

Only 25 minutes of mindfulness meditation alleviates stress

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A collective meditation in Sri Lanka. Image: Wikipedia.

Mindfulness meditation has become an increasingly popular way for people to improve their mental and physical health, yet most research supporting its benefits has focused on lengthy, weeks-long training programs.

New research from Carnegie Mellon University is the first to show that brief mindfulness meditation practice – 25 minutes for three consecutive days – alleviates psychological stress. Published in the journal *Psychoneuroendocrinology*, the study investigates how mindfulness meditation affects people's ability to be resilient under stress.

"More and more people report using meditation practices for stress

reduction, but we know very little about how much you need to do for [stress reduction](#) and health benefits," said lead author J. David Creswell, associate professor of psychology in the Dietrich College of Humanities and Social Sciences.

For the study, Creswell and his research team had 66 healthy individuals aged 18-30 years old participate in a three-day experiment. Some participants went through a brief mindfulness meditation training program; for 25 minutes for three consecutive days, the individuals were given breathing exercises to help them monitor their breath and pay attention to their present moment experiences. A second group of participants completed a matched three-day cognitive training program in which they were asked to critically analyze poetry in an effort to enhance problem-solving skills.

Following the final training activity, all participants were asked to complete stressful speech and math tasks in front of stern-faced evaluators. Each individual reported their stress levels in response to stressful speech and math performance stress tasks, and provided saliva samples for measurement of cortisol, commonly referred to as the stress hormone.

The participants who received the brief mindfulness [meditation training](#) reported reduced [stress](#) perceptions to the speech and math tasks, indicating that the mindfulness meditation fostered [psychological stress](#) resilience. More interestingly, on the biological side, the mindfulness meditation participants showed greater cortisol reactivity.

"When you initially learn mindfulness meditation practices, you have to cognitively work at it – especially during a stressful task," said Creswell. "And, these active cognitive efforts may result in the task feeling less stressful, but they may also have physiological costs with higher cortisol production."

Creswell's group is now testing the possibility that mindfulness can become more automatic and easy to use with long-term [mindfulness meditation](#) training, which may result in reduced cortisol reactivity.

Provided by Carnegie Mellon University

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