



THE BOTTOM LINE
Ribose can ease symptoms associated with chronic fatigue syndrome and heart disease.

power powder

A natural sugar, ribose can boost heart function and fight fatigue.

SUGAR IS one of the simplest forms of energy, and one of the simplest forms of sugar, ribose, may help jumpstart your energy and lessen pain naturally. Ribose, also known as D-ribose, is a five-carbon sugar whose main job is to stimulate your body's production of adenosine triphosphate (ATP), a compound that releases energy when broken down, and helps power your heart, muscles, brain, and every other tissue in the body.

By MATTHEW SOLAN
Photograph by LEVI BROWN

How it works

You won't find ribose in any food: Your body manufactures it from glucose. But when your energy demands increase—for example, when you suffer from congestive heart problems, chronic fatigue syndrome, or fibromyalgia—ribose levels can dry up quickly. "Not having enough ribose in your body is like trying to build a fire without kindling—nothing happens," says Jacob Teitelbaum, M.D., the Kona, Hawaii-based author of *From Fatigued to Fantastic!* (Avery, 2007) and medical director of Fibromyalgia & Fatigue Centers, Inc.

Research has found that people who suffer from chronic fatigue syndrome (symptoms include excessive fatigue, insomnia, brain fog, and joint and muscle pain) and fibromyalgia (widespread muscle pain) have low levels of ribose, says Teitelbaum. Ribose-supplement therapy can help: When you consume a ribose supplement in powder form, the body recognizes it as different from other sugars and preserves it to make ATP. Ribose therapy shows promise in fighting fibromyalgia when used as a complement to existing medication treatment.

Evidence

A 2004 study in *Pharmacotherapy* highlighted the effect of ribose on a 37-year-old female surgeon with fibromyalgia. She managed her condition with a daily mix of medication (nonsteroidal anti-inflammatory drugs and an antihistamine) and physical therapy with minimal effect. She then added 5 grams of ribose twice daily to her treatment, and after two weeks, she reported better sleep, improved mental alertness, and a marked decrease in joint pain. After an additional month, her



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healing supplements

symptoms all but vanished. And when she stopped taking ribose, her symptoms returned. Not surprisingly, she chose to stay on it.

A larger study led by Teitelbaum, published in 2006 in the *Journal of Alternative and Complementary Medicine*, explored the use of ribose with 41 patients who suffered from chronic fatigue and/or fibromyalgia. Researchers found that approximately 66 percent of patients experienced significant improvement in five key areas: energy, sleep, mental clarity, pain intensity, and wellbeing. Perhaps most impressive was that their energy levels increased by an average of 45 percent.

Ribose therapy has also been shown to boost heart health. It improves blood flow in those affected by cardiac ischemia (blood restriction to the heart muscle), speeds recovery after a heart attack, and rejuvenates cardiac tissue after heart surgery. Weak hearts are energy-depleted hearts. "The heart is like any other muscle, and when it gets overstressed from heart disease or heart failure, it loses energy," says John E. Foker, M.D., Ph.D., a professor of cardiovascular and thoracic surgery at the University of Minnesota. When a heart is starved of energy, it can't relax between heartbeats and completely fill with blood. (It takes more energy for the heart to relax than contract.) Ribose can give the extra energy the heart needs to function properly.

The cardio benefits of ribose were tested in a 2003 study at the University of Bonn in Germany and published in the *European Journal of Heart Failure*. Fifteen patients with congestive heart failure were treated with either ribose supplements or a placebo daily for three weeks. The ribose group had a

significant improvement in all measures of heart function and reported a higher tolerance to exercise fatigue.

Caveats

"You can't use it to prevent chronic fatigue or heart disease," says Teitelbaum. "But if you have these problems, ribose can provide the energy you need to live your life fully to combat the larger issues of your condition."

How to take it

Ribose is not habit-forming and won't cause any side effects when taken over long periods. It comes in powder and capsules; Teitelbaum prefers powder because it's easy to take—it can be mixed with any volume of liquid—and often less expensive. The recommended dosage for chronic fatigue and fibromyalgia is 5 grams three times daily for three to six weeks. After that, you can cut back to twice a day. The same dosage is advised for heart problems, but it should be used for six weeks before cutting back to twice daily. Ribose is safe to take on your own and doesn't produce any adverse side effects, says Teitelbaum. (Single doses with more than 10 grams, however, may cause some gastrointestinal discomfort.)

Even if you don't suffer from any energy-zapping problems, a single scoop of ribose can give you a short-term pick-me-up, something equivalent to a cup of coffee. For this reason, it's been added to some commercial energy drinks, which typically come packed with sugar and caffeine. Teitelbaum suggests going with the ribose alone: "It provides a healthy boost, and people say it brings them up another notch," he says. Finally, a good kind of sugar rush. 🍃