



## Stop Stress for Good: Exercise to Fight Stress

By Kimberly Goad

497

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### Rewire Your Brain

Part of the long-term relief is due to the unique way [exercise](#) helps build up a resistance to stress. "Through regular [cardio](#), you actually change your brain, so it takes more and more stress to trigger the fight-or-flight response," says John Ratey, MD, an associate clinical professor of psychiatry at Harvard Medical School and author of *Spark: The Revolutionary New Science of Exercise and the Brain*.

It works like this: Cardiovascular activity helps the heart pump more blood to the brain. More blood means more oxygen; more oxygen leads to better-nourished brain cells. Recently scientists discovered that a vigorous [workout](#) causes brain cells to become more active and boosts the production of a protein called brain-derived neurotrophic factor (BDNF). "I call it Miracle-Gro for the brain," Dr. Ratey says. The protein's role, among other things, is to fortify brain cells to prevent them from breaking down when exposed to stress.

As we age, brain cells die off. Scientists used to think that the loss was permanent, that the brain couldn't make new cells to replace the dead ones. But a recent study from Denmark showed that exercise led to an increase in BDNF production.

With higher BDNF levels, we can preserve the brain cells we have and help make new ones. "These new neurons will stick around for years," Dr. Ratey says. The catch? "If your body is sedentary, they shrink again. To maintain the effects, you have to keep working out." Of all types of activity, cardio workouts appear to give the biggest boost to BDNF production, according to recent studies. Other research shows that [yoga](#) and even strength training can be beneficial in producing chemicals that protect your brain from stress.

"Exercise helps produce resilience, not because it eliminates the stress response, which would be bad because you want your body to recognize and respond to dangerous situations, but because it acts as a buffer to it," the University of Colorado's Fleshner says. "Say your boss asks, 'Why haven't you met your deadline?' If you've been exercising regularly, you're less likely to respond with a full-blown physiological stress response -- elevated [heart rate](#), high blood pressure -- as would someone who is sedentary." If you do get anxious, Fleshner says, your body's reaction is less exaggerated and the effects don't linger long enough to harm your health.

Perhaps the biggest perk for those who stick with a fitness program is that consistency is rewarded. In Fleshner's study, animals who were put on a regular exercise program for six weeks all showed a drop in anxiety levels because of changes in the stress response, including changes in the serotonin system. She

believes the results would be similar for people. "More than anything, what we've realized is that the biochemical changes that occur to make us resilient to stress are cumulative," she says. "The more consistent you are with your workouts, the more you are rewarded with stress-fighting power." And that's reason enough to start lacing up now.

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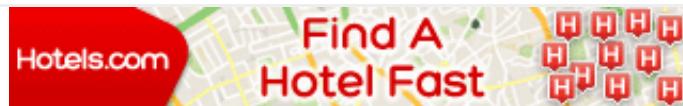
Very good indeed. Will help controlling several sources of stress and maintain a healthy body as well.

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