

IV. NUTRITION, the second determining force in Constructive Hygiene.

"The growth of the human body, its weight, its physical and mental energy and vigor and its vital endurance are the results of the chemistry going on within and surrounding the human tissue cell."--Storey.

The establishment of the cell-theory through the cumulative efforts of many investigators furnished a sound basis for understanding body processes, as well as solving many of the puzzles of heredity. As a basis for understanding the processes of nutrition by which the body provides for growth, maintenance, and repair, certain facts about the tissue cells should be remembered:

Every tissue cell is a constructing and manufacturing chemical and physical laboratory which is absolutely dependent upon the chemical supplies that are brought to it by blood and lymph streams.

The chemicals proven necessary for normal functioning of the human tissue cells are:

Carbon	Phosphorus	Calcium
Hydrogen	Sulphur	Magnesium
Oxygen	Chlorine	Iodine
Nitrogen	Sodium	Iron
	Potassium	Copper
		Manganese

Tissue cells are the "bricks" out of which every part of the human body is built. These cells vary greatly in size, shape, and function. They are all composed essentially of the same basic material, protoplasm. From the chemical materials brought to them by the blood the human tissue cells build, repair, or replace their own structure and manufacture their own special "functional material."

The relation of the chemicals within the cell are both physical and chemical. The life of the cell is a continuous effort to reach static equilibrium. This is never reached during the life of the individual.

A. CELL ENVIRONMENT AND HEALTH

Health is dependent upon the chemical and physiochemical conditions within and surrounding the cells. These conditions are directly influenced by certain definite factors in the cell environment.

Important factors in cell environment are:

1. Temperature
2. Water content
3. Inorganic salts
4. Nutrients
5. Vitamins
6. Hormones
7. Waste products
8. Reaction (Hydrogen in concentration)