

INTRODUCTION TO ANATOMY

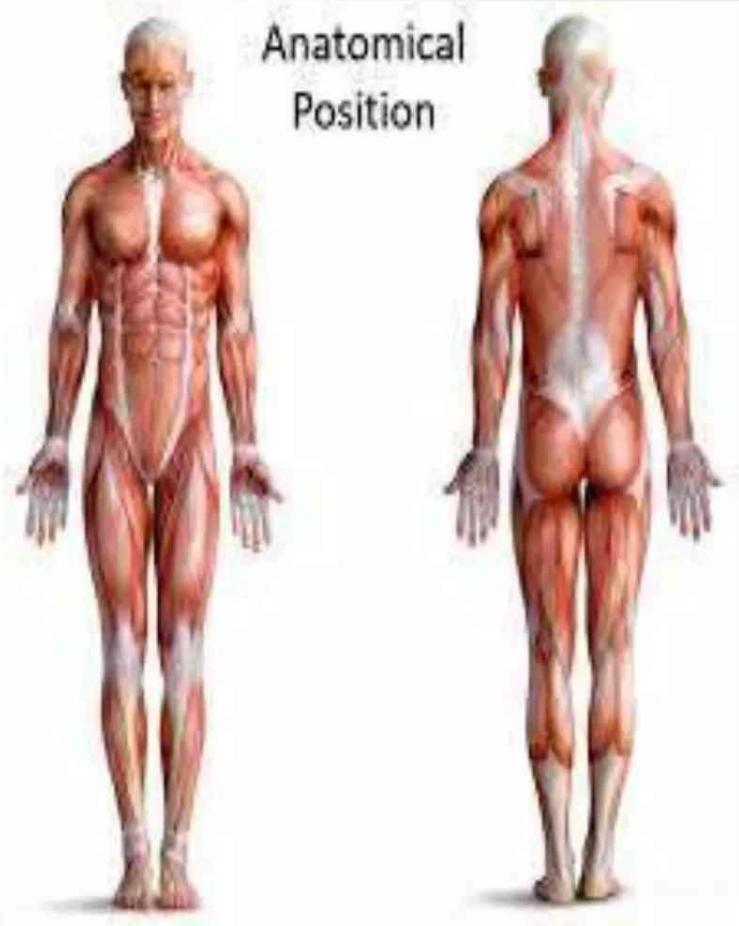
د. رؤى نشأت الصفار

DEFINITION OF ANATOMY

- ▶ Anatomy = Ana (Gr) Apart/ Up
- ▶ Tome (Gr) = To Cut
- ▶ Dissection Dissecare (Latin) To cut apart
- ▶ **ANATOMY:** It is a branch of science that is concerned with the study of the structure of human body, animals or any living organism
- ▶ **PHYSIOLOGY:** It is the branch of biology that studies the normal function of human body or any living organism

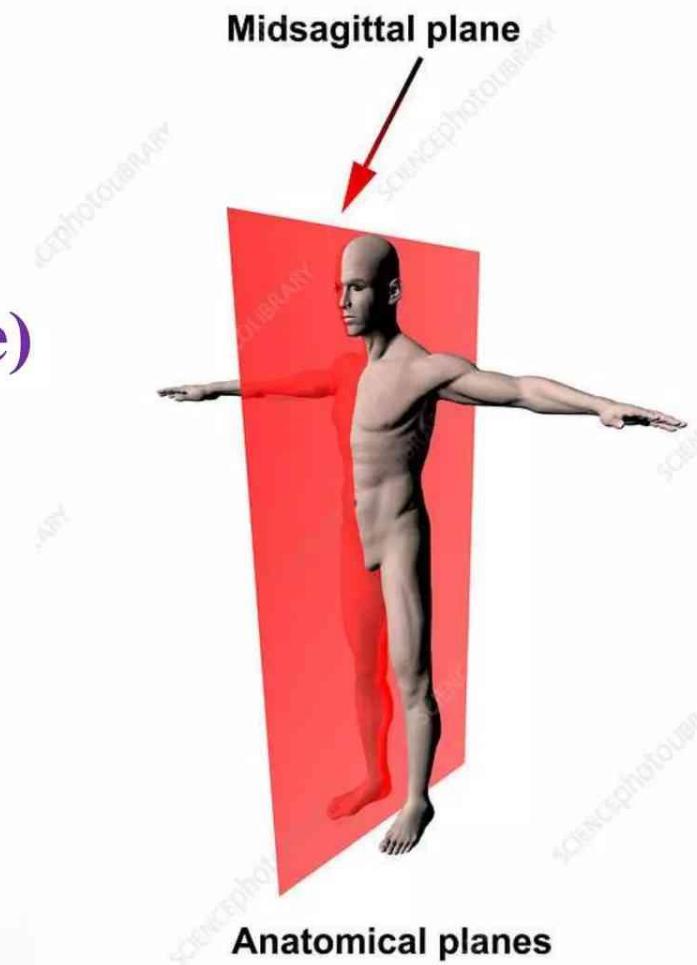
ANATOMICAL POSITION

- ▶ Standing up right
- ▶ Looking straight towards horizon
- ▶ Upper limbs hanging by the side of body
- ▶ Palms facing forwards
- ▶ Lower limbs are parallel with toes pointing forwards



BODY PLANES

- ▶ A plane is an imaginary surface that slices the body into specific sections.
- ▶ **MID SAGITTAL (Median Plane)**
A vertical plane dividing the body into right and left equal halves.
- ▶ **SAGITTAL:**
A vertical plane which is parallel to the sagittal plane.

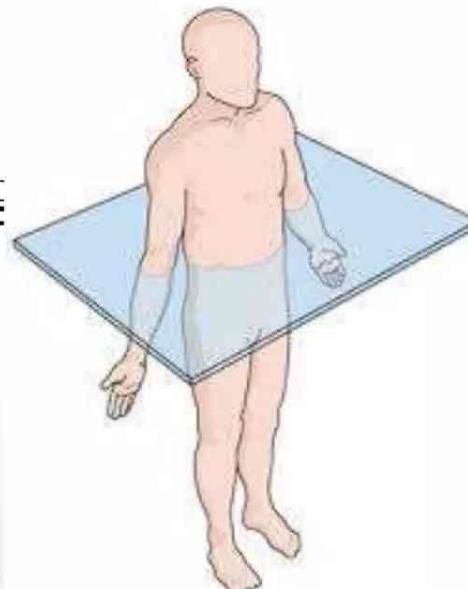


- ▶ **CORONAL PLANE**
coronal / frontal / vertical
plane that divides the body
into anterior (front) and
posterior (back) parts.



(b) Frontal (coronal) plane

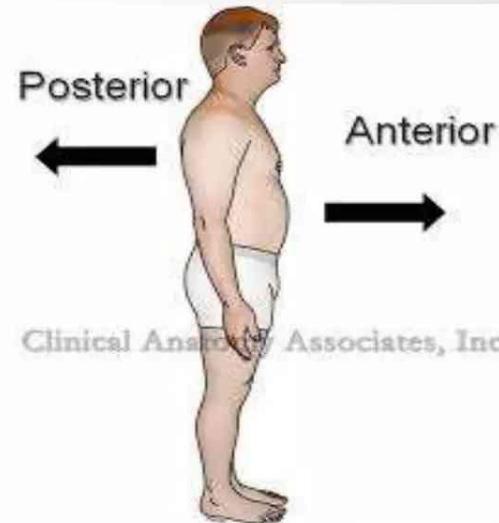
- ▶ **TRANSVERSE PLANE:**
cross-sectional/ horizontal plane ,
cuts perpendicularly along the long
axis of the body or organ separating
it into both superior (upper) and
inferior (lower) parts



ANATOMICAL TERMS OF DIRECTION

- ▶ **Anterior** = Ventral
- ▶ **Intermediate** = Middle
- ▶ **Posterior** = Dorsal

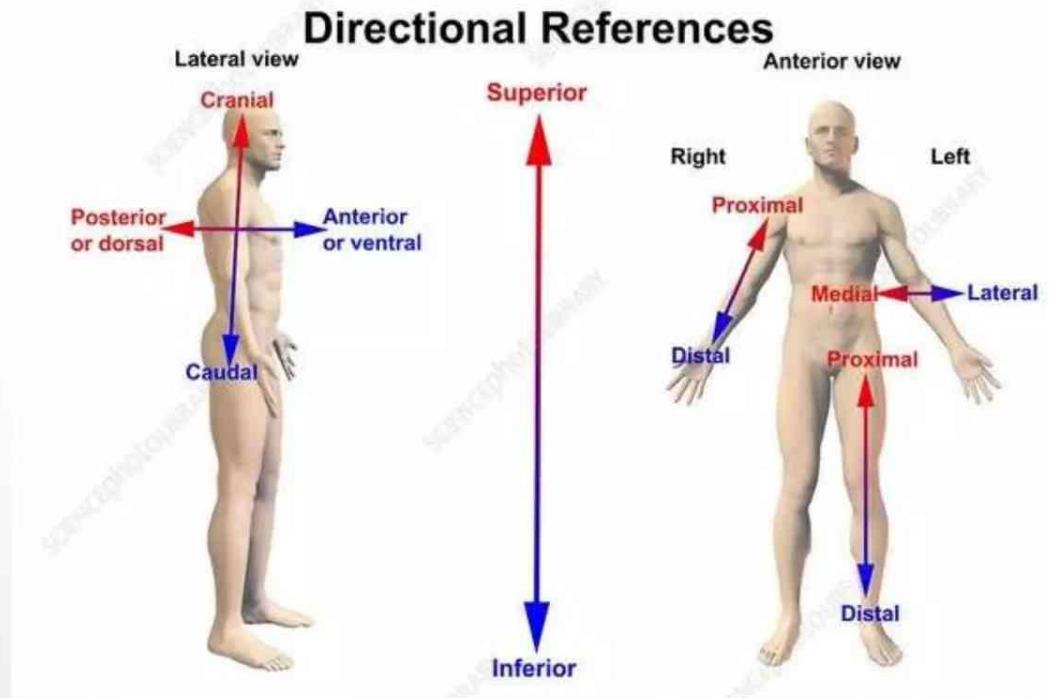
ANATOMICAL TERMS OF DIRECTION



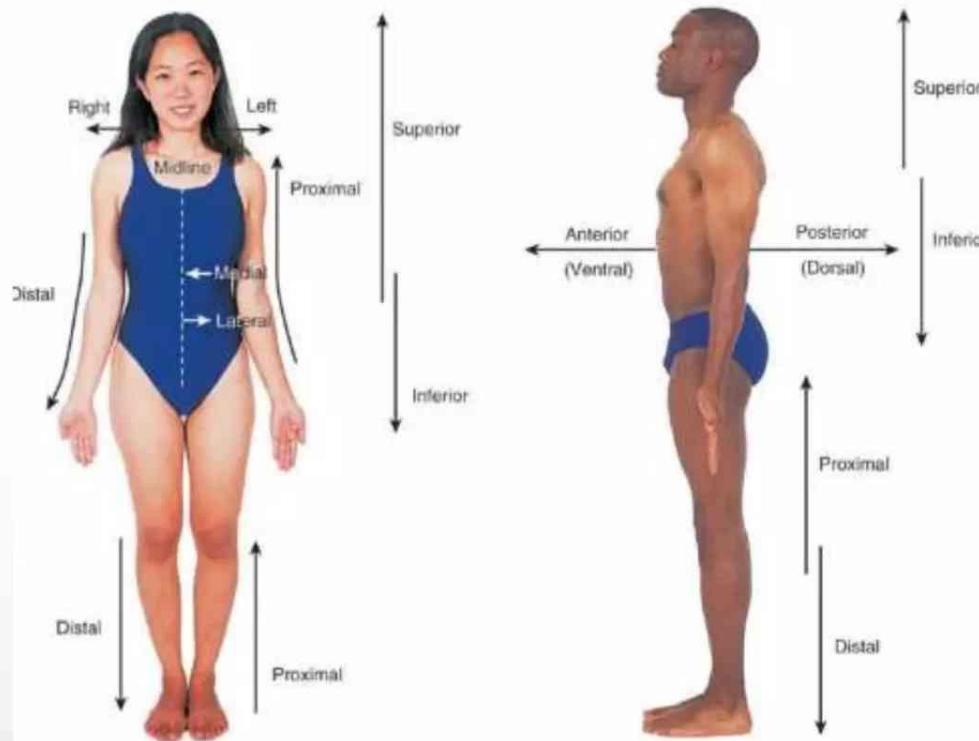
Clinical Anatomy Associates, Inc

- ▶ **Anterior** = **In front of**; toward the front surface
- ▶ **Posterior** = **In back of**; toward the back surface
- ▶ **Dorsal** = At the back side of the human body
- ▶ **Ventral** = At the belly side of the human body

- ▶ **Superior / Cranial / Cephalic** = Toward the head or above the head end
- ▶ **Inferior / Caudal** = Toward feet OR tail end.



- ▶ **Proximal** = **Closest** to point of attachment to trunk
- ▶ **Distal** = **Furthest** from point of attachment to trunk



- ▶ **Anterior**- At or **near the front** of the body (front view)
- ▶ **Posterior** -At or **near the back** of the body (back view)
- ▶ **Midline**- An imaginary vertical line that **divides the body equally** (right down the middle)
- ▶ **Lateral**- **Farther from midline** (side view)
- ▶ **Medial** -**Nearer to midline** (side view)

For solid organs:

- ▶ - Superficial -Deep

For hollow organs:

- ▶ -Interior -Exterior

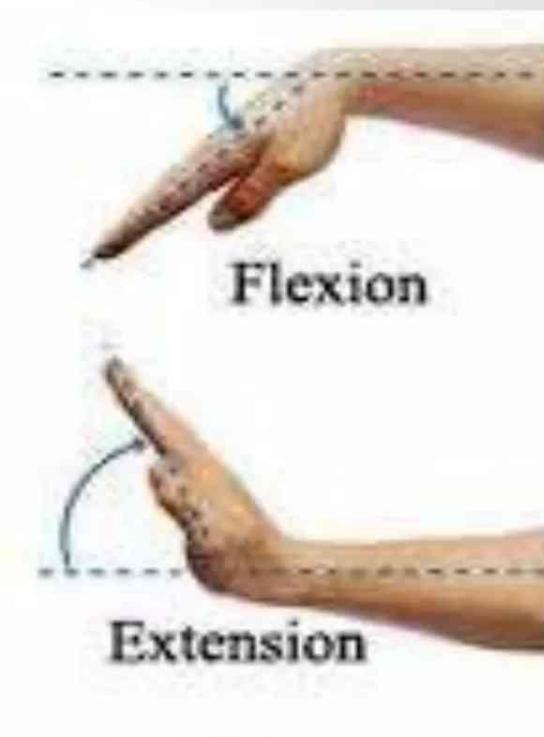
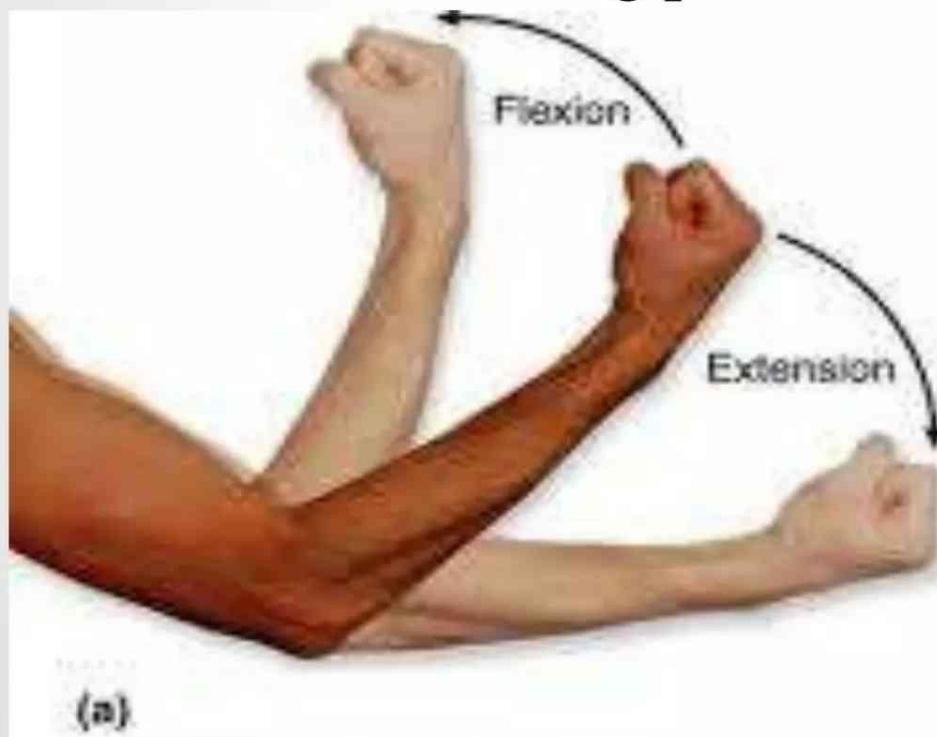
For indicating the side:

- ▶ -Ipsilateral -Contralateral

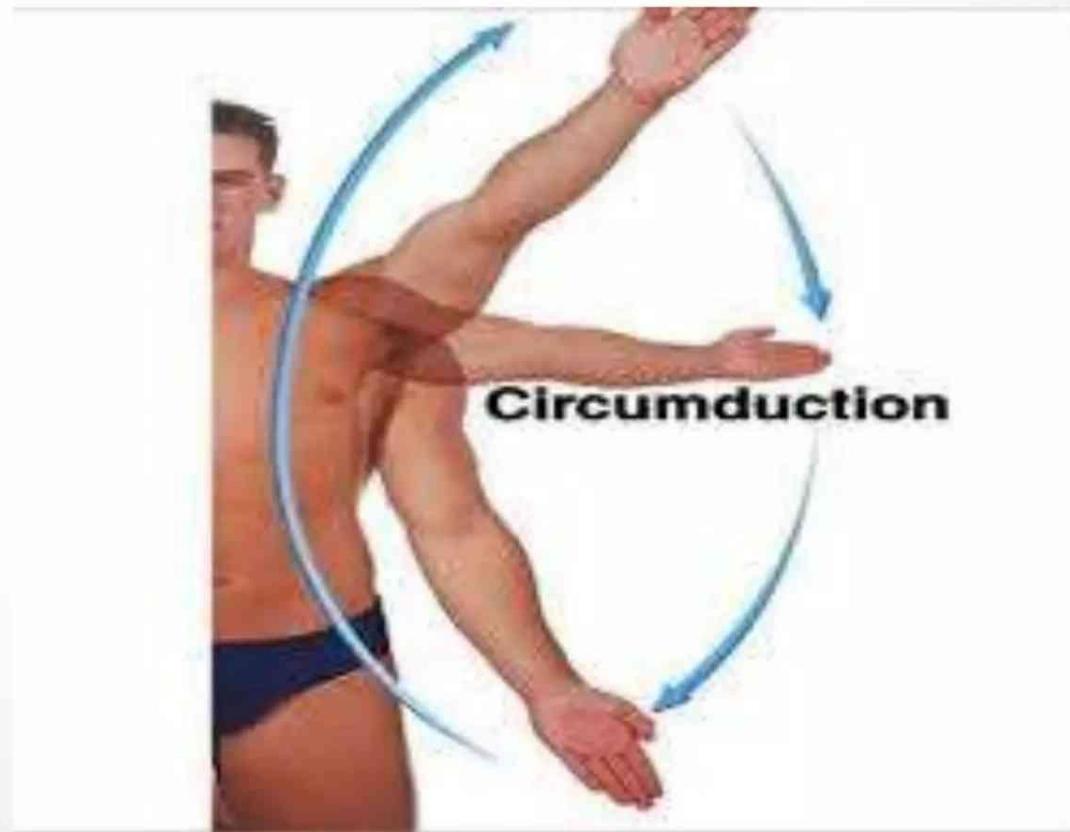
- ▶ **Superior** - **Toward the head**/upper part of a structure (bird's-eye view, looking down)
- ▶ **Inferior**- **Away from the head**/lower part of a structure (bottom view, looking up)
- ▶ **Superficial**- **Close to the surface of the body**
- ▶ **Deep** - **Away from the surface of the body**
- ▶ **Proximal**- **Nearer to the origination** of a structure
- ▶ **Distal** **Farther from the origination** of a structure

TERMS OF MOVEMENT

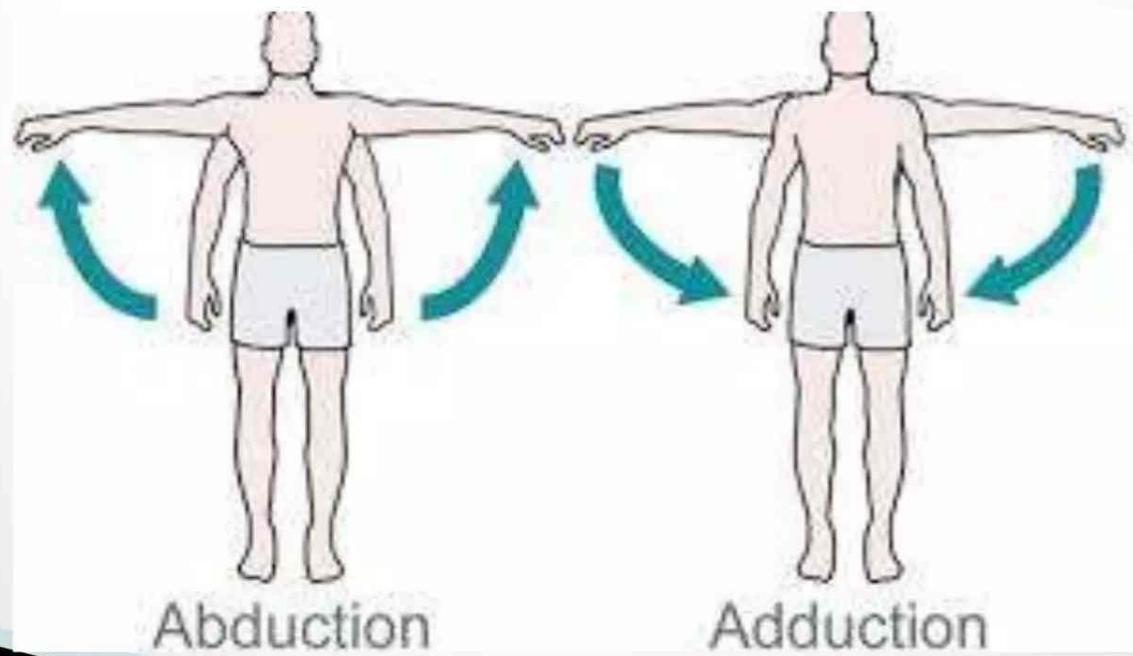
- ▶ **Flexion**: - Moving part is carried **forwards** -
- ▶ **Extension**- Moving part is carried **backwards**.



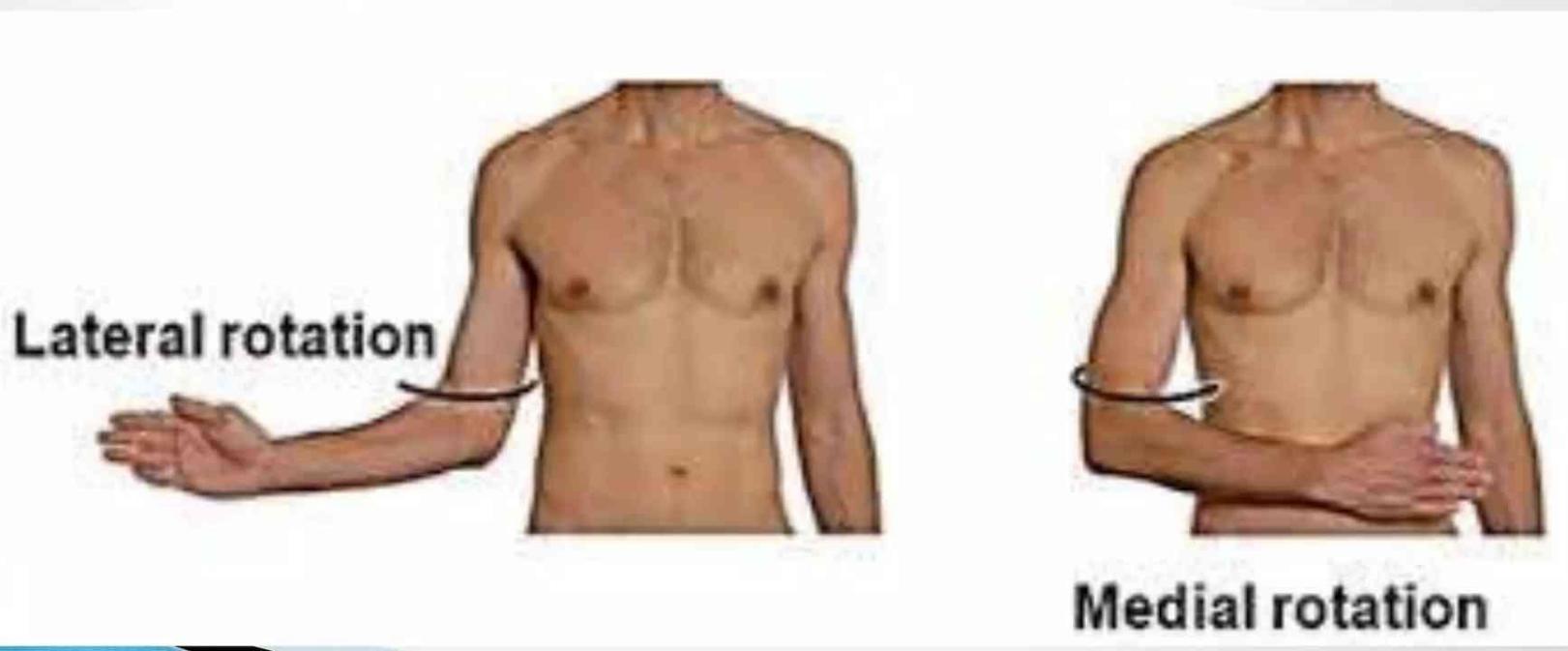
- ▶ **Circumduction:** Moving part forms the base.



- ▶ **Abduction:** - Moving part is carried **away from the body/ reference line**.
- ▶ **Adduction:** - Moving part is carried **towards the body / reference line**.



- ▶ **Medial Rotation** – -Moving part is **rotated towards the mid line**.
- ▶ **Lateral Rotation** – - Moving part is **rotated away from the mid line**.



Defintion of the renal system

It is one of the excretory system in our body .

The other three are bowel, lungs and skin

The system produces, stores and eliminates urine

INTRODUCTION:-

- THE URINARY SYSTEM IS THE MAIN EXCRETORY SYSTEM AND CONSISTS OF THE FOLLOWING STRUCTURES:
- **2 KIDNEYS**, WHICH SECRETE URINE
- **2 URETERS** THAT CONVEY THE URINE FROM THE KIDNEYS TO THE URINARY BLADDER
- **THE URINARY BLADDER**, WHICH COLLECTS AND STORES URINE
- **THE URETHRA** THROUGH WHICH URINE LEAVES THE BODY.
- URINE IS STORED IN THE BLADDER AND EXCRETED BY THE PROCESS OF MICTURITION.

FUNCTIONS OF THE URINARY SYSTEM

- i. Removal of waste products from the body- urea, uric acid
- ii. Storage of urine- urinary bladder can store up to 1 litre of urine
- iii. Excretion of urine through the urethra
- iv. Blood volume regulation
- v. Regulation of acid base balance

ORGANS OF THE URINARY SYSTEM

- ❖ Primary organ is the kidney
 - i. Filters waste products from the blood stream
 - ii. Converts filtrate into urine
- The urinary tract : transports urine out of the body
 - Includes the ureters, urethra and urinary bladder

ORGANS OF THE URINARY SYSTEM

- 2 Kidneys
- 2 Ureters
- Bladder
- Urethra

