

Editorial

Bone and different types of bones

Abdolhassan Kazemi*

Department of Orthopaedics, Tabriz University of Medical Science, Tabriz, Iran

*Address Correspondence to Abdolhassan Kazemi, Department of Orthopaedics, Tabriz University of Medical Science, Tabriz, Iran, E-mail: Abdol.k@hotmail.com

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Introduction

Our Skeletal System comprises of bone which a rigid tissue. It is present most of the animals who come under the category of chordata. Bones provide numerous functions which include protection of various organs of the body, production of red blood cells and white blood cells, act as reservoir for many of the minerals, It gives structural support for the body and ensures mobility. Bone has different sizes and shapes and has got complex external and internal structure. Although bones are light in weight, they serve numerous functions.

Bone tissue is a hard tissue which is a specialized connective tissue. Bone has honeycomb like internal matrix which provides it rigidity. Bone tissue consists of various types of bone cells. Osteoblasts are involved in the formation and osteocytes are involved mineralization of bone; osteoclasts ensures resorption of the bone tissue. The protective layer of the bone is formed by the osteoblast cells that are modified or flattened and become as sheath over the bone surface. The organic compound of the bone is collagen which is present in the matrix of the bone and the inorganic component of the bone constitutes of various salts

There are 5 different types of bones. First type is the Flat Bones which protect the internal organs like heart, brain, and pelvic organs. Flat bones are a bit flattened, and they provide protection, like a shield. Flat bones give the point of contact for muscles. They include sternum, ribs, occipital, frontal, parietal, nasal, lacrimal, Ilium, ischium and pubis.

The second type are the Long bones, they support the weight of the body and facilitate movement. Long bones are mostly present in the appendicular skeleton and also bones in the lower limbs (the femur, tibia, fibula, metatarsals, and phalanges) and bones of the upper limbs (the humerus, radius, ulna, metacarpals, and phalanges). They are longer than they are wide, include the femur as well as relatively small bones in the fingers.

The other type is short bone, that are located in the wrist and ankle joints. Short bones provide stability and some movement. The carpals present in the wrist (scaphoid, lunate, trapezoid, triquetral, pisiform, hamate, capitate and trapezium) and the tarsals in the ankles (calcaneus, talus, navicular, cuboid, lateral cuneiform, medial cuneiform and intermediate cuneiform,) are examples of short bones.

The fourth type are the irregular bones which vary in shape and structure They often have a fairly complex shape, which helps protect internal organs. The vertebral column has irregular bones which protect the spinal cord. The irregular bones of the pelvis (pubis, ilium, and ischium) protect organs present in pelvic cavity. The last kind are the Sesamoid bones which are present in the tendons. They small, round bones are usually found in the tendons of the knees, feet and hands. The sesamoid bones act as a shock absorbers and give protection from jerks. The patella (knee cap) is an example of sesamoid bone which protects our knee joint. Thus there are different types of bones supporting us and helping in the movement of our body.