

Lesson 6

READ THIS STORY #2, Advanced

Biochemistry

The human body is composed of millions of cells. The chemical processes that allow a cell to grow, to repair itself, and to get rid of useless residues are highly complex. Cells are bathed in body fluids that contain nutrients. Some of those nutrients are broken down by the cell to provide energy. Cells can also manufacture substances. So there is a constant chemical interchange in the fluids moving into and out of a cell.

The huge number of chemical reactions that are carried out within your body are intricately connected. Many of them are controlled by hormones that are secreted into your bloodstream by endocrine glands.

Biochemists study the chemical changes going on inside cells by measuring the minerals, gases, enzymes, hormones and proteins contained in blood and urine, as well as spinal fluid and sweat. Normal, healthy bodies maintain a specific concentration of each substance.

When you're sick, a doctor may send samples of your bodily fluids to a laboratory. Automated equipment enables tests to be made quickly and accurately. When the results of these tests are known, your physician should be able to make an accurate diagnosis, to prescribe any necessary medications, and to monitor your progress.