Introduction to Body movements Movements

The ability of organisms to change position, by using their body parts, is called movement.

The human body is the result of millions of years of evolution. Dexterity and bipedal locomotion have helped us reach where we are. Anatomically, humans have the following characteristics:

A newborn infant has 305 bones at birth, and it eventually decreases to 206 bones by adulthood.

Bones provide a definite shape to our body. Skeleton is the framework given to our body as a result of the fusion of bones. It is made up of bones, cartilage and joints.

The rib cage is joined to the backbone. It consists of 33 small bones called vertebrae. Backbone helps our body stay erect and provides posture.

Bones near the shoulder area are called shoulder bones and those present in the abdominal region are called pelvic bones, which encloses the portion of our body just below the stomach.

Skull is joined together by many bones and encloses our brain.

The additional part of the skeleton that can be bent is called the cartilage. Example: Ear lobe. They are also found in joints.

Muscles are the flesh on the bone. They bulge due to contraction and becomes shorter, thicker and stiffer.

Skeletal System Skeleton

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Skeleton is the internal structure in organisms, which helps in bringing about movement.



It forms a framework that gives the shape of the body and provides support to organisms.

The skeleton is made up of bones.

Different kinds of bones are joined to each other in a particular manner.

These joints facilitate various types of movements.

In higher animals, bones, muscles and cartilage together make the movement possible.

Muscles

Muscles are parts of the body that help in bringing about movement. Muscles may be attached to bones, (humans) or may work alone (earthworm).

Cartilage

Part of the skeleton that is not hard as bones and can be bent, is cartilage.

They are found in the upper part of the ear, the tip of the nose and at the tips of long bones.

Joints

Joints are the points where two parts of the skeleton are fitted together to make movement possible.

Examples are hip joint, elbow joint, knee joint, etc

Ball and Socket Joint

Ball and socket joint, where the rounded end of one bone fits into the cavity of the other bone.

It brings in movement in all directions.

It is seen in the hips and shoulders of the human body.





Pivot joint

A pivotal joint is where a cylindrical bone rotates in a ring.

It joins the neck to the head.

It allows to bend the head forward and backwards and turn the head to our left or right.



Hinge joints

Hinge joints bring about movement in only back and forth direction.

The knees and elbows have hinge joints.

The following image is a hinge joint in the elbow.



Fixed Joints

Fixed joints are immovable joints because the bones are joined together. Such joints are found in the skull.

