



What Are Amino Acids and Why Do I Need Them?

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Protein plays an incredibly important role in almost every biological process of the body – and amino acids are the building blocks. Twenty percent of the human body is made up of protein. The major portion of muscles, tissue and cells are made up of amino acids; they carry out most important body functions and give cells their structure. They are also instrumental in the storage and transport of nutrients. They have an influence on the function of organs, glands, tendons and arteries and are essential for healing wounds and repairing tissue – particularly in the muscles, bones, skin and hair. They also aid in the removal of all kinds of waste deposits produced in connection with the metabolism.

They are not only building blocks for the body, but are sources for energy to the body for maintaining a working organism, much like fats and carbohydrates. Amino acids, though, contain nitrogen, and fats and carbohydrates do not. The importance of amino acids as the precursors of enzymes and neurotransmitters is one of the most important roles they play.

Most hormones consist of amino acids. Antibodies also consist mostly of amino acids. Without amino acids, you can have a limited supply of nutrients, as you can see, and this can lead to hair loss, skin problems, sleep disorders, weight problems, mood swings, erectile dysfunction, immune function, cardiovascular imbalance (high blood pressure, high cholesterol, etc.), and even ‘female’ problems. Obviously, almost every illness is a result of imbalances in our metabolism, and amino acids are a major part of that structure.

There are 3 categories of Amino Acids: Essential, Semi-essential and Non-essential.

Essential amino acids cannot be made in the human body and must be supplied by the diet. Often, if the diet has not been properly maintained for long periods of time, essential amino acid supplementation must be adhered to until the levels are corrected, and the proper diet is being consistently maintained. These essential amino acids are:

L-leucine

L-phenylalanine

L-isoleucine

L-threonine

L-lysine

L-tryptophan

L-methionine

L-valine

Semi-essential amino acids can be made in the human body, but not in sufficient quantities. They are classified as ‘semi-essential’ because supplementation of these is ‘highly beneficial’ for the body to function optimally during illness, or in situations of starvation or stress. These semi-essential amino acids are:

L-arginine

L-histidine

L-cysteine

L-tyrosine

Non-essential amino acids are normally made by the body in sufficient quantities, although during times of stress, illness or starvation/improper diet, they may need to be re-classified under Essential or Semi-essential. These amino acids are:

L-alanine

L-glutamic acid

L-asparagine

L-glycine

Asparagine acid

L-proline

L-glutamine

L-serine

Although there are more than 200 amino acids, those listed above are called ‘proteinogenic’ and are the building blocks of complex proteins, and crucial for the growth and maintenance of key tissues. A proper balance is necessary for your general health and well-being. Amino acids occur in very different concentrations in different foods. Generally, meat, dairy products and seafood offer the best sources of amino acids. Some plant foods also provide a good source of protein, and amino acids.

Each amino acid works by itself, and in tandem with other amino acids, on particular components of the body structure (for example, Arginine helps produce the keratin for hair and nails and enhances immune function). If you are not eating a balanced, healthy diet or are recovering from years of an improper diet, it may be recommended you supplement with a multiple-amino acid product until the diet is consistently maintained in a healthy manner.