



# **Anatomy & Histology**

## **Aesthetic and Laser Department**

### **Al-Mustaqbal University**

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**1<sup>st</sup> lecture/Theory**

**The first Stage**

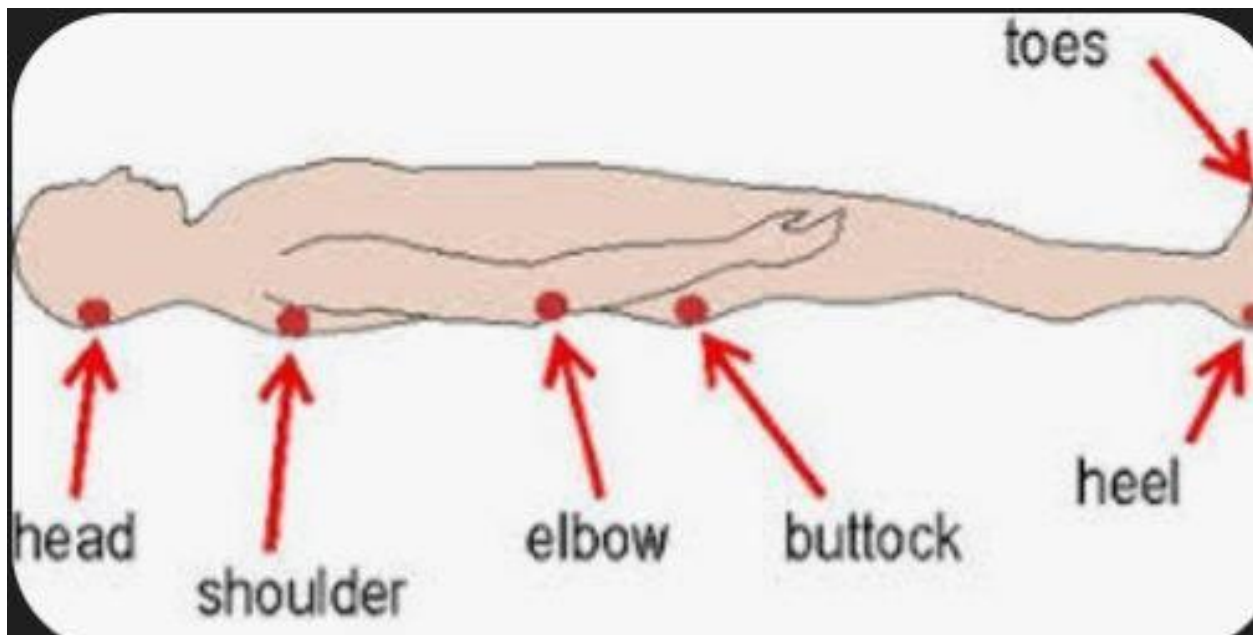
**2024-2025**

# **Introduction**

## **(Anatomical Terms)**

## Anatomical Terms

- **Anatomy:** A field in the biological and medicine sciences concerned with the identification and description of the body structures of living organism.
- **Anatomical position:** is the starting point for any description of the human body. The anatomical position is facing forwards, with mouth closed and facial expression neutral. Eyes focused on the distance. Arms should be straight and by the sides with palms facing forward. Legs are straight with feet flat on the ground and toes facing forwards. The anatomical location of viscera is described when the patient is supine such as in **Figure1**.

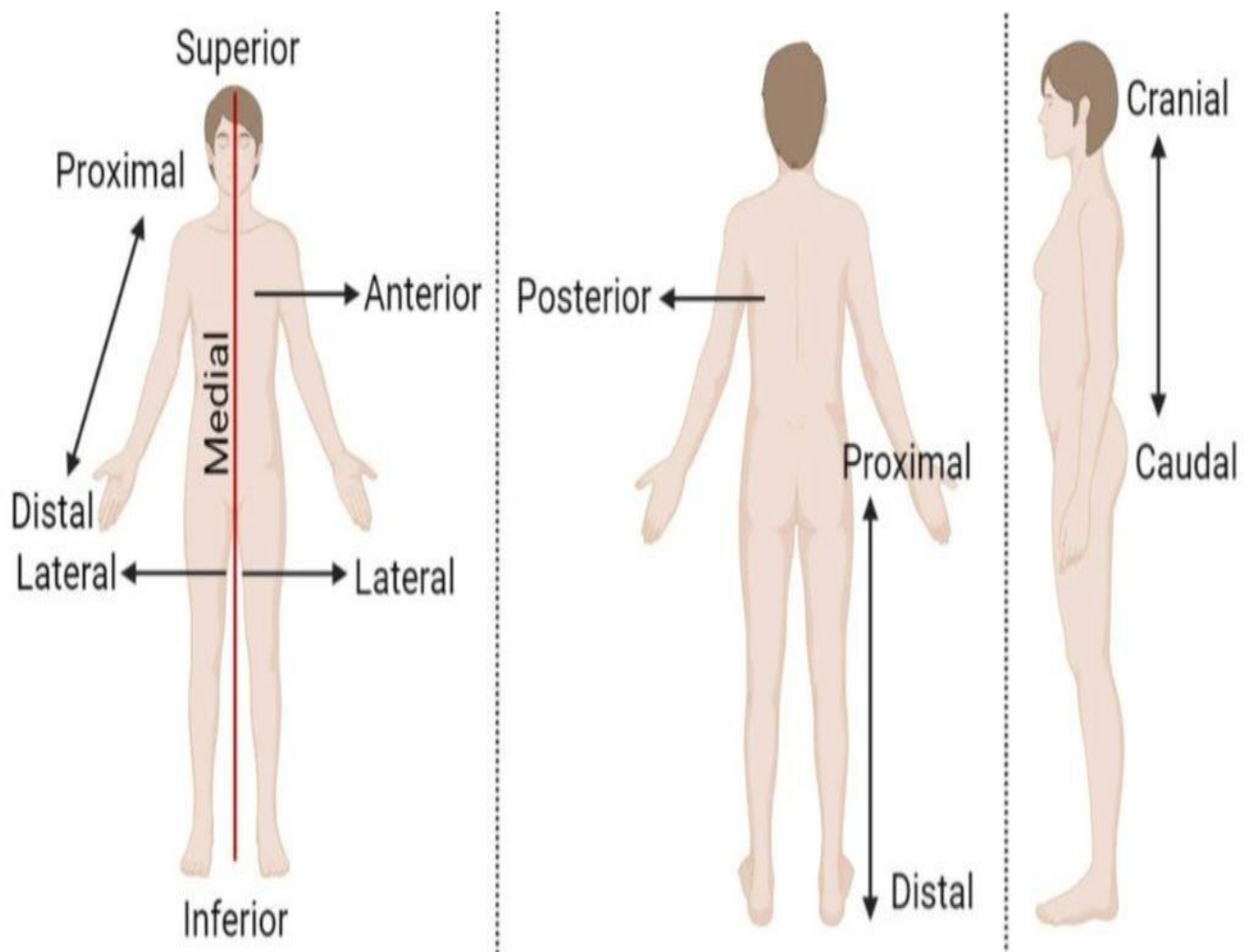


**Figure1:** The supine position.

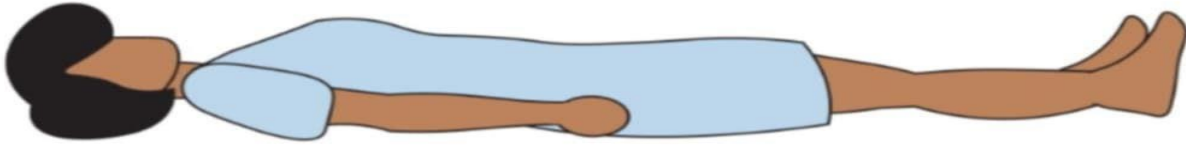
- **Body positions and directions:**

1. **Anterior, frontal or ventral:** Toward the front of the body.
2. **Posterior or dorsal:** Toward the back of the body.
3. **Medial:** Toward the midline of the body.
4. **Lateral:** Away from the midline of the body.
5. **Superior, cranial or cephalic:** Above or toward the head.
6. **Inferior or caudal:** Below or toward the feet.
7. **Proximal:** Nearer to the body trunk.
8. **Distal:** Further away from the body trunk.
9. **Superficial:** Close to the surface.
10. **Deep:** Away from the surface.
11. **Internal:** Inside the structure.
12. **External:** Outside the structure.
13. **Ipsi-lateral:** At the same side.
14. **Contra-lateral:** At opposite side.
15. **Afferent:** Flow toward.
16. **Efferent:** Flow away.

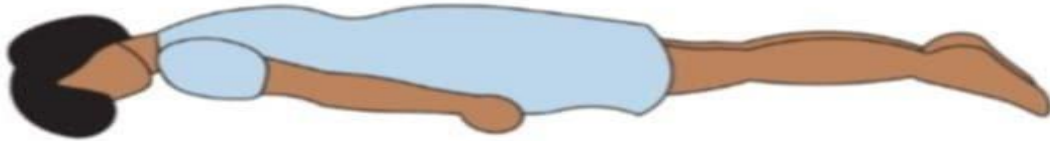
17. **Supine:** The body is laying flat and face upward.
18. **Prone:** The body is laying flat and face downward.
19. **Right lateral recumbent:** The body is laying on right side.
20. **Left lateral recumbent:** The body is laying on left side. (Recumbent: means laying down on lateral side).



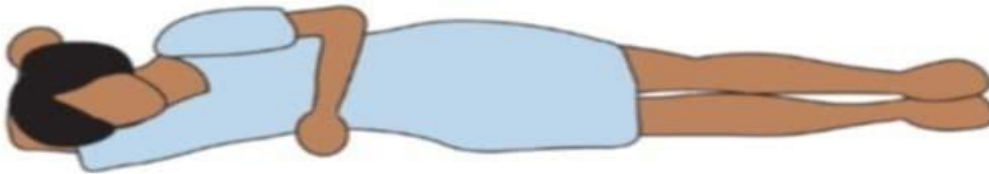
**Figure2:** Anatomical positions



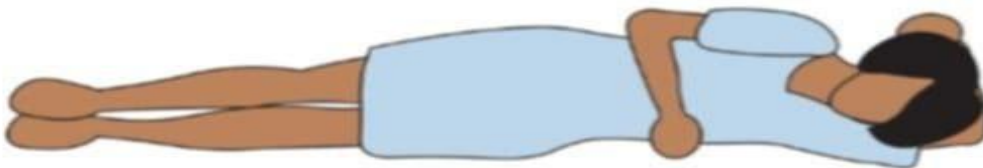
**Supine**



**Prone**



**Right Lateral Recumbent**



**Left Lateral Recumbent**

**Figure3:** Most common positions.

- **Movements**

In musculoskeletal system, the movements are taking place at joints.

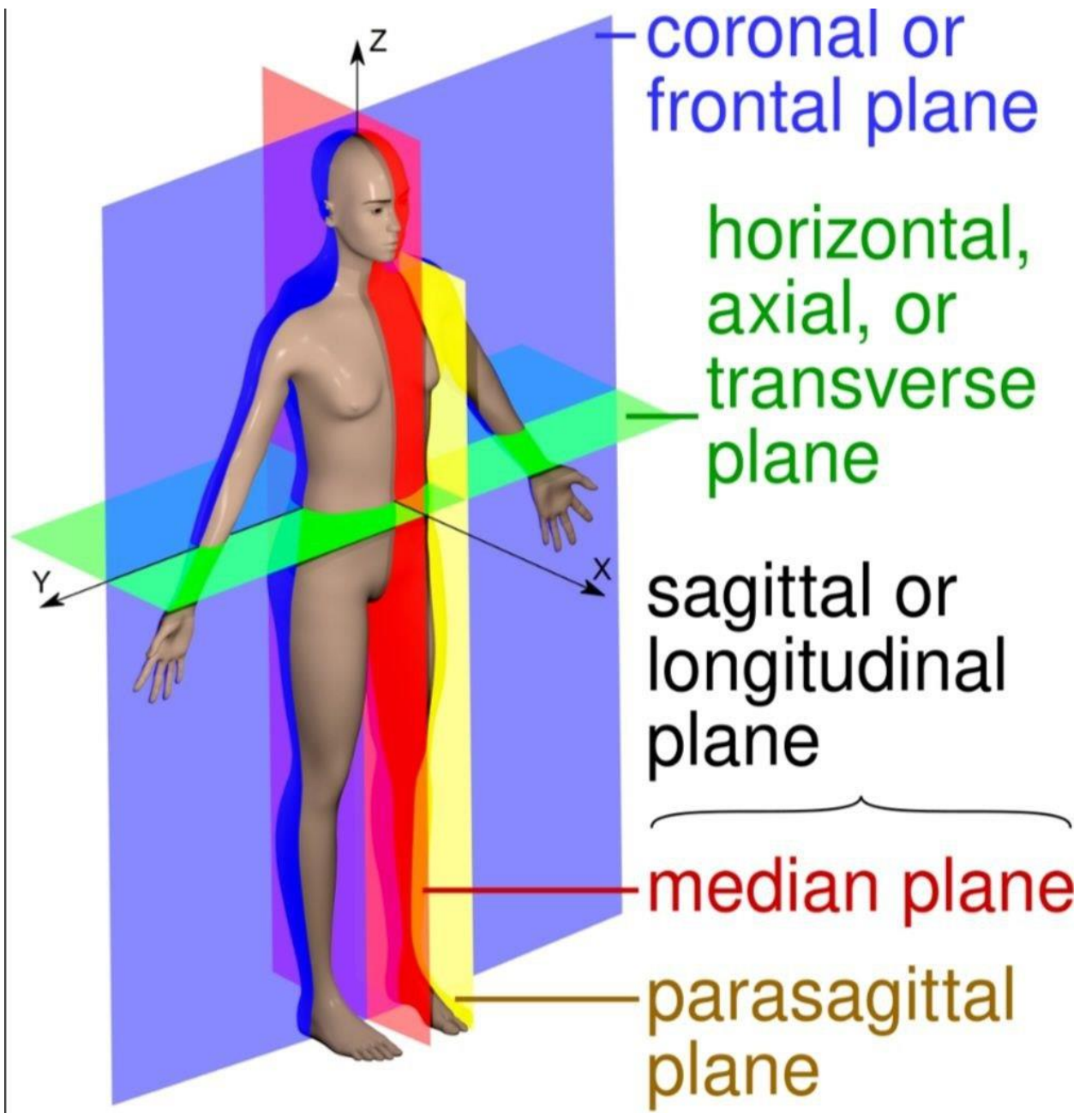
**A joint: Area where two or more bones are articulate.**

**The terms of movement:**

1. **Flexion:** Decrease the angle of a joint.
2. **Extension:** Increase the angle of a joint.
3. **Abduction:** Away from midline of the body.
4. **Adduction:** Toward the midline of the body.
5. **Pronation:** Turning the forearm medially to make the palm posteriorly.
6. **Supination:** Turning the forearm laterally to make the palm anteriorly.
7. **Inversion:** Turning the sole of foot medially.
8. **Eversion:** Turning the sole of foot laterally.
9. **Rotation:** Circular movement of body parts, known as an axis of rotation.

## **There are three planes of the body:**

1. **Coronal (frontal)plane:** Separate the front(anterior) and back (posterior) of the body.
2. **Sagittal (longitudinal)plane:** Separate the left and right sides of the body.
3. **Horizontal (axial, transverse) plane:** Separate the body into top and bottom halves. Figure4.



**Figure4:** Types of the planes of body