

ribose restores energy

Fight fatigue with this key supplement



Q: I have chronic fatigue syndrome. What can I do to boost my energy levels?

Jacob Teitelbaum,

MD, is a boardcertified internist and director of the Annapolis Research Center for Effective CFS/Fibromvalgia Therapies. He has worked extensively with patients suffering from chronic fatigue syndrome and fibromvalgia, and is the author of several health and wellness books, including From Fatiqued to Fantastic! and Real Cause, Real Cure. He has appeared on Good Morning America, CNN, Fox News Channel, The Dr. Oz Show, and Oprah and Friends. Visit his website at Vitality101.com. Ribose is a key, but often overlooked, energizing supplement. Ribose is what the energy molecules in our bodies are made from. Consequently, the supplement optimizes energy levels; improved sleep and mental clarity and less pain are additional benefits.

The production of energy by your body is a complex process. Your body produces energy by breaking down the components of food and using

them as fuel. But no matter the quality or quantity of the food, you won't produce energy unless your body has enough of three "energy molecules": ATP (adenosine-5-triphosphate), NADH (nicotinamide adenine dinucleotide), and FADH (flavin adenine dinucleotide). If food isn't converted into these three molecules, it's useless.

For many years, I emphasized the importance of B vitamins in forming these three energy molecules, and B vitamins do help a lot. But the energy molecules require two other components for their creation: adenine and ribose. Adenine is plentiful in the body; supplementing with it does not help relieve fatigue.

Ribose, a unique "simple sugar" (carbohydrate), however, is different. It is not burned immediately by the body like other sugars (sucrose, glucose, lactose, fructose, etc.), but is preserved for the vital work of making energy molecules, as well as DNA and RNA. Ribose isn't found in significant amounts in food. It's manufactured in your body via a slow and multi-step process.

It has been known for some time that chronic fatigue and fibromyalgia (two conditions so similar they are grouped together under the acronym

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Teitelbaum recommends the following three nutrients in combination: 800 mcg of folic acid, 50-100 mg of other key B vitamins, 900 mg of malic acid, and 200 - 400 mg of magnesium daily.



Coenzyme Q10, or CoQ10, found in organ meats and oily fish, is used by the mitochondria, the energy-generating components of every cell. In studies, patients with heart disease and severe fatigue have improved their ability to function by taking CoQ10. Because levels of the nutrient naturally decline as we age, integrative physicians frequently recommend taking 50-100 mg of CoQ10 after age 35, and up to 200 mg where heart disease or chronic fatigue is present.

NT Factor helps to replace damaged building blocks of cell membranes, restoring the ability of cells to take in and use nutrients. Take 1,500 - 4,000 mg daily.

CFS/FM) cause the body to "leak" key energy-forming nutrients, such as acetyl-L-carnitine. Researchers then discovered the body does the same with ribose.

This was a "Eureka!" moment for me. Could a lack of ribose be the reason it's hard for people with CFS/FM to produce energy again even after other underlying causes of the condition have been treated—a situation I've encountered again and again with my patients?

My colleagues and I wondered if supplementing the diets of people with CFS/FM with ribose would jump-start their energy production. The answer was a resounding yes! Two studies showed an average 45 to 59 percent increase in overall energy after three weeks. These studies, published in the Journal of Chronic Fatigue Syndrome and the Journal of Alternative and Complementary Medicine, also found that daily

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ribose significantly improved quality of life (a measurement that takes into account physical health, personal happiness, relationships, and other factors).

To put these findings in perspective: A 10 percent energy improvement in a single-nutrient study is considered significant; 60 percent or more is, well, amazing. I now recommend a daily ribose supplement for all my CFS/FM patients—and for anyone with fatigue.

The supplement has also improved energy levels and well-being among people with heart failure, according to studies published in the International Journal of Cardiovascular Research and

the European Journal of Heart Failure.

And research presented at the Scripps
Integrative Conference found that ribose improved energy levels and aerobic fitness among aging baby boomers. In the world of sports, athletes use ribose to speed recovery from strenuous exercise and competitive events.

How to Benefit from Ribose

I recommend using ribose in powdered form, such as Carlson Labs Ribose 100% Pure d-Ribose. Mix 5 gm with juice or food three times daily for three weeks to build up levels of the nutrient, and then take 5 gm twice daily for maintenance.

