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Types of Bone

Suman Kumar Mekap

Asst. Professor (Pharmacology)

CUTM, Bhubaneswar



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Types of Bone Cells

Osteocytes

Mature bone cells

Osteoblasts

Bone-forming cells

Osteoclasts

Bone-destroying cells

Break down bone matrix for remodeling and release of calcium

Bone remodeling is a process by both osteoblasts and osteoclasts



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Changes in the Human Skeleton

In embryos, the skeleton is primarily hyaline cartilage

During development, much of this cartilage is replaced by bone

Cartilage remains in isolated areas

- Bridge of the nose
- Parts of ribs
- Joints



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Bone Growth

Epiphyseal plates allow for growth of long bone during childhood

- ❖ New cartilage is continuously formed
- ❖ Older cartilage becomes ossified
- ✓ Cartilage is broken down
- ✓ Bone replaces cartilage

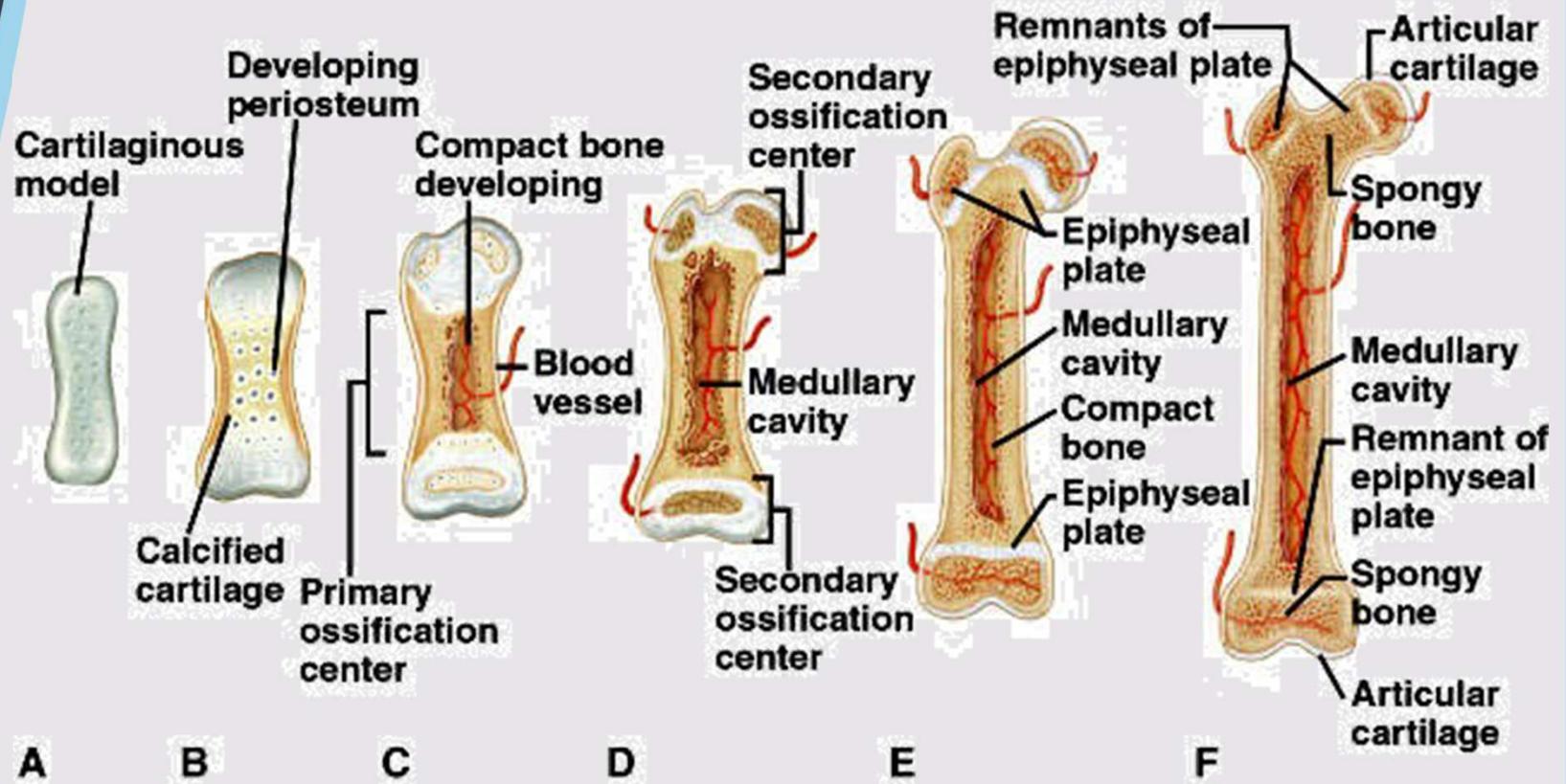


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Bone Growth

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Types of Bones

- A. On The Basis of Shape**
- B. On The Basis of Development**
- C. On The Basis of Region**
- D. On The Basis of Structure**



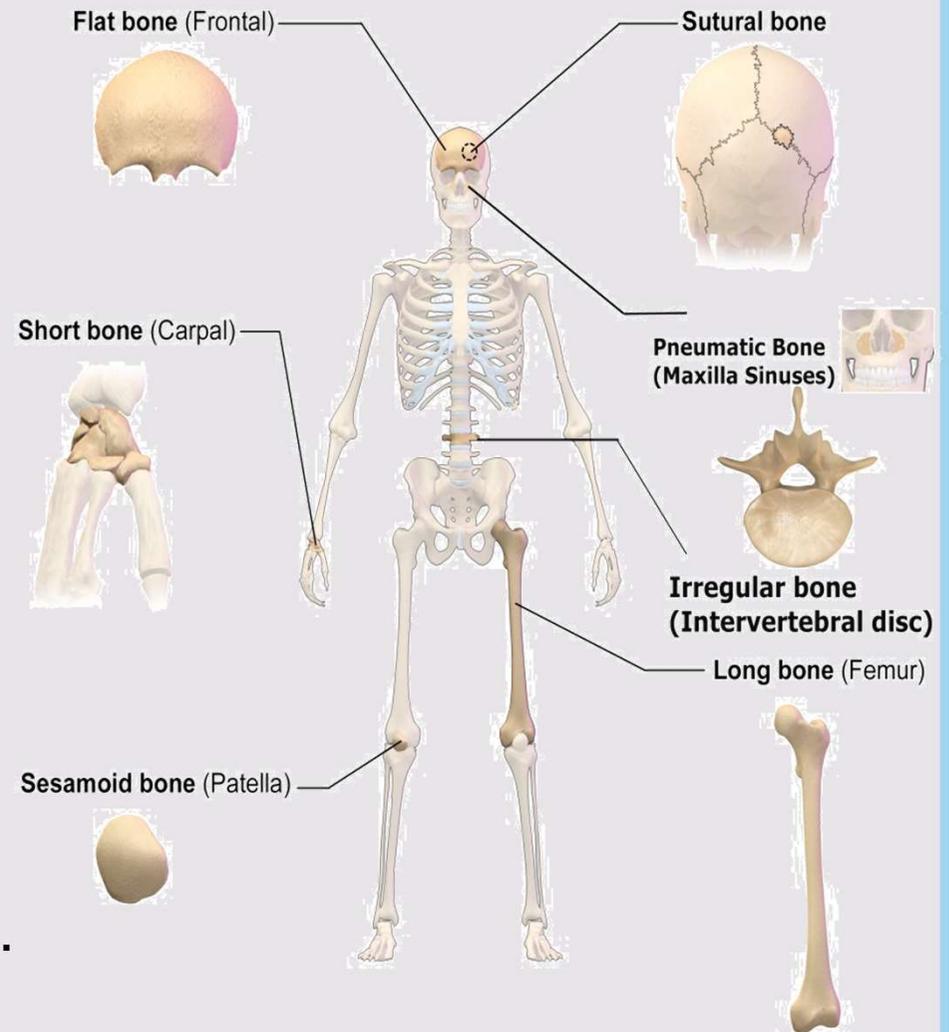
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A. Types on The Basis of Shape:

There are 6 basic types which are mentioned below:

1. Long Bones.
2. Short Bones.
3. Flat Bones.
4. Irregular Bones.
5. Pneumatic Bones.
6. Sesamoid Bones.



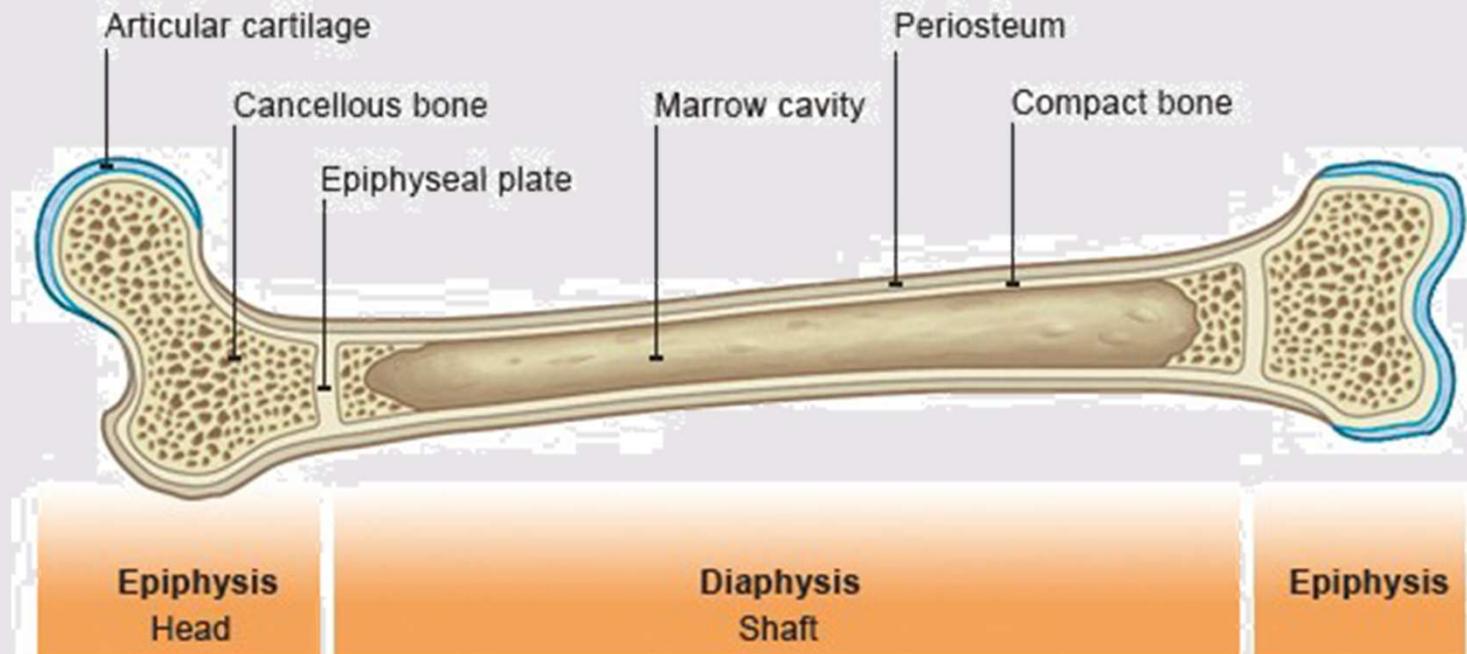
Classification of Bones by Shape



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1. Long Bones:



These bones typically have an elongated shaft and two expanded ends one on either side of the shaft. The shaft is known as diaphysis and the ends are called epiphyses.

Examples: Humerus, femur etc.



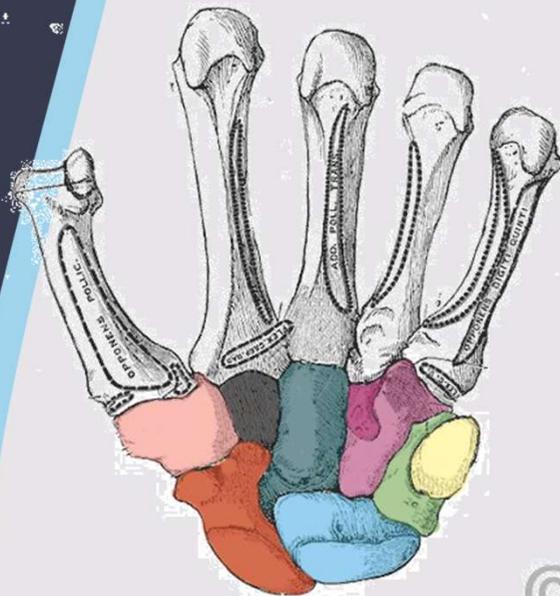
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2. Short Bones:

These bones are short in posture and can be of any shape.

Examples: The carpal and tarsal bones.

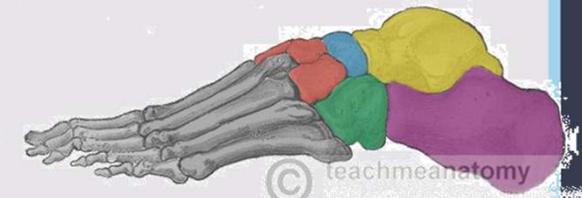


-  Scaphoid
-  Lunate
-  Triquetrum
-  Pisiform
-  Trapezium
-  Trapezoid
-  Capitate
-  Hamate

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-  Calcaneus
-  Talus
-  Navicular
-  Cuboid
-  Cuneiforms



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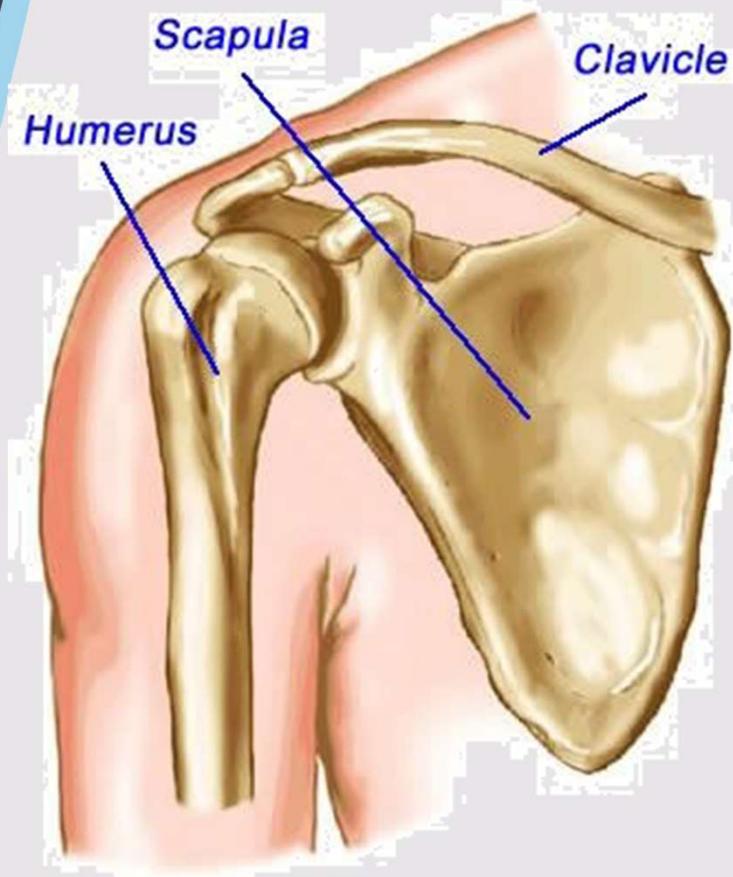


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3. Flat Bones:

These bones are flat in appearance.

Examples: Scapula, Ribs, Sternum etc.





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4. Irregular Bones:

These bones are completely irregular in shape.

Examples: vertebrae, hip bone and bones in the base of skull.



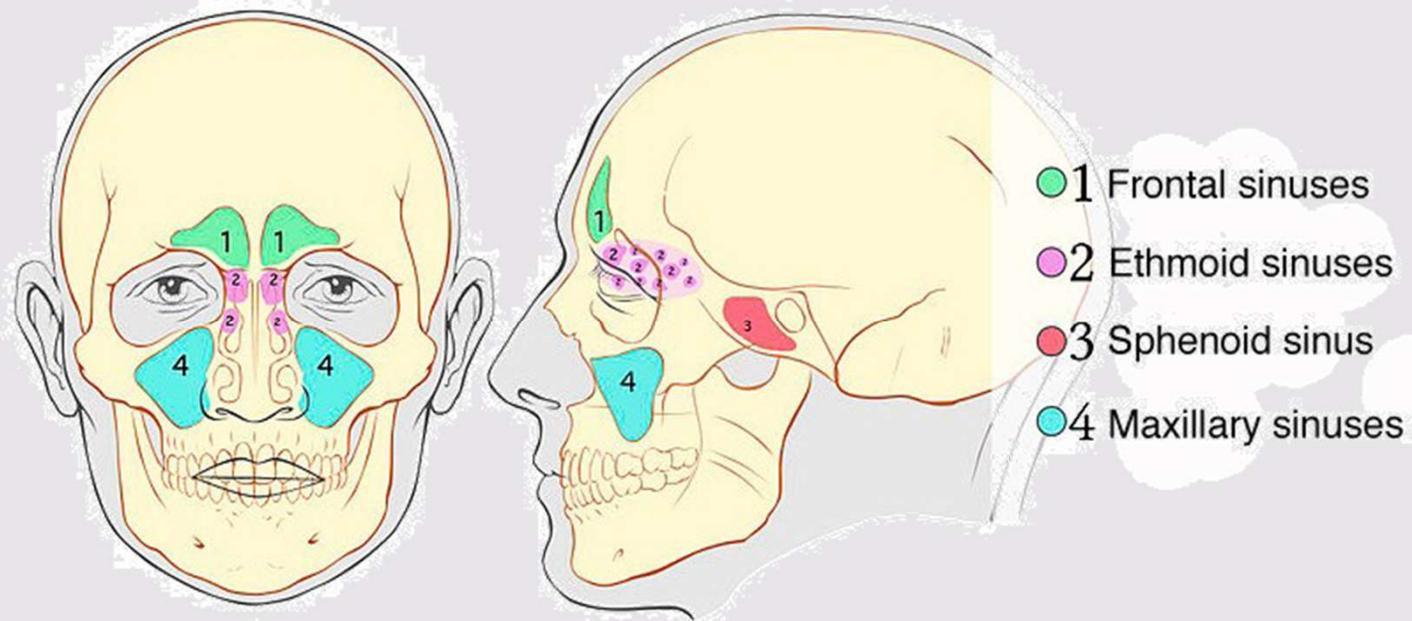


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5. Pneumatic Bones:

Pneumatic bones can also be categorized under the irregular bones. The characteristic difference is the presence of large air spaces in these bones which make them light in weight and thus they form the major portion of skull

Exemples: Sphenoid, Ethmoid, Maxila etc.





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6.Sesamoid Bones:

These are in the form of nodules embedded in tendons and joint capsules.

Examples: Patella, Pisiform, Fabella etc.

