Joints

What Are Joints?

Joints are places where two or more bones meet. They make the skeleton flexible and allow movement. Without joints, movement would be impossible.

Connective Tissues in Joints:

i. Ligaments

Elastic tissues that connect bone to bone. Provide stability to the joint.

ii. Cartilage

A flexible connective tissue found in joints.

Acts as a cushion between two bones.

Prevents bone damage due to constant rubbing.

You can feel cartilage at the tip of your nose and ears.

iii. Tendons

Connect muscles to bones.

Made of gelatin-like tissue.

Less elastic compared to ligaments.

Types of Joints:

Joints are categorized into two types:

i. Immovable Joints

Fixed joints where no movement occurs.

Example:

• Skull bones - The 22 bones of the skull are connected by immovable joints.

ii. Movable Joints

Allow various ranges of movement. There are four types of movable joints:

Movable Joints – Types and Functions:

i. Ball and Socket Joint

The head of one bone (ball) fits into the bowl-like portion (socket) of another bone. Provides maximum movement in all directions.

Examples:

- Shoulder joint
- Hip joint

ii. Hinge Joint:

Functions like the hinges of a door.

Allows movement in one direction only.

Examples:

- Elbows
- Knees

iii. Pivot Joint

One round bone rotates within a ring formed by another bone.

Provides rotational movement.

Example:

• Between the head and the first vertebra of the backbone.

iv. Gliding Joint

Allows bones to glide past one another.

Provides slight movement in multiple directions.

Examples:

- Wrists
- Ankles