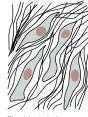




CELL TYPES EPITHELIA There are over 200 Epithelial cells form coherent cell sheets called epithelia, which types of cells in the line the inner and outer surfaces of the body. There are many human body. These specialized types of epithelia. are assembled into a Absorptive cells have numerous hairlike Ciliated cells have cilia on Secretory cells are found in variety of types of projections called microvilli on their free their free surface that most epithelial layers. These tissue such as surface to increase the area for absorption. beat in synchrony to specialized cells secrete move substances (such epithelia substances onto the surface as mucus) over the of the cell sheet. microvilli connective tissue epithelial sheet. muscle intercellular junction nervous tissue cilia basal lamina Adjacent epithelial cells are bound Most tissues contain a mixture of cell together by cell junctions that give the sheet mechanical strength and also types make it impermeable to small lucleus molecules. The sheet rests on a basal lamina

CONNECTIVE TISSUE

The spaces between organs and tissues in the body are filled with connective tissue made principally of a network of tough protein fibers embedded in a polysaccharide gel. This extracellular matrix is secreted mainly by fibroblasts.

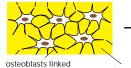


fibroblasts in loose connective tissue

Two main types of extracellular protein fiber are collagen and elastin.



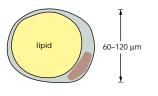
Bone is made by cells called osteoblasts. These secrete an extracellular matrix in which crystals of calcium phosphate are later deposited.



together by cell extracellular processes matrix

Fat cells (or adipose cells), among the largest cells in the body, are responsible for the production and storage of fat. The nucleus and cytoplasm are squeezed by a large lipid droplet. Calcium salts are deposited in the extracellular matrix.





NERVOUS TISSUE OUTPUT dendrites axor The axon conducts electrical signals away from the cell body. These signals INPLITS are produced by a flux of ions across the <u>~</u> nerve cell plasma membrane. cell body A synapse is where a neuron forms a specialized junction with another neuron (or with Specialized glial cells wrap Nerve cells, or neurons, are specialized for a muscle cell). At synapses, communication. The brain and spinal cord, around an axon to form a signals pass from one neuron for example, are composed of a network of multilayered membrane sheath. to another (or from a neuron neurons among supporting glial cells. to a muscle cell).