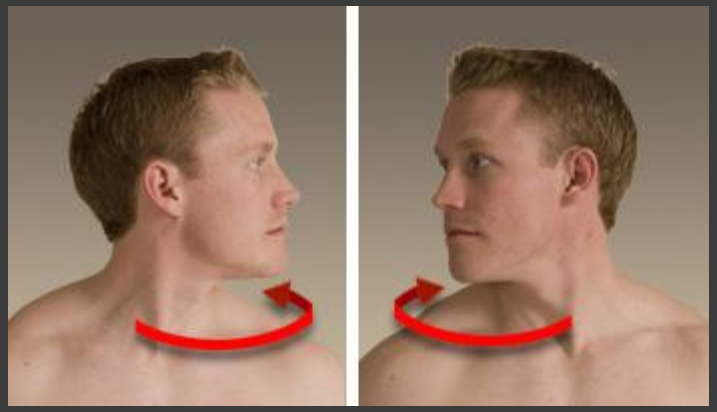
CHAPTER 8

BODY MOVEMENTS MODULE 1

WHAT IS MOVEMENT ?

- Movement is when a living organism moves a body part or parts without changing the position of the organism Ex: Rotating your head



WHAT IS LOCOMOTION ?

- Animals carry out many activities which involve the displacement of an organism from its original position .This activity carried out by the organism is called locomotion.Eg. Walking,running climbing

NEED FOR LOCOMOTION

- Animals show locomotion for the following purposes.
- In search of food
- Protection from enemies
- Reproduction etc.

HUMAN BODY AND ITS MOVEMENT

- **TRY THIS**

  Move the different parts of your body from the head to toe and observe the different places at which they can bend or turn.

  We notice that we are able to bend or rotate our body in places where two or more than two bones are connected to each other. These places are the **joints.**

TYPES OF JOINTS

- MOVABLE JOINT- Joints where bones can move. Eg.bones of arms and legs.

TYPES OF JOINTS CONTINUED…

- IMMOVABLE JOINT-Joints where bones cannot move. Eg. Bones of skull(Other than the lower jaw).

TYPES OF MOVABLE JOINTS

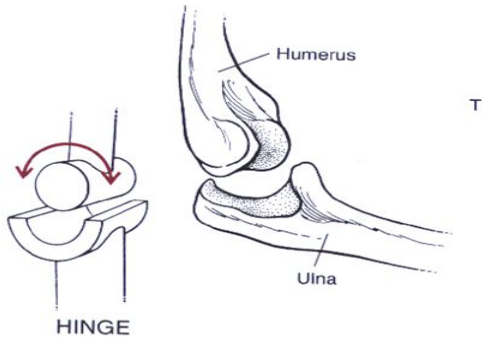
- Let us study some types of movable joints.
- Hinge joint-This type of joint allows the movements of bones only in one direction. It moves in a 180° angle.Eg. The elbow and knee joints.
- This joint is formed by two bones and is similar to the hinge of a door.
- It is the strongest joint.

MOVABLE JOINTS COUNTINUED….

- Diagram showing hinge joint

Hinge Joints

- Allows movement in one direction – back and forth or flex and extend
- Examples: elbows, knees, fingers, toes



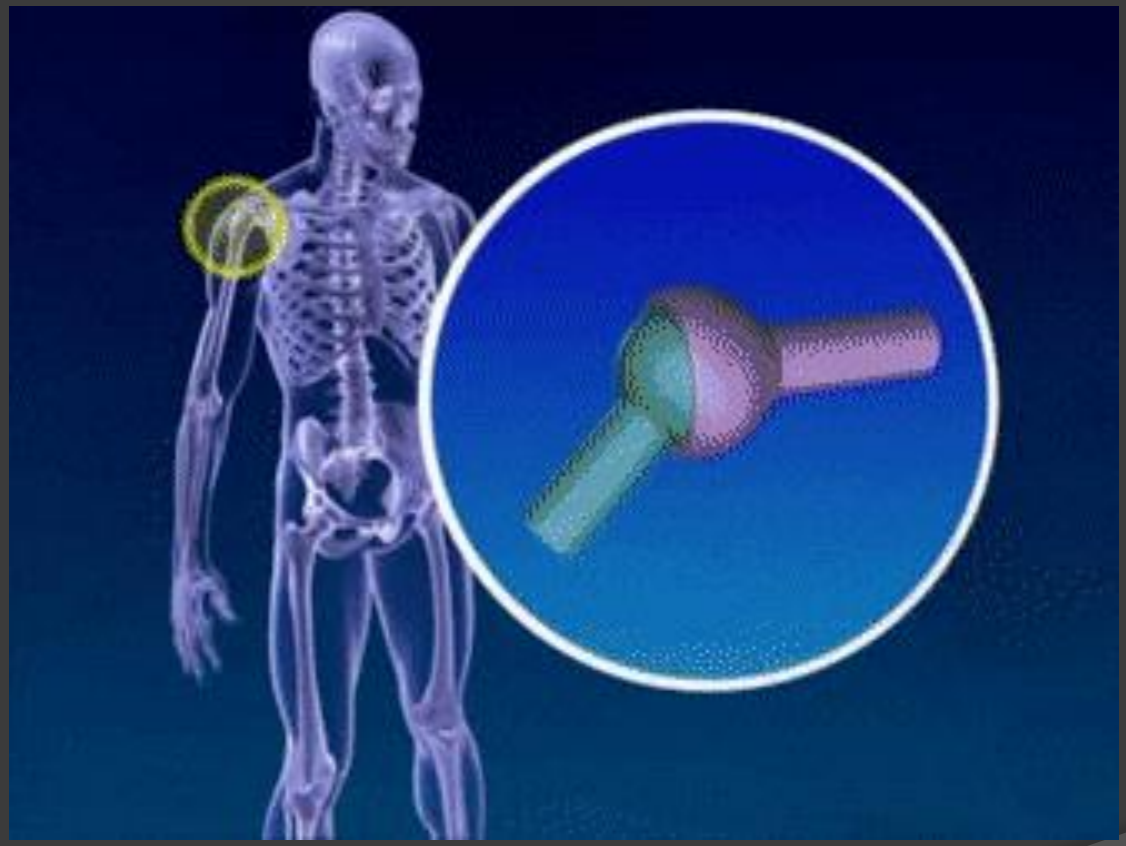
HINGE JOINTS

MOVABLE JOINTS CONTINUED…

- Ball and socket joint – In this type of joint, the bones can move in two or more directions-in a 360º angle. Eg.shoulder and hip joints.
- The joint is formed by two bones where a ball shaped end of one bone fits into the hollow cup shaped socket of the other bone.
- This joint allows maximum movement in all the directions.

BALL AND SOCKET JOINTS CONTINUED…

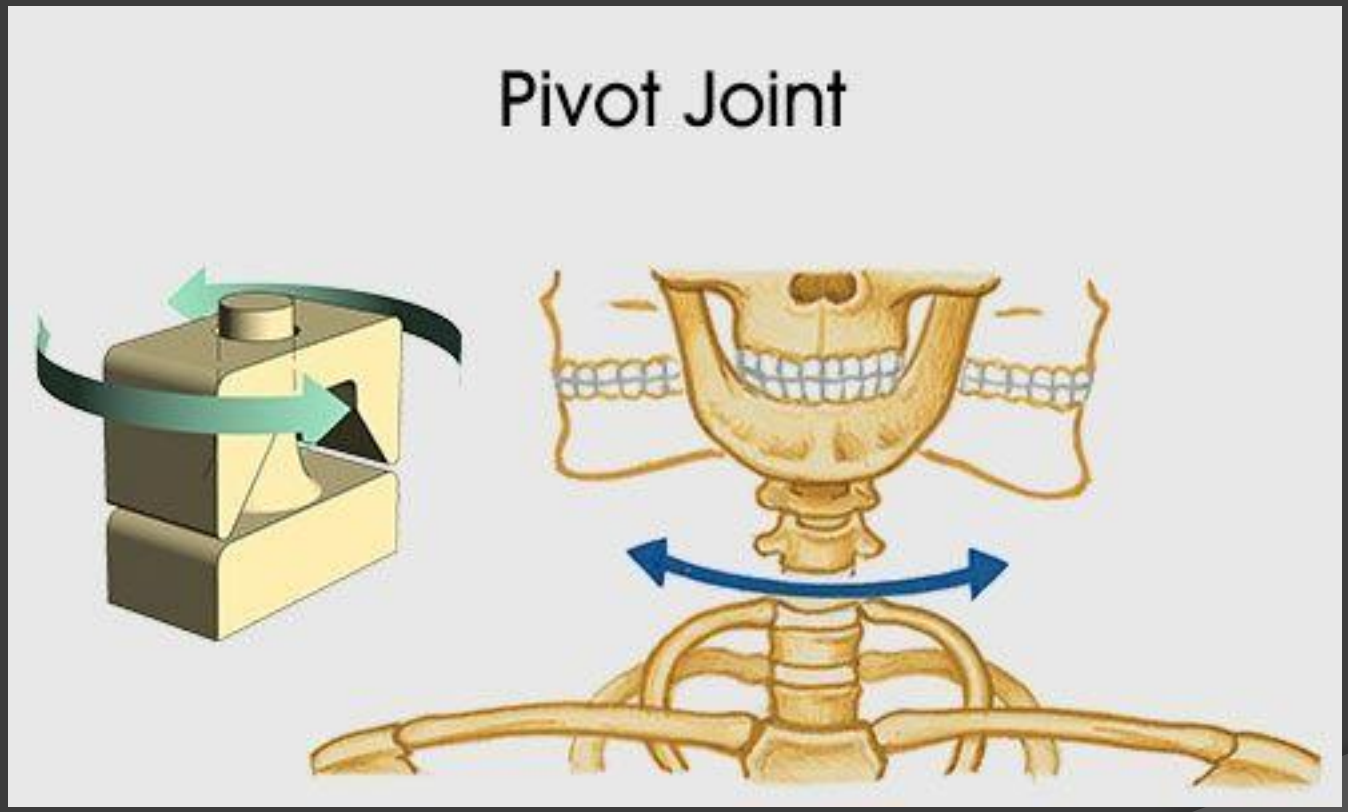
BALL AND SOCKET JOINT



TYPES OF MOVABLE JOINTS CONTINUED….

- Pivotal joint – This joint is formed in such a way that one bone rotates around the other.
- It allows rotatory movement on a single axis.
- Pivot joint is formed between the head and the neck. It allows forward and backward movement and the left and right movement of the head.

PIVOTAL JOINT CONTINUED…



PIVOT JOINT

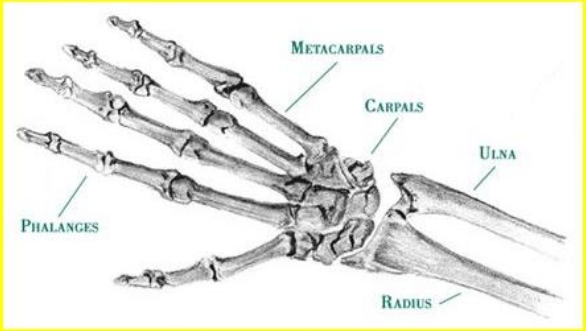
TYPES OF MOVABLE JOINT CONTINUED…

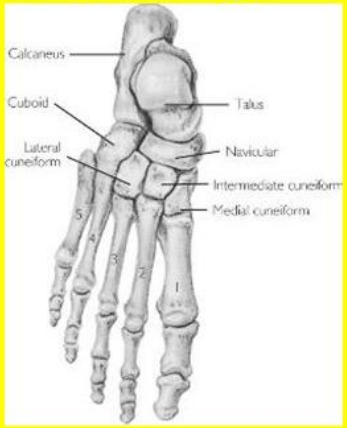
- Gliding joint – It is also known as plane joint.
- A gliding joint is formed between the bones where they meet at the flat surface.
- This joint facilitates limited movement in all directions,i.e.,left and right, up and down and diagonally.
- E.g.. Wrist and ankle joints

GLIDING JOINT CONTINUED…

Gliding – (Multiaxial)

Gliding joints occur between the surfaces of two flat bones that are held together by ligaments. Some of the bones in your wrists and ankles glide against each other, but have limited range of motion.





GLIDING JOINT(ANKLES)

QUESTIONS AND ANSWERS

- What are the various types of movable joints? Give examples of each joint.
- Write examples of immovable joints in human beings.

THANK YOU