



आईएफटीएम विश्वविद्यालय, मुरादाबाद, उत्तर प्रदेश

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**IFTM University, Moradabad, Uttar Pradesh**  
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# Scope of Anatomy and physiology

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# Anatomy

anatome - ana (up) and tome (cutting)

- The study of body structures is called anatomy.
- Body structure includes
  - Situation
  - Size
  - Coloration
  - Shapes

**Anatomy is subdivided into the following sections:**

1. Gross anatomy
2. Microscopic Anatomy
3. Developmental anatomy
4. Pathological anatomy
5. Systemic anatomy

## **1. Gross anatomy**

The study of body structures that are visible to naked eyes.

## **2. Microscopic Anatomy**

An anatomical study that involves using modern microscopes to examine surfaces of structures, including examination of cells (cytology) and tissues (histology)

### **3. Developmental anatomy**

Growth, and development of the human body are studied in this field.

### **4. Pathological Anatomy**

The study that involves the examination and study of diseased body parts or a whole affected body.

### **5. Systemic Anatomy**

The anatomical study that involves the study of body systems.

# Physiology

- Human physiology is a biomedical science that deals with the normal functioning of various organs in the human body

For example:

In the physiology of liver cells includes their functions of the cells, how they do it, the relation of their functions to the body, etc.

## **Physiology is divided into the following subdivisions:**

- **Plant and human physiology:**

It is a study based on the type of organism.

- **Molecular and cellular physiology:**

It is a study based on an organizational level.

- **Systemic Physiology**

It is a study based on specific systems.



# Anatomical Terms

- **Anterior** (or **ventral**) Describes the front or direction toward the front of the body. The toes are anterior to the foot.
- **Posterior** (or **dorsal**) Describes the back or direction toward the back of the body.

- **Inferior** (or **caudal**): describes a position below or lower than another part of the body (in humans, the coccyx, or lowest part of the spinal column). The pelvis is inferior to the abdomen.
- **Lateral**: describes the side or direction toward the side of the body.
- **Medial** describes the middle or direction toward the middle of the body. The hallux is the medial toe.
- **Proximal**: describes a position in a limb that is nearer to the point of attachment or the trunk of the body. The brachium is proximal to the antebrachium.

- **Distal:** describes a position in a limb that is farther from the point of attachment or the trunk of the body. The crus is distal to the femur.
- **Superficial:** describes a position closer to the surface of the body. The skin is superficial to the bones.
- **Deep:** describes a position farther from the surface of the body. The brain is deep to the skull.

