

Yoga May Help Treat Depression, Anxiety Disorders

Brain scans showed boost in valuable brain chemical, study says

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THURSDAY, June 7 (HealthDay News) -- Yoga's postures, controlled breathing and meditation may work together to help ease brains plagued by anxiety or depression, a new study shows.

Brain scans of yoga practitioners showed a healthy boost in levels of the neurotransmitter gamma-aminobutyric (GABA) immediately after a one-hour yoga session. Low brain levels of GABA are associated with anxiety and depression, the researchers said.

"I am quite sure that this is the first study that's shown that there's a real, measurable change in a major neurotransmitter with a behavioral intervention such as yoga," said lead researcher Dr. Chris Streeter, assistant professor of psychiatry and neurology at the Boston University School of Medicine.

She believes yoga could prove a useful tool to help people battling depression and anxiety disorders. "We're not advocating that they chuck their medication, but I would advise that they could use it as an adjunct and see how they are doing," Streeter said.

Her team published its findings in the May issue of the *Journal of Alternative and Complementary Medicine*.

In the study, the Boston researchers used high-tech magnetic resonance spectroscopic imaging to gauge levels of GABA in the brains of eight long-time yoga practitioners and 11 non-practitioners. The participants were healthy, and none was diagnosed with a major psychiatric condition.

Brain scans were taken before the beginning of the experiment. Then, the yoga group was asked to engage in the meditative practice for 60 minutes, while the non-yoga group simply read. The researchers then re-scanned each participant's brain, looking specifically at GABA levels.

"We showed a 27 percent increase in the brain GABA levels of those doing yoga -- a really significant increase," Streeter said. No such change was noted in the non-practitioners who had just read.

She said the style or school of yoga practiced didn't seem to matter. "We had *hatha*, *ashtanga*, *bikram*, *vinyasa*, and *kripalu*" practitioners included in the yoga group, Streeter said, "and many had been trained in several different schools."

According to Streeter, "this all gives us one of the mechanisms by which yoga may be having a beneficial effect. There could be other mechanisms."

But another expert pointed to what he considered flaws in the research.

Zindel Segal, chairman of psychotherapy and a professor of psychology and psychiatry at the University of Toronto, has for years studied the use of behavioral interventions to alleviate psychological woes.

He said the Boston researchers were to be commended for using brain scan imaging technologies to investigate the effectiveness of these techniques. But he questioned why the yoga group was simply compared to a sedentary reading group and not to another movement-based group.

"Exercise itself may have some effects on GABA, so I think in this study, you'd really want that comparison," he said. Including such a control group would make it clear that it was yoga and not just an hour of physical exertion that was responsible for the brain changes.

He also pointed out that all of the people in the study were mentally healthy, and clinical depression and anxiety disorders involve more than the "daily fluctuations in stress and tension" that healthy individuals are prone to.

"We know that yoga can have a profound effect" on smoothing out life's daily ups and downs, Segal said. "But so does working out on a Stairmaster for an hour."

Segal also questioned the role of GABA in depression. While it may play a role in anxiety disorders, "GABA is not one of the main neurotransmitters that seems to be a part of the depression story," he said. Other neurochemicals -- most notably serotonin -- play much bigger roles in the disorder, he said.

None of this means that the study's findings are without merit, Segal said. "In fact," he said, "we have a program called 'mindfulness-based cognitive therapy,' where we do use yoga, as well as mindfulness meditation," as therapeutic tools. Streeter's findings "suggest the need for more study of these practices," he said.

Streeter agreed that her study is probably just a beginning.

"I think what's important about this study is that it shows that by using really cutting-edge neuroimaging technology, we can measure real changes in the brain with behavioral interventions -- changes that are similar to those that we see with pharmacologic treatments," she said.

Would other mind-body practices -- Tai Chi, for example -- produce similar effects?

"I think that's very possible," Streeter said. "I suspect that all roads lead up the mountain."

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