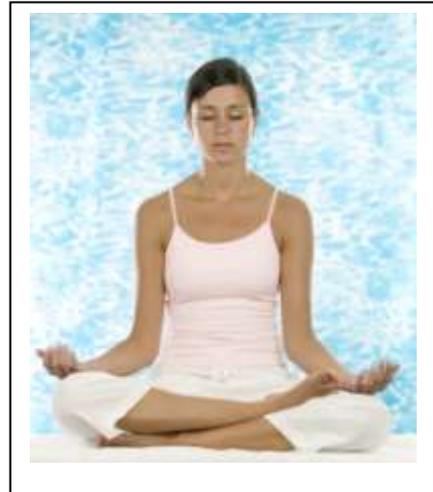


Meditation surpasses drug effect for pain relief

Meditating for one hour deactivates pain areas of the brain

Wake Forest Baptist Medical Center researchers found meditating for one hour has a powerful effect on the brain for reducing perception of pain and deactivating areas of the brain that process pain. In study findings published 4/6/11 in the [Journal of Neuroscience](#), meditation reduced pain intensity 40 percent, surpassing the effect of drugs like morphine.



A special type of brain imaging called arterial spin labeling magnetic resonance imaging (ASL MRI) was used to discover how meditation changes the brain. Fifteen healthy volunteers who never meditated before attended four classes to learn how to focus on breathing and ignore distractions. The technique is known as focused attention.

Brain changes before and after meditation

Specifically, meditation changed a crucial area of the brain responsible for telling the body where it hurts and how bad, known as the primary somatosensory cortex.

Before meditation the pain area of the brain was very active, but during meditation activity was undetectable. The researchers applied a heat device on the study participants thighs to induce pain. MRI's were used to look at the brain's response to pain before and after the group learned to meditate.

Robert C. Coghill, Ph.D., senior author of the study and associate professor of neurobiology and anatomy at [Wake Forest Baptist](#) explained other areas of the brain were engaged with meditation that relate to how pain is perceived.

Consistent with this function, the more that these areas were activated by meditation the more that pain was reduced. One of the reasons that meditation may have been so effective in blocking pain was that it did not work at just one place in the brain, but instead reduced pain at multiple levels of processing." He says, "These areas all shape how the brain builds an experience of pain from nerve signals that are coming in from the body,"

[Past studies](#) have shown meditation can help people cope with pain. The new study used sophisticated brain imaging that can see what happen in the brain over a longer period of time than standard MRI.

Medications that control pain have dangerous side effects and many are cost prohibitive for patients, making the findings important. Few pain management clinics incorporate alternative therapies, opting for treating patients with narcotics and injections that often fail to work and serve to increase health care costs.

Meditation also lowered pain perception by 57 percent and reduced pain 40 percent in the study. The authors say drugs like morphine typically reduce pain 25 percent. The focused attention meditation technique was learned by the test group in four 20 minute sessions. Fadel Zeidan, Ph.D., lead study authors and post-doctoral research fellow at Wake Forest Baptist Medical Center says meditating has great potential in clinical practice.

Source:

<http://www.emaxhealth.com/1020/meditation-surpasses-drug-effect-pain-relief>