

Introduction

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This section offers a "sketch-map" introduction to the body's basic building blocks: cells and tissues.

The cell A cell comprises a minute blob of protoplasm. Its membrane contains cytoplasm, a fluid with tiny structures called organelles - ie mitochondria, lysosomes, endoplasmic reticulum, centrioles, and Golgi bodies. Each performs some special function. A nucleus, near the cell center and containing chromatin and nucleoli, directs the cell's activities and plays a crucial part in its reproduction.

Cell division An ordinary cell reproduces by dividing into identical cells by the process called mitosis. Sex (germ) cells are formed by a different process called meiosis. In dividing cells chromosomes are visible. These thread - like bodies consist largely of deoxyribonucleic acid (DNA) and protein, and have subdivisions termed genes - units determining specific inherited characters.

Tissue A tissue is a mass of specialized cells each performing the same function. Altogether the body's organs are made from five main kinds of tissue: epithelium, connective tissue, skeletal (sclerous) tissue (05), muscular tissue(04), and nervous tissue (03).