As the building blocks of the body, amino acids help maintain optimal health and vitality. When protein is broken down through digestion, the result is 22 known amino acids. Ten are essential, meaning the body cannot manufacture them. The rest are nonessential (with proper nutrition the body can manufacture them).

To understand just how vital amino acids are for our health, we must understand the importance of proteins. Protein substances make up the muscles, ligaments, tendons, organs, glands, nails, and hair, and are essential for the growth, repair, and healing of bones, tissues, and cells.

Insufficient levels of the essential amino acids can dramatically interrupt the way our bodies work. For example, deficiencies of phenylalanine and histidine can cause neurological problems and depression. Low levels of tryptophan also make us anxious and unable to sleep.

**PROTEIN FOODS**

Amino acids are most abundant in protein foods, yet all foods contain some. Animal foods such as beef, pork, lamb, chicken, turkey, eggs, milk, and cheese are complete proteins and usually contain all 10 essential amino acids.

Many vegetable proteins contain adequate levels of many of the essential amino acids, but may be low in one or two. Grains and their germ coverings, legumes, nuts, seeds, and some vegetables fit into this category.

The importance of eating a balanced diet in order to obtain sufficient levels of all the essential amino acids cannot be overstated. A diet containing a variety of wholesome foods is crucial.
Amazing amino acids

<table>
<thead>
<tr>
<th>Essential</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>arginine (essential for children)</td>
<td>• promotes optimal functioning of the pituitary gland</td>
</tr>
<tr>
<td></td>
<td>• sustains and promotes healthy functioning of the heart</td>
</tr>
<tr>
<td>histidine (essential for children)</td>
<td>• promotes tissue growth, maintenance, and repair</td>
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<tr>
<td></td>
<td>• possesses anti-inflammatory properties</td>
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<tr>
<td>isoleucine</td>
<td>• regulates and maintains energy and blood sugar levels</td>
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<tr>
<td></td>
<td>• aids in the formation of hemoglobin</td>
</tr>
<tr>
<td>leucine</td>
<td>• protects and fuels muscles</td>
</tr>
<tr>
<td></td>
<td>• helps heal bone, muscle, and skin</td>
</tr>
<tr>
<td>lysine</td>
<td>• promotes growth and tissue repair</td>
</tr>
<tr>
<td></td>
<td>• plays a role in the production of antibodies, enzymes, and hormones</td>
</tr>
<tr>
<td>methionine</td>
<td>• breaks down fats and inhibits their buildup in arteries and the liver</td>
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<tr>
<td></td>
<td>• has powerful antioxidant properties</td>
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<tr>
<td>phenylalanine</td>
<td>• alleviates depression</td>
</tr>
<tr>
<td></td>
<td>• improves memory and mental alertness</td>
</tr>
<tr>
<td>threonine</td>
<td>• prevents fatty buildup in the liver</td>
</tr>
<tr>
<td></td>
<td>• boosts the production of antibodies to strengthen the immune system</td>
</tr>
<tr>
<td>tryptophan</td>
<td>• aids in the production of niacin (vitamin B3)</td>
</tr>
<tr>
<td></td>
<td>• possesses antidepressant qualities</td>
</tr>
<tr>
<td>valine</td>
<td>• repairs tissue</td>
</tr>
<tr>
<td></td>
<td>• balances the body's nitrogen levels</td>
</tr>
</tbody>
</table>

If the complete proteins are eaten daily, there is no need to worry about supplementing the diet or creating optimal food combinations.

PROTEIN BALANCE
Those who follow a lacto-ovo-vegetarian diet have less concern about combining foods than those who follow a vegan diet. For those eating vegetarian diets, it is fairly easy to obtain a good protein balance from vegetables, grains, nuts, and legumes. Eating beans or seeds with some sort of grain is the simplest way to obtain an adequate balance of proteins. Oftentimes traditional food cultures have already solved the problem (for example, South American black beans and rice; Middle Eastern chickpeas and couscous).

According to Gabriel Cousens, MD, in his book *Conscious Eating* (North Atlantic Books, 2000), "the Max Planck Institute has found that the complete vegetarian proteins, those with all (10) essential amino acids, are superior to, or at least equal to, animal proteins. They showed that these complete proteins were found in various concentrations in almonds, sesame seeds, pumpkin seeds, sunflower seeds, soybeans, buckwheat, peanuts, potatoes, all leafy greens, and most fruits."

SUPPLEMENTS
Paying attention to what we eat and how we combine our foods is the first step in preventing amino acid deficiency.
Morning Rise & Shine drink provides:
Lemon – the pure, concentrated lemon juice powder has the juice of 1/2 lemon per serving - EU organic compliant, GMO free and Kosher Certified

Aloe Vera – powder extract is 200:1 concentrate & IASC certified – each serving provides the equivalent of 1 oz (30mL) of aloe vera juice

Minerals – provides the rare and valuable 80 trace minerals & the key alkaline minerals: Calcium Magnesium Potassium Manganese

Non-essential | Benefits
--- | ---
alanine | • strengthens the immune system • metabolizes glucose and alleviates hypoglycemia
asparagine | • maintains and balances the central nervous system • metabolizes ammonia
aspartic acid | • removes toxins from the bloodstream • increases endurance and stamina
cysteine | • detoxifies the body • aids in collagen production to improve skin’s texture and elasticity

Created by Holistic Pharmacist, RoseMarie Pierce, B.Sc.Pharm, a highly-respected lecturer, writer and media personality with over 40 years of experience in natural and conventional food and medicine. www.sunstreams.ca

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Chocolate benefits

Chocolate contains significant amounts of the essential amino acid arginine, used to make nitric oxide. Nitric oxide causes blood vessels to relax which helps increase blood flow, thus controlling blood pressure. In moderation, dark chocolate can provide health benefits.

Choosing chocolate

> choose dark chocolate that isn't overly processed and contains only natural ingredients
> opt for sugar-free chocolate if you suffer from diabetes or hypoglycemia
> select dairy-free vegan chocolate if you're on a vegan diet

If our diet is not giving our body all that it needs, there is always supplementation. Supplementing with amino acids has been known to help those suffering from mental or nervous disorders, heart disease, chronic fatigue syndrome, diabetes, epilepsy, anemia, and herpes.

Amino acid supplements are available singly and in combination. It is always a good idea to consult with your health practitioner to see which supplements are suitable for your particular needs.

Aimee Christine Hughes, ND, is a freelance holistic health writer currently based in Portland, Oregon.

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Adrenal-Pro + Thyroid Support

Adrenal-Pro + Thyroid Support is an advanced formulation designed to support the adrenal and thyroid glands, increase energy, reduce stress, improve sleep and provide an improved sense of well-being. Adrenal Fatigue, a common disorder, is usually a result of: emotional stress or worry, long hours of work, poor nutrition, regular consumption of alcohol or medications, surgery, or chemotherapy.

Adrenal Fatigue interferes with proper thyroid functioning and can lead to feeling exhausted or ‘burnt out’. Adrenal-Pro + Thyroid Support is a premium formulation delivering necessary nutrients to dramatically improve mood and energy, help the body cope with stress, enhance hormone functioning and boost the immune system.

Ingredients (In 4 vegetable capsules daily)

- L-Tyrosine .................................................. 800 mg
- Pantothenic acid (85, calcium d-pantothenate) .......... 500 mg
- Ashwagandha extract 1.5% withanolides ............... 400 mg
- Schisandra extract 1.5% schisandrin ............... 300 mg
- Siberian ginseng extract 0.8% eleutherosides .......... 300 mg
- Rhodiola extract 3% rosavin .......... 200 mg
- Astragalus extract 0.3% astragalosides .......... 152 mg
- Vitamin B6 (pyridoxine HCl) .......................... 60 mg

GMO free, no binders, no fillers. Made and formulated in Canada.

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