

Tissue Functions and their Types

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DESCRIPTION

In biology, a tissue is defined as a group of cells that have a same structure and perform a single purpose. The French word tissue is known as "to weave," Tissue is a biological organizing level in biology that lies between cells and an entire organ. A tissue is a group of comparable cells from the same origin, along with their extracellular matrix, that work together to perform a single function. Then, various tissues are functionally grouped together to form organs. Based on structural and functional characteristics, tissues are grouped into four basic types. The epithelial, connective, muscular, and nerve types are included. Together, the fundamental tissue types support the maintenance and overall health of the human body.

There are four fundamental types of tissue: connective tissue, epithelial tissue, muscle tissue, and nervous tissue. Connective tissue supports other tissues and binds them together (bone, blood, and lymph tissues).

Connective tissue

Tissue supports, protects, and provides structure to other body tissues and organs, in addition to helping to transport nutrients and other substances between tissues and organs. Connective tissue also helps to store fat and repair damaged tissue. A gel-like substance, fibres, and cells are made up of connective tissue. Connecting tissue is divided into; Blood bone, Cartilage, and Connective tissue proper.

Epithelium tissue

The epithelium is a type of body tissue that covers all of the internal and exterior body surfaces, lines hollow organs and body cavities, and forms the majority tissue in glands.

These activities are made easier by the epithelial barrier's thinness. The general classification of simple epithelial tissues is based on the cellular morphology. Simple squamous, simple cuboidal, simple columnar, and simple pseudostratified are the four main classes of simple epithelium. The cells that compose muscle tissue have a special ability to shorten or contract to generate movement of the bodily components. The tissue is packed with blood vessels and has a high cell density.

Muscle tissue

The cells that form muscle tissue have the unique capability to shorten or contract to generate movement of the bodily components. The tissue is extremely dense with cells and has many of blood channels. The three different forms of muscle tissue are skeletal, smooth, and cardiac. The primary tissue of our nervous system is called nervous or nerve tissue. The body's functions are monitored and regulated.

Two types of cells are present in the nervous tissue: Nerve cells, often known as neurons, and Glial cells, which nourish neurons and aid in the nerve impulses. Nervous tissue consists of brain, spinal cord, and nerves, which are designed to transmit stimuli quickly from one part of the body to another.

Characteristics of nervous tissue

The CNS and PNS of the nervous system are made up of nerve tissue, which has two different types of cells called neurons and glial cells, as well as dendrites, cell bodies, axons, and nerve endings. Neurons secrete chemicals called neurotransmitters that stimulate other neurons as a result. Nerve cells live long, cannot be divided and replaced (except memory cell). Functions of tissues: Secretion, movement, strength, excretion, communication.

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