

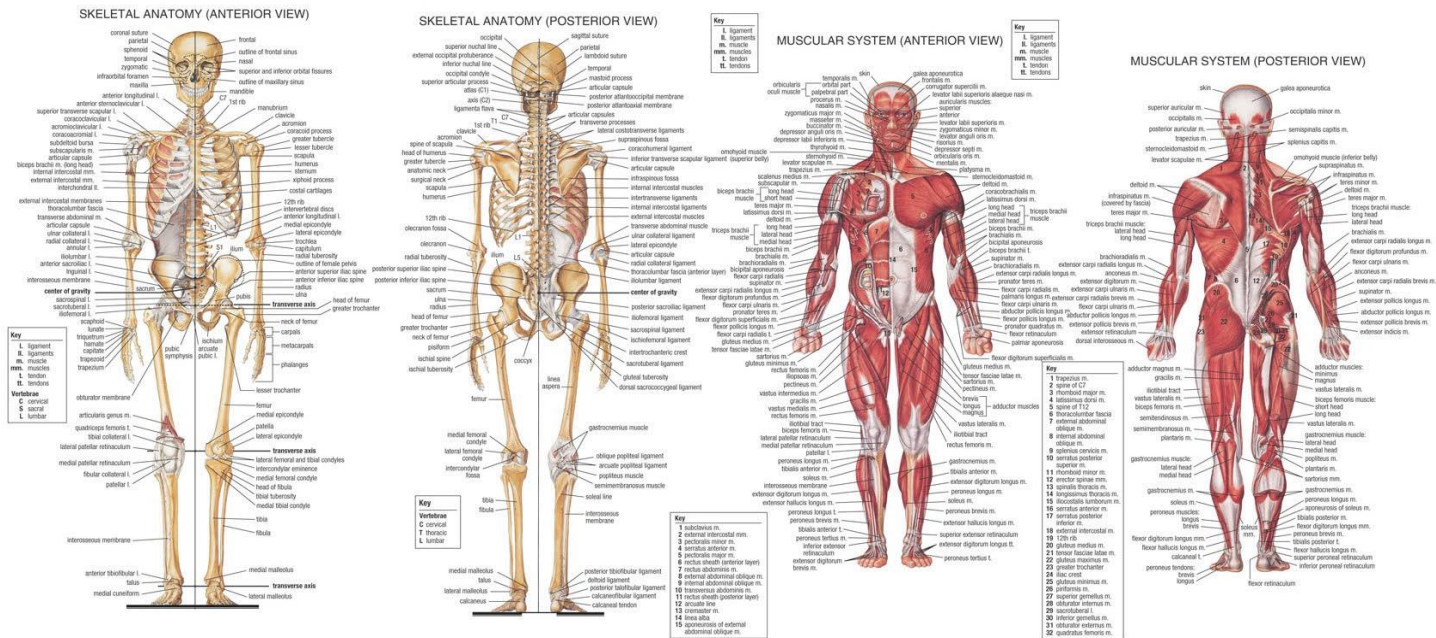
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# Introduction

**Anatomy:** is the science of the structure and function of the body



# *INTRODUCTION*

## **Clinical anatomy:**

is the study of the macroscopic structure and function of the body as it relates to the practice of medicine and other health sciences.

# *Introduction*

## **Basic anatomy:**

is the study of the minimal amount of anatomy consistent with the understanding of the overall structure and function of the body.

# *Introduction*

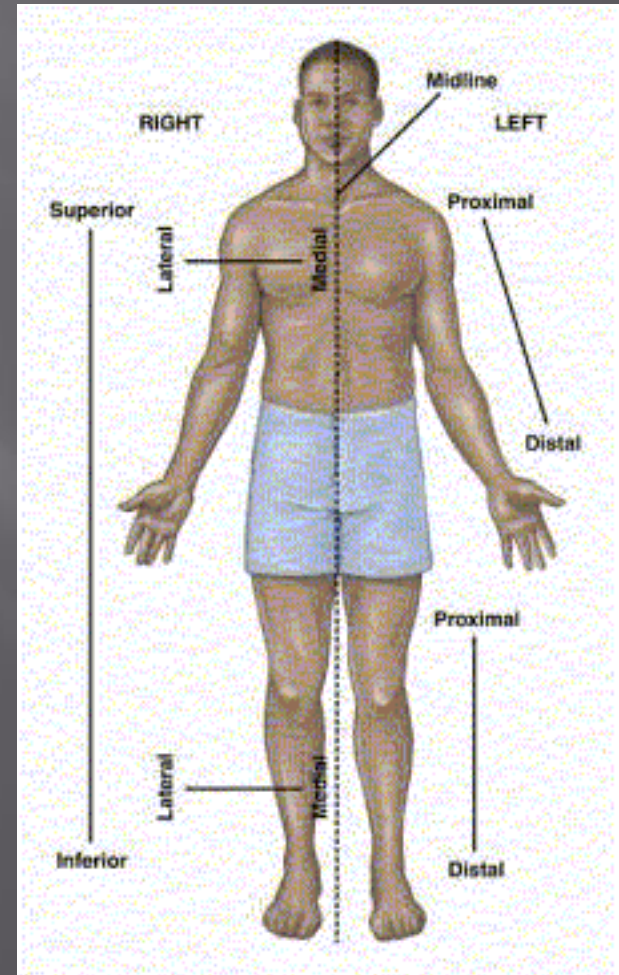
## Descriptive Anatomic Terms

- ▣ Terms Related to Position
- ▣ Terms Related to Movement

# Introduction

## Anatomic position

- 1/ The person is standing erect.
- 2/ The upper limbs by the sides.
- 3/ The face and palms of the hand directed forward.



# *Median Sagittal Plane:*

This is a vertical plane passing through the center of the body, dividing it into equal right and left halves.

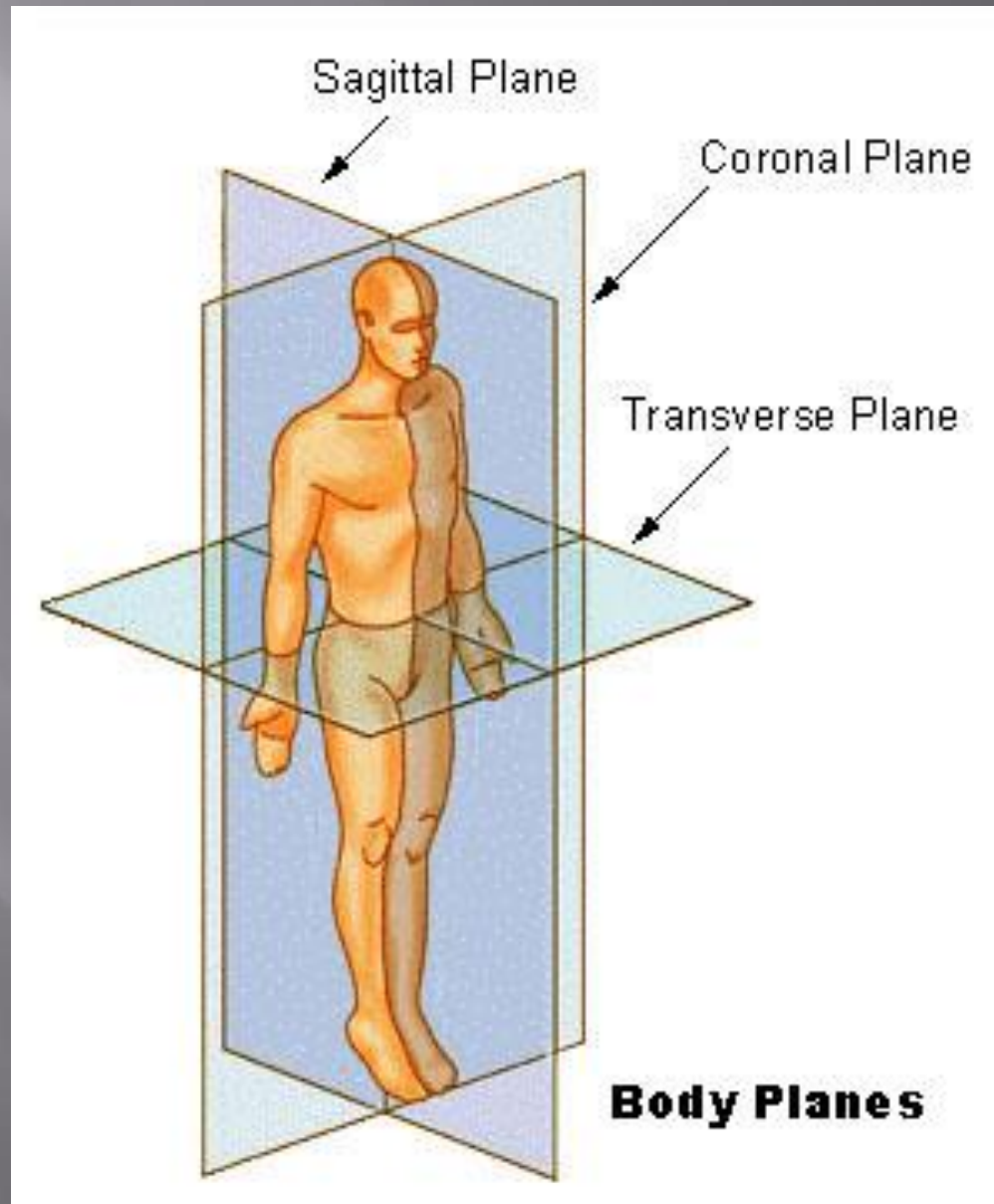
Planes situated to one or the other side of the median plane and parallel to it are termed *paramedian*.

A structure situated nearer to the median plane of the body than another is said to be *medial to the other*.

Similarly, a structure that lies farther away from the median plane than another is said to be *lateral to the other*.



# Median Sagittal Plane:





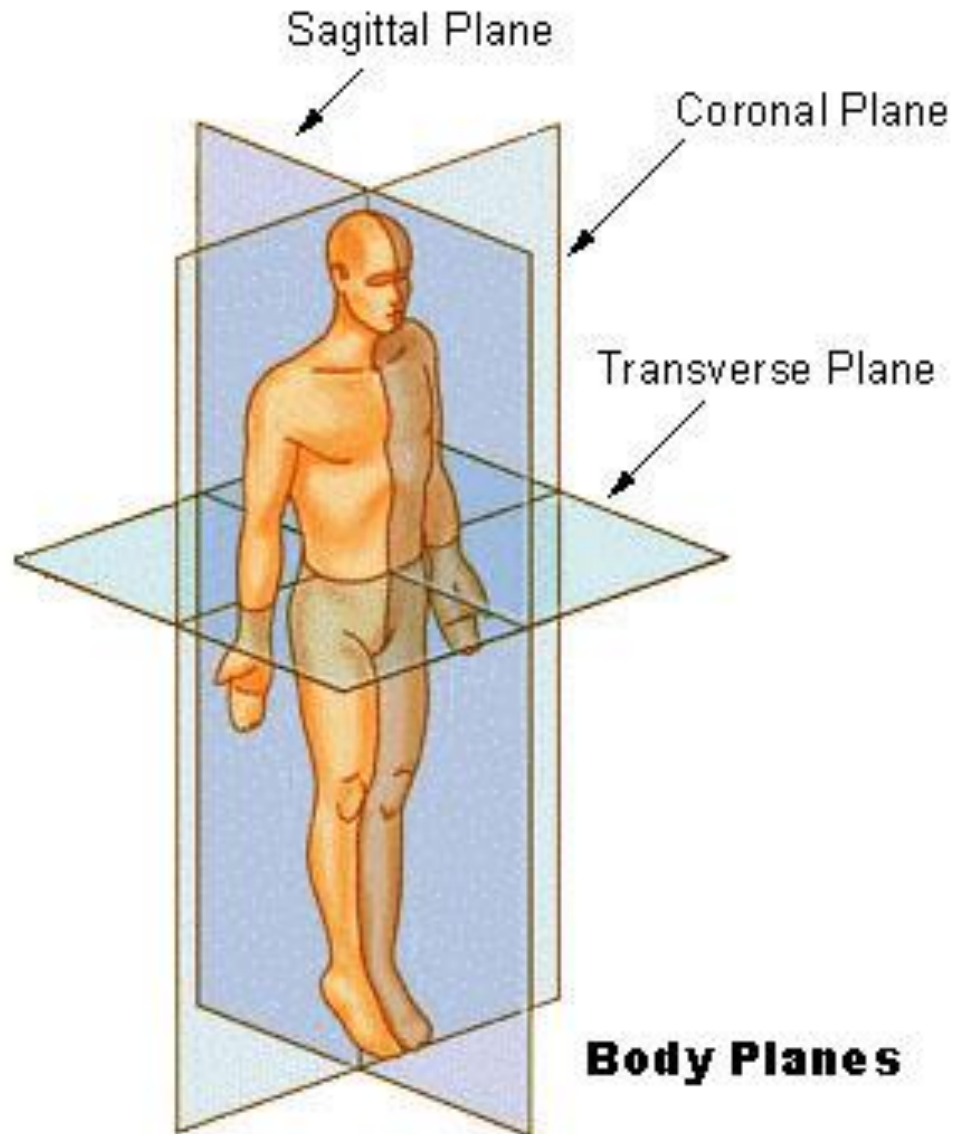
## *Coronal Plane:*

These planes are imaginary vertical planes at right angles to the median plane

The terms *anterior and posterior* are used to indicate the front and back of the body, respectively .

To describe the relationship of two structures, one is said to be anterior or posterior to the other in so far as it is closer to the anterior or posterior body surface.

# Coronal Plane:

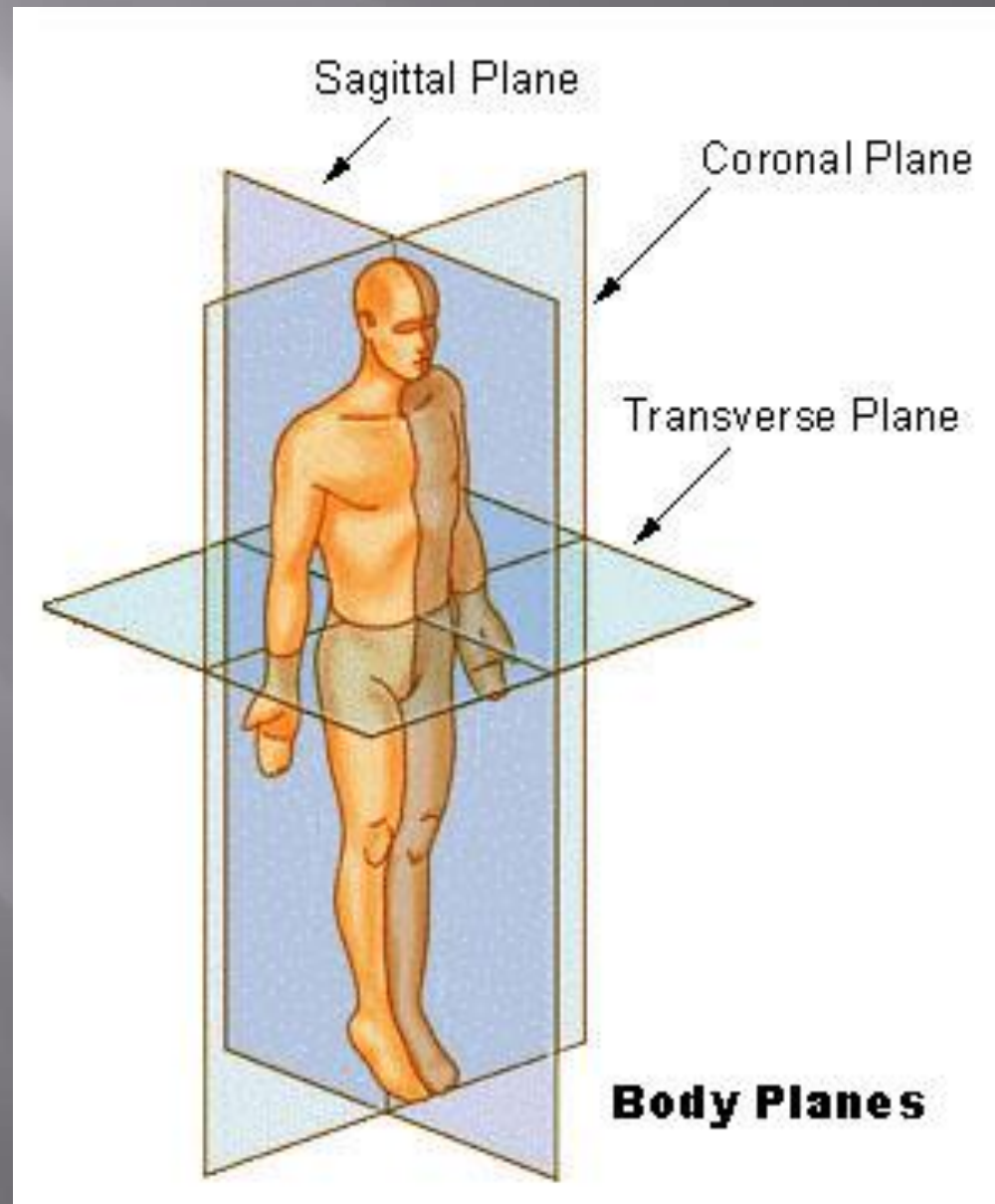


## *Horizontal, or Transverse, Plane:*

These planes are at right angles to both the median and the coronal planes

and the terms *superior and inferior* denote levels relatively high or low with reference to the upper and lower ends of the body.

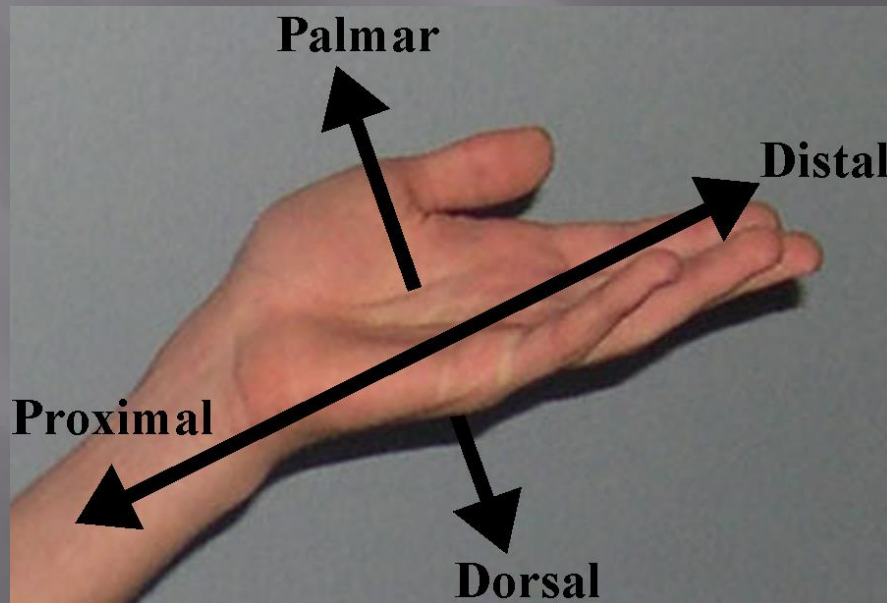
# Horizontal, or Transverse, Plane:



# *Terms Related to Position*

In describing the hand, the terms *palmar and dorsal surfaces* are used in place of anterior and posterior,

In describing the foot, the terms *plantar and dorsal surfaces* are used instead of lower and upper surfaces



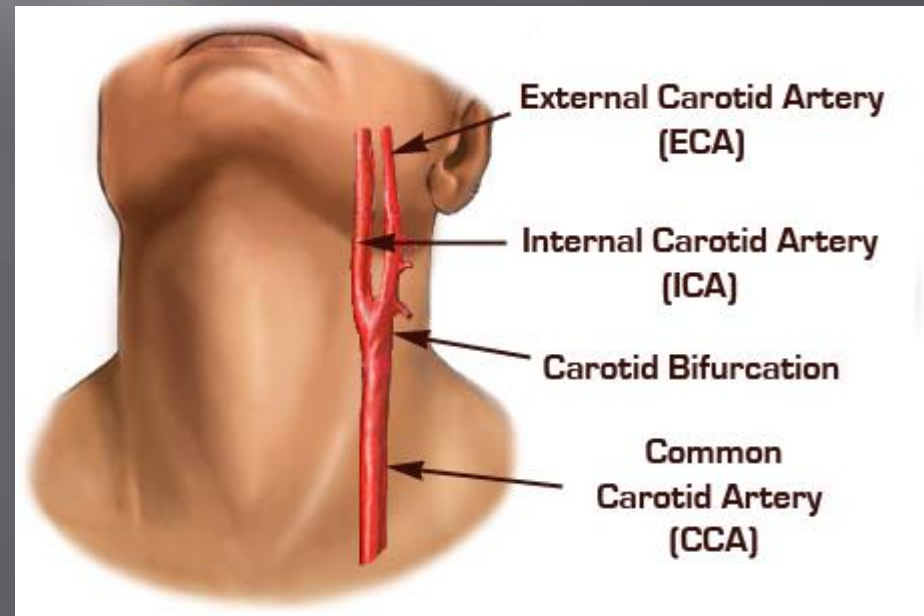
# *Terms Related to Position*

- ▣ The terms *proximal and distal* describe the relative distances from the roots of the limbs; for example, the arm is proximal to the forearm and the hand is distal to the forearm.
- ▣ The terms *superficial and deep* denote the relative distances of structures from the surface of the body,



# Terms Related to Position

The terms *internal and external* are used to describe the relative distance of a structure from the center of an organ or cavity; for example, the internal carotid artery is found inside the cranial cavity and the external carotid artery is found outside the cranial cavity.





# *Terms Related to Position*

The term *ipsilateral* refers to the same side of the body; for example, the left hand and the left foot are ipsilateral.

*Contralateral* refers to opposite sides of the body; for example, the left biceps brachii muscle and the right rectus femoris muscle are contralateral.

# Terms Related to Position

The *supine position* of the body is lying on the back.  
The *prone position* is lying face downward.

Supine



Prone



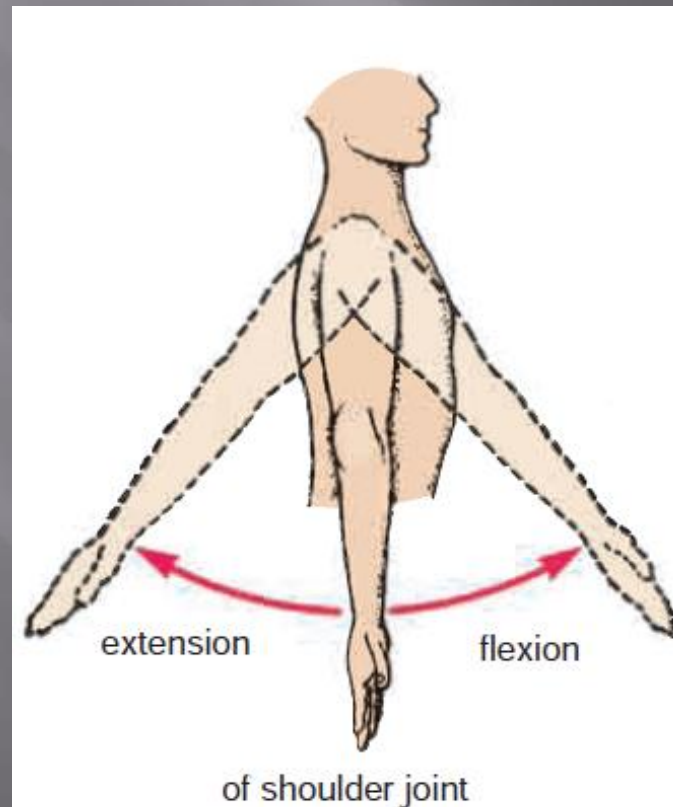
# Terms Related to Movement

A site where two or more bones come together is known as *a joint*.

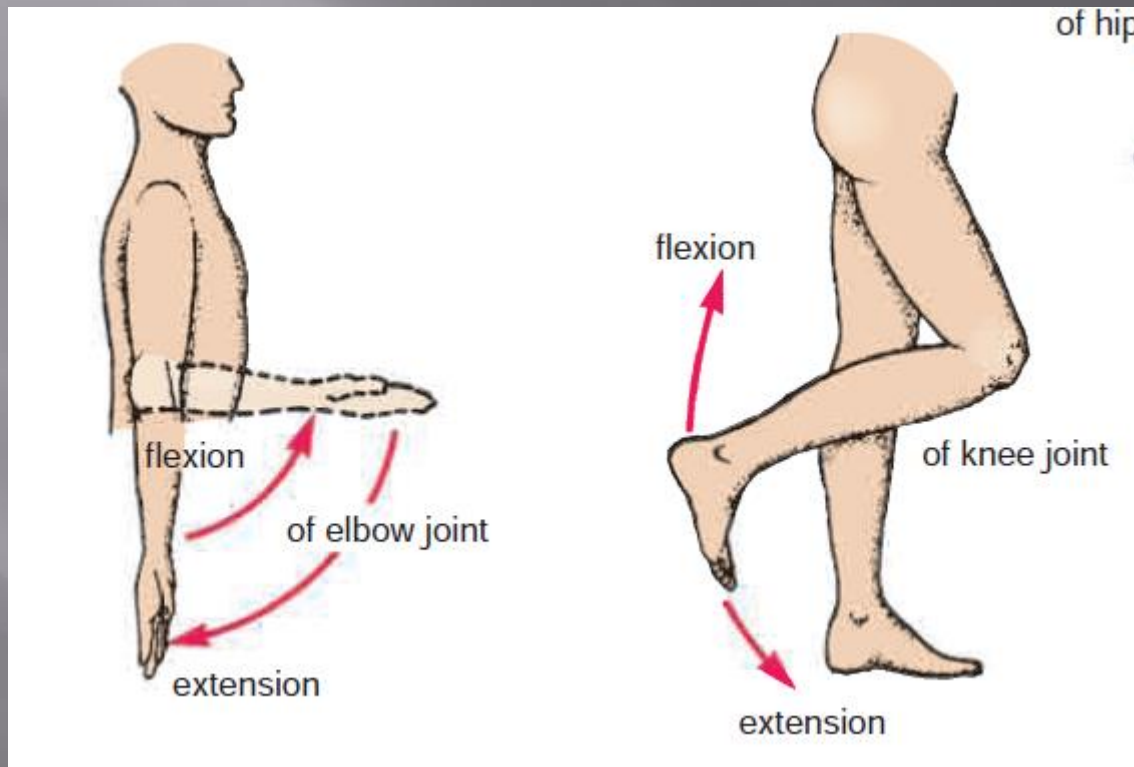
*Flexion* is a movement that takes place in a *sagittal plane*. For example, flexion of the elbow joint approximates the anterior surface of the forearm to the anterior surface of the arm. It is usually an anterior movement, but it is occasionally posterior, as in the case of the knee joint

# Terms Related to Movement

*Extension* means straightening the joint and usually takes place in a posterior direction

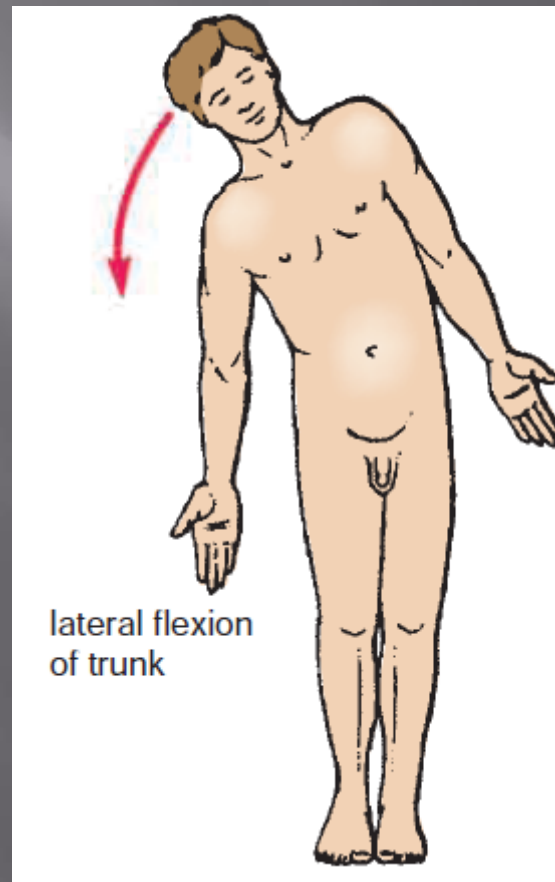


# Terms Related to Movement



# Terms Related to Movement

*Lateral flexion* is a movement of the trunk in the coronal plane



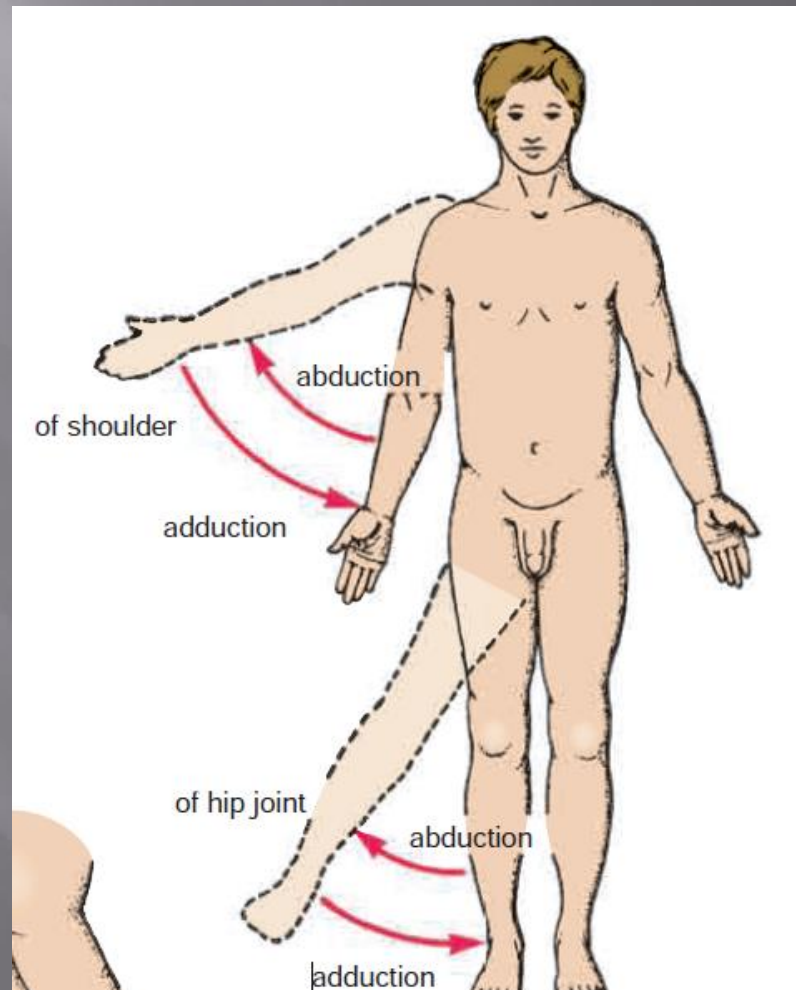
# *Terms Related to Movement*

*Abduction* is a movement of a limb away from the midline of the body in the *coronal plane*.

*Adduction* is a movement of a limb toward the body in the coronal plane



# Terms Related to Movement



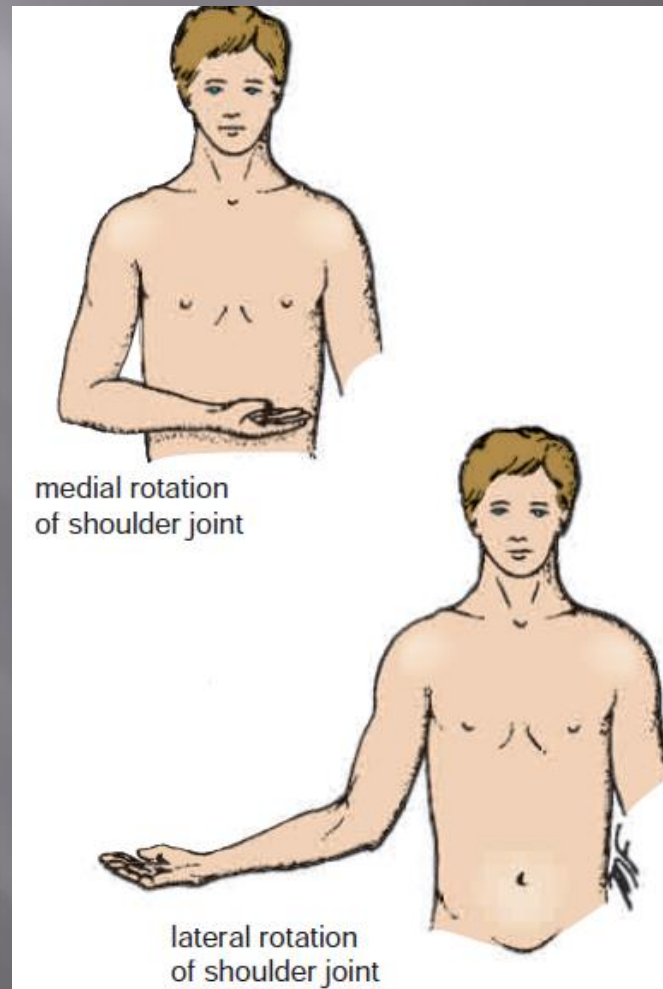
# *Terms Related to Movement*

*Rotation* is the term applied to the movement of a part of the body *around its long axis*.

*Medial rotation* is the movement that results in the anterior surface of the part facing medially.

*Lateral rotation* is the movement that results in the anterior surface of the part facing laterally.

# Terms Related to Movement

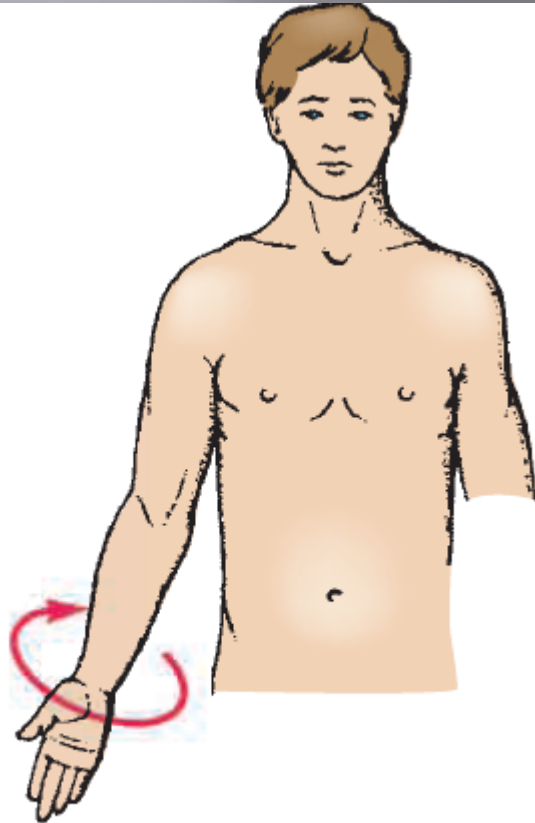


# *Terms Related to Movement*

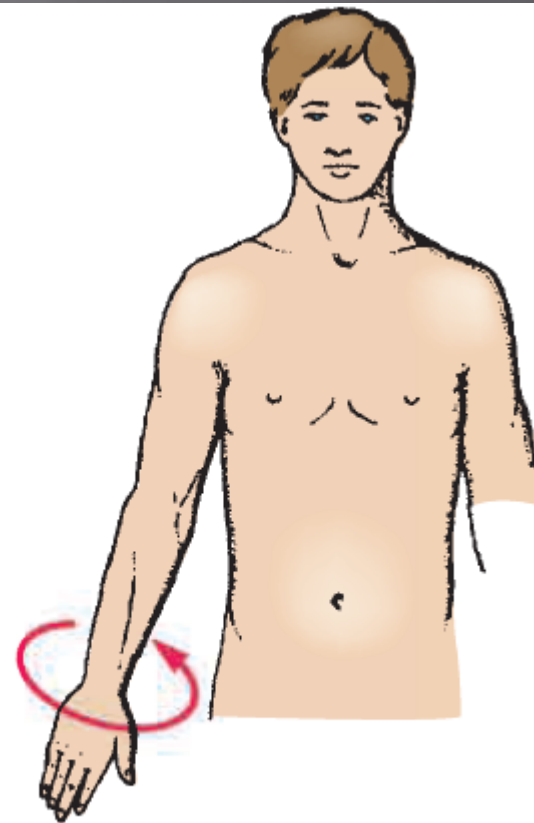
*Pronation* of the forearm is a medial rotation of the forearm in such a manner that the palm of the hand faces Posteriorly

*Supination* of the forearm is a lateral rotation of the forearm from the pronated position so that the palm of the hand comes to face anteriorly

# Terms Related to Movement



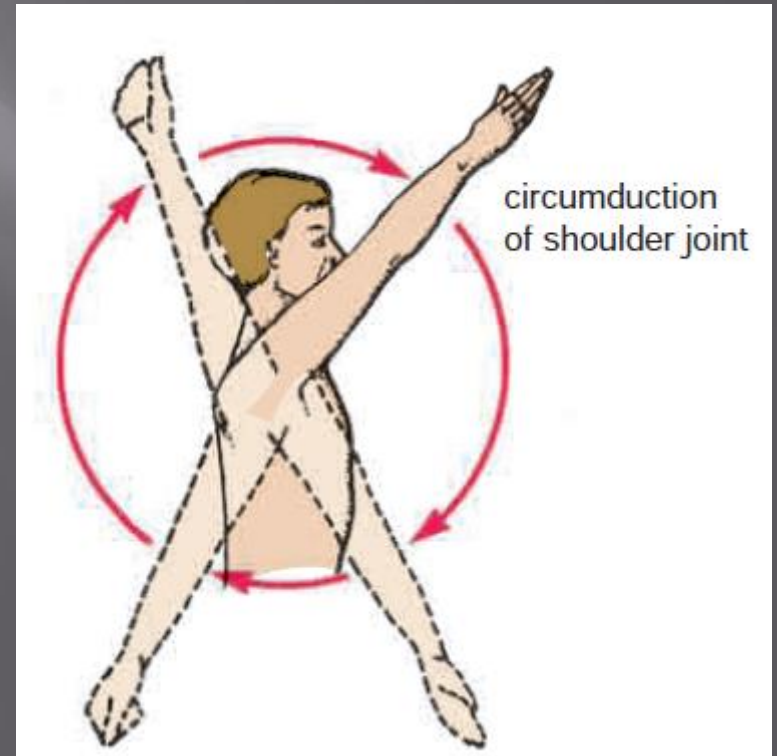
supination of forearm



pronation of forearm

# Terms Related to Movement

*Circumduction* is the combination in sequence of the movements of flexion, extension, abduction, and adduction



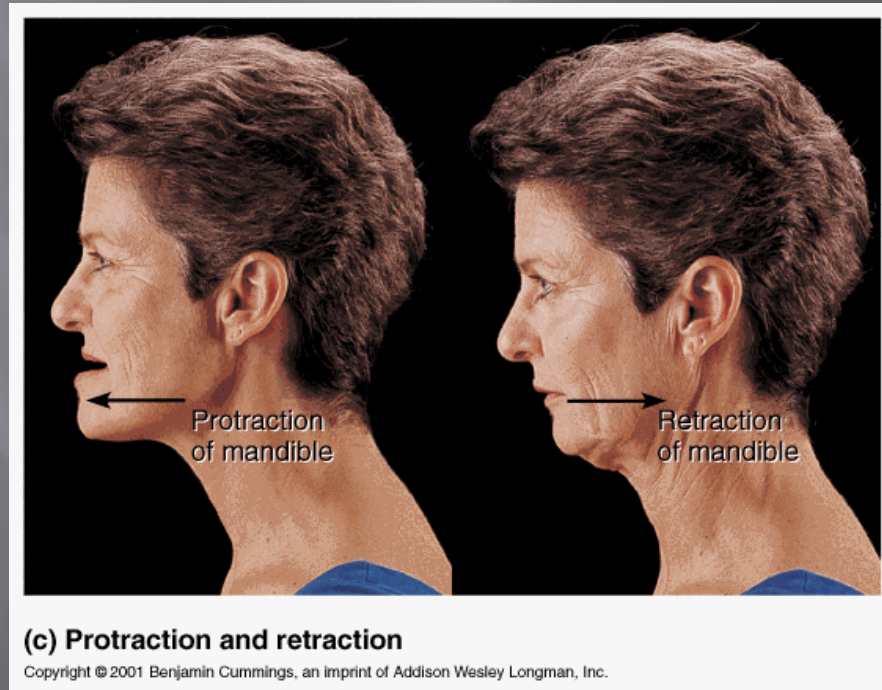


# *Terms Related to Movement*

*Protraction* is to move forward;

*Retraction* is to move backward

Used to describe the forward and backward movement of the jaw at the temporomandibular joints.

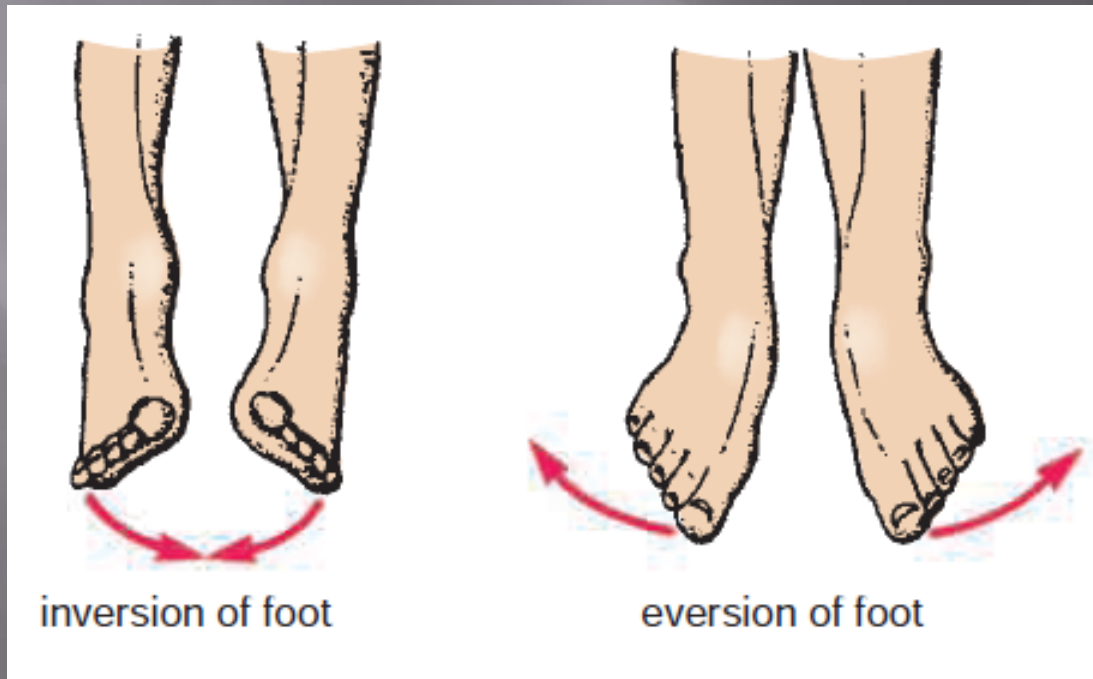




# Terms Related to Movement

**Inversion** is the movement of the foot so that the sole faces in a medial direction

**Eversion** is the opposite movement of the foot so that the sole faces in a lateral direction



THANK  
YOU

