Occurrence; Cartilage is found in nose tips, ear pinna, ring of trachea (wind-pipe), end of long bones, lower ends of ribs, and epiglottis.

Functions

It provides support and flexibility to the vertebrate body parts.

Bone

Nature: Bone is a solid, rigid and strong connective tissue. Its matrix is hard being formed of Matrix of bone is rich in phosphate, sulphate, carbonate and fluoride salts of calcium and magnesium. The bone cells are called osteocvtes These are stellate cells and each of them is enclosed in a small cavity, the lacunae. These are connected together by several fine and branched canaliculi. Fine processes of osteocytes extend through these conaliculi and are connected with the processes of other osteocytes.

Functions

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- 1. It forms the framework that supports the body.
- 2. It protects vital body organs like brain, lungs, etc.
- 3. It anchors the muscles.
- 4. It provides shape to the body.

Differences between cartilage & bones

SN	CARTILAGE	BONE
1	Matrix is composed of a firm, but flexible material called chondrion	Matrix is composed of tough intexible flexible material, called ossein
2	Cartilage is surrounded by a firm sheath, called a perichondrium	Bone is currounded by a tough sheath, called
3	Blood vessels absent.	Blool vessels present.
4	Cartilage cells (cheriotoacytes) lie single or in groups (2400 or four.	Bone cells (osteocvtes) lie in lacunae singly.
5	Chondrocytes are oval and devoid of processes	Osteocytes are irregular and give off branching processes

Fluid connective tissue

It is also called vascular tissue and is a special connective tissue that differs from atypical connective tissue in the following respects:

- 1. The matrix is in the form of a fluid and fibre ree.
- 2. Matrix is not secreted by the cells.
- 3. The cells lack power of division.

Vascular tissue circulates in the body and helps in the transportation of materials from one part of the body to other part. It also plays an important role in the defense mechanism of the body.

Types of vascular tissues

Vascular tissues are of two types: (a) Blood and (b) Lymph.

(A) Blood

Blood is a fluid connective tissue. It is salty in taste and slightly alkaline in nature. In human beings, it forms 7-8% of the body weight (about 5 litres). Blood is a complex transport medium. It performs vital pick up and delivery services for the body.

It contains two components:

(1) Plasma and (2) Blood cells (corpuscles)