

This Is Your Brain On Transcendental Meditation

By Sarah Klein

Whatever your particular health concerns or New Year's resolutions may be—sharper memory, lower blood pressure, less stress, looser-fitting pants—conventional wisdom leads a lot of us straight to the gym. But decades of research paints a fascinating, promising picture of what an effortless relaxation technique called Transcendental Meditation can do you for instead—without setting foot on that treadmill. (Want to pick up some healthier habits? Sign up to get daily healthy living tips delivered straight to your inbox!)

Yep, we said effortless. Transcendental Meditation, or TM, is 20 minutes, twice a day, of profound rest and relaxation, according to its fans. Meditators use a mantra to guide their minds to a place of stillness that (apparently!) exists within all of us—we're just too stressed and stretched too thin to know it's there. If the goings-on of our buzzing, frazzled minds are like the waves on top of the ocean, the inner quiet is like the silence at the ocean's depths, says Bob Roth, executive director of the David Lynch Foundation, which brings TM to at-risk populations like domestic abuse survivors, inmates, and inner-city students.

You can do TM anywhere, but you've got to learn how first, typically over 4 consecutive days for about an hour to an hour and a half at a time, Roth explains, and from a certified teacher. It doesn't require any particular religious, spiritual, or intellectual belief—even skeptics are welcome, he says. Sitting comfortably, meditators usually close their eyes while sitting comfortably. "You think the mantra in a way that serves as a catalyst for the mind to turn within," Roth says.



Roth's been practicing TM for more than 40 years now, and the research supporting his practice has been going on for about as long. Some of the latest, most intriguing work is expected to wrap up this year (which should make for some welcome support for next year's resolutions). Funded by a \$2.4 million grant from the Department of Defense, it is examining over 200 veterans with post-traumatic stress disorder, or PTSD. The vets involved have been randomized to one of three groups: One receives traditional treatment for PTSD, a form of cognitive behavioral therapy called prolonged exposure therapy, which involves addressing specific trauma events and the negative thoughts, feelings, and behavior associated with those traumatic exposures. Another participates in a health education program, learning about lifestyle changes they can make to manage PTSD and promote greater overall well-being. The third is trained in TM.

All three groups will have 12 sessions with treatment providers over a period of 3 months. Then researchers will compare the changes in their trauma symptoms, explains Sanford Nidich, EdD, the study's principal investigator and a professor at Maharishi University of Management in Fairfield, IA, where students get a "consciousness-based education" and everyone—students and faculty—practices TM. So far, Nidich says, the veterans are fairly regular with their TM practice in the study. "They're finding it's easy to meditate," he says. "In general, studies have found that psychotherapy can sometimes be rather intense, whereas TM is something the veterans and active military really enjoy doing and typically see immediate benefits."

Another recent PTSD study, funded by the David Lynch Foundation, found that TM helped decrease medication use among military members with the condition. After a month, nearly 84% of the 37 meditators had stabilized, decreased, or stopped

anxiety meds, while about 11% increased their dose. Among the 37 who didn't meditate, 59% were able to stabilize, decrease, or stop their meds while 40.5% had to increase them.



Similar research has found that TM helps to reduce trauma symptoms among prison inmates, and while very few of us have spent time in combat zones or behind bars, few of us avoid trauma altogether, either. TM reduces feelings of stress, anxiety, and depression among caregivers and feelings of burnout among teachers. It's been shown to mitigate stress among earthquake and tsunami survivors and improve quality of life among women with breast cancer.

By now, most of us are pretty willing to accept the idea that 20 minutes or so of quiet time will undoubtedly be relaxing. But the stress relief of TM is truly physiological, explains Normal E. Rosenthal, MD, a clinical professor of psychiatry at Georgetown University Medical School and the author of *Transcendence: Healing and Transformation Through Transcendental Meditation*, as reported in a small study that found increased blood flow to the brain during meditation. "It seems like the brain is being nurtured with blood, with all the nutrients that keep people going, to a greater extent during meditation than during a non-meditating state," he says.

He calls TM a sort of "surge protector." Consider the hallmark jumpiness of people with PTSD, for example. "That's evidence the sympathetic nervous system, the fight or flight response, is excessively cocked," Rosenthal says, like a burglar alarm that goes off every time you close the door a little too forcefully. "TM makes you less reactive to stimuli, so if you have a pang or crash you won't go into a panic." We don't entirely understand why, but TM seems to readjust the sensitivity of your alarm.



Granted, that isn't really enough to replace going to the gym (sorry), but TM's clearly got potential. "It belongs in the toolbox of health," Roth says. He calls upcoming research on TM's effects on the brain "the new frontier," and there's still a lot we

don't know about TM and how it affects the brain. We do know that it promotes what's called brain wave coherence, when essentially more regions of the brain sync up and chug along together. "These areas are in some kind of harmonious relationship with one another," Rosenthal explains. Greater coherence is in turn thought to lead to calmness, intelligence, focus, decision-making—you get the picture. "People frequently have the experience that after meditating, a problem is resolved," he says. "Our understanding is that these brain regions are cooperating better with one another."

Greater coherence shows up in the brains of new meditators while they're practicing after just a few weeks of TM, but long-term meditators show these effects even when they're not meditating. "As meditation continues, coherence moves into non-meditating hours," Rosenthal says.

In fact, long-term meditators also show different responses in their brains to physical pain even when they're not meditating. In a study of a small group of healthy, middle-aged adults, researchers found a 40 to 50% reduction in the brain's reaction to pain after 5 months of TM when the participants were not meditating.



Those long-term meditators also might live longer. Recent research shows that TM—and other stress reduction techniques, too—increases the activity of telomerase, an enzyme that rebuilds and lengthens telomeres, those disease-mongering ends of our chromosomes that otherwise shorten with age. It also seems to lower blood pressure as effectively as medication. Older research found a 23% decrease in mortality risk among TM practitioners because of the lifesaving effects of stress reduction alone.

TM's star-studded list of supporters know all too well about those big wins. About a year after Ellen DeGeneres started meditating, she said she "can't say enough good things about it." In 2014, Jerry Seinfeld said of his 40-year practice, "You know how your phone has a charger? It's like if you had a charger for your whole body and mind." That same year, Jim Carrey delivered the commencement speech at Maharishi University of Management. Oprah visited the school in 2012: "I walked away feeling fuller than when I came in, full of hope and a sense of contentment and deep joy," she said of the experience, "knowing for sure that in the craziness of the world that seems to bombard us at every angle, there is always the consistency of stillness."