The Anatomical Position, Planes and Axis

(Textbook page 2-3)

Anatomical Position

Anatomists and physiologist look at the human body from this standard starting point known as the **anatomical position**.

The Anatomical Position

- The human body standing erect
- Face facing forward
- arms by the sides
- palms facing forward
- legs straight
- feet flat on the floor and turn out very slightly



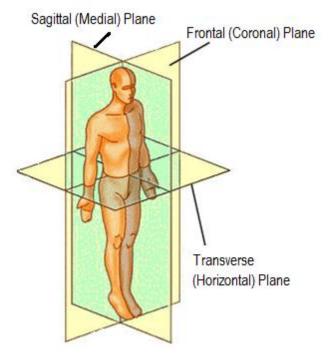
Anatomical Planes

The anatomical position is further standardized by dividing the body into three anatomical planes. A plane is an imaginary flat surface passing through the body or organ which divides the structure.

1) <u>Frontal (Coronal) Plane</u>: is vertical and extends from one side of the body to the other. It divides the body into front and back sections.

2) **Sagittal (Medial) Plane**: is vertical and extends from the front of the body to the back. It divides the body into right and left sections.

3) **<u>Transverse (Horizontal)</u>** Plane: is horizontal and divides the body into upper and lower segments.



Axes of Rotation

The human body is also divided into anatomical axes Axis of rotation is an imaginary line (**point of rotation**) that passes through a joint or the body to describe the movement.

<u>3 Primary Axes of Rotation</u>

- 1. Horizontal (Medio-Lateral) Axis:
 - Runs from side to side
 - Perpendicular to Sagittal Plane
 - Typically flexion/extension

2. Antero-Posterior (Sagittal) Axis:

- Runs from front to back
- Perpendicular to the Coronal Plane
- Typically abduction/adduction movements
- 3. Longitudinal (Vertical) Axis:
 - Runs straight through the top of the head down between the feet
 - Perpendicular to the Transverse Plane
 - Typically a rotation type of movement

Summary of the three planes and axes of rotation

Anatomical Plane	Perpendicular Axis
Sagittal (Medial)	Horizontal (Medio-Lateral)
Frontal (Coronal)	Antero-Posterior (Sagittal)
Transverse (Horizontal)	Longitudinal (Vertical)

