

Human Anatomy

Lec 1

Directional language uses directional terms to describe the regions of the body and create less confusion.

Anatomical Position

Towards the head, end of the body ; upper. Ex : The head is part of the superior region

Away from the head ; lower. Ex : the foot is part of the inferior extremity .



Face forward.

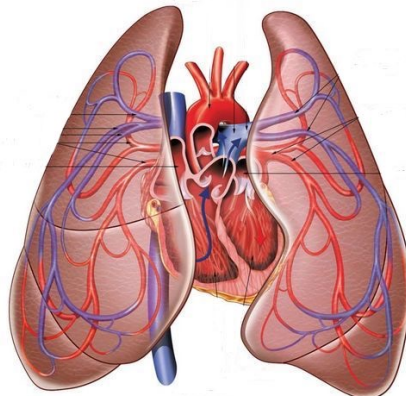
Arms at the sides.

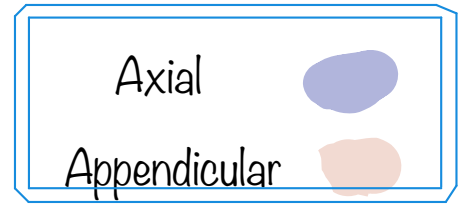
Palms face forward.

Feet point forward.

The heart is located superior to the small intestine.

The small intestine is located inferior to the heart.



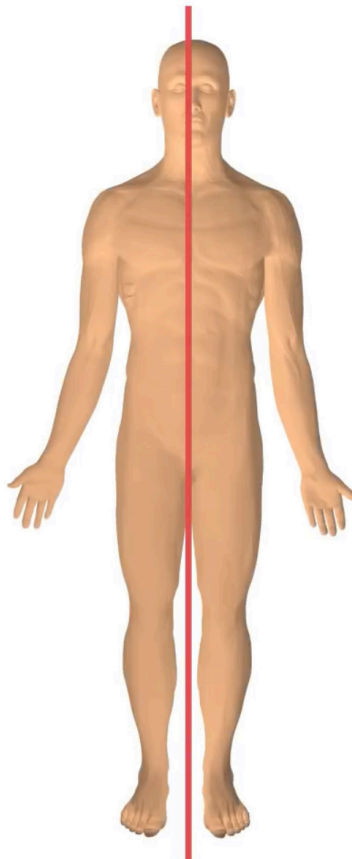


Medial

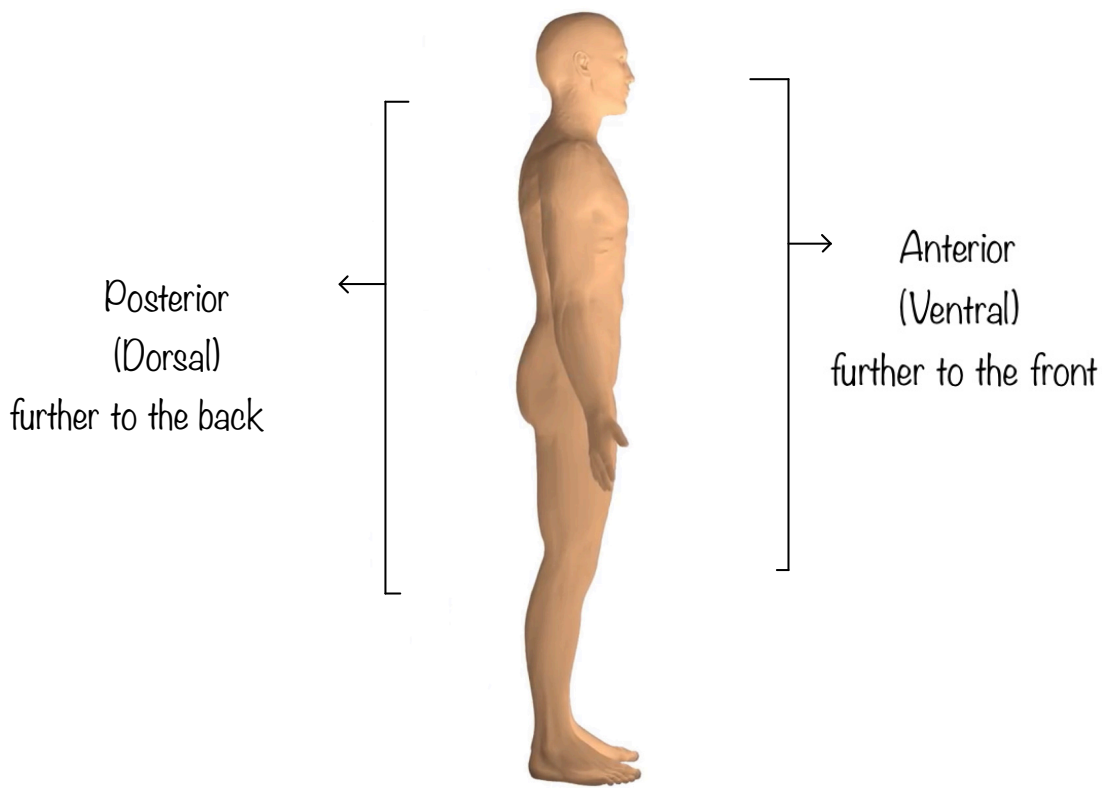
Towards the midline of the body.
(Closer to the midline)

Lateral

Towards the side of the body
Ex : The heart lies medial to the lungs.



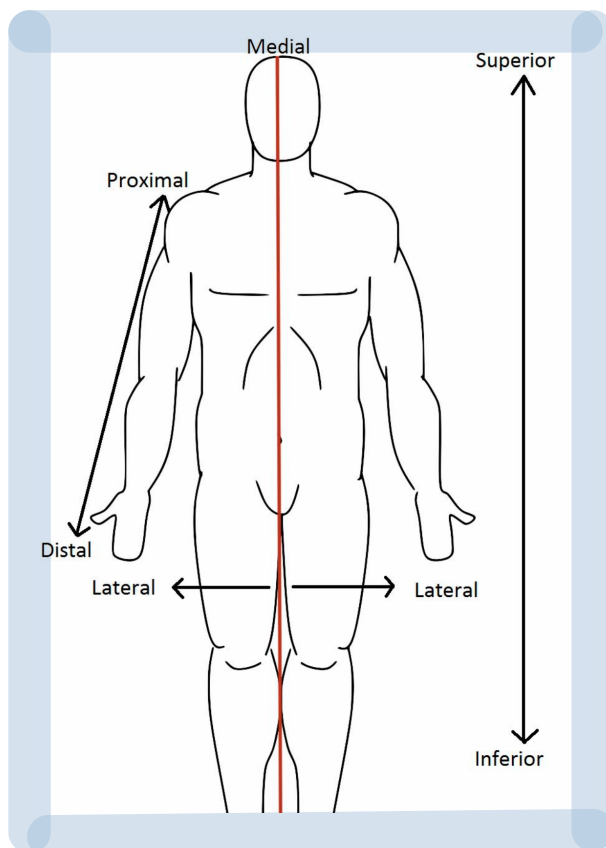
Midline 



Anatomical Positions

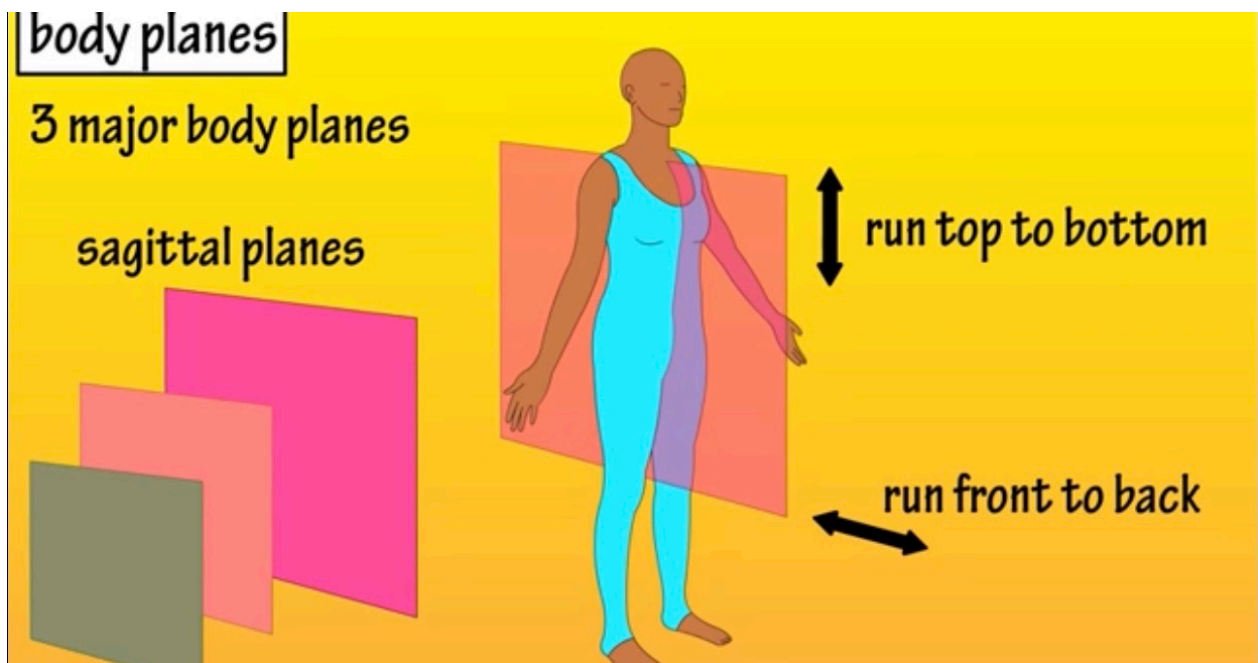
- Anterior (or ventral) Describes the front or direction towards the front of the body.
Ex: The toes are anterior to the foot.
- Posterior (or dorsal) Describes the back or direction towards the back of the body.
Ex: The shoulder blades are located on the posterior side of the body
- Superior (or cranial) describes a position above or higher than another part of the body proper.
Ex: The hand is part of the superior extremity
- Inferior describes a position below or lower than the other part of the body.
Ex: The foot is part of the inferior extremity.

- Lateral describes the side or direction toward the side of the body.
- Medial describes the middle or direction toward the middle of the body.
- Proximal describes a position that's closer to the center of the body.
- Distal describes a position that's farther away from the center of the body.
- Superficial describes a position closer to the surface of the body.
Ex: The skin is superficial to the bones.
- Deep describes a position farther from the surface of the body.
Ex: The brain is deep to the skull.

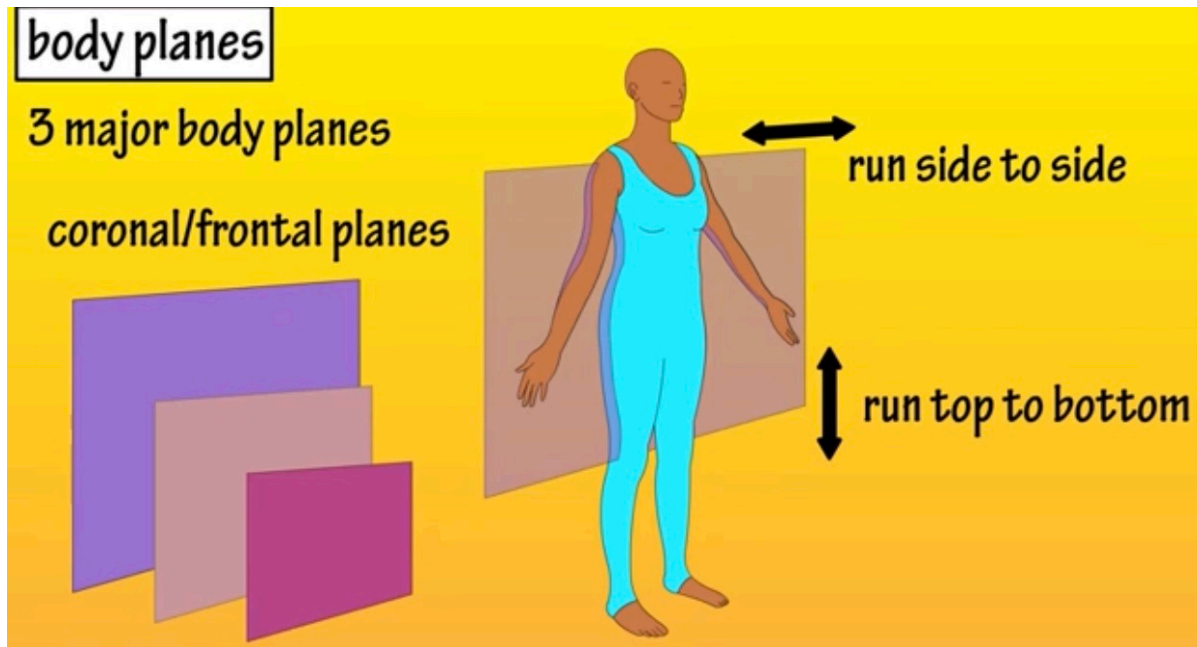


BODY PLANES

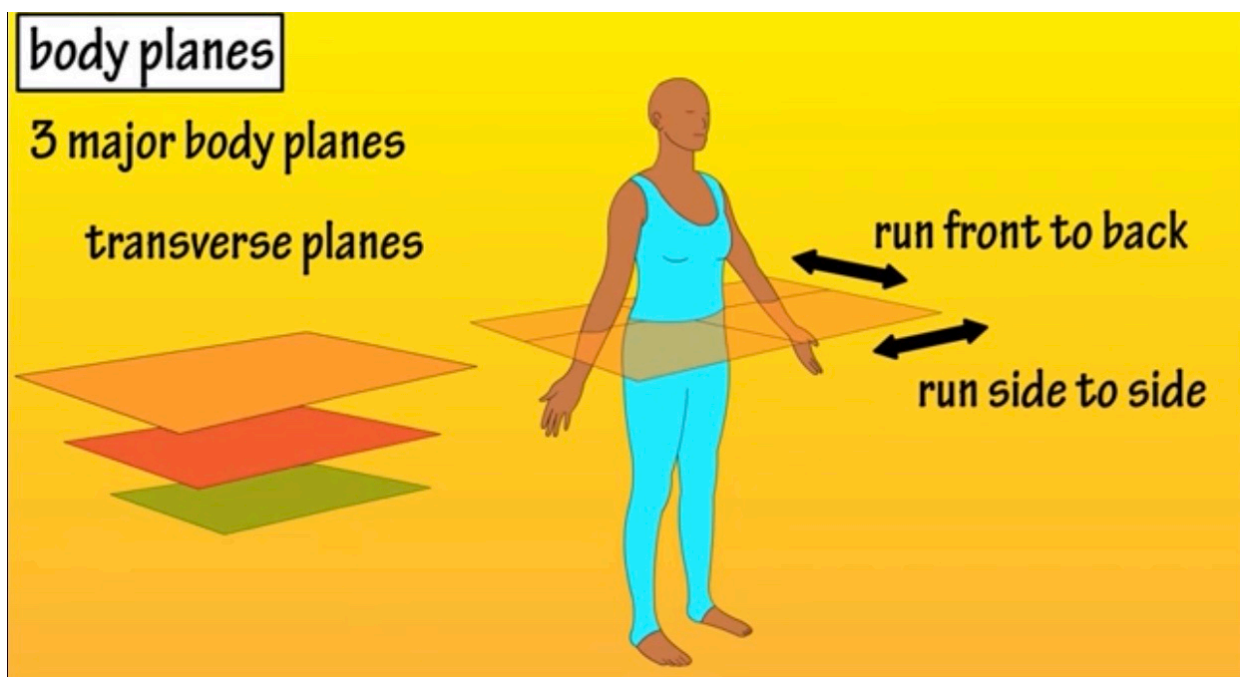
- The sagittal plane is the plane that divides the body or an organ vertically into right and left sides. If this vertical plane runs directly down the middle of the body, it is called the midsagittal plane. If it divides the body into unequal right and left sides, it is called a parasagittal plane.



- The frontal plane is the plane that divides the body or an organ into an anterior (front) portion and a posterior (rear) portion. The frontal plane is often referred to as a coronal plane.



- The transverse plane is the plane that divides the body or organ horizontally into upper and lower portions. Transverse planes produce images referred to as cross sections.



TYPES OF BONES

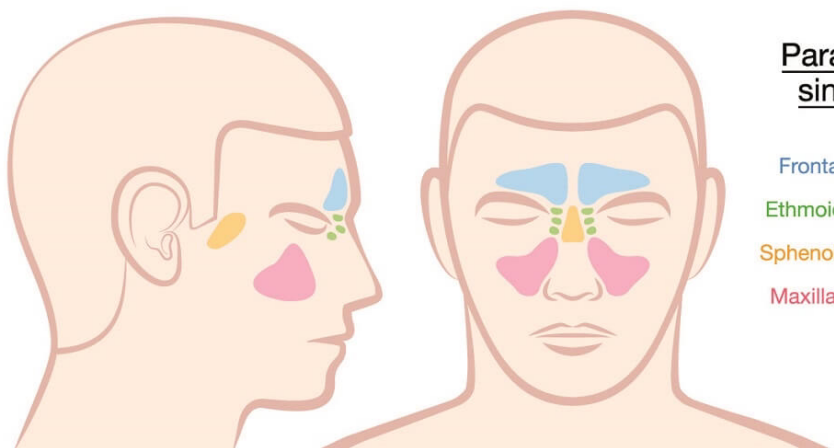
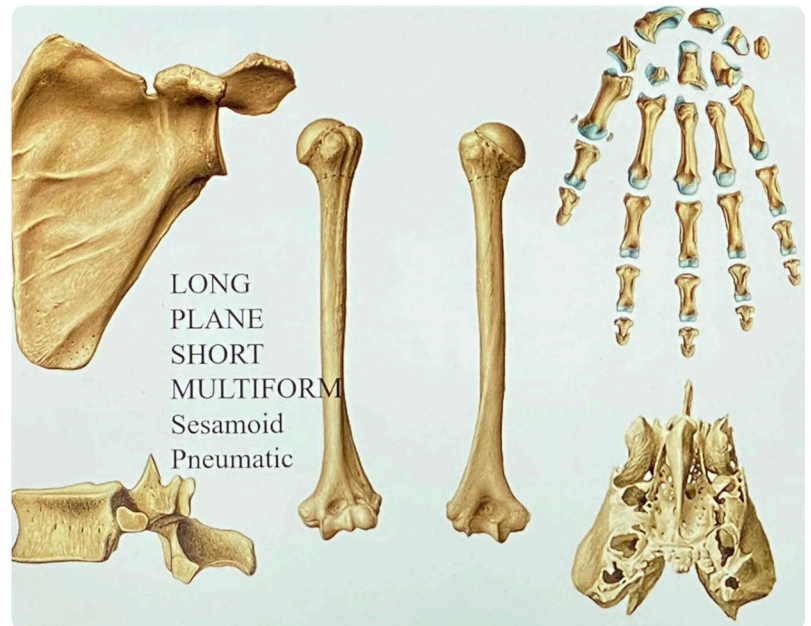
There are different types of bone in the human body:

* **Long bone** - is a bone that has a shaft and 2 ends and is longer and wide. They have thick outer layer of compact bone and an inner cavity containing bone marrow.
* **Examples** include (the tibia, fibula, femur, and bones in the upper limbs (the humerus, radius... so on . With the help of muscles, long bones work as levers to permit movement.

* **Short bone** - are cubed shape. **Examples** include the bones that make up the wrists and the ankles.

* **sesamoid bone** : A sesamoid bone is a small bone commonly found embedded within a muscle or tendon near joint surfaces

* **Pneumatic bone** : Bones containing air. They contain air cavities called paranasal sinus
Site: Skull bones and the surroundings of the nose,
ex : maxillary and frontal bones.



Different types of joints

