

Proteins And Your Health

Really little is scientifically known about proteins and your health. This will endeavor to bring you up to date with this little knowledge; the basics of what you need to know about proteins.

Proteins make up 15% of your mass. Most of your body is constructed from protein molecules e.g. muscles, cartilage, ligaments, skin and hair are mainly protein. Haemoglobin, hormones, antibodies, enzymes are all proteins.

Without water, 75% of your weight is protein. Your body is made up of at least 10,000 different kinds of proteins. All proteins are made up of 22 basic building blocks of proteins called amino acids. What makes the thousands of different types of protein is that each type of protein in the body has a different sequence and structure of the 22 amino acids. These different sequences and structures assist in performing different yet specific functions in the body.

Proteins and its Function

Proteins serve two main purposes in the body

- 1) Structural e.g. keratin in hair, collagen in muscles etc.
- 2) Functional e.g. enzymes, hormones etc.

Proteins are macro molecules i.e. large molecules and polymers i.e. long chain of amino acids. In fact every function of the living cell depends on proteins as follows: A) Motion- Depends on contractile proteins e.g. muscles. B) Most biochemical reactions depend on organic catalysts i.e. enzymes e.g. amylase. C) Structure of the cell has proteins e.g. in cell membrane. D) Transport of body constituents depend on protein e.g. oxygen, and carbon dioxide transport by haemoglobin.

The body does not store amino acids like carbohydrates and fats; therefore it requires a new supply of amino acids everyday to make new body proteins. And since your body cells are dying everyday, they need to be replenished everyday.

If the body does not get all the amino acids to build body proteins, it digests itself to provide that missing amino acid.

When we eat protein foods, the polypeptide chains are generally broken in the digestive tract into individual amino acids which are absorbed in the blood stream. The body then recombines these amino acids into proteins necessary in your body for structural and other functions.

Dietary sources of protein include:- chicken, fish, tuna fish, beef steak, cottage cheese, split peas, milk, kidney beans. Lack of proteins can have severe consequences. It results in growth failure, loss of muscle mass, decreased immunity, weakening of the heart and the respiratory system and if prolonged, death.

The digestion of protein releases acids in the body that are neutralized with calcium and other buffering agents in the blood. Generally, eating a lot of protein does not harm the heart and it seems to keep it healthier. But it requires lots of calcium. If not enough calcium is present in the diet then it is pulled from the bones. So long term high protein diet could weaken bones.

Protein in cow milk may also play a part in developing Type 1 Diabetes. That is why cow milk is not recommended for infants. But later in life this milk protein does not seem to affect Type 2 Diabetes.

Complete Proteins:

Some proteins we eat have all the essential amino acids we require from our diet. These are called complete proteins. Generally, animal proteins tend to be complete. Fruits, vegetables, grains and nuts contain incomplete proteins that is, they lack in at least one of the essential amino acids.

Your body requires all these essential amino acids. Otherwise it will break down body tissue, to get the missing amino acids. To avoid this vegetarians require eating plant proteins from a number of different sources. It is also advisable to supplement with a complete protein supplement.

On the other hand, complete protein sources mostly found in animal proteins come with other undesirables e.g. fat. To avoid this, eat beef from the leanest cuts. Fish and poultry are good alternatives.

Little is really known about proteins and health scientifically. It has not been researched thoroughly as fats and vitamins. But it is catching up.

Basically it is known every adult needs a minimum of one gram of protein per every kilogramme of body weight per day to keep from slowly breaking down their own tissue. Athletes require more. In weight loss its excessive use in cutting calories is rarely considered prudent.

Source: <http://www.articlecircle.com>

About the Author

? Mark Kimathi writes on Top 4 Reasons for Weight Loss Failure at Health-eMark (<http://www.health-emark.com>) and related topics like weight loss diets(<http://www.health-emark.com./weight-loss-diets-cat.html>)