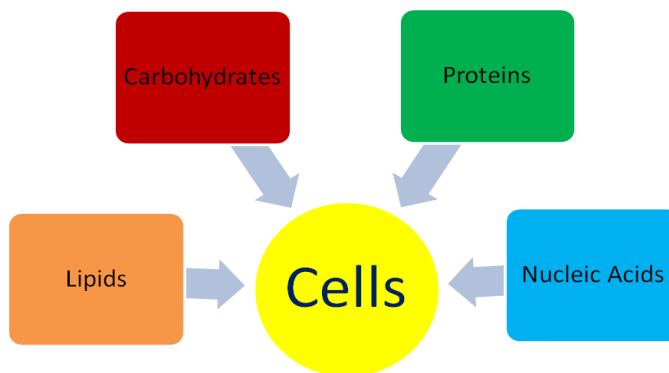




Building Blocks of Life

By Allison Greco



Cells are called the building blocks of our bodies. They are made up of parts called **organelles**, but what are the building blocks of organelles? To discover this we need to go down a level of organization to discover the **atoms** and **molecules** that combine to make cells.

All of the cell's building blocks are made of the element called **carbon**. Carbon-containing compounds are also called **organic compounds**. There are four types of organic compounds in cells:

Carbohydrates

Carbohydrates are molecules made of carbon, **hydrogen**, and **oxygen**. Carbohydrates, also known as sugars, provide energy for a cell inside its mitochondria.

Proteins

Proteins are large molecules known as ribosomes in the cell's organelles. Proteins are used by cells for structural support, transporting other products, and sending signals.

Lipids

The term *lipid* refers to many different things including fats, oils, waxes, and **steroids**. Lipids are found in the cell membrane and **nuclear membrane**. They can also be used by the cell to create energy in the mitochondria.

Nucleic Acids

There are two types of nucleic acids: **deoxyribonucleic acid (DNA)** and **ribonucleic acid (RNA)**. These contain all the information the cell needs to carry out mitosis (cell division). They also tell the cell which functions to perform. DNA is stored in and protected by the cell's nucleus.

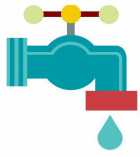
Combinations within a Cell

Combinations of these building blocks also exist within the cell. The Golgi Apparatus is a special organelle that makes different combinations of these compounds based on the cell needs.

Research Activity

There are many topics within this article to learn more about. Pick one, research it, take notes, and share what you learn with others.

Allison Greco is a medical student and writer who blogs at MD2Bgrecoa3.com.



For More Information

See the *Cells* publication at Spigot Science <http://www.spigotscience.com>