



The module: Cardiovascular system

Session 1

Introduction to Anatomy

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As in work book

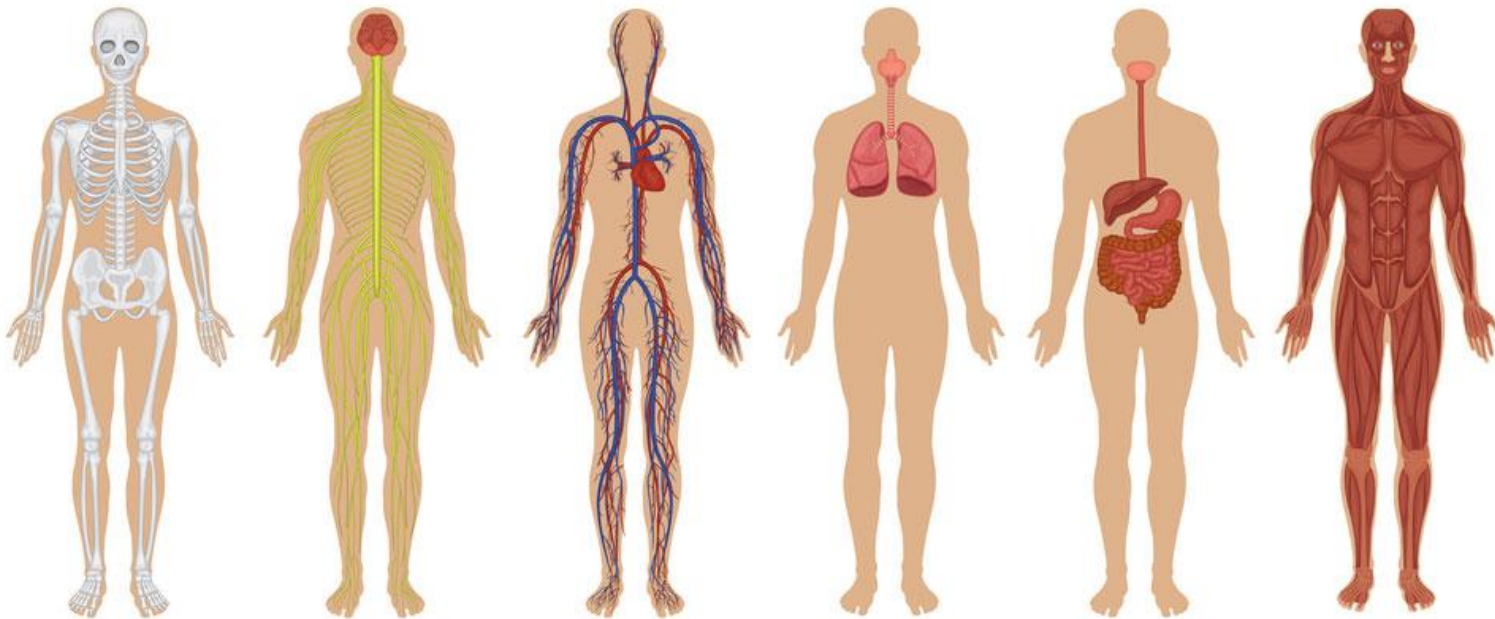


For more discussion, questions or cases need help please post to the session group



Definition

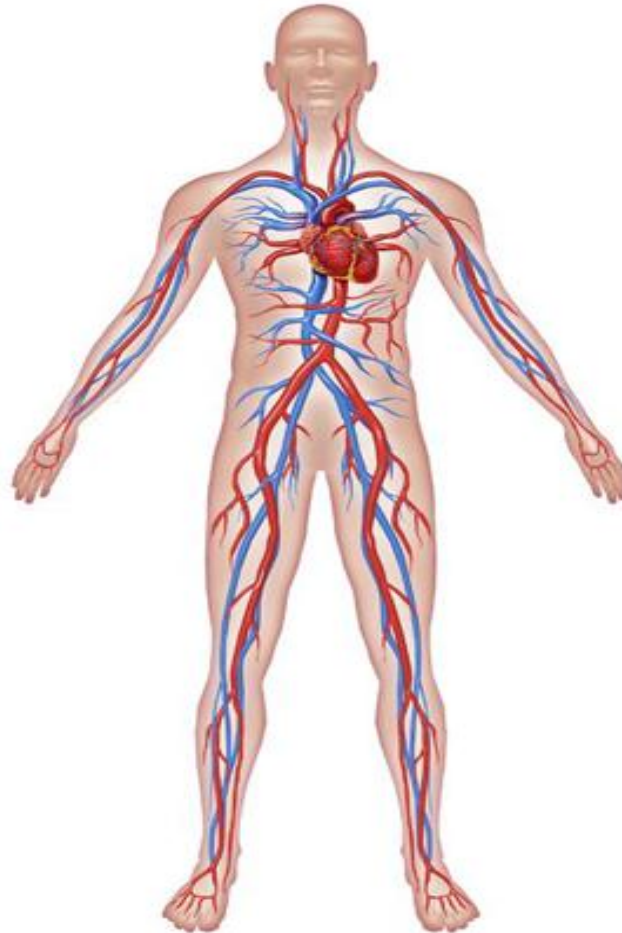
- **Anatomy :is the study of the structure of the human body.**



The cardiovascular system

The cardiovascular system consists off:

- 1- Heart**
- 2- Blood Vessels**
- 3-The Blood**



Anatomy subdivisions

| | |
|--|--|
| ◆Regional anatomy | It considers the body as organized into segments or parts. |
| ◆Systemic anatomy | It sees the body as organized into organ systems. |
| ◆ Surface anatomy | It provides information about structures that may be observed or palpated beneath the skin. |
| ◆Radiographic, sectional, and endoscopic anatomy | It allows appreciation of structures in the living, as they are affected by muscle tone, body fluids and pressures, and gravity. |
| ◆ Clinical anatomy | It emphasizes application of anatomical knowledge to the practice of medicine. |



Anatomical Terminology

The **anatomical position** refers to the body position as if the person were standing upright with the:

head, gaze (eyes), and toes directed anteriorly (forward), arms adjacent to the sides with the palms facing anteriorly, and lower limbs close together with the feet parallel.

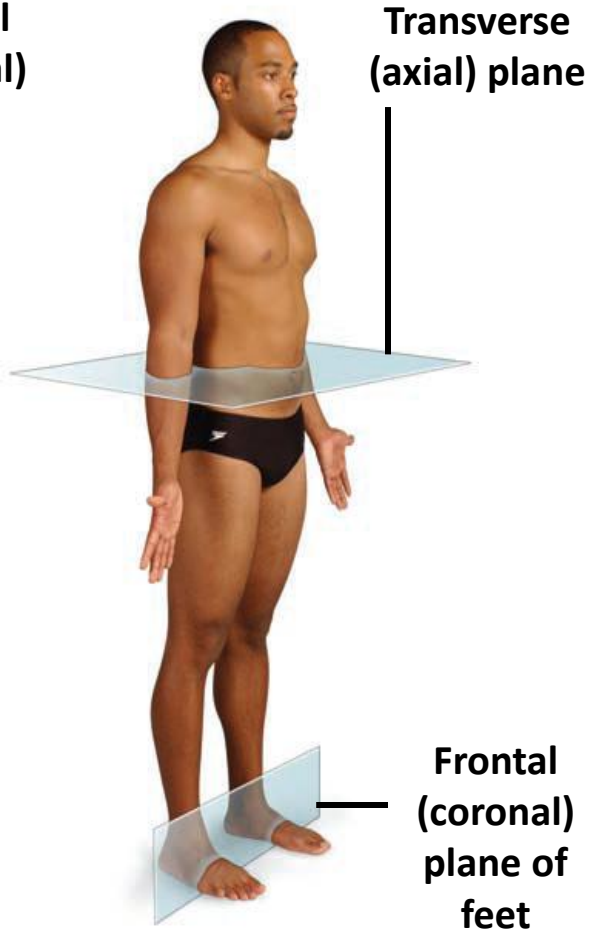
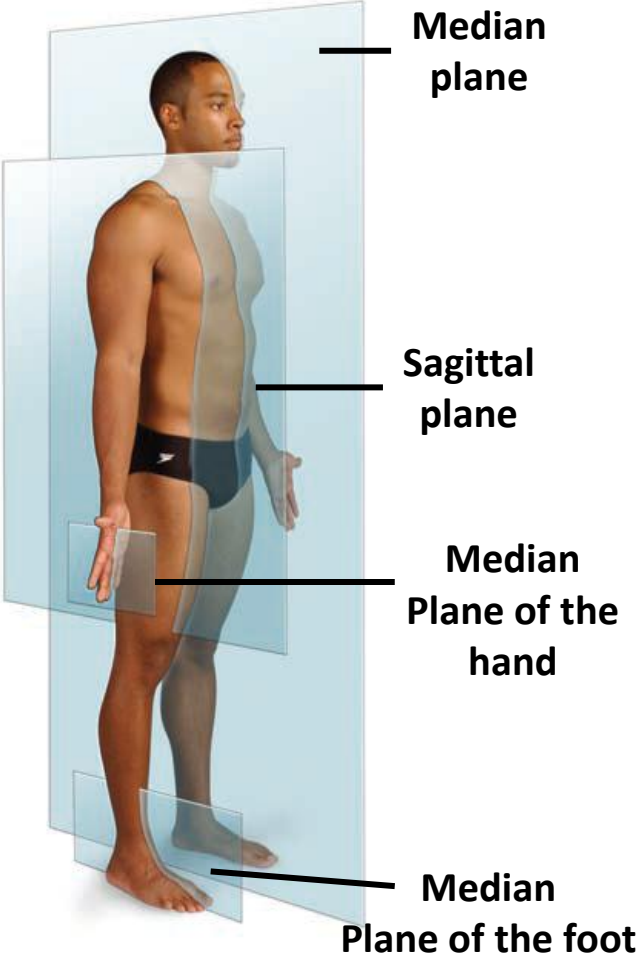
This position is adopted globally for **anatomicomedical descriptions**.

By using this position and appropriate terminology, you can relate any part of the body precisely to any other part.

It should also be kept in mind, however, that **gravity** causes a downward shift of internal organs (viscera) when the upright position is assumed



Anatomical planes



Terms of relations and comparison

| | |
|-------------------------|--|
| Medial | Is used to indicate that a structure is nearer to the median plane of the body. |
| lateral | Means a structure is farther away from the median plane. |
| Dorsum | Usually refers to the superior aspect of any part that protrudes anteriorly from the body. |
| The sole | Is the inferior aspect or bottom of the foot, opposite the dorsum. |
| Dorsal surface | The hands, the feet, and the digits of both corresponding to the Dorsum. |
| Palmar surface | The surface of the hand and fingers corresponding to the palm. |
| Plantar surface. | The surface of the foot and toes corresponding to the sole . |
| | |



Combined terms

They describe intermediate positional arrangements:

| | |
|----------------------|---|
| inferomedial | Means nearer to the feet and median plane. |
| superolateral | Means nearer to the head and farther from the median plane. |

Other terms of relationship and comparisons are independent of the anatomical position or the anatomical planes, relating primarily to the body's surface or its central core:

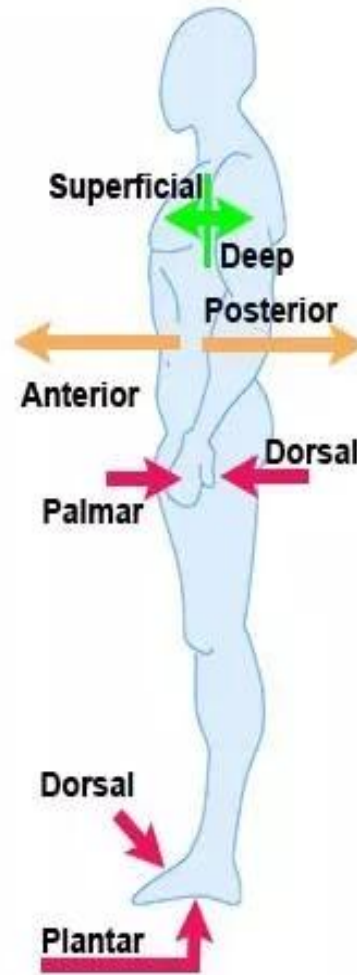
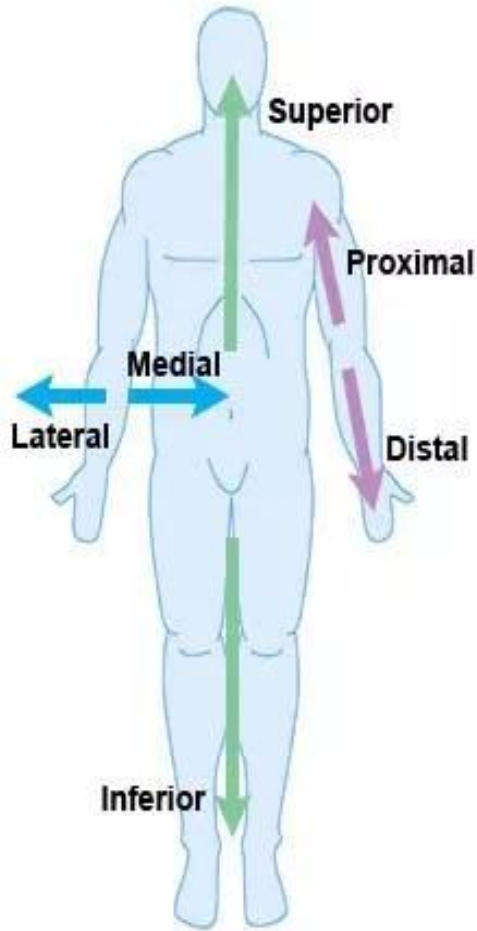
Superficial, intermediate, and deep



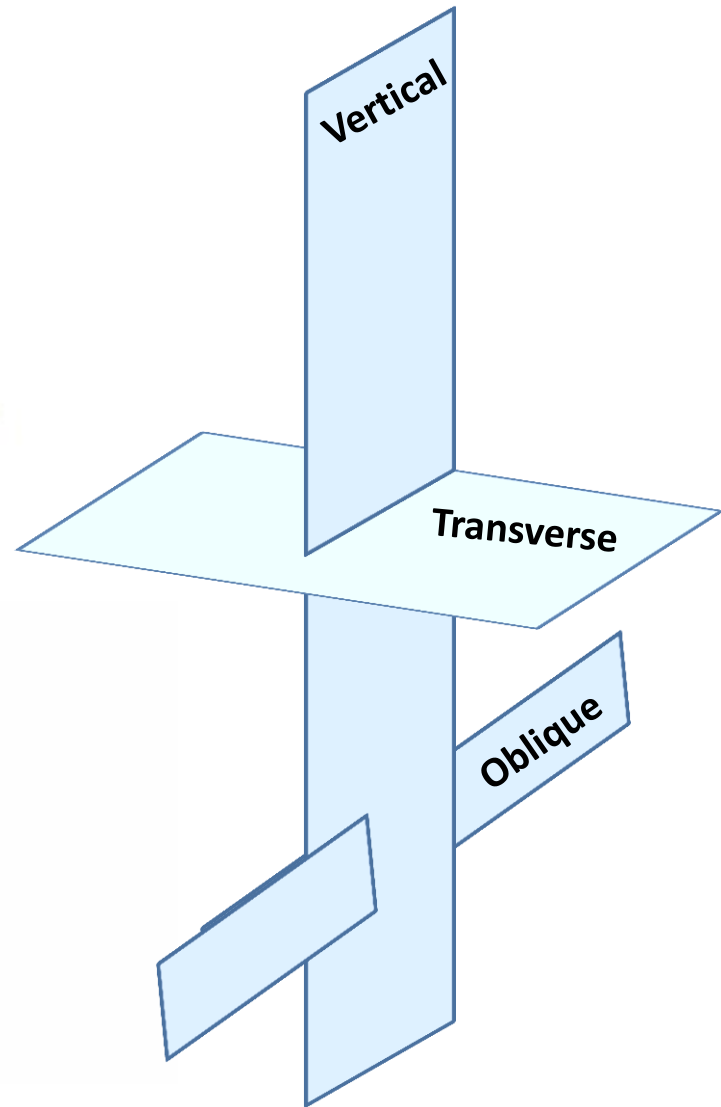
Relationship of one structure to another underlying or overlying structure.

| | |
|----------------------------|---|
| External | Means outside of or farther from the center of an organ or cavity. |
| Internal | Means inside or closer to the center, independent of direction. |
| Proximal and distal | Are used when contrasting positions nearer to or farther from the attachment of a limb or the central aspect of a linear structure, respectively. |
| Bilateral | Paired structures having right and left members (e.g., the kidneys). |
| Unilateral | Refers to structures occurring on one side only (e.g., the spleen) . |
| ipsilateral | Refers to structures occurring on the same side of the body as another structure. |
| Contralateral | Means occurring on the opposite side of the body relative to another structure. |





Sections



Anatomical variations

- Anatomy describe (initially , at least)the structure of the body as it is usually observed in people – that is , the most common pattern.
- However , occasionally a particular structure demonstrates so much variation within the normal range that the most common pattern is found less than half the time !
- It is important to know how such variations may influence physical examinations , diagnosis , and treatment.

