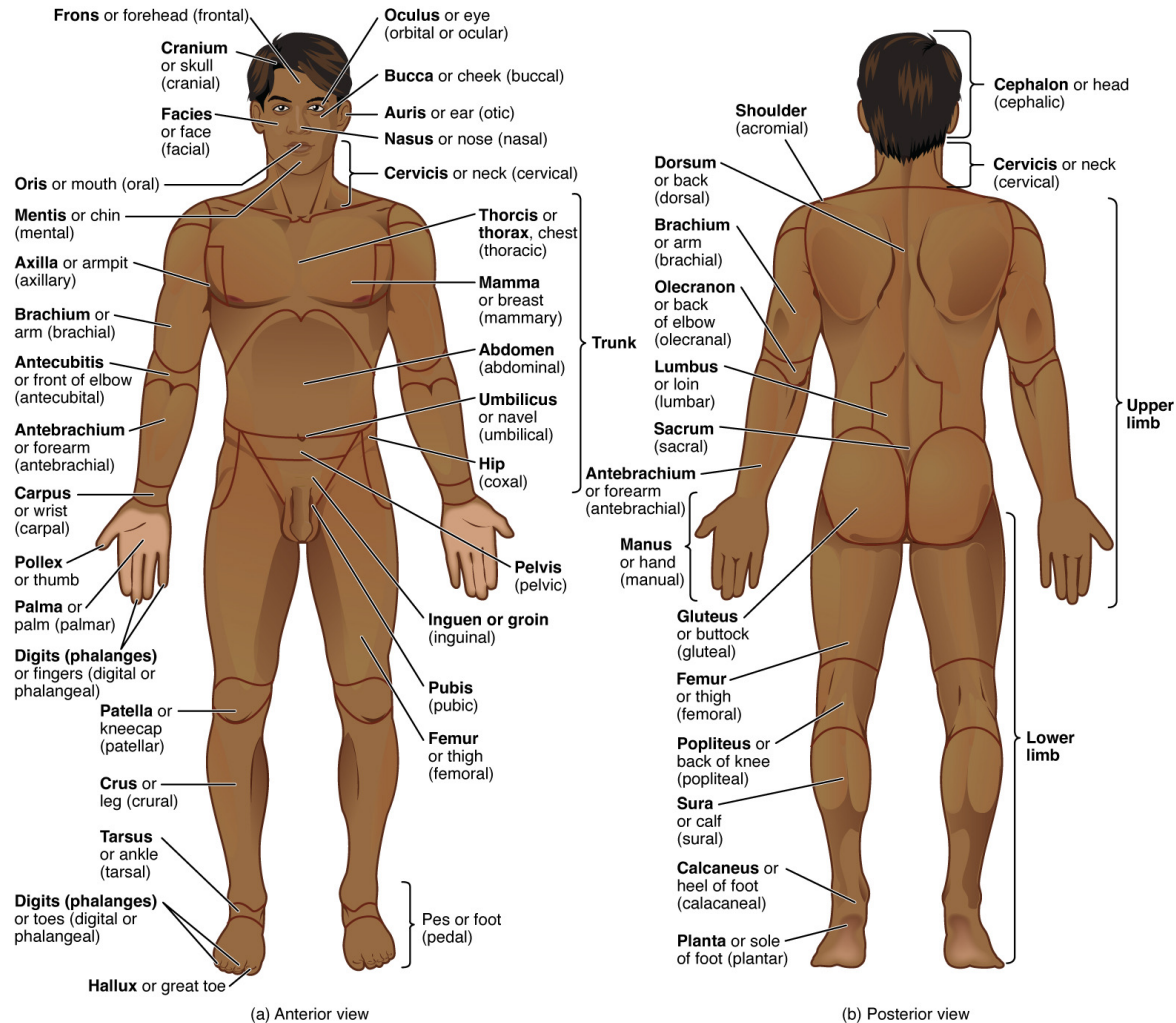
- Importance of Precise Vocabulary



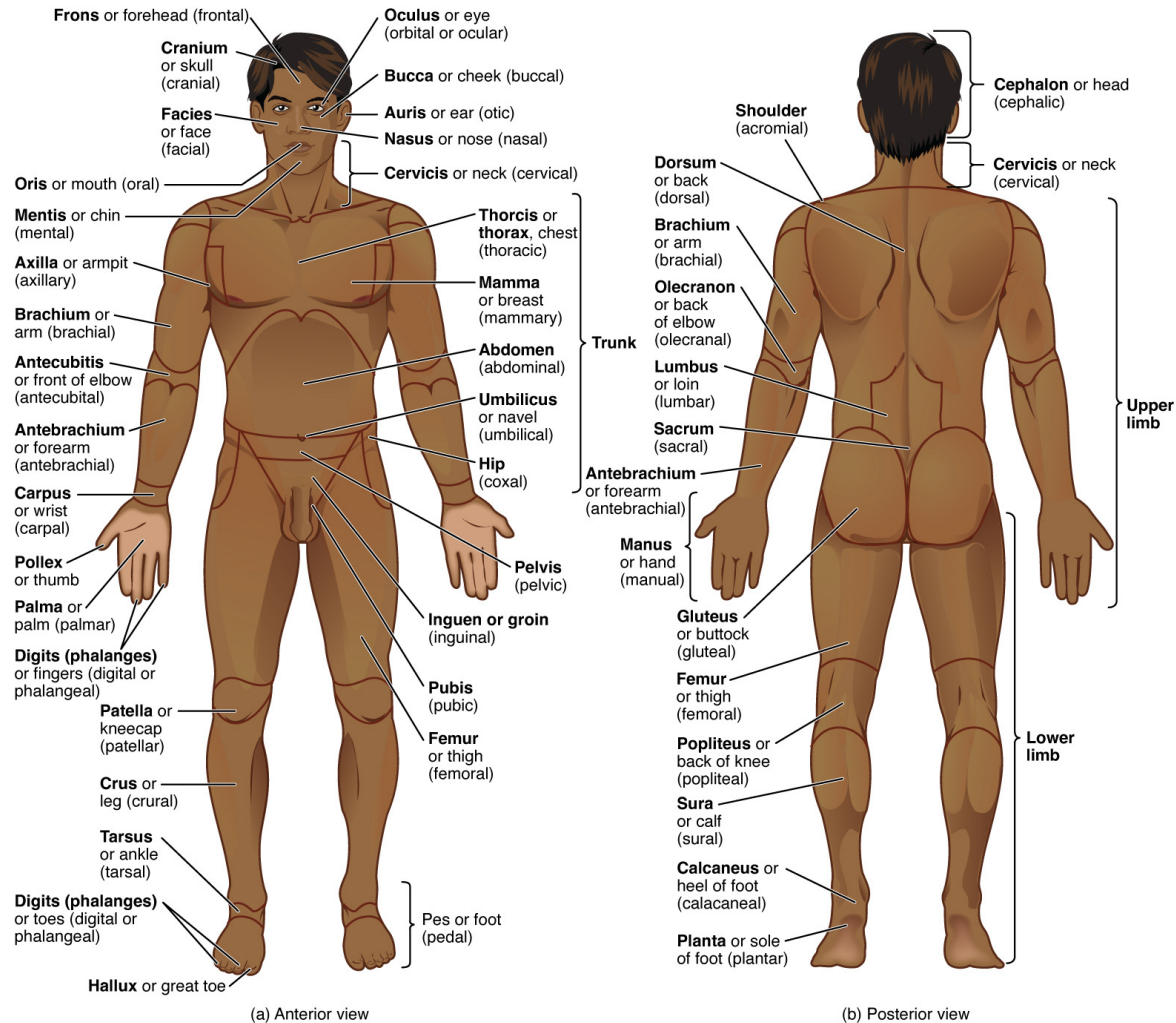
The Language of Anatomy

- **Superficial anatomy:** anatomical landmarks and correct directional terms help in understanding the underlying structures.
- **Anatomical landmarks:**
 - *Anatomical position:* standing upright, arms at sides, palms facing forward (little fingers by the thigh), feet flat on the floor, face straight ahead
 - *Supine:* lying down with the face up
 - *Prone:* lying down with the face down

Anatomical Position



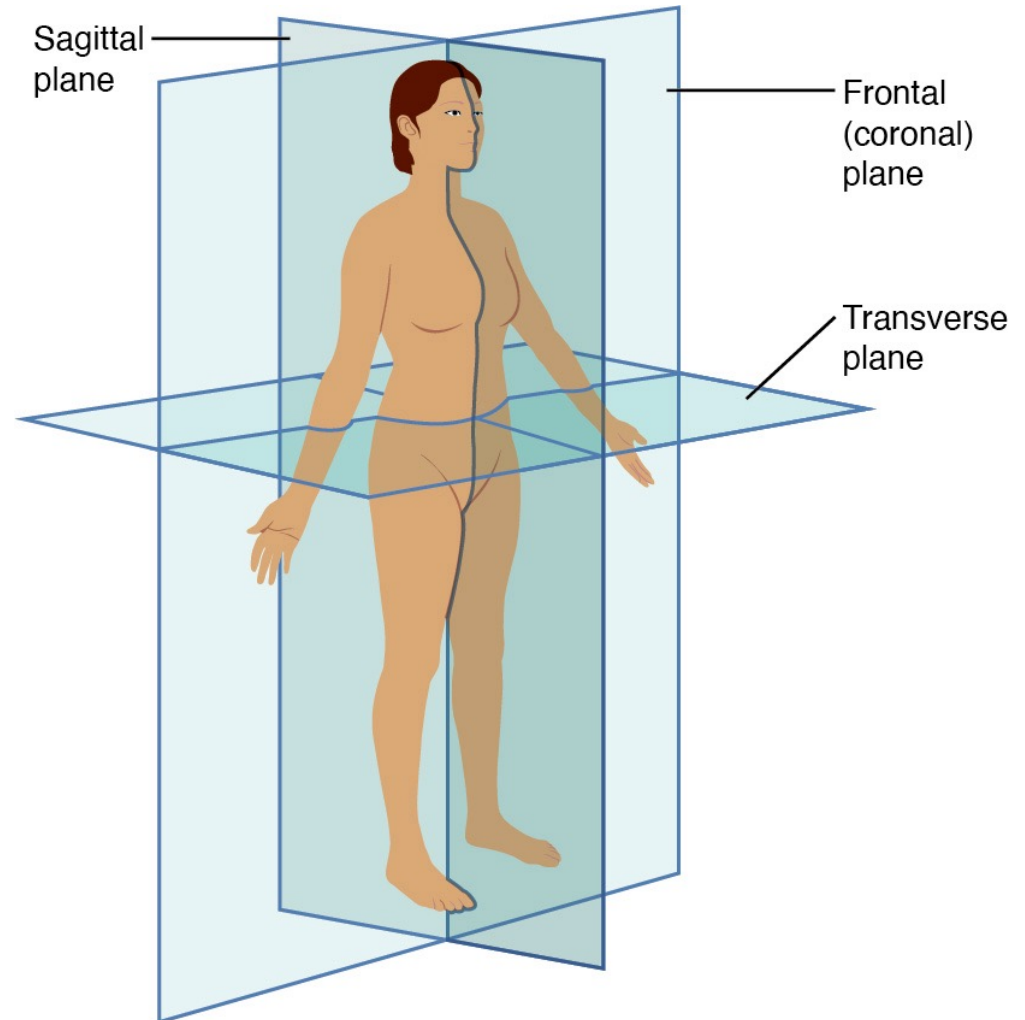
Body Parts and Body Regions



Planes Through the Human Body

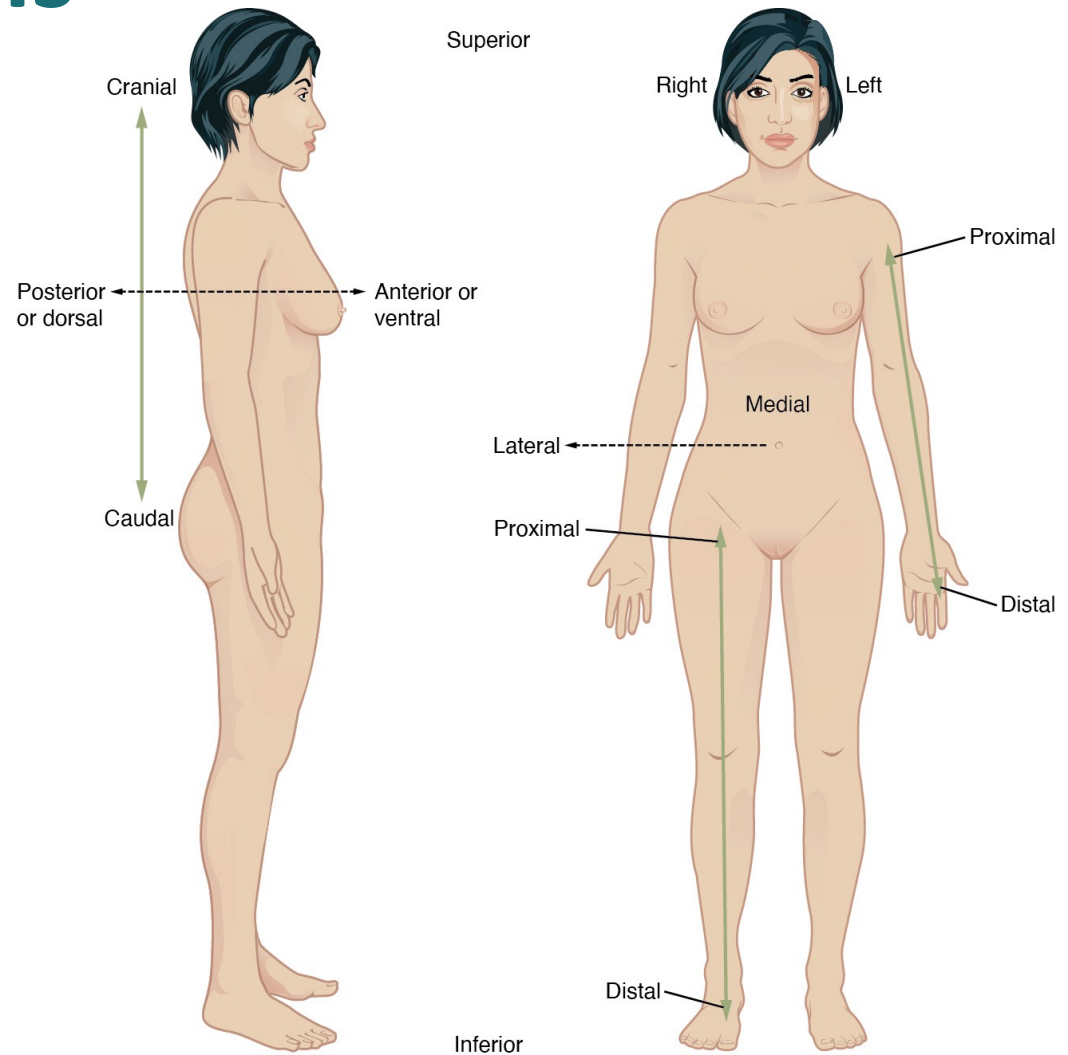
Three planes most used in anatomical and medical imaging are:

- Sagittal
- Frontal (or coronal)
- Transverse



Directional Terms

Paired directional terms are shown as applied to the human body.



Directional Term	Definition	Example of use
Superior	Above or higher in position; toward the head. (not used in reference to limbs)	The lungs are superior to the pancreas.
Inferior	Below or lower in position; toward feet. (not used in reference to limbs)	The liver is inferior to the heart.
Cranial	Relating to skull or head; toward head.	The heart is cranial to the urinary bladder.
Caudal	Relating to tail; at or near tail or posterior part of body.	The sacrum is caudal to the lumbar vertebrae.
Anterior	Near to or at the front of the body.	The trachea is anterior to the vertebrae.
Posterior	Near to or at the back of the body.	The heart is posterior to the sternum.
Ventral	Relating to the belly side of the body; toward the belly.	The stomach is ventral to the pancreas.
Dorsal	Relating to the back side of the body; toward the back.	The spinal cord is dorsal to the inferior vena cava.
Medial	Closer to the midline.	The heart is medial to the lungs.
Lateral	Farther from the midline.	The fibula is lateral to the tibia.
Proximal	Closer to the attachment of a limb to the trunk; closer to the origin of a structure.	The femur is proximal to the tibia.
Distal	Farther from the attachment of a limb to the trunk; farther from the origin of a structure.	The carpals are distal to the humerus.
Superficial	Toward or on the surface of the body.	The sternum is superficial to the heart.
Deep	Away from the surface of the body.	The stomach is deep to the rectus abdominis.

How to Use Directional Terms

Example of use

The lungs are superior to the pancreas.

The liver is inferior to the heart.

The heart is cranial to the urinary bladder.

The sacrum is caudal to the lumbar vertebrae.

The trachea is anterior to the vertebrae.

The heart is posterior to the sternum.

The stomach is ventral to the pancreas.

The spinal cord is dorsal to the inferior vena cava.

The heart is medial to the lungs.

The fibula is lateral to the tibia.

The femur is proximal to the tibia.

The carpals are distal to the humerus.

The sternum is superficial to the heart.

The stomach is deep to the rectus abdominis.

