



Animal tissue

- Epithelial
- Muscular
- Connective
- Nervous

1. Epithelial tissue -

Epithelial tissue is a simplest. It is the protective tissue of the animal body. The cells of this tissue are tightly packed and they form a continuous sheet. All of epithelium contain very little or no intercellular matrix.

- Epithelial tissue classified into 5 types :-

- Squamous epithelium -

- They are made up of thin, flat, irregular-shaped cells.

- They form the delicate lining of cavities (intestine, oesophagus, nose) and of blood vessel.

- They protect the underlying part of the body.

(ii) Cuboidal epithelium

- It consist of cube-like cell which are square in section.
- They found in Kidney tubules, thyroid vessel or in gland, salivary, sweat glands.
- It help in absorption, excretion and secretion.

(iii) Columnar Epithelium

- It consist of cells which are taller than the broader.
- They forms the lining of stomach, small intestine and colon.
- Main function absorption, secretion by goblet cells.

(iv) Glandular epithelium

- They are the modified columnar epithelium
- They secrete chemical

(v) Ciliated epithelium

- Those cuboidal or columnar cells have on broader which bear thread like structure called cilia. These cell known as ciliated epithelium
- They found in sperm duct.
- These cell help in move solid particle through cilia in one direction

2. Muscular tissue

The muscle tissues are muscles of the the contractile tissue and muscle cells. Muscle cell are long and large-sized, so they are called muscle fibres.

- Muscular tissue are three types of muscular fibres :-

(i) Striated muscles -

- They are also known as striped, skeletal and voluntary muscles. The striped muscle fibres are long or elongated, non-tapering cylindrical and unbranched.
- They occur in the muscles of limbs
- Striated muscle are powerful and striated muscle provide the force of locomotion and all over voluntary ~~some~~ movements of the body.

(ii) Smooth muscle

- Smooth muscle are known as unstriated visceral or involuntary muscles. Smooth muscle occur as bundle or sheet. They are held together by loose connective tissue.

- Smooth muscle do not work according to our will, so they are called involuntary muscle.
- Cardiac muscles
- Cardiac muscles show characteristics of both smooth and striated muscles.
- These muscles occur in the heart.
- These muscles help in contraction and relaxation of the heart muscle to help in pump and distribute blood to various parts of body.

3. Connective tissue

- The connective tissue is specialised to connect and anchor various body organ on binding, supporting and

types :-

- Areolar connective tissue
- Adipose tissue
- Fluid connective tissue
- Dense regular connective tissue
- Skeletal tissue

- Areolar Tissue

- It is made up of loose and cellular connective tissue.
- It is the simplest and most widely distributed tissue. It joins skin and muscle.
- It acts as supporting and packing tissue.

- Dense regular connective tissue

- It is a fibrous connective tissue. It is characterised by ordered and densely packed collection of fibres and cells.

(i) Tendons

Tendons are cord-like, strong, inelastic structures that join skeletal muscle to bone.

(ii) Ligament - They are the elastic structure, which connect bone to bone.

(iii) Adipose tissue
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- Adipose tissue is basically an aggregation of fat cells or adipocytes.
- The adipose tissue is abundant below the skin, between the internal organ and in yellow bone marrow.
- serve as a fat reservoir and provides shape to the limbs and the body.

(iv) Skeletal tissue

- They are supporting tissue include cartilage and bone.

(a) Cartilage

It is specialised connective tissue which is compact and less vascular.

- They are located at - Ear pinna, nose tip, end of long bones.

(b) Bone

Bone is very strong and non-flexible tissue. It is porous highly vascular, mineralised, hard and rigid.

(v) Fluid connective tissue

Fluid connective tissue links the different parts of the body. It includes two types

(a) blood

(b) lymph

Blood

Blood is a connective tissue. In this tissue cells move in a fluid or liquid matrix or a medium called blood plasma. These blood corpuscles or cells are:

1. RBCs
2. WBCs
3. Platelets

(6)

lymph

lymph is a colourless fluid that is filtered out of the blood capillaries. Lymph transport the nutrients and it carry O_2 and nitrogenous wastes.

4

Nervous tissue

Nervous tissue is a tissue which is specialised to transmit message within our body. Brain, spinal cord and nerves are all composed of nervous tissue. Nervous tissue contains highly specialised unit cells called nerve cells or neurons. Each neuron has following three types

- They act on cell body
- The dendrites
- The axon

Function : The dendrites receive impulses and the axon take impulses away from the

cell body

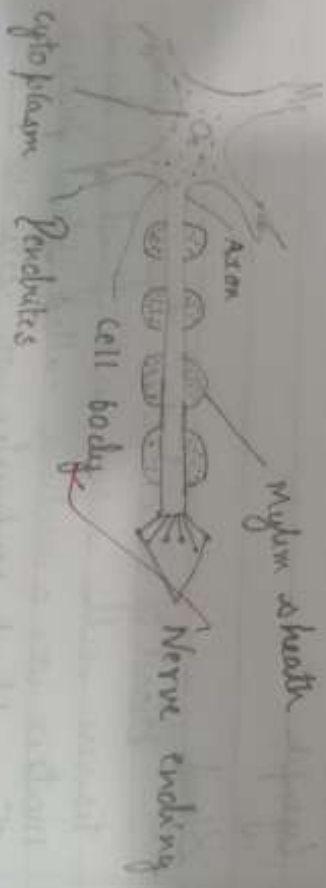


Fig- Nerve tissue