

The Language of Anatomy

- Special terminology is used to prevent misunderstanding
- Exact terms are used for:
 - **Position**
 - **Direction**
 - **Regions**
 - **Structures**

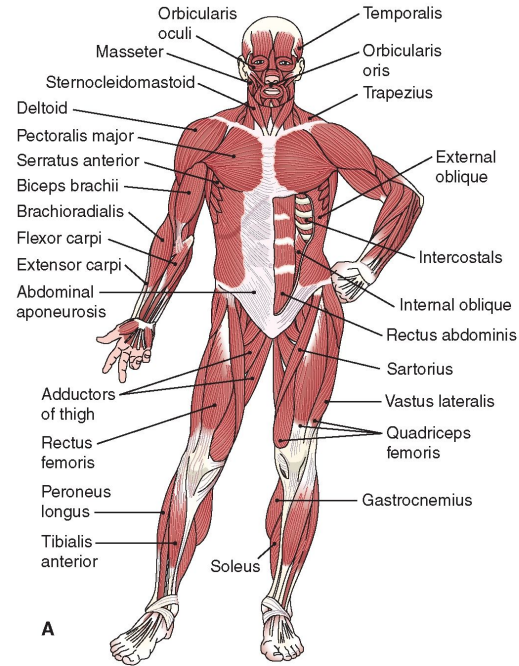
The Language of Anatomy

- **Anatomical position**

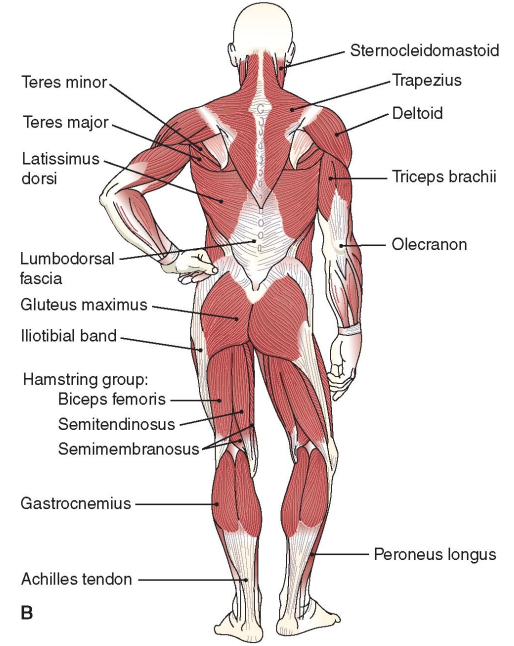
- Standard body position used to **avoid confusion**
- Terminology refers to this position regardless of actual body position
- **Stand erect, feet parallel, arms hanging at the sides with palms facing forward and thumbs pointing away from the body**



CORRECT anatomical position



INCORRECT anatomical position



Directional Terms

- Explain location of one body structure **in relation to another**
- Usually written together with the opposing direction

Directional Terms

- **Superior (cranial):** toward the head or upper part of a structure or the body; above
 - *Example: The heart is superior to the stomach*
- **Inferior (caudal):** away from the head or toward the lower part of a structure or the body; below
 - *Example: The knee is inferior to the femur*

Directional Terms

- **Anterior (ventral):** toward or at the front of the body; in front of
 - *Example: The heart is anterior to the spine*
- **Posterior (dorsal):** toward or at the backside of the body; behind
 - *Example: The esophagus is posterior to the tongue*

Directional Terms

- **Medial:** toward or at the midline of the body; on the inner side of
 - *Example: the big toe is medial to the pinky toe*
 - *Example: the pinky finger is medial to the thumb***(Tricky!)**
- **Lateral:** away from the midline of the body; on the outer side of
 - *Example: The shoulder is lateral to the sternum*

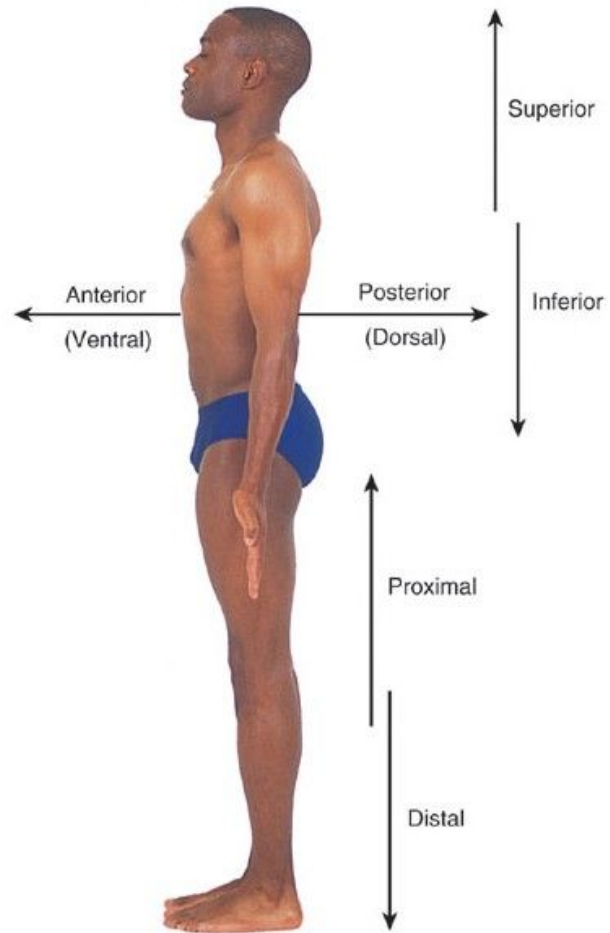
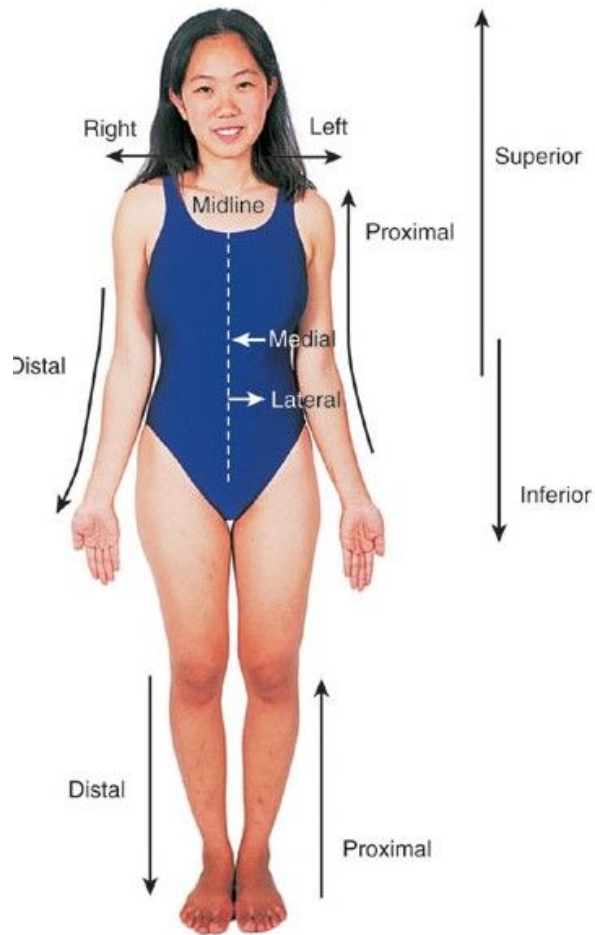
Directional Terms

- **Proximal:** close to the origin of the body part or point of attachment to a limb to the body trunk
 - *Example: the elbow is proximal to the wrist*

- **Distal:** farther from the origin of a body part or the point of attachment of a limb to the body trunk
 - *Example: the ankle is distal to the knee*

Directional Terms

- **Superficial:** toward or at the body surface
 - *Example: The skin is superficial to the muscles*
- **Deep:** away from the body surface; more internal
 - *Example: The lungs are deep to the ribcage*



Body Planes and Sections

- Sections are cut along imaginary lines known as **planes**.
- Three types of planes or sections exist as **right angles to one another**.

Body Planes and Sections

- **Sagittal plane**
 - Divides the body (or organ) into **left and right parts**
 - A **midsagittal plane** divides the body (or organ) into **equal left and right parts**



(a) Median (midsagittal)

Body Planes and Sections

- **Frontal or coronal plane**
 - Divides the body (or organ) into **anterior and posterior parts**



(b) Frontal (coronal) plane

Body Planes and Sections

- **Transverse plane**
 - Divides the body (or organ) into **superior and inferior parts**



(c) Transverse plane