

# WELCOME TO THE ONLINE CLASS

**SESSION NO.: 4**

**CLASS: 5**

**SUBJECT: SCIENCE**

**CHAPTER NUMBER: 9**

**CHAPTER NAME: OUR SKELETAL SYSTEM**

**SUB TOPIC: JOINTS**

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**CHANGING YOUR TOMORROW**

# LEARNING OBJECTIVE

**To enable the learner to:**

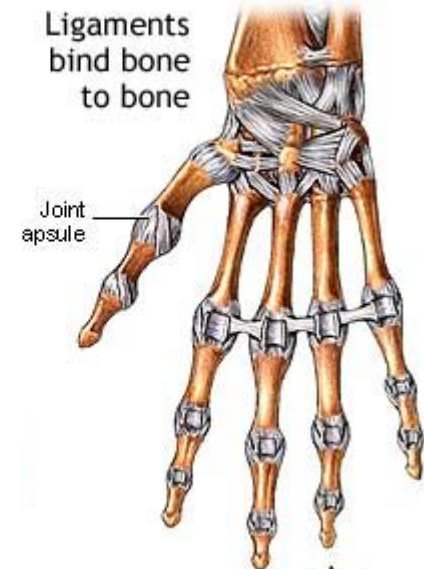
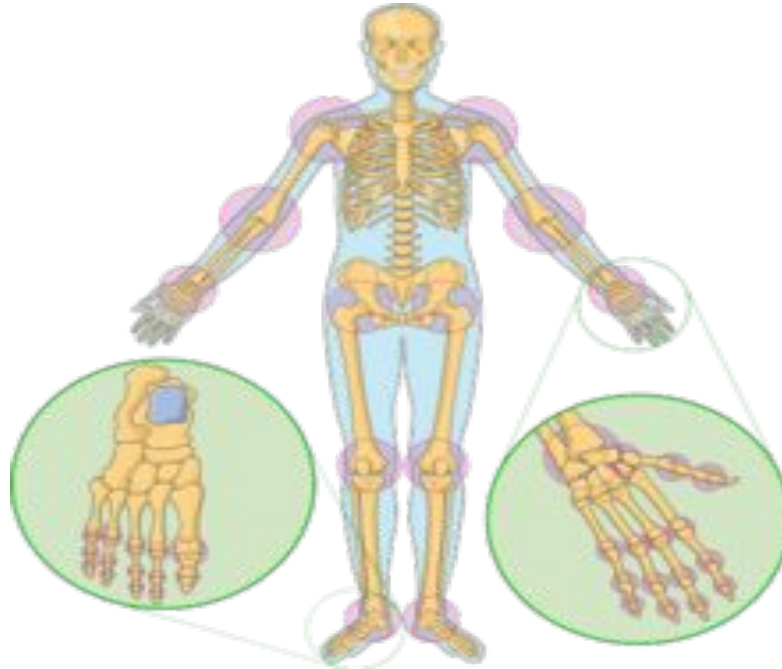
- **understand about joints and ligaments**
- **recognize the different kinds of joints found in our skeleton**
- **learn about the location of each joint.**

## LET'S RECAP

- Name the longest bone present in our body.
- What do you call the spongy material found in the cavities of long bones?
- Each small bone of the vertebral column is known as \_\_\_\_\_.
- The \_\_\_\_\_ are delicate, curved bones which are joined to the backbone and the breastbone.
- What will you call the ribs that are only joined to the backbone?

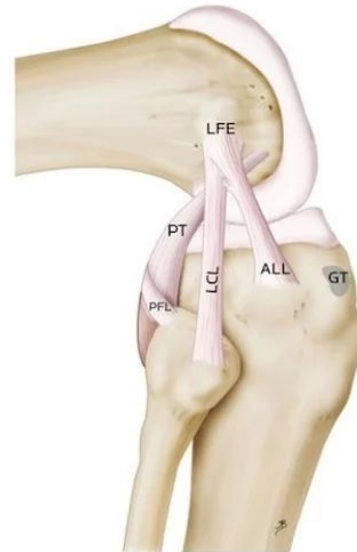
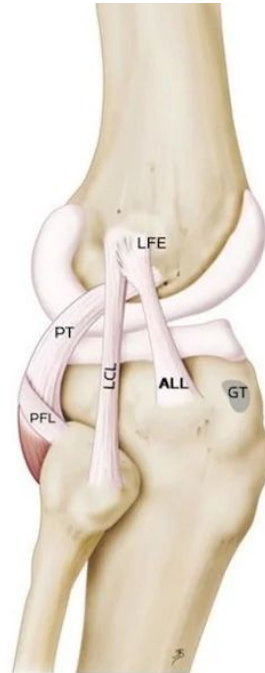
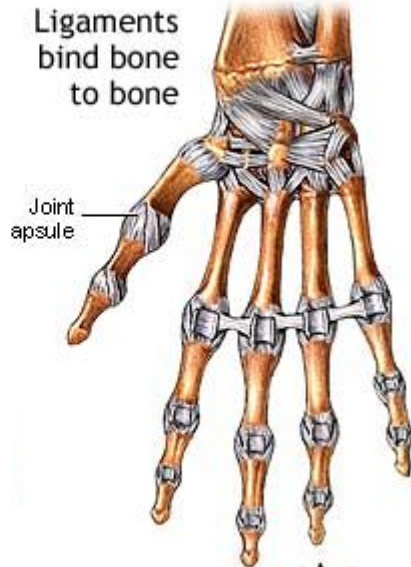
# JOINTS

- A joint is the meeting point of two bones held together by strong tissues called ligaments.



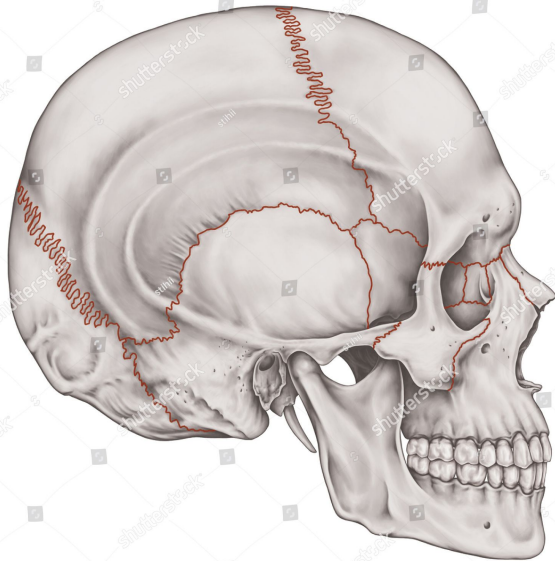
# LIGAMENTS

- **Strong tissues that bind the bones at a joint.**



# TYPES OF JOINTS

**Immovable joints**

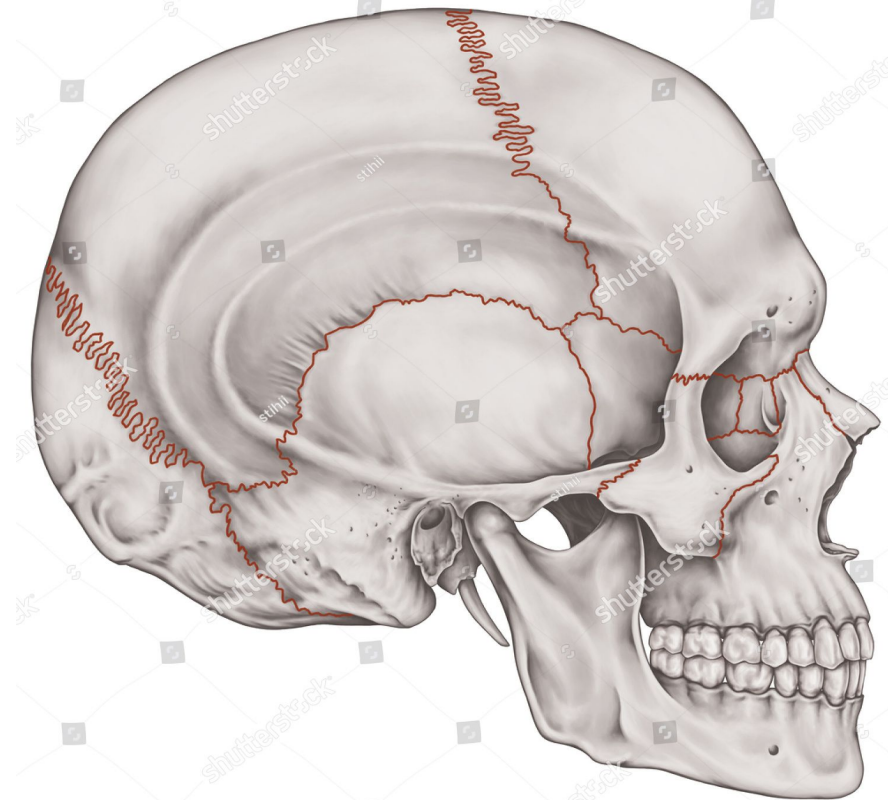


**Movable joints**



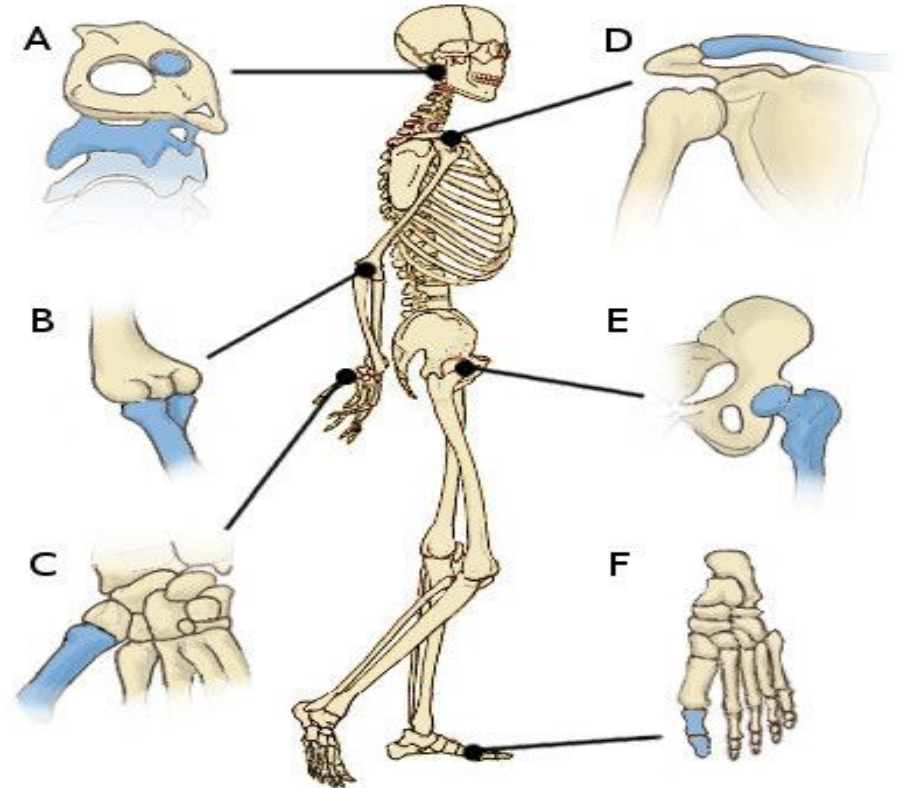
# IMMOVABLE JOINTS

- The joints that do not allow any kind of movement of the bones are called immovable joints.
- E.g.: The joints which are found in skull.
- The bones in the skull are interlocked, making the joints immovable.



# MOVABLE JOINTS

- The joint that allows different kinds of movement of the bones are called movable joints.
- E.g.: The joints which are found in wrist, shoulder, etc.



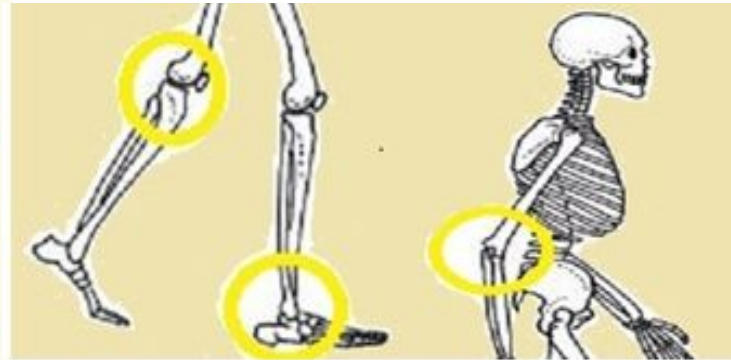


# TYPES OF MOVABLE JOINTS

- **The hinge joints**
- **The ball and socket joint**
- **The pivot joints**
- **The gliding joints**

# THE HINGE JOINT

- It is like the hinges in a door.
- We can move the bones only in one direction.
- The elbows, knees, fingers and toes have hinge joints.

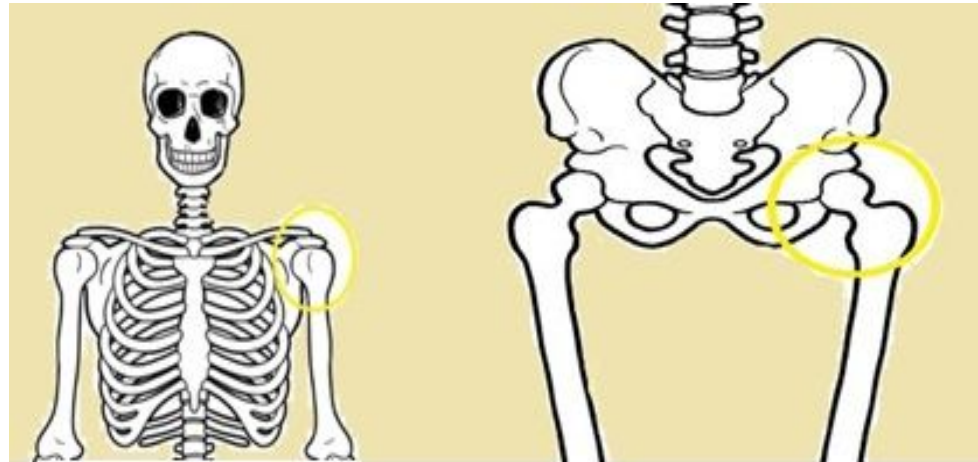


*Knee and Ankle joints    Elbow joint*



# THE BALL AND SOCKET JOINT

- It allows maximum movement as displayed by ballet dancers.
- One bone that ends in a ball fit into the socket of the other.
- Hip and shoulder joints are of this type.



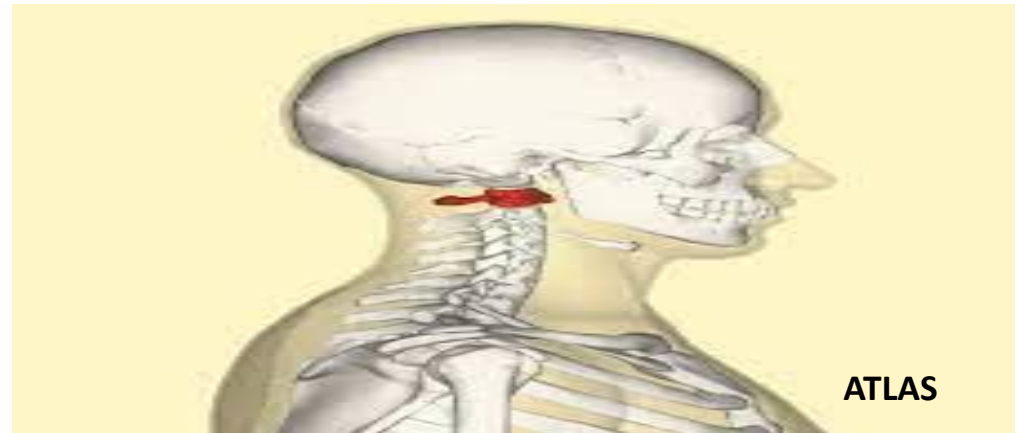
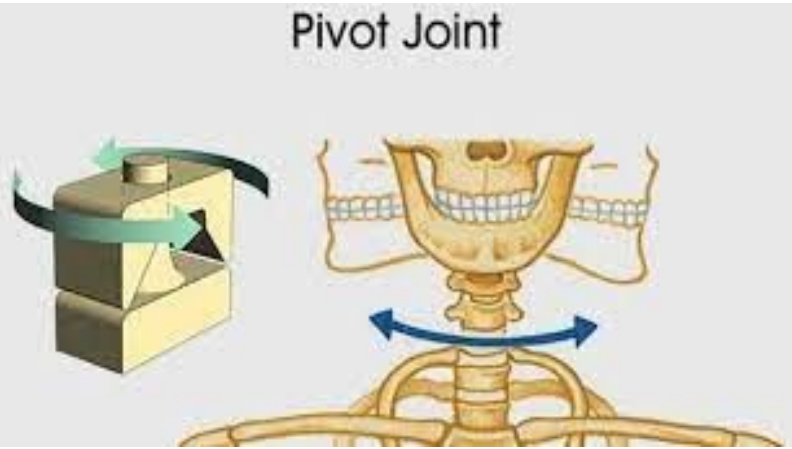
*Shoulder joint*

*Hip joint*

# THE PIVOT JOINT

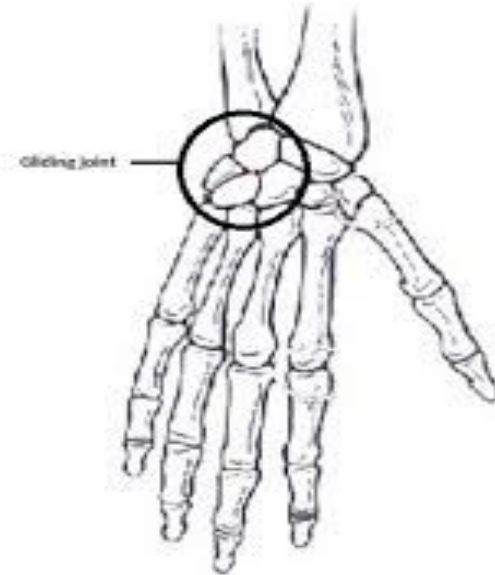
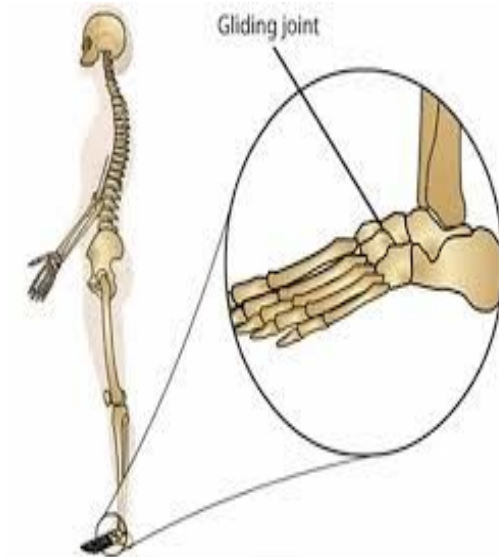
- A pivot joint is found between the skull and the first two vertebrae of the spine.
- The uppermost vertebra in the neck is called atlas.
- We can move our head sideways, upward and downward with the help of the pivot joint.

Pivot Joint



# THE GLIDING JOINT

- It allows movement at the wrist and ankle and also between any two vertebrae of the spine.
- It allows our back to bend, twist and turn at each joint.



# SUMMARY

- **A joint is the meeting point of two bones held together by strong tissues called ligaments.**
- **Strong tissues that bind the bones at a joint are called ligaments.**
- **There are two types of joints- movable and immovable joints.**
- **Immovable joints are of 4 types- hinge joint, ball and socket joint, pivot joint and gliding joint.**

READY FOR A  
**QUIZ** ?

**1. The joint found in our arm.**

**Ans: Hinge joint**



**2. The uppermost vertebra in the neck is called**

\_\_\_\_\_.

**Ans: Atlas**

**3. The joint that do not allow any movement.**

**Ans: Immovable joint**

## **D. Write short answers.**

### **1. What is a joint?**

**Ans:** A joint is the meeting point of two bones held together by ligaments.

### **2. Name the different kinds of movable joints in your body.**

**Ans:** The different kinds of movable joints in our body are:

- the hinge joint
- the ball and socket joint
- the pivot joint
- the gliding joint

### **3. Which part of the facial region is movable? How does it help us?**

**Ans:** The lower jaw of the facial region is movable. It helps us to eat and talk.

## **D. Write short answers.**

### **4. What is bone marrow?**

**Ans: The soft, spongy material found inside the cavities of long bones is known as bone marrow.**

### **5. What are tendons?**

**Ans: Tendons are the strong fibres with which muscles are attached to bones.**

# LEARNING OUTCOME

**The learner will be able to:**

- **understand about joints and ligaments**
- **recognize the different kinds of joints found in our skeleton**
- **learn about the location of each joint.**

**THANKING YOU**  
**ODM EDUCATIONAL GROUP**