

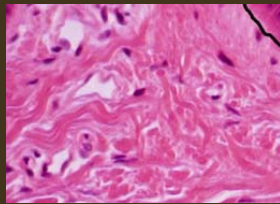
# Histology

...the study of tissues

**Four major kinds of tissues make up the bodies of animals, including man. Each type of tissue has unique characteristics that enable the tissue to perform its function. The major tissues are Epithelial, Nervous, Muscle and Connective**

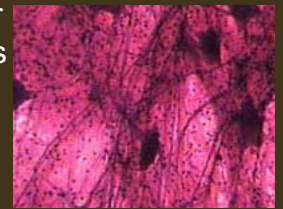
## Connective Tissue

Connective tissue connects body parts, holding the body together. There are many subtypes of connective tissue, including bone, cartilage, ligaments, tendons, adipose (fat) tissue, areolar (loose irregular) connective tissue, and blood (considered connective tissue because it derives from bone marrow). Connective tissue is sometimes classified or named according to whether it is dense or loose, as well as whether it has regular or irregular arrangements of protein fibers in the tissue matrix.



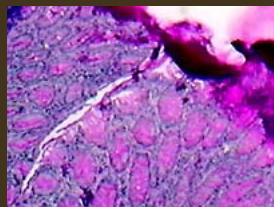
## Nervous Tissue

Nervous Tissue. Nerve cells, known as neurons, are specialized for conducting electrical signals in the body. Nerve tissue supportive cells are called neuroglia and include cells such as microcytes, ependymal cells, Schwann cells, oligodendroglia, and astrocytes. Nervous tissue provides for communication both between nerve cells (such as for memory) and between nerve cells and muscle or gland cells. Nerve cells often appear microscopically as having sharp-pointed edges (dendrites) and elongated cell processes (axons) along which nerve signals (action potentials) are propagated.



## Epithelium Tissue

Epithelial tissue functions to protect surfaces (e.g. skin), secrete material (e.g. glands), or absorb material (e.g. intestine). Epithelial tissue consists of arrangements of cells that line body surfaces, both internal (such as the lining of the gut) and external (such as the skin or the conjunctiva of the eye).



## Muscle Tissue

Muscle cells have the unique ability to contract, that is shorten. This allows muscle tissue to function for providing movement or locomotion. There are three subtypes of muscle tissue: skeletal muscle, smooth muscle, and cardiac (heart) muscle.



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