

times. But my subject is rather with foods themselves, and I must hasten on, having briefly outlined the reason why I deem a knowledge of what we eat so important, so necessary as to warrant my impressing upon you so urgently the value of its study.

It is the food we eat that forms the tissues and develops the heat and energy of our bodies. The body creates nothing, neither matter or force. The physical life is dependent directly upon the digested food, water, and the oxygen we breathe. The changes the food undergoes in the life functions are simply and truly transformations. We shall therefore do well at the outset to consider briefly those elements and compounds that compose the body structure.

THE CHEMICAL BASIS OF THE HUMAN BODY.

Chemical analysis has proven that only fifteen, or at most seventeen, of the elements enter into the composition of the tissues of the body. In the following table, from Brubaker's Physiology, they are enumerated together with the relative quantities in which they exist and the tissues in which they are found.

CHEMICAL COMPOSITION OF THE HUMAN BODY.

Oxygen,	72.00	}	O. H. C. are found in all the tissues and fluids of the body, without exception.
Hydrogen,	9.10		
Nitrogen,	2.50	}	O. H. C. and N found in most of the fluids and all the tissues, except fat.
Carbon,	13.50		
Sulphur,	.147		In fibrin, casein, albumen, gelatine of the tissues, in sweat and urine.
Phosphorus,	1.15		In brain, saliva, blood and bones.
Calcium,	1.30		In bones and teeth, in blood, saliva and chyle.
Sodium,	.10		In all the fluids of the body.
Potassium,	.026		In muscles.
Magnesium,	.001		In bones, associated with calcium.
Chlorine,	.085		In the fluids and solid tissues.
Fluorine,	.080		With calcium in bones and teeth.
Iron,	.01		In blood corpuscles and in muscles.
Silicon	traces,		In blood, bones and hair.
Manganese	traces,		Probably in hair, bones and nails.