

Cellular Energy

Nutrients needed by every cell for efficient energy metabolism

Generation of Energy in Cells

Inside each cell of the body there are tiny energy producing factories called mitochondria. Using a chemical process known as the Krebs cycle, the mitochondria utilize fuel (fats and carbohydrates) and oxygen to create an energy storage molecule called adenosine triphosphate (ATP for short). ATP powers the life processes within each cell. Without ATP the cell cannot function.

When the cells produce energy efficiently, they are inherently healthier. This, of course, makes the whole body function better. Increased cellular energy not only improves energy levels for better physical and mental performance, it also speeds healing of damaged tissues, enhances resistance to infections and helps the body overcome chronic and degenerative diseases.

Who Needs Cellular Energy?

Many people can benefit from this new Cellular Energy formula. Aged and weak individuals will especially need Cellular Energy to recover from the effects of debility and/or serious degenerative diseases. Athletes will be interested in Cellular Energy to improve their physical performance. In fact, any person who needs to increase their general health, resistance to disease, and ability to cope with stress may find Cellular Energy helpful.

About the Ingredients

The components of Cellular Energy provide the materials needed to create ATP in the mitochondria of our cells. The biochemistry involved in the selection of each of these ingredients is very technical and mostly beyond the scope of this handout.

Here is a description of some of the component materials for energy production found in Cellular Energy.

Minerals, including manganese, zinc, and magnesium, are used to make enzymes that move each stage of the Krebs cycle forward. Enzymes are criti-

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This handout was prepared by Tree of Light Publishing P.O. Box 911239, St. George, UT 84791 Copyright © 2003 May be reproduced provided it is not altered in any way. cal to this process. They are natural biochemicals that act as catalysts to enable these important chemical reactions to take place. Different enzymes are required at each stage of the energy production cycle, and each stage must be finished before the next begins.

B vitamins $(B_1, B_2, niacin, pantothenic acid)$ have vital effects on energy, growth, and healing.

L-carnitine draws fatty acid molecules into the mitochondria, where they are burned to produce energy. In doing so, the level of blood triglycerides is reduced. A deficiency of the amino acid l-carnitine can result in the buildup of fat in muscles, heart and liver. Athletes use l-carnitine to improve their endurance.

Coenzyme Q_{10} is responsible for transporting energy from one enzyme to another during cellular energy production. It is so critical that, even by itself, CoQ_{10} can help with heart disease. The muscles of the heart have more mitochondria and need more CoQ_{10} than other cells in order to keep on pumping continuously.

Cellular Energy also contains alpha keto glutaric acid, alpha lipoic acid, dimethyl glycine HCl, and ferulic acid.

How to Use Cellular Energy

Although Cellular Energy contains a variety of vitamins and minerals, it should be considered as a "supplement" to your daily multiple vitamin/ mineral supplement such as Super Supplemental.

Cellular Energy may be used to lower triglycerides, improve healing, reduce inflammation, and reverse degenerative health trends. It helps to enhance energy, mental clarity and a general sense of well being.

Typical use is one capsule three times per day with food. Drink plenty of pure water and add Proactazyme for extra enzyme activity.

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