



Health Buzz: Study Explains How Shock Therapy Works

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Researchers Now Understand How Shock [Therapy](#) Affects Depression

Electric shock therapy has been used to treat depression for more than 70 years. And now, [doctors](#) say they know how it works. Electroconvulsive therapy—as controversial as it is effective—appears to dampen an overactive connection between two parts of the brain involved in emotional processing, thinking, and concentration. It affects the way these parts of the brain communicate with each other, according to a study published Monday in the *Proceedings of the National Academy of Sciences*. Electric shock therapy, first used in 1937, sends a brief electric current to the brain, mimicking a seizure. Some doctors oppose the treatment, because they have concerns about its side effects, such as memory loss and confusion. "One prominent criticism has been that ECT is not understood—how it works and what it does to the brain," study author Ian Reid, professor of psychiatry at the University of Aberdeen, [told BBC News](#). "We've solved a 70-year-old therapeutic riddle."

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7 Mind-Blowing Benefits of Exercise

Maybe you exercise to tone your thighs, build your biceps, or flatten your belly. Or maybe you work out to ward off the big killers like heart [disease](#), diabetes, and cancer. But how about sweating to improve your mind? "Exercise is the single best thing you can do for your brain in terms of mood, memory, and learning," says Harvard [Medical](#) School psychiatrist John Ratey, author of the book, *Spark: The Revolutionary New Science of Exercise and the Brain*. "Even 10 minutes of activity changes your brain." If you need a little extra incentive to lace up those sneakers, here are five ways that exercise can boost your brainpower.

1. It reverses the detrimental effects of stress. Jumping on the treadmill or cross trainer for 30 minutes can blow off tension by increasing levels of "soothing" brain chemicals like serotonin, dopamine, and norepinephrine. What's fascinating, though, is that exercise may actually work on a cellular level to reverse stress's toll on our aging process, according to a 2010 study from the University of California—San Francisco. The researchers found that stressed-out women who exercised vigorously for an average of 45 minutes over a three-day period had cells that showed fewer signs of aging compared to women who were stressed and inactive. Working out also helps keep us from ruminating "by altering blood flow to those areas in the brain involved in triggering us to relive these stressful thoughts again and again," says study coauthor Elissa Epel, an associate professor of psychiatry at UCSF. [Read more: [7 Mind-Blowing Benefits of Exercise](#)]

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Do Coconut Oil and Coconut Water Provide Health Benefits?

Is going coconuts all it's cracked up to be? The tropical fruit has emerged as a hot trend, with its nutritional components being promoted for health or fitness reasons. Coconut water is advertised as a refreshing, electrolyte-rich beverage suitable for replacing sports drinks such as Gatorade. It's cropping up in grocery stores, gyms, and yoga studios. And coconut oil, despite containing mostly saturated fat, is claimed to be more healthful than saturated fats from other sources. U.S. News took a hard look at the evidence behind the claims.

Coconut water. Not to be confused with the far richer coconut milk, coconut water is a clear liquid extracted from very young (green) coconuts. It's billed by one producer as being "nature's sports drink," because, like Gatorade and other energy drinks, it contains water for rehydration, carbohydrates in the form of sugar for energy, and electrolytes to replace what's lost through sweat. If you compare Gatorade with Zico brand coconut water, here's how they stack up, per ounce:

Gatorade: 6.25 calories, 1.75 grams sugar, 3.75 mg potassium, 13.75 mg sodium

Zico: 5.45 calories, 1.3 grams sugar, 61 mg potassium, 5.45 mg sodium

The most notable difference is in the electrolyte content: more sodium in Gatorade, much more potassium in Zico. But sodium is more important than potassium for athletes who are exercising heavily, says Monique Ryan, a nutritionist and author of *Sports Nutrition for Endurance Athletes*, so don't switch to coconut water just for its very high potassium content. And, says Nancy Clark, dietitian and author of *Nancy Clark's Sports Nutrition Guidebook*, neither product contains enough sodium to replace what's lost through sweat. So if you are a heavy perspirer and work out intensely in the heat, you're better off sprinkling some salt on your oatmeal or having a handful of pretzels before you head out the door than relying on either drink to replenish your stores, she says. [Read more: [Do Coconut Oil and Coconut Water Provide Health Benefits?](#)]

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