

INTRODUCTION TO
ANATOMY
PART II

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Department of

Anatomy , histology & embryology

Objectives:

At the end of this lecture you must able to:

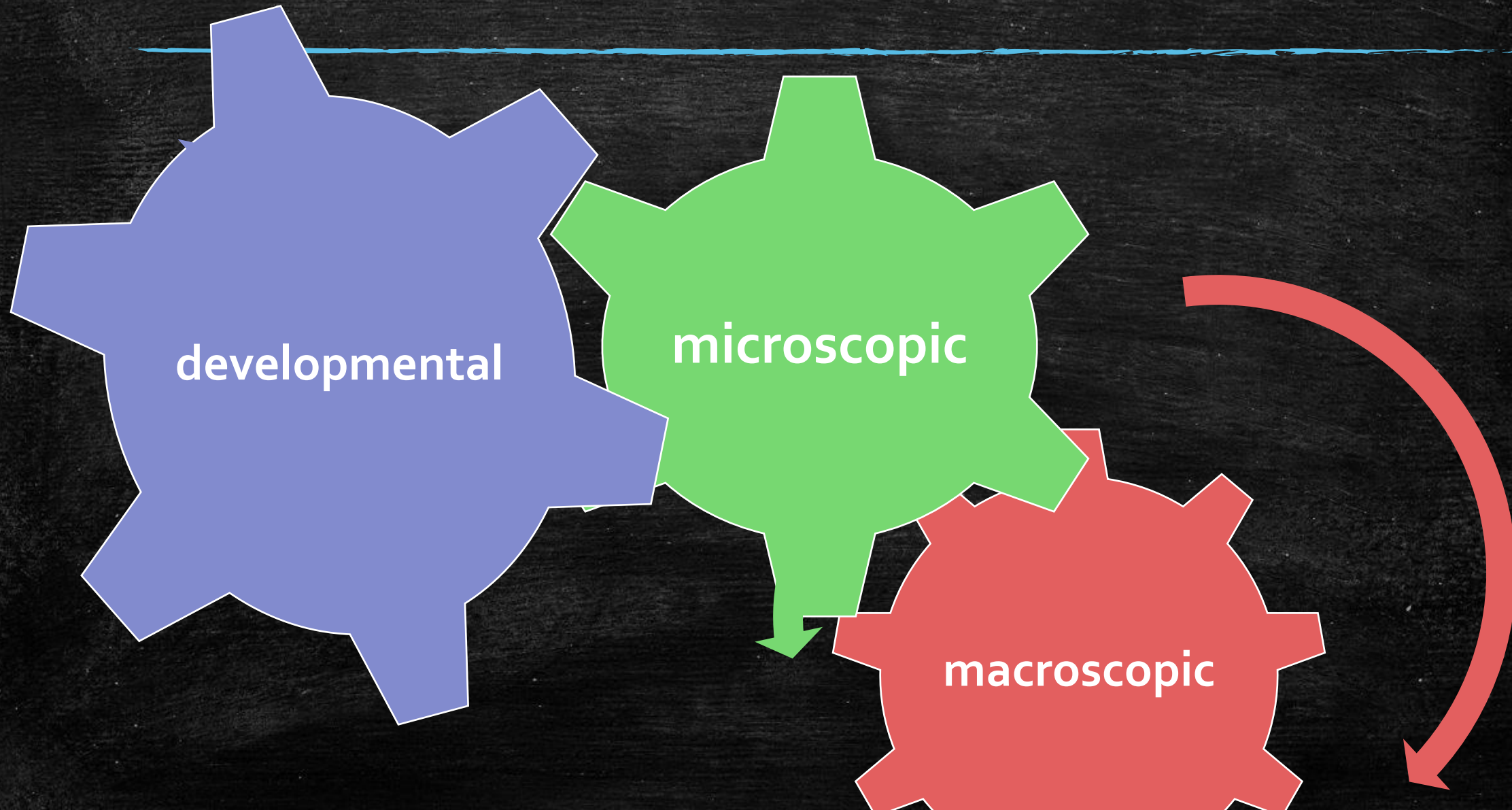
1-understanding anatomical terminology.

2-understanding positions of the human body .

3-understanding planes and sections.

4-Understanding body movements and terms of laterality.

As stated before



Repeated students question

How shall I study ?

This is done by several steps

since anatomy is a descriptive science
so it has special descriptive language
so the first step must be
understanding this language which is
called:

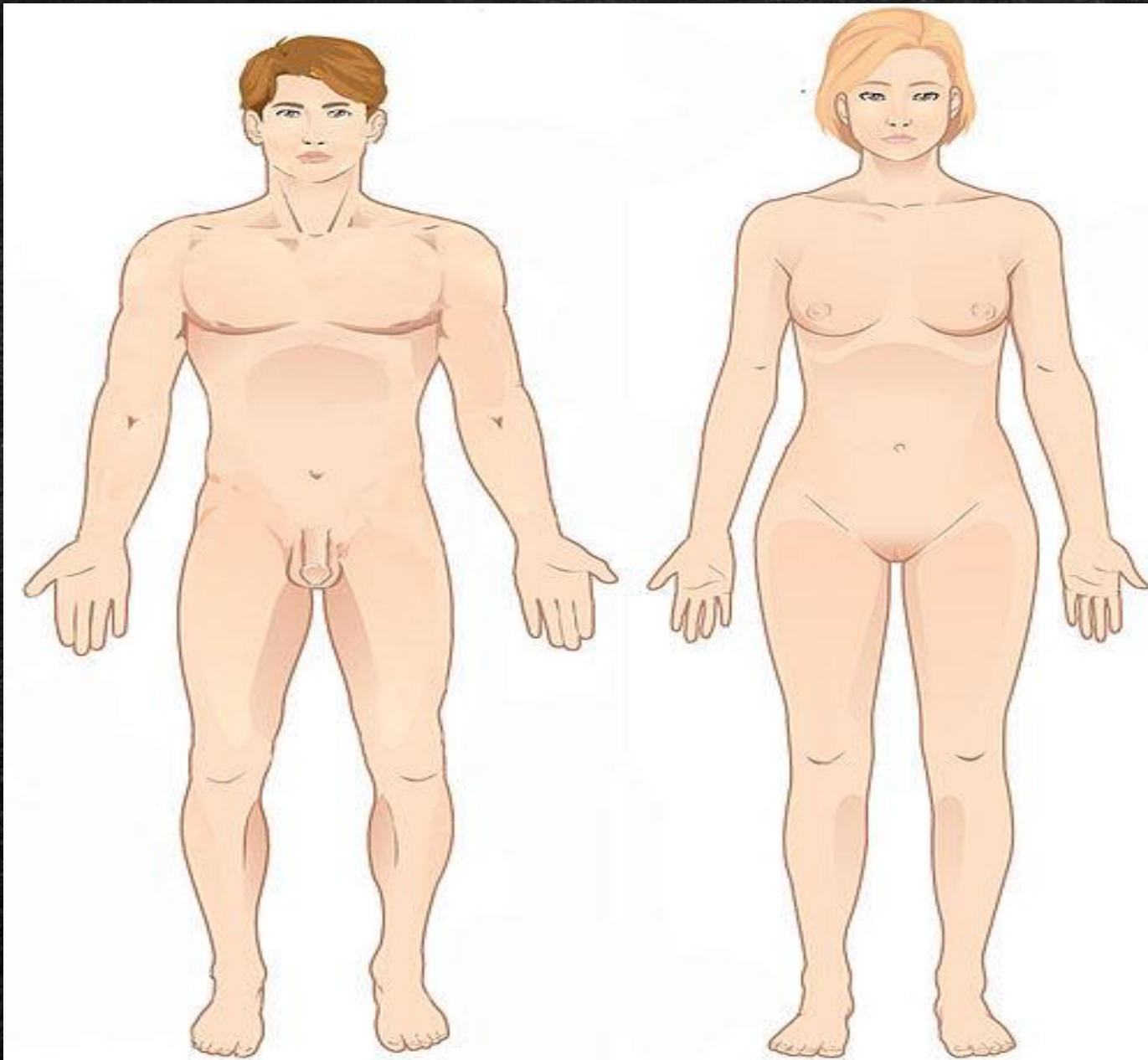
Anatomic terminology

Anatomicomedical terminology

Several positions of the
human body causing
confusion in the
description of various
structure and organs so
there must be unanimous
position ; that is the
standard anatomical
position





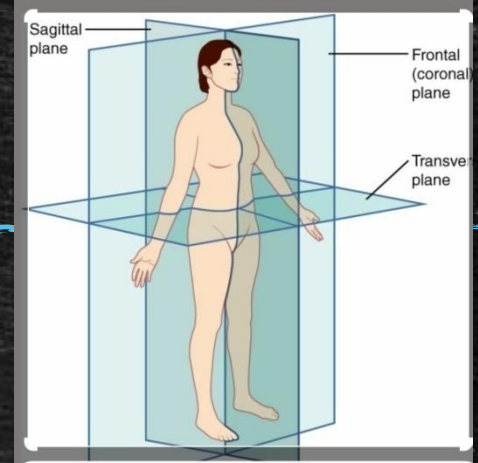
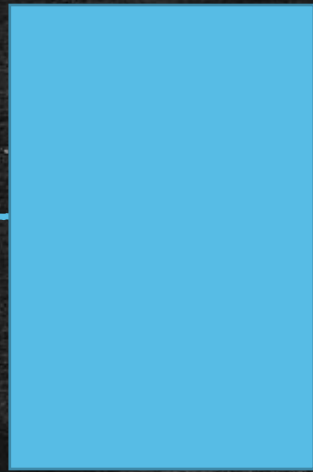




Globally Adopted position

Anatomical planes





Four imaginary planes that
intersects
the human body in this position

4 Anatomical planes

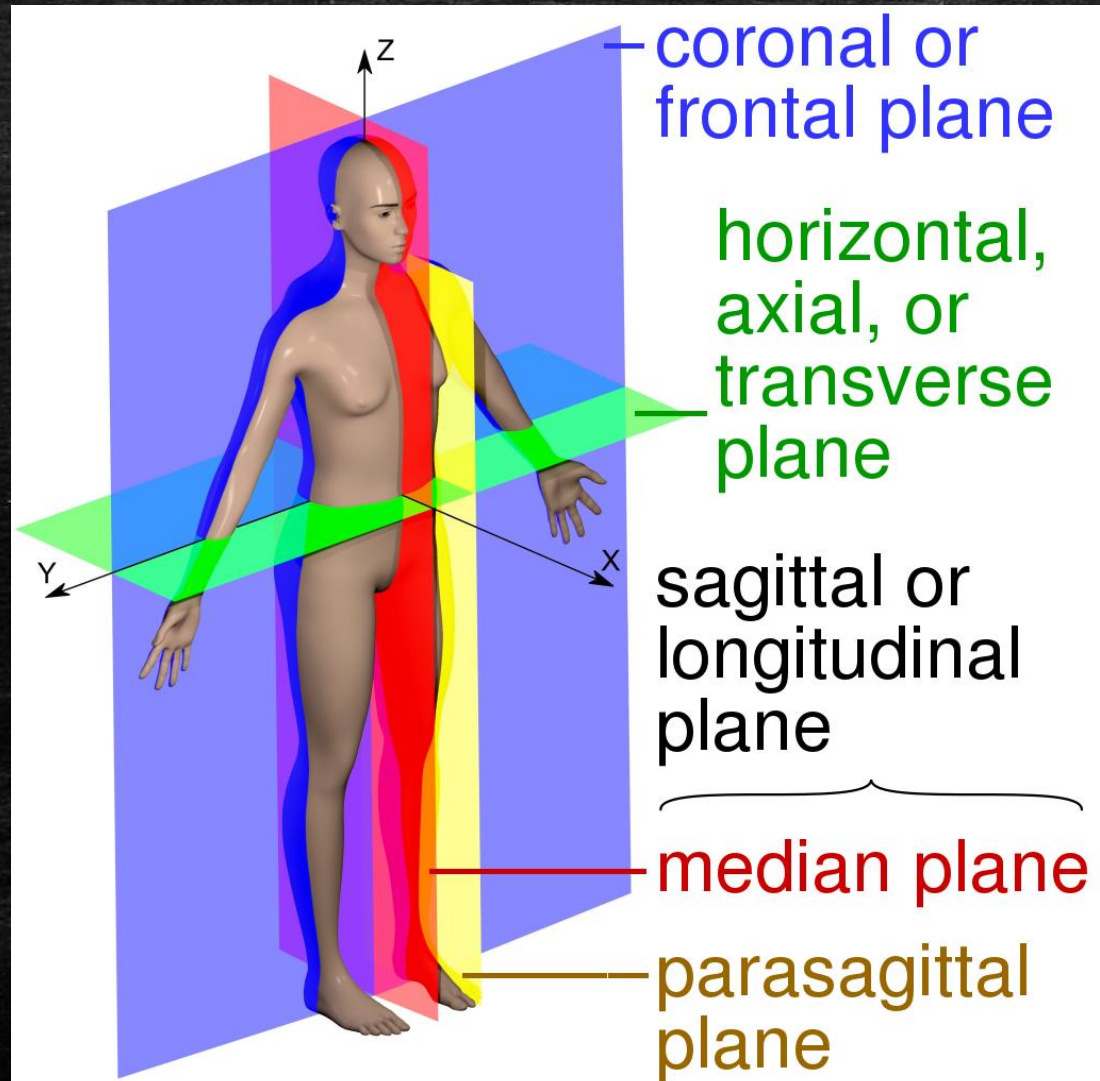
1-median plane

2-sagittal plane

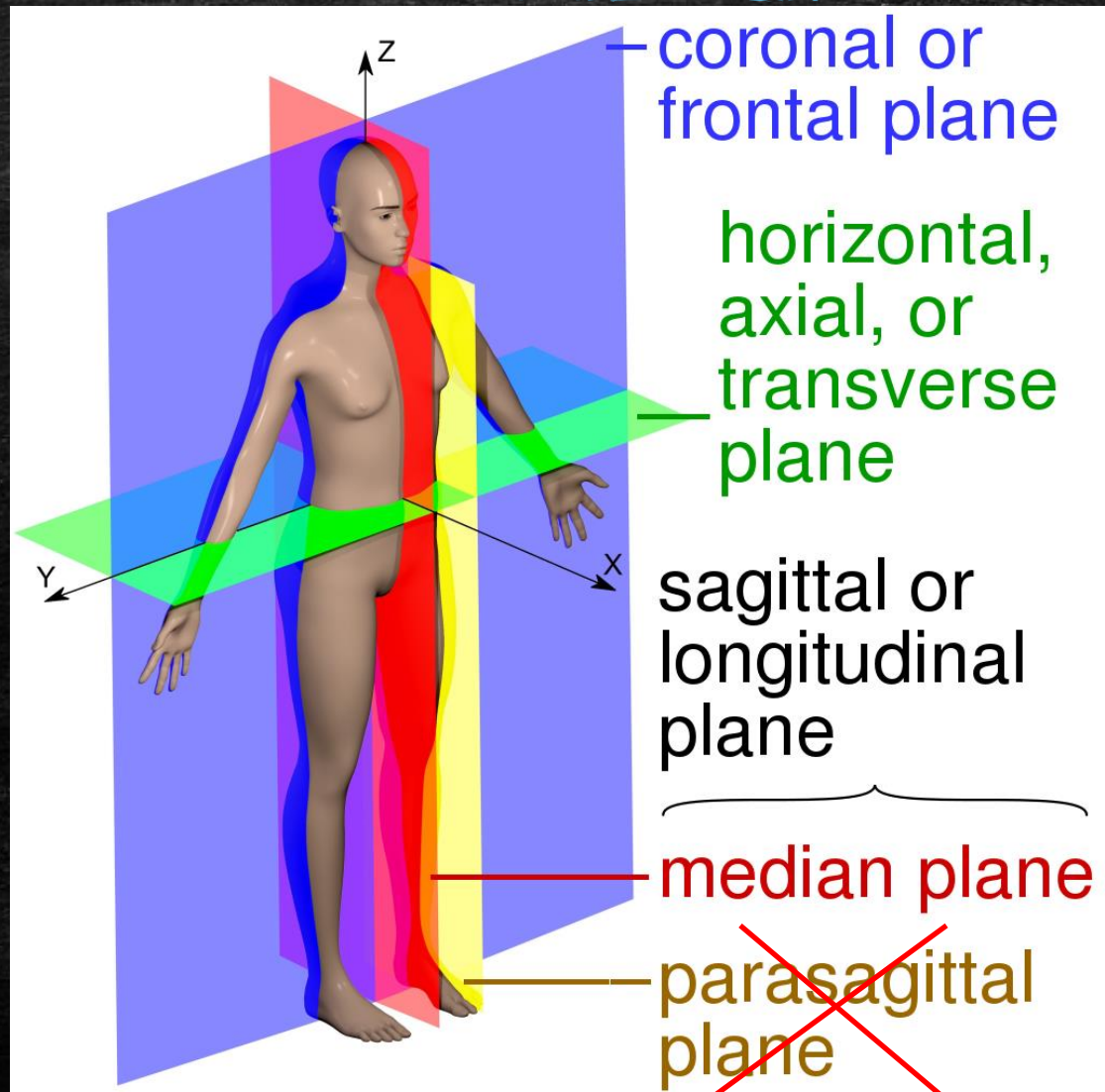
3-coronal plane

4-transverse plane

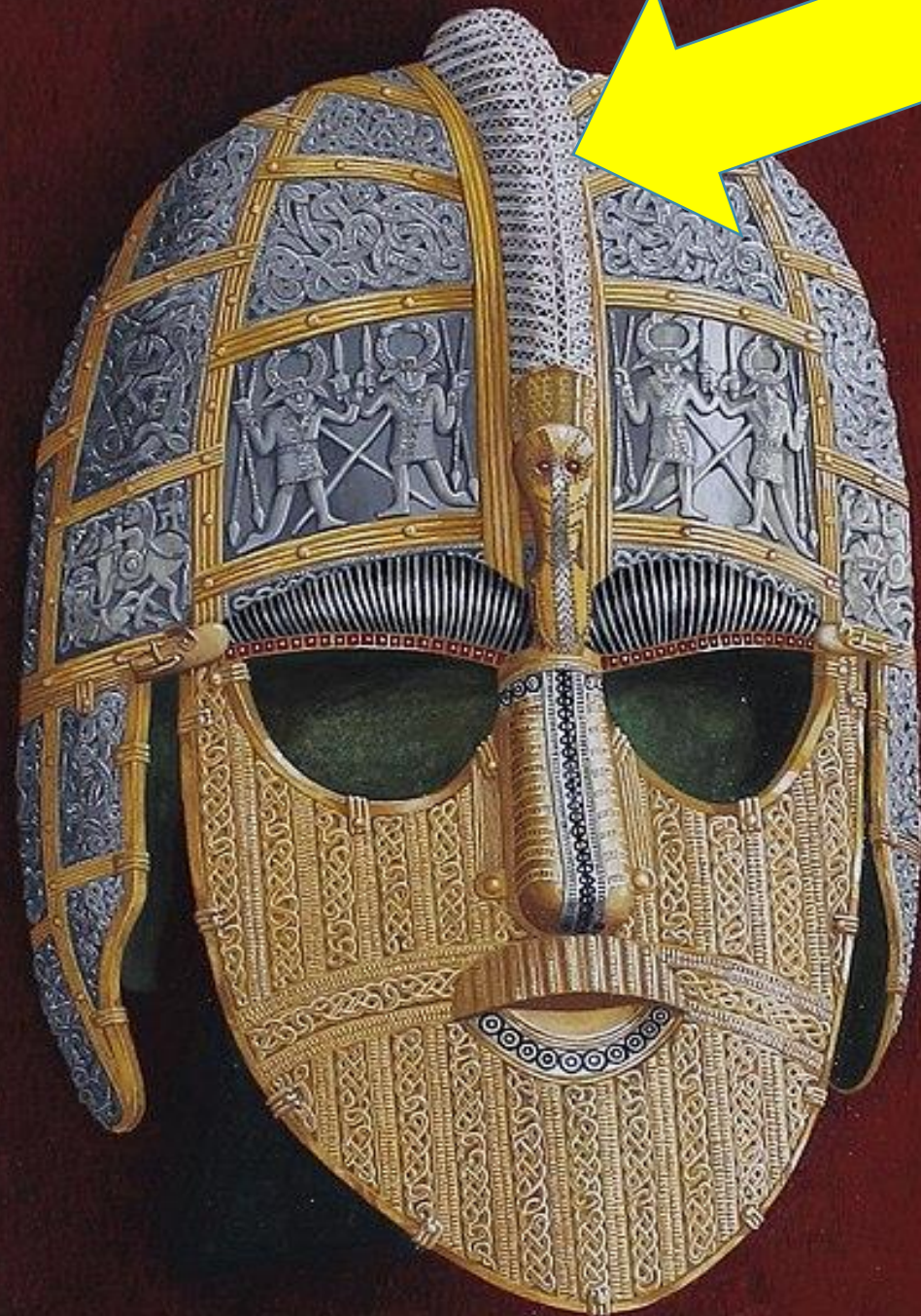
Median plane

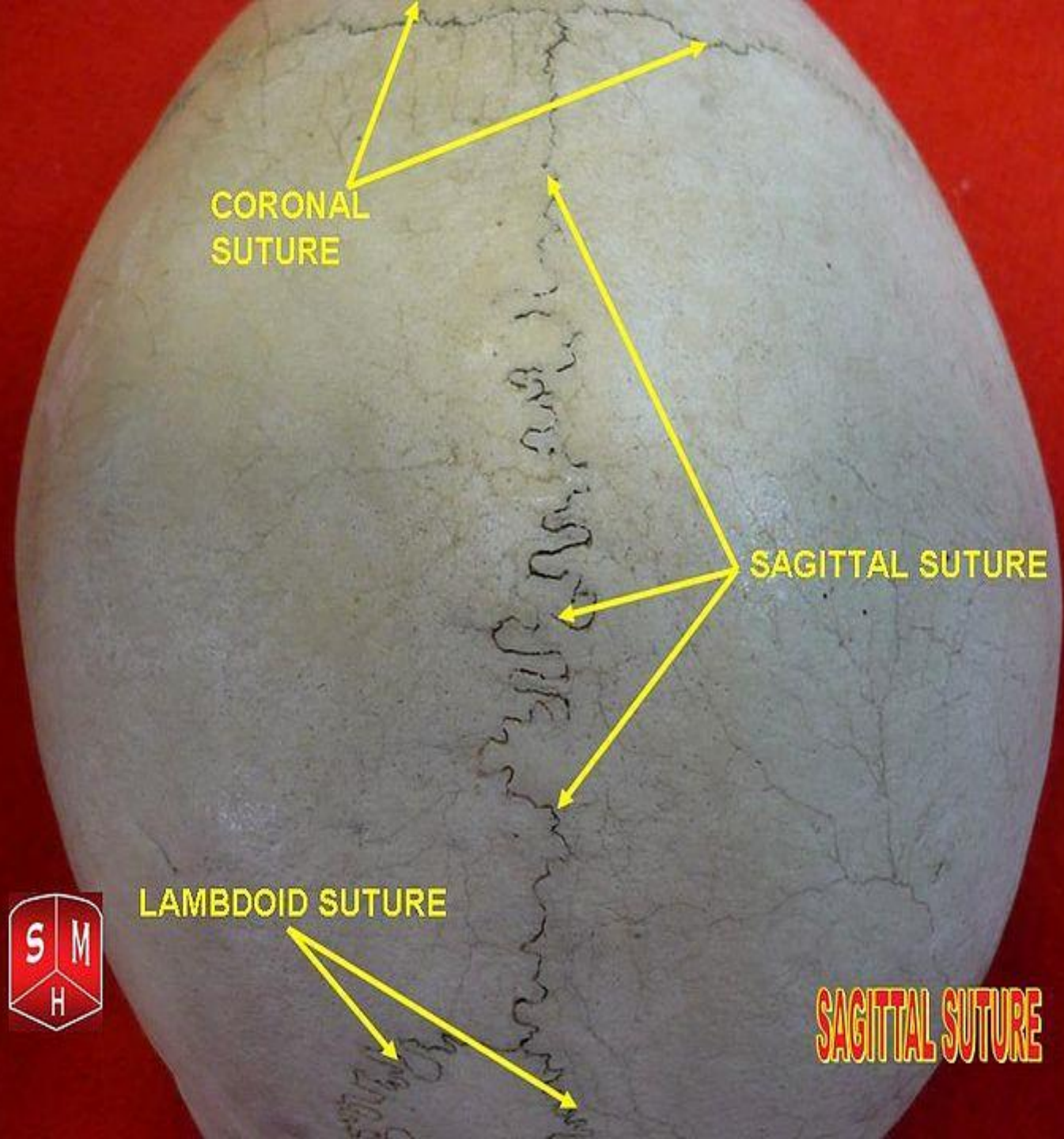


Sagittal plane









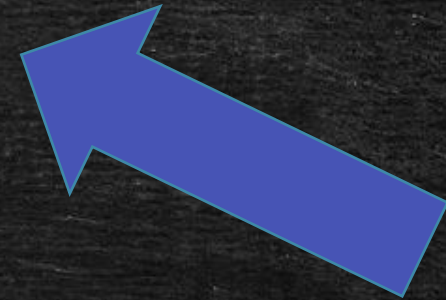
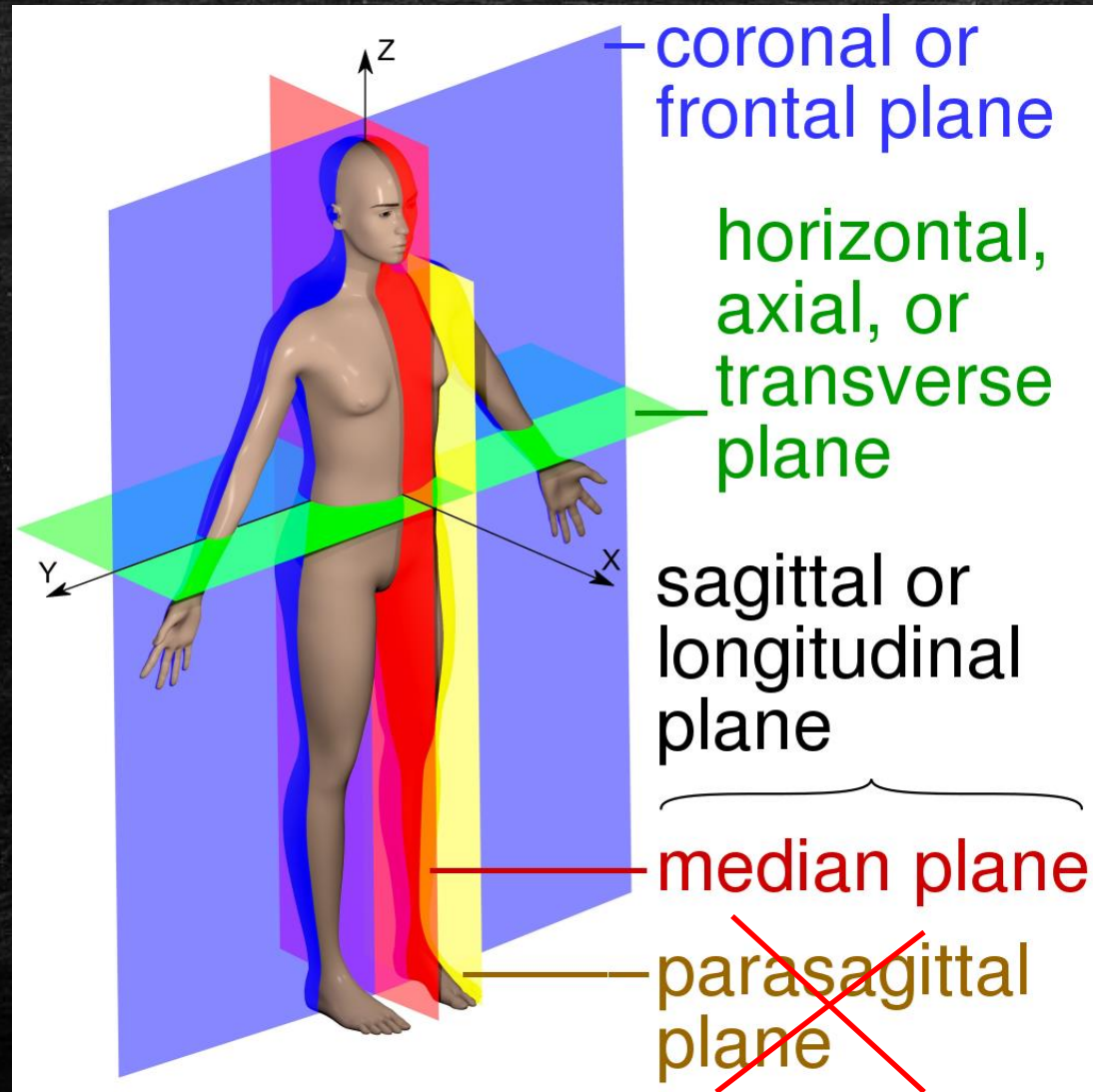
CORONAL SUTURE

SAGITTAL SUTURE

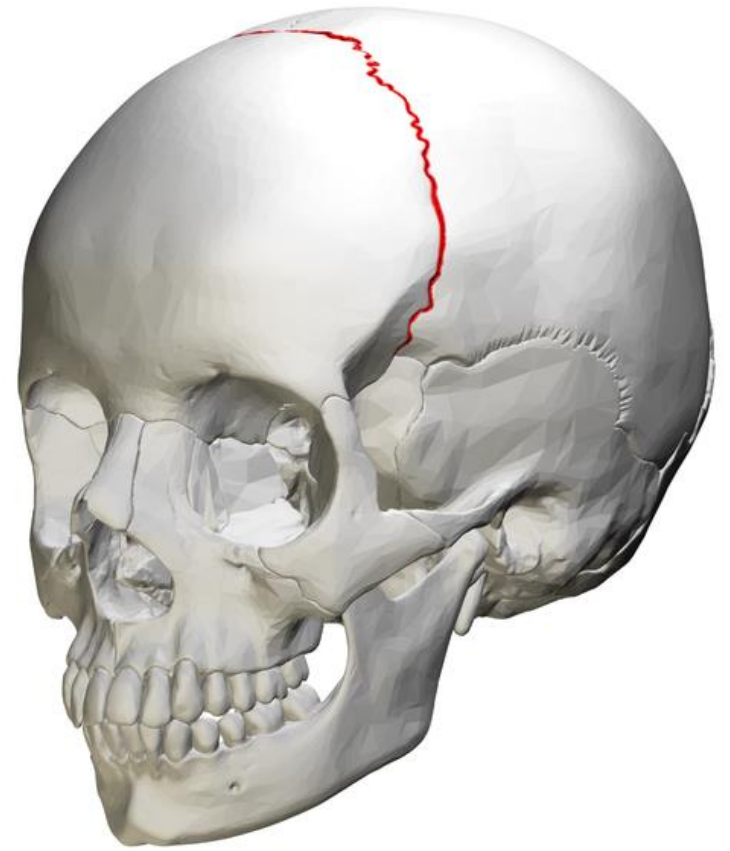
LAMBDOID SUTURE

SAGITTAL SUTURE

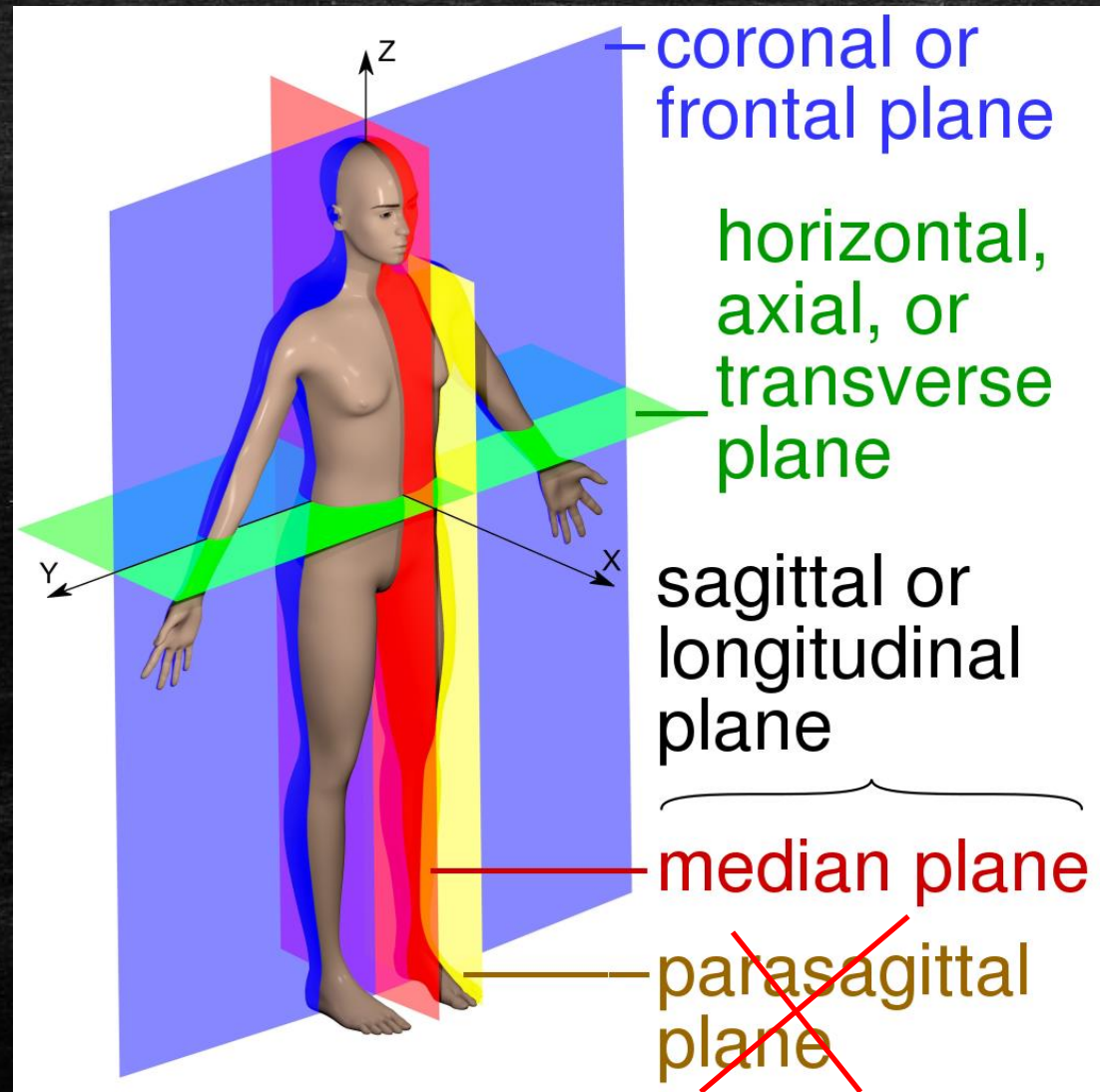
Coronal plane





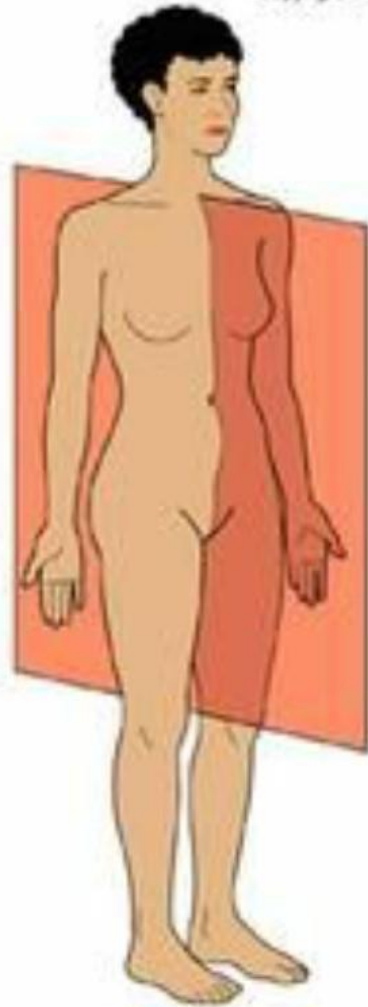


Transverse plane

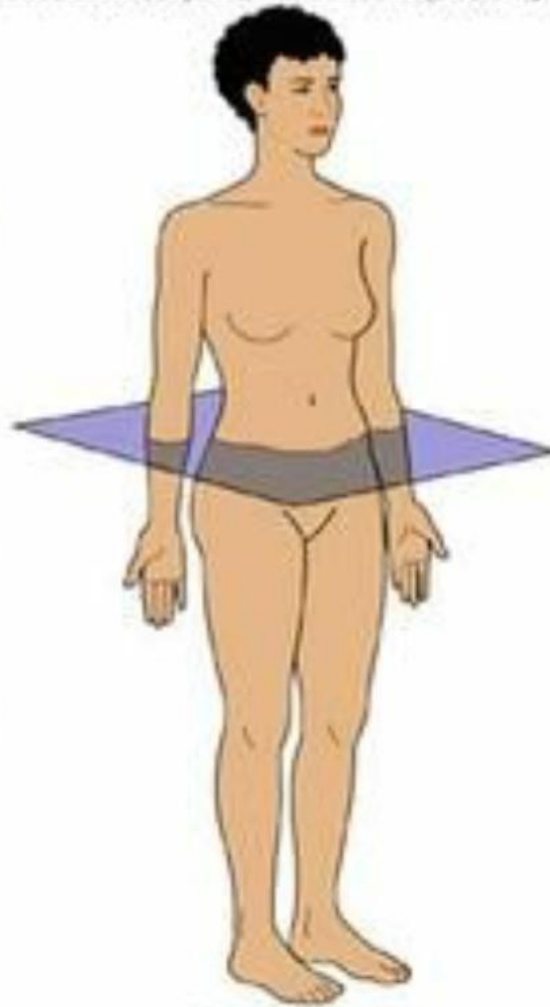


Body sections are divided by planes

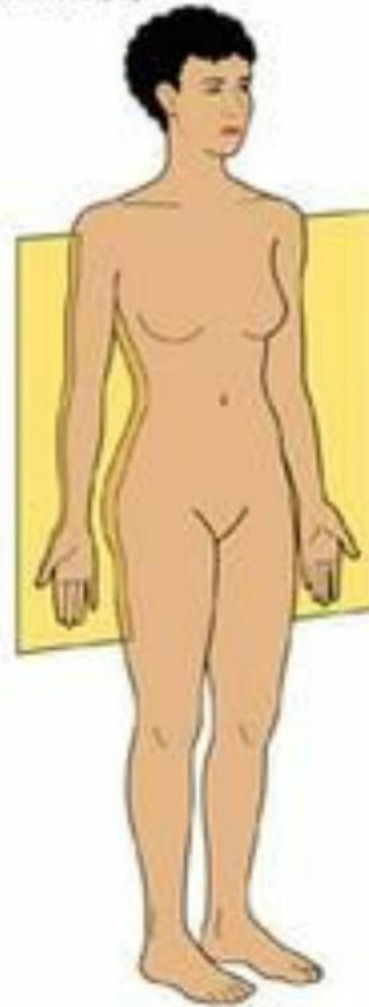
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Sagittal plane
(median plane)



Transverse plane
(horizontal plane)



Coronal plane
(frontal plane)

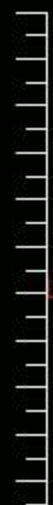


Anonimo
025Y, M, 18272
3-Slice:2
Head Native 4.0 axial

ASL

Ospedale di Bressanone
24/01/2009-12.43.07

RA



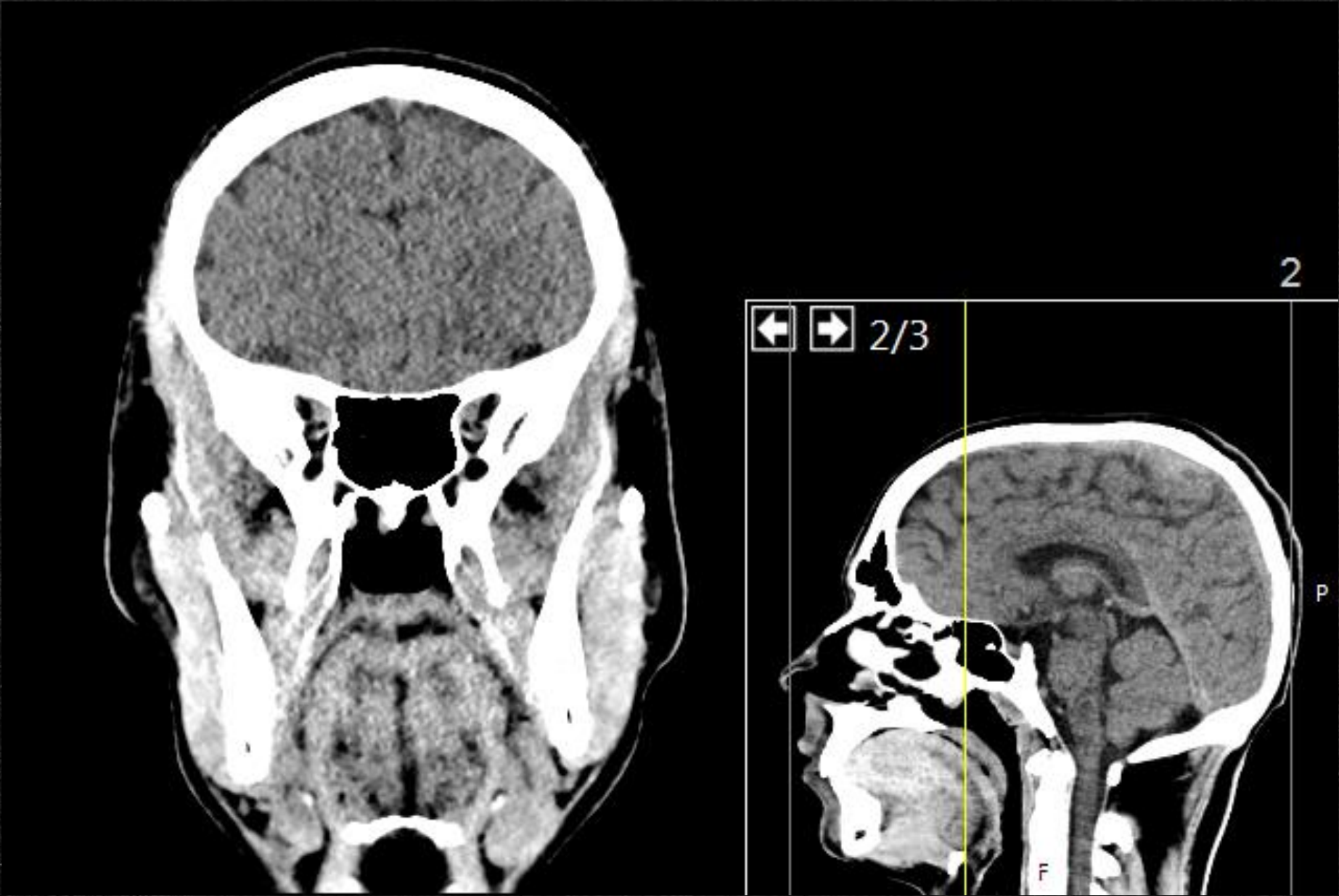
LP

2: 1,0 X
L: 35 W: 80

PR

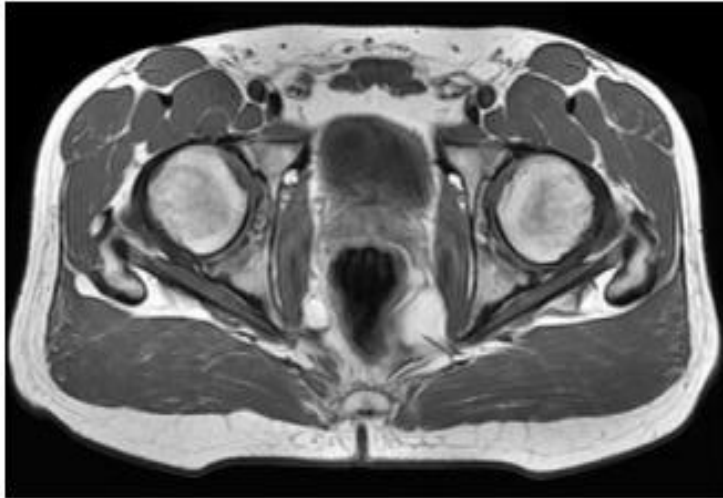


3





Horizontal section through the pelvic cavity and the hip joints.



MRI scan through the pelvic cavity and the hip joints (horizontal or axial or transverse plane).



Sagittal section through the knee joint.

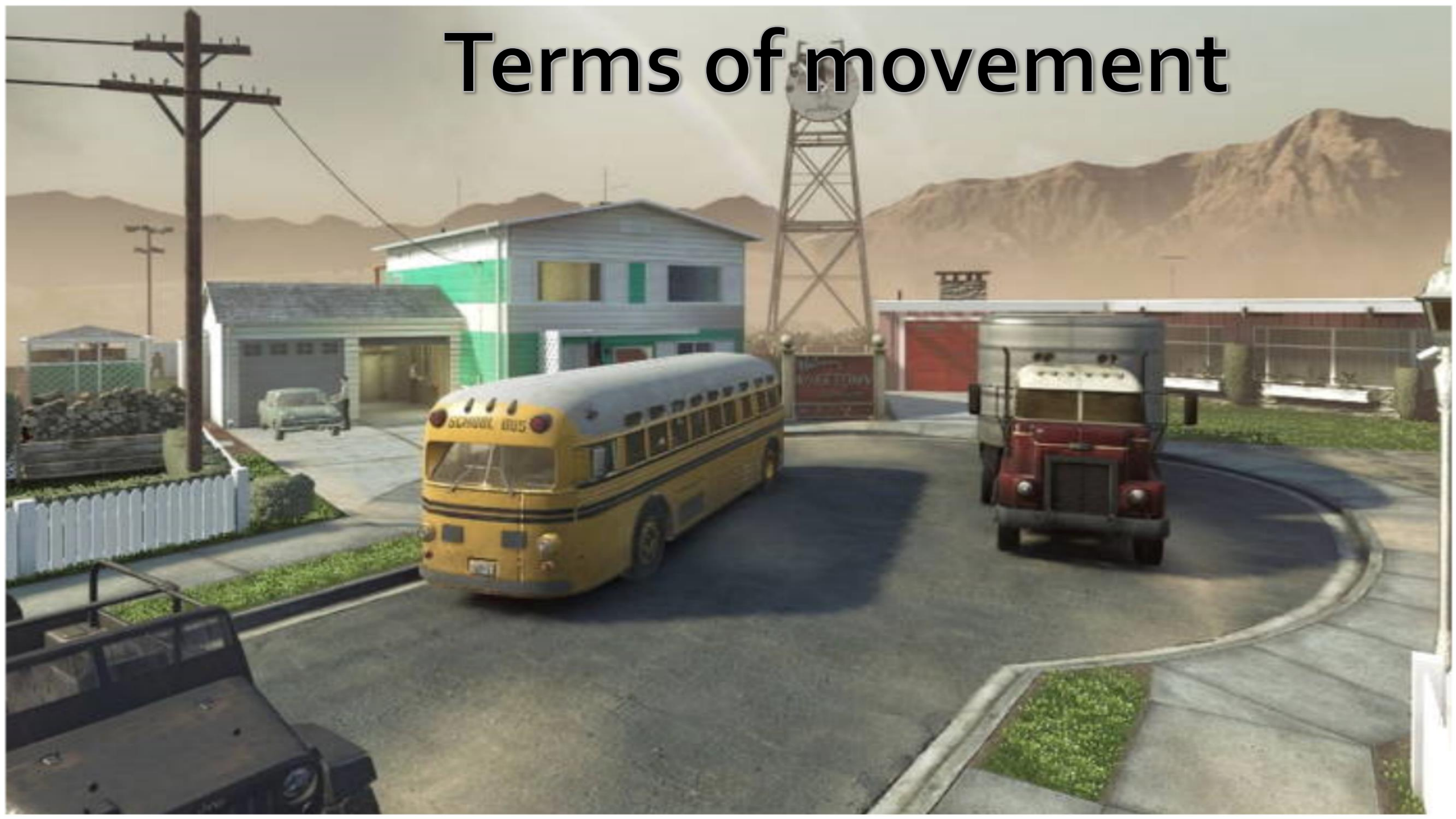


MRI scan through the knee joint (sagittal plane).

Midsagittal
parasagittal



Terms of movement



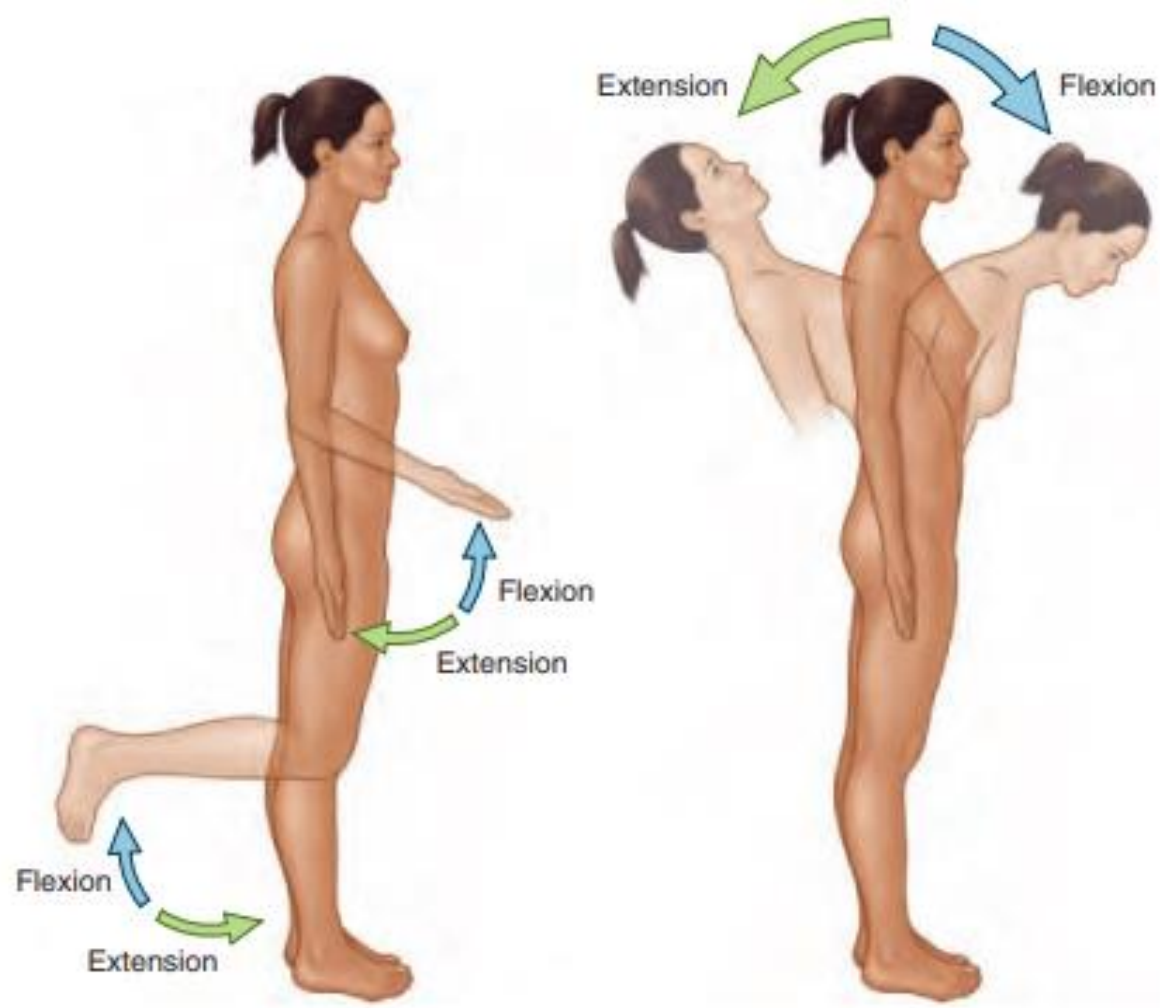
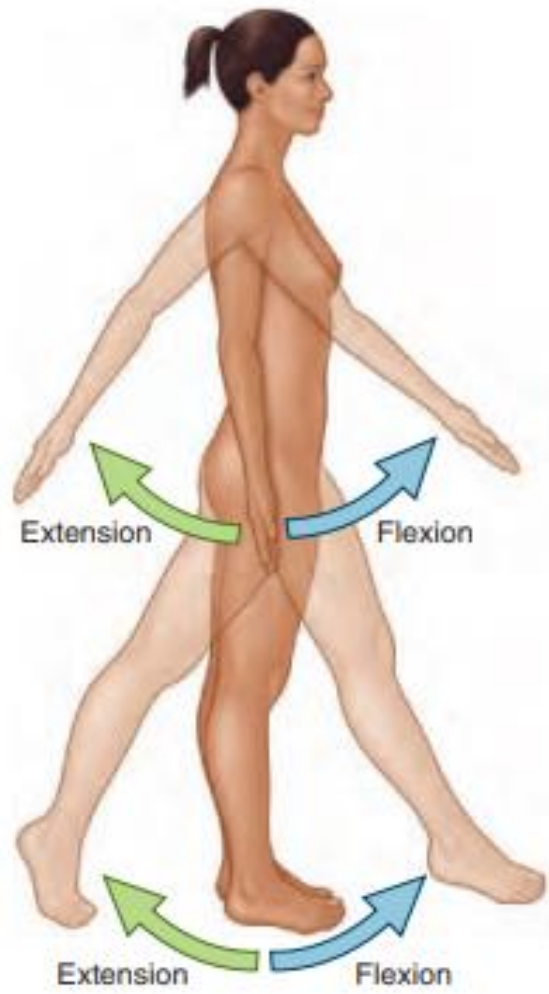
flexion

Decreasing the angle between the bones

To the front or to the back but in the sagittal plane

Plantarflexion

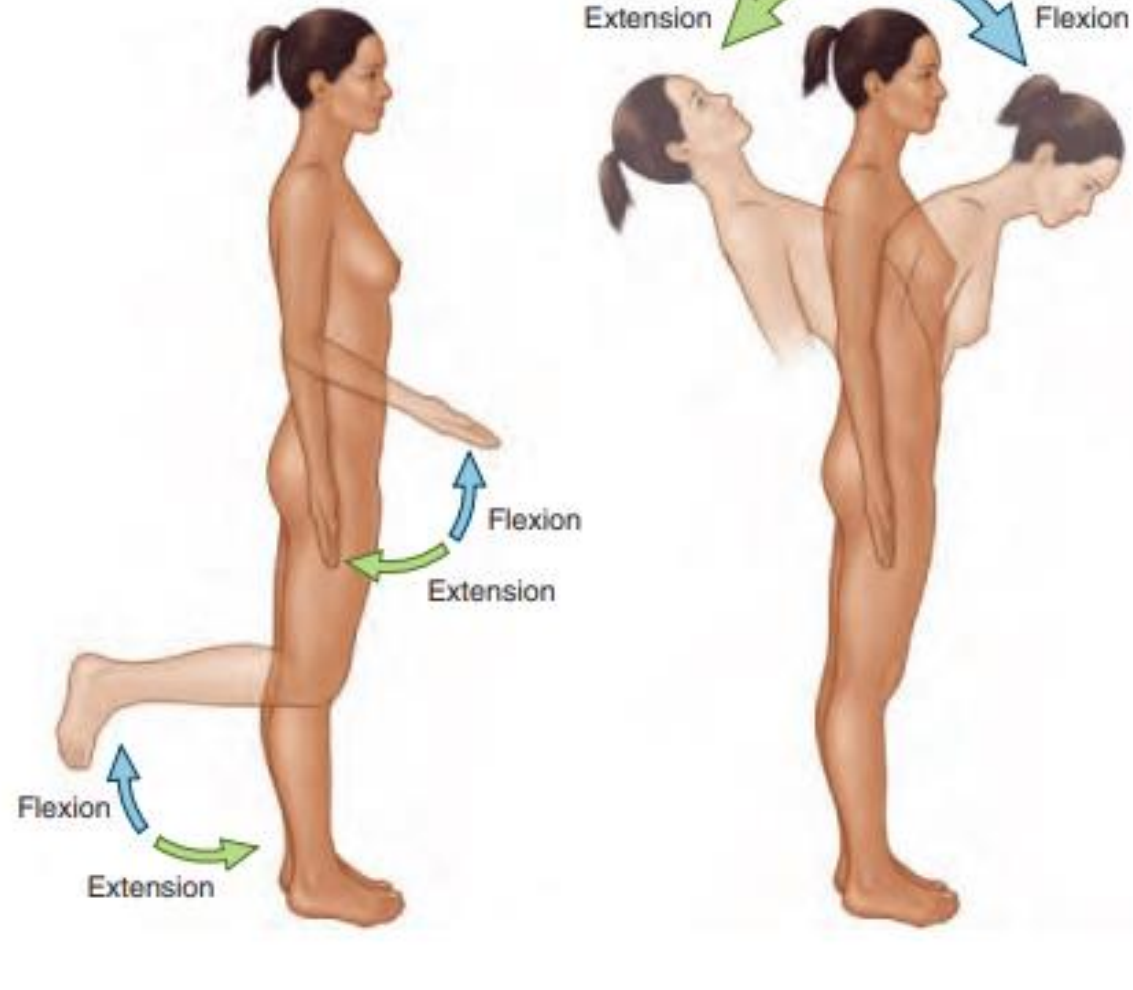
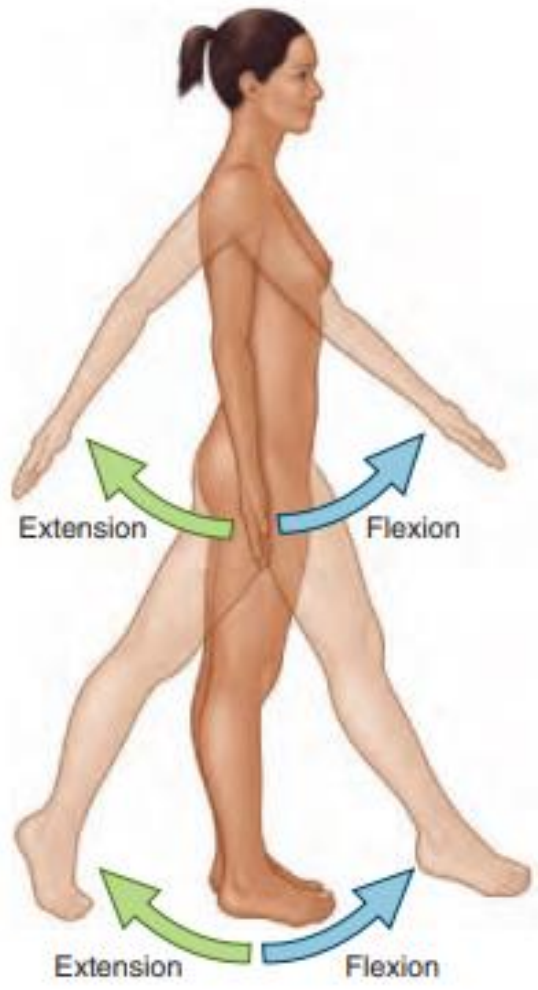
dorsiflexion



extension

Increasing the angle between
the bones

To the front or to the back but
in the sagittal plane

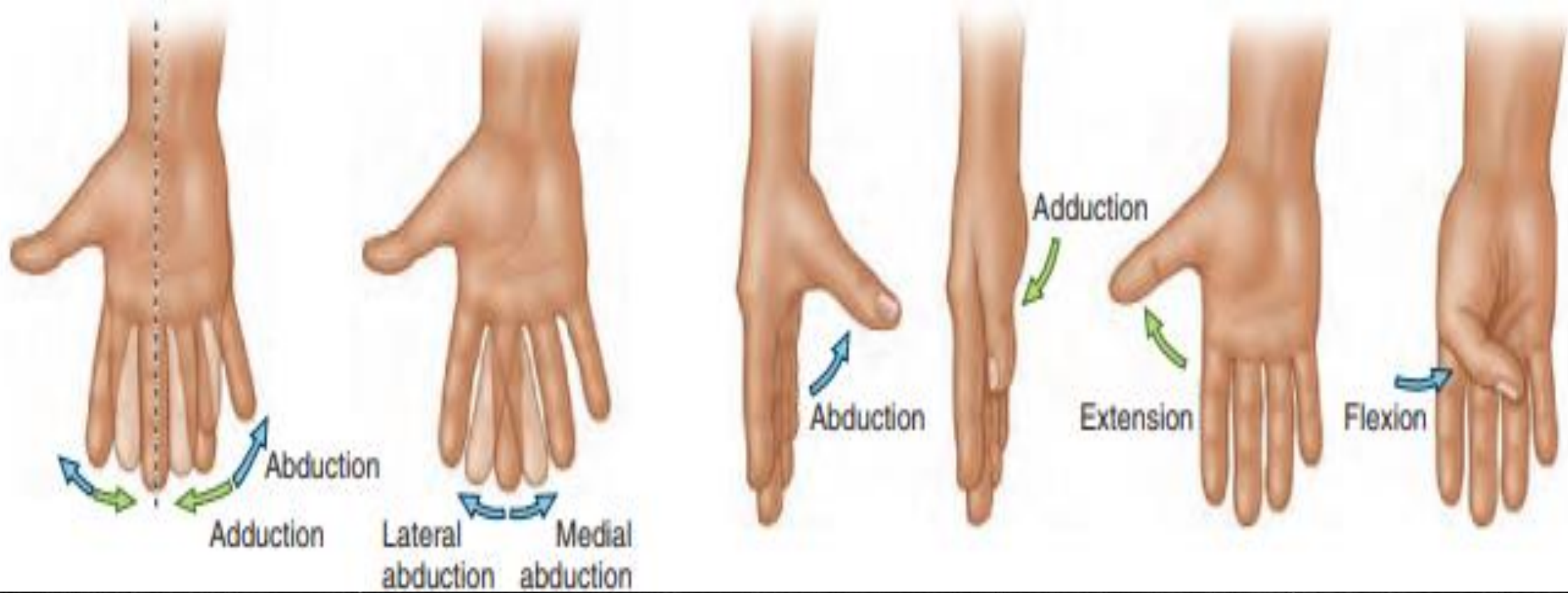


Abduction

Moving away from the median plane in the frontal plane (coronal plane)

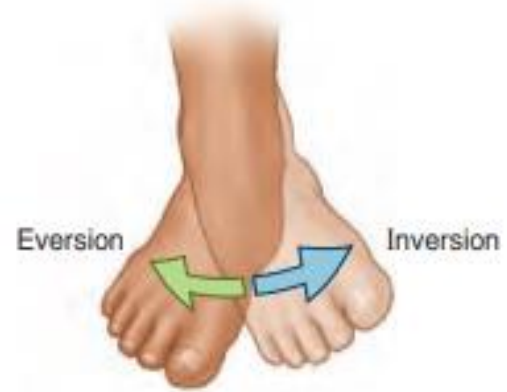
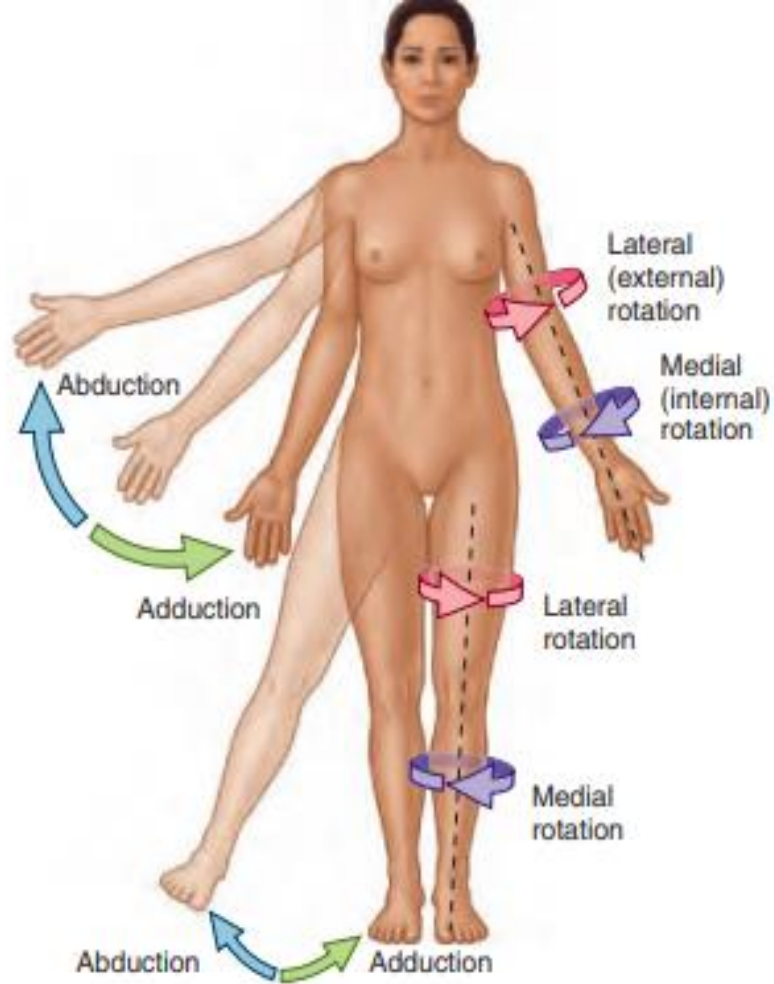
adduction

Moving toward the median
plane in the frontal plane



circumduction

Combination of the former 4
movements leading to
circular movement



Rotation

Around longitudinal axis

Involves :

- medial rotation (internal)
- Lateral rotation (external)

Pronation & supination

Rotational movement of the forearm and hand around longitudinal

Axis so that the palm of the hand faces superiorly in case of supination

And inferiorly in case of pronation .

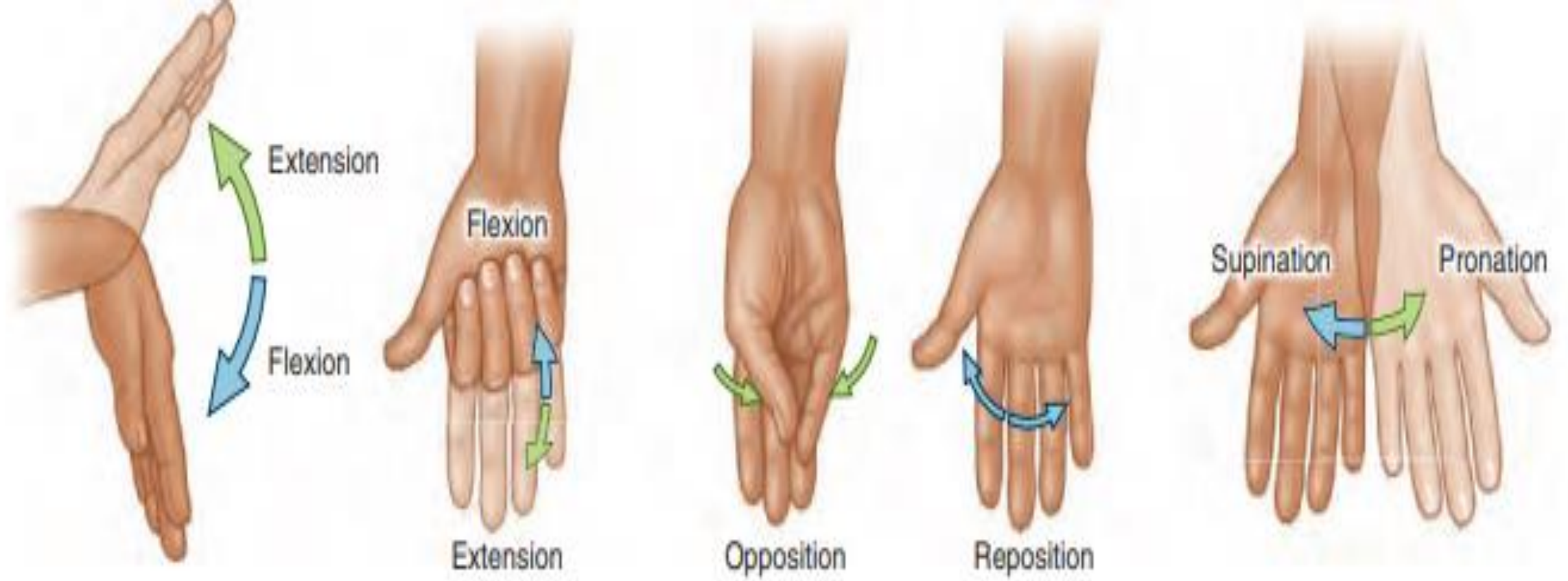


Opposition & reposition

Pushing any of the digits by the thumb

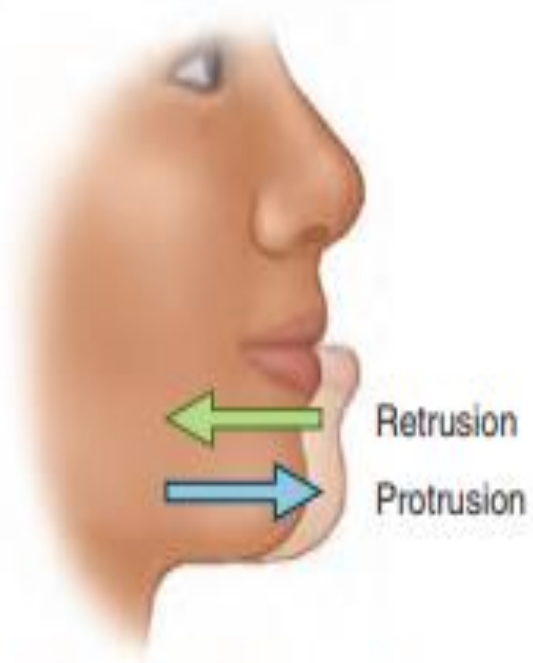
Reposition of the thumb when it returned back to its anatomical Position .





Protrusion & retrusion

Forward and backward
movement of mandible and
tongue .



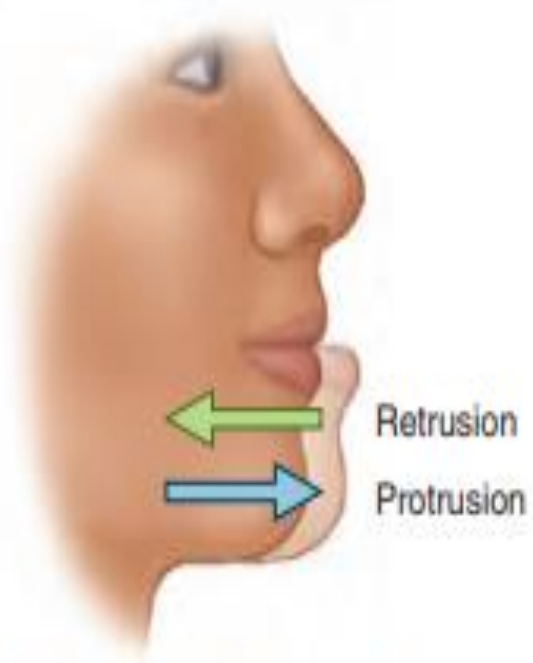
(L) Protrusion and retrusion of jaw at temporomandibular joints



(M) Protraction and retraction of scapula on thoracic wall

Protraction & retraction

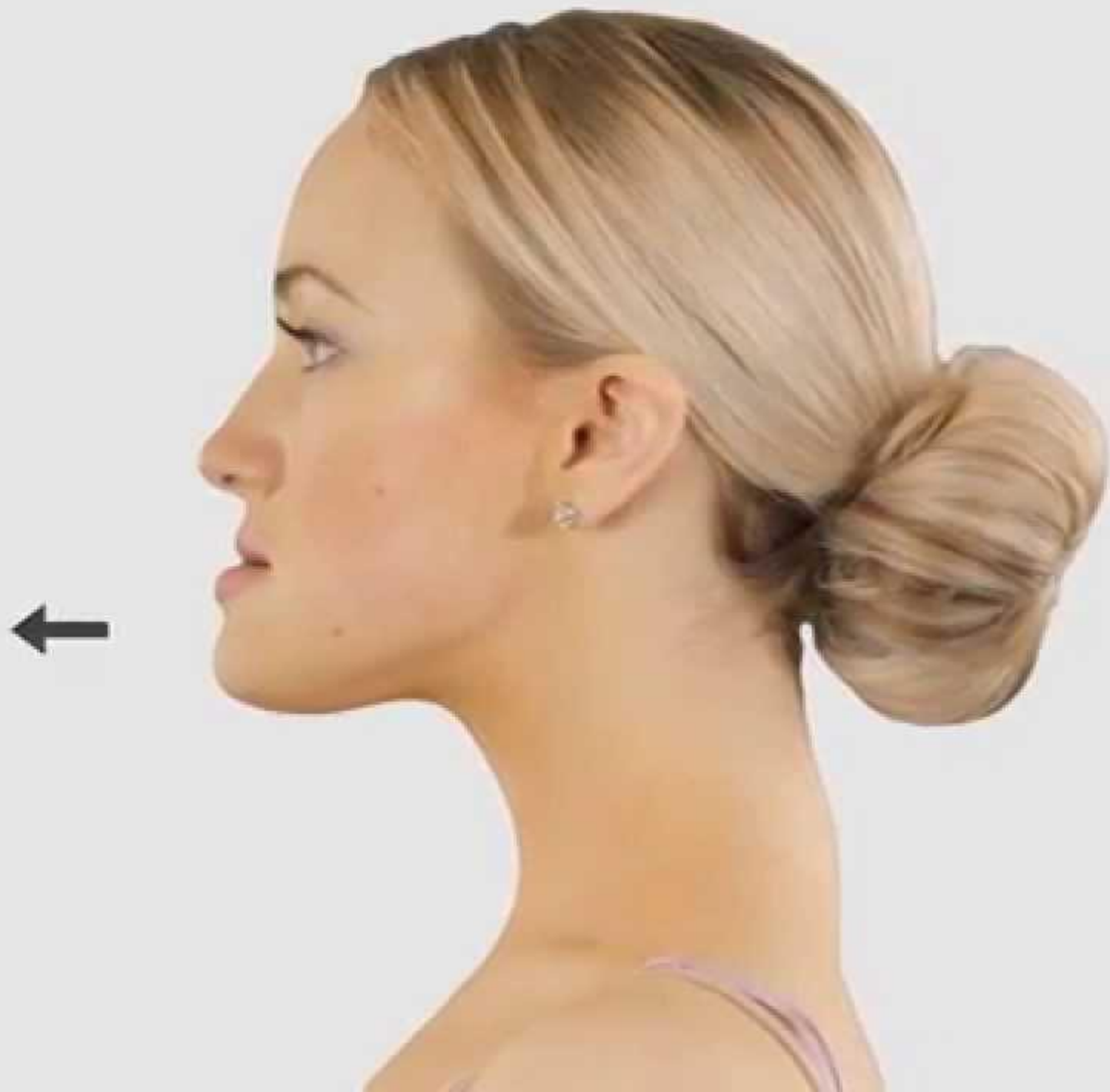
Forward and backward
movement of the shoulder .



(L) Protrusion and retrusion of jaw at temporomandibular joints



(M) Protraction and retraction of scapula on thoracic wall





Elevation & depression

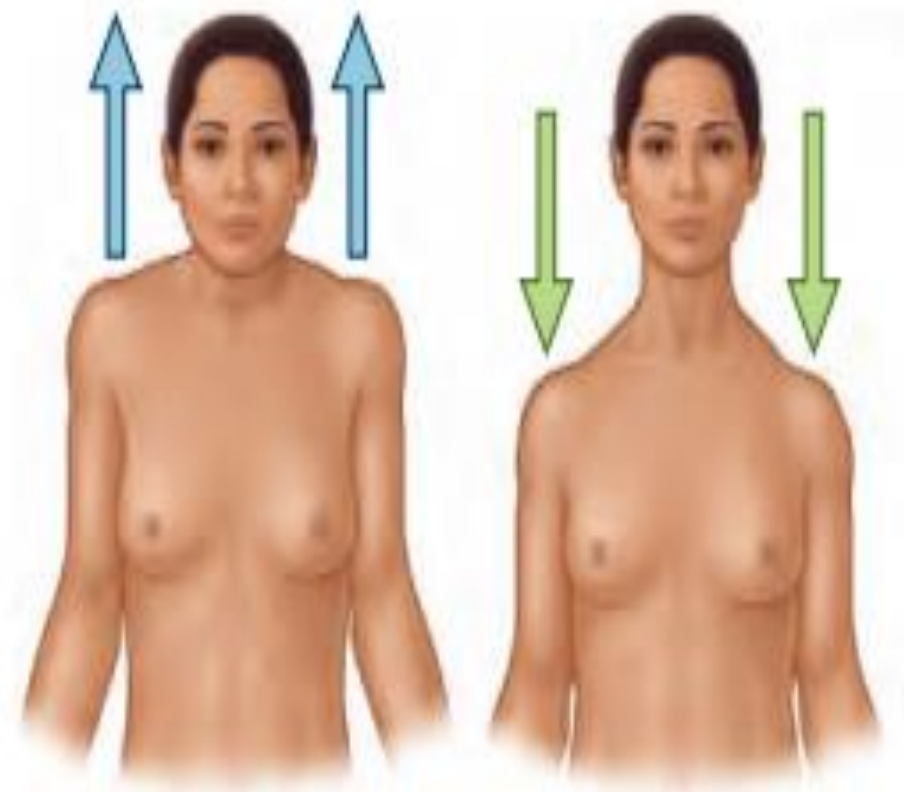
Moving a part of the body upward or downward

Like elevation & depression of shoulders

Eyelids when you open and close your eyes

Tongue when you move it up and down against

palate and mouth floor .



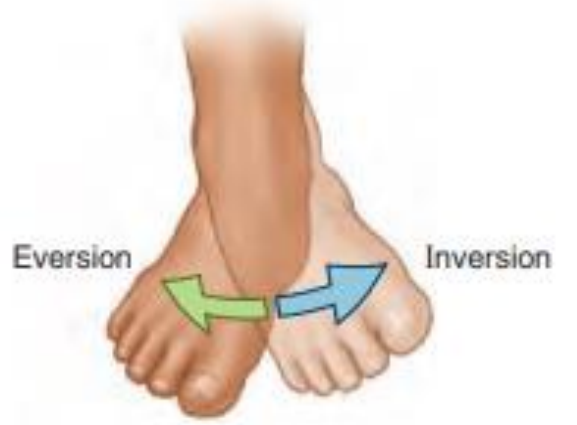
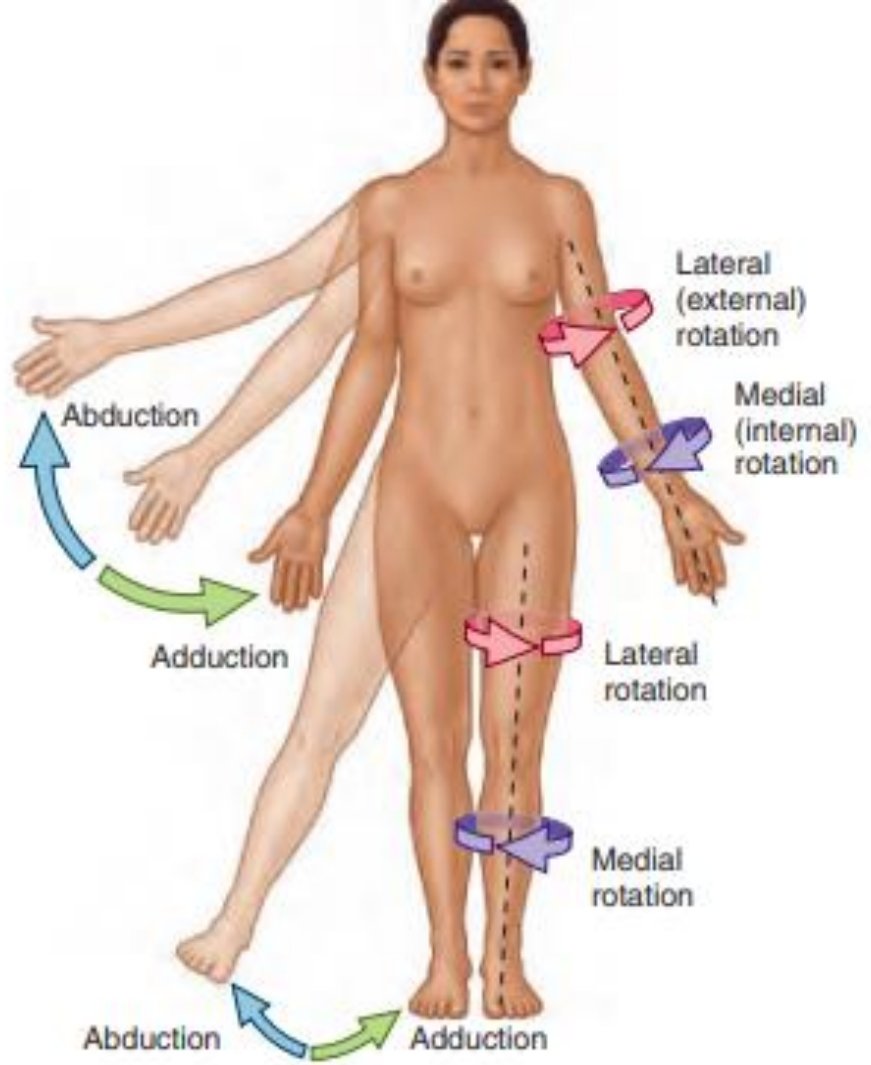
Elevation

Depression

(K) Elevation and depression
of shoulders

Everson & inversion

Peculiar to the foot when the sole (plantar) moves toward and away from the median plane.

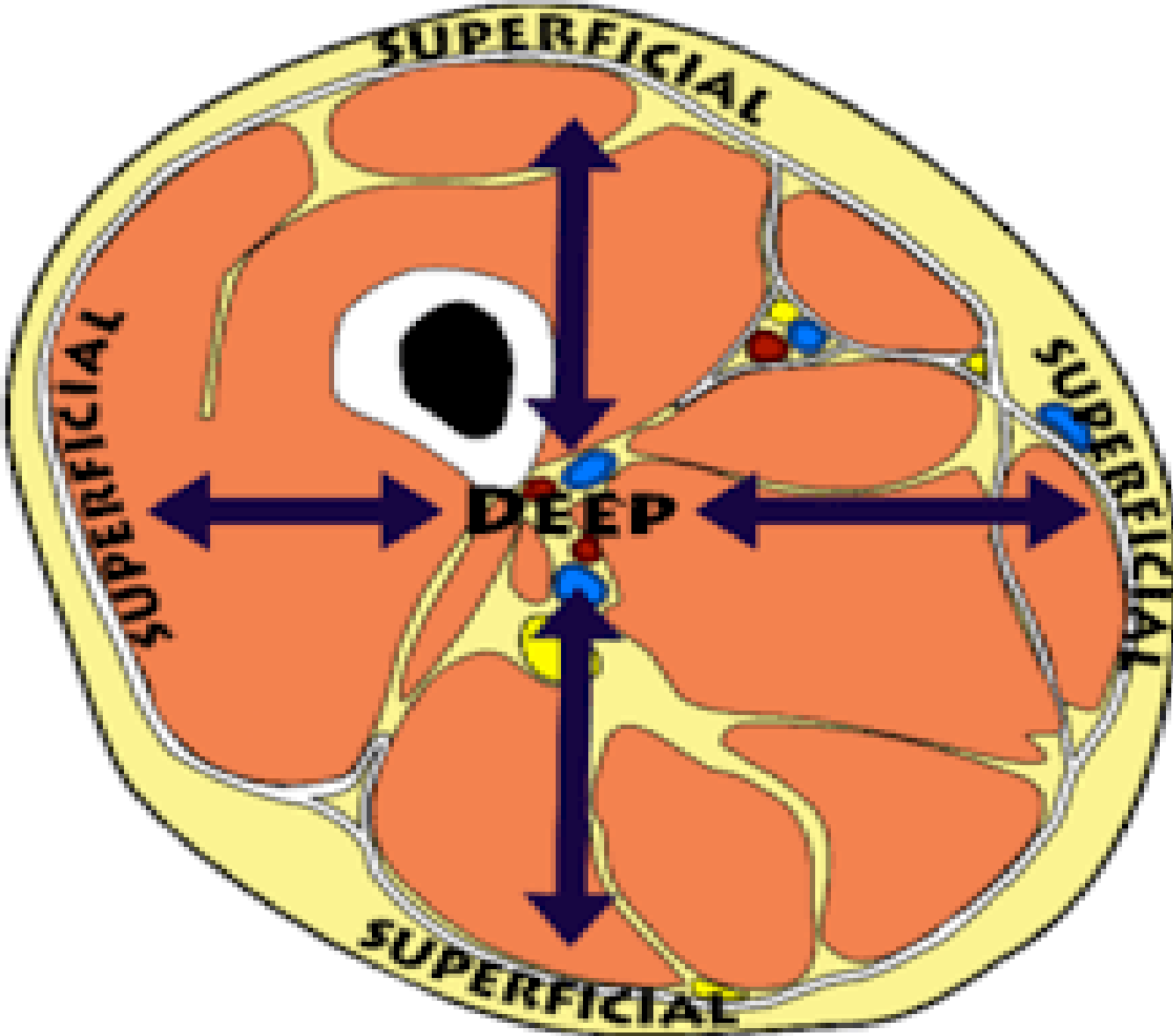


Terms of relationship & comparison



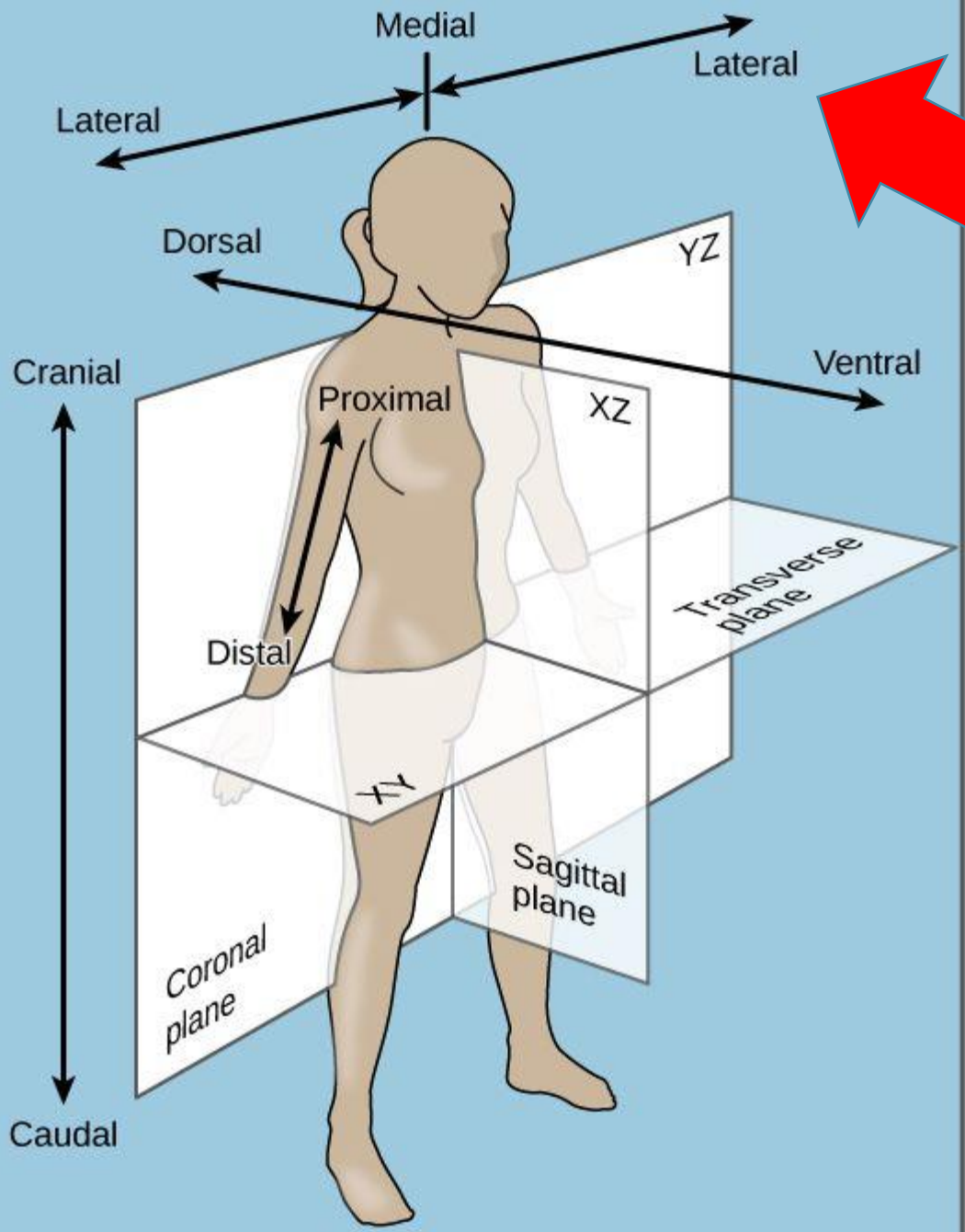
Superficial , intermediate & deep

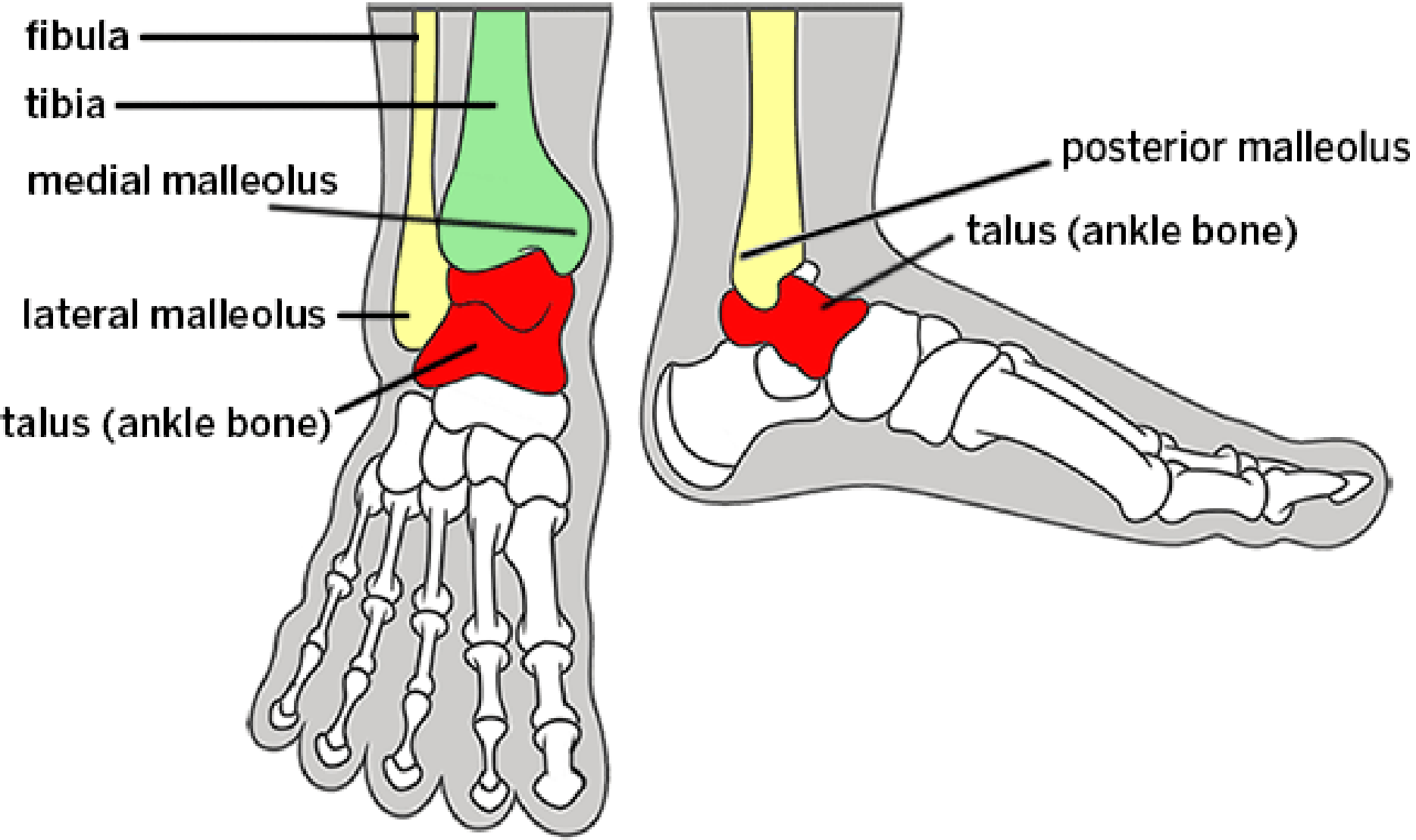
it describes position of structure in relation to the body surface .



Medial & lateral

Nearer and farther away from the median plane





External & internal

In relation to the core or
centre

Anterior and posterior

The front and back surface of the body

Also called ventral and dorsal

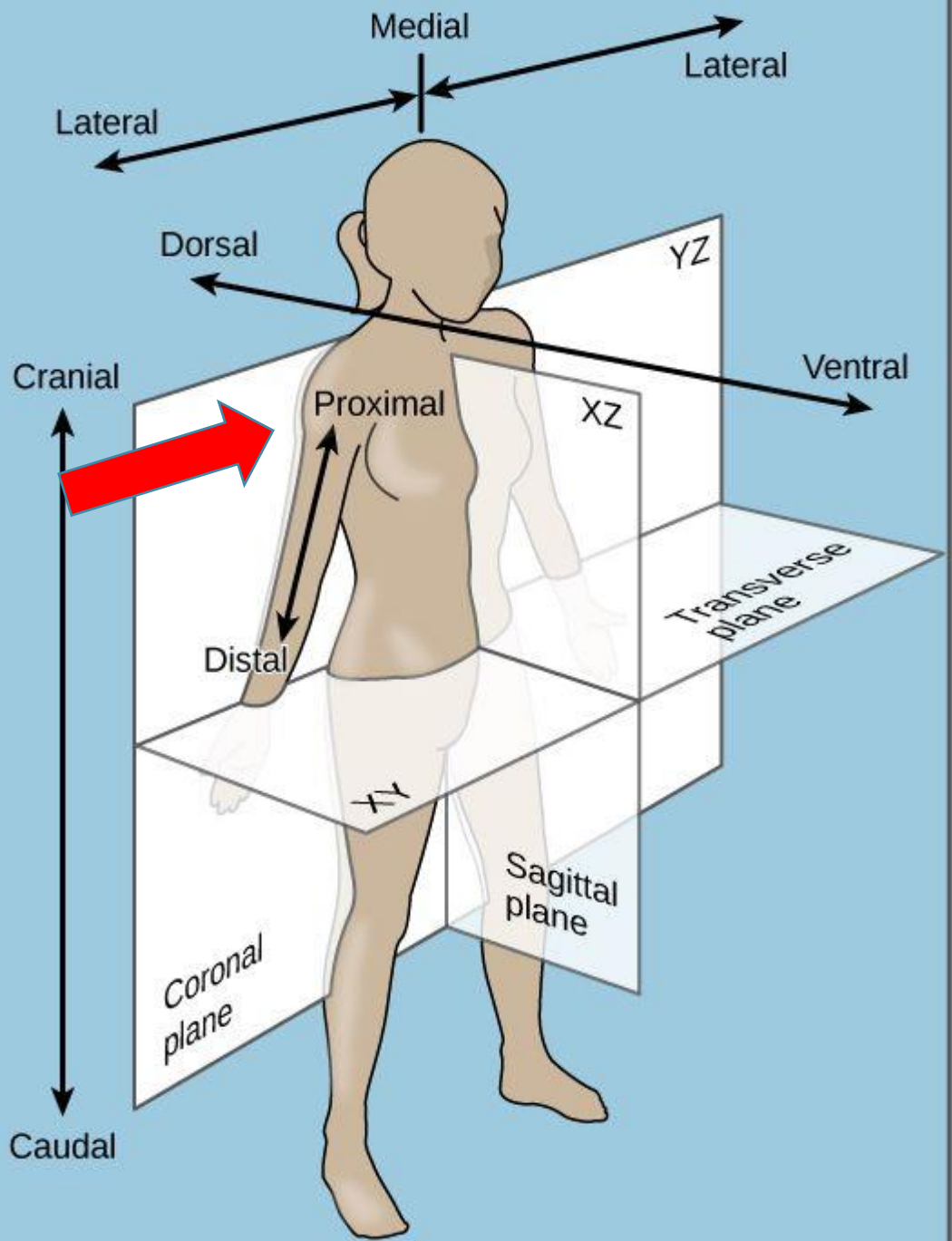
Rostral and caudal

means toward the head and tail
(coccyx)

Used in the embryology

Proximal & distal

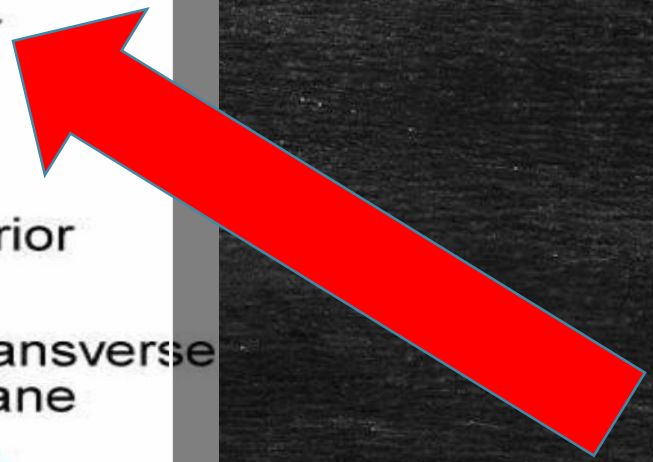
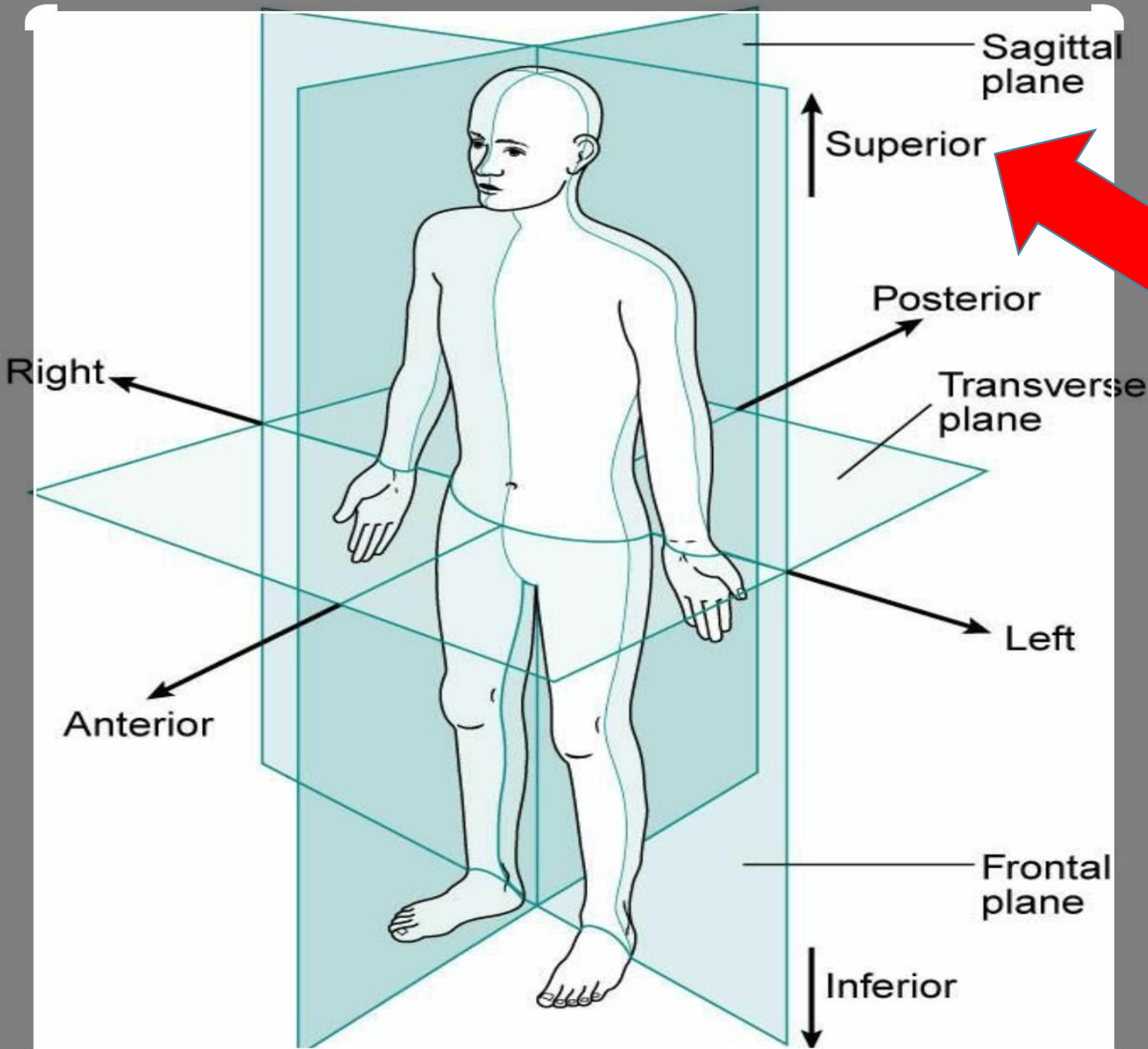
Used to describe a distance from the attachment of a limb



Superior and inferior

Whether toward the vertex of the
cranium

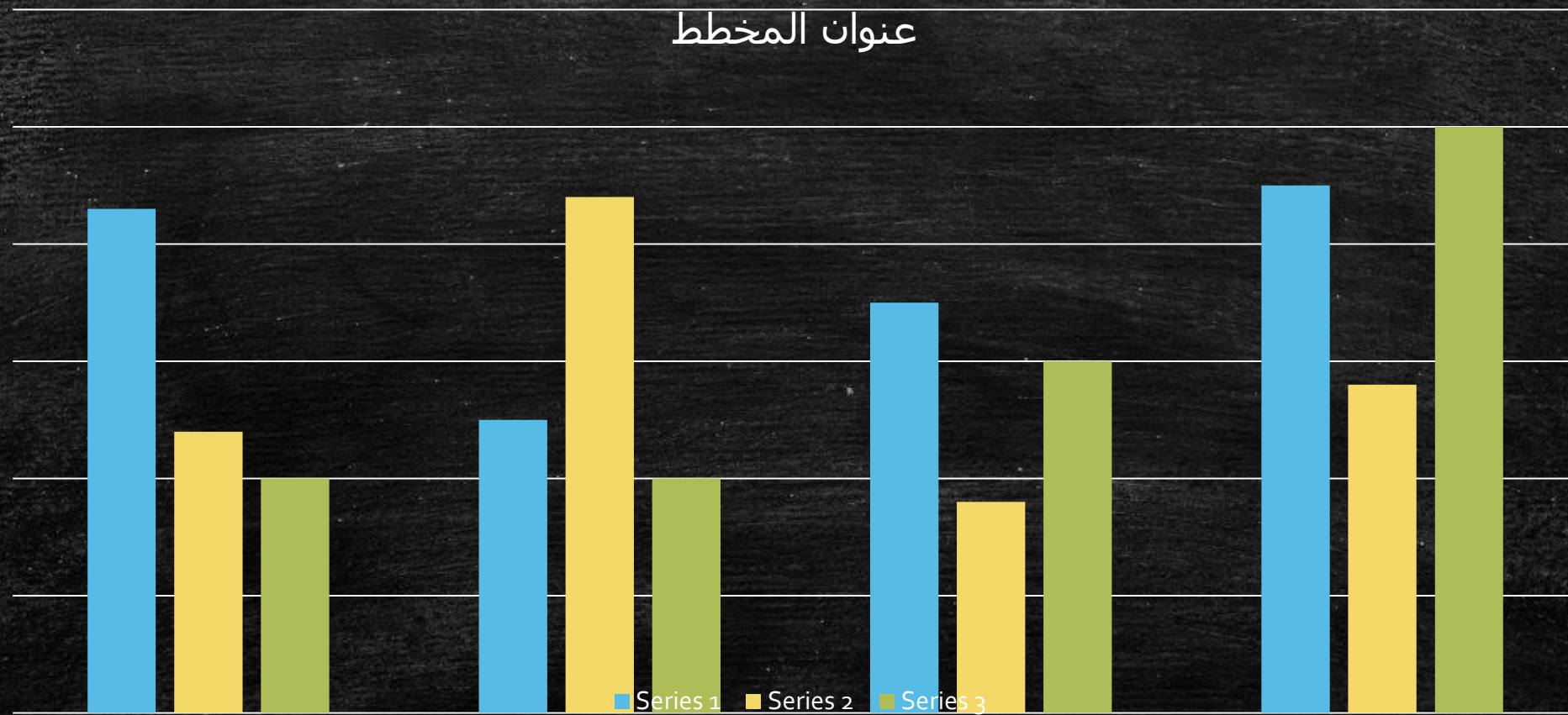
or toward the sole of the foot .





END

Title and Content Layout with Chart



Two Content Layout with Table

- First bullet point here
- Second bullet point here
- Third bullet point here

Class	Group A	Group B
Class 1	82	95
Class 2	76	88
Class 3	84	90

Two Content Layout with SmartArt

Group A

- Task 1
- Task 2

Group B

- Task 1
- Task 2

Group C

- Task 1

- First bullet point here
- Second bullet point here
- Third bullet point here

Add a Slide Title - 1

Add a Slide Title - 2

Add a Slide Title - 3

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