

4 Practical Benefits of Meditation

Light of the Spirit Monastery

Here are four scientific reports about the practical benefits of meditation, the first three being about Breath Meditation specifically:

1. "Everyone around the water cooler knows that meditation reduces stress.

But with the aid of advanced brain-scanning technology, researchers are beginning to show that meditation directly affects the function and structure of the brain, changing it in ways that appear to increase attention span, sharpen focus and improve memory. One recent study found evidence that the daily practice of meditation thickened the parts of the brain's cerebral cortex responsible for decision making, attention and memory. Sara Lazar, a research scientist at Massachusetts General Hospital, presented preliminary results last November that showed that the gray matter of twenty men and women who meditated for just forty minutes a day was thicker than that of people who did not.... What's more, her research suggests that meditation may slow the natural thinning of that section of the cortex that occurs with age." (How to Get Smarter, One Breath At A Time, Lisa Takeuchi Cullen. Time, January 16, 2006, p. 93.)

2. "In a study published in the journal NeuroImage, researchers report that certain regions in the brains of long-term meditators were larger than in a similar control group.

"Specifically, meditators showed significantly larger volumes of the hippocampus and areas within the orbito-frontal cortex, the thalamus and the inferior temporal gyrus—all regions known for regulating emotions.

"We know that people who consistently meditate have a singular ability to cultivate positive emotions, retain emotional stability and engage in mindful behavior,' said Eileen Luders, lead author and a postdoctoral research fellow at the UCLA Laboratory of Neuro Imaging. 'The observed differences in brain anatomy might give us a clue why meditators have these exceptional abilities.'

"Research has confirmed the beneficial aspects of meditation. In addition to having

better focus and control over their emotions, many people who meditate regularly have reduced levels of stress and bolstered immune systems. But less is known about the link between meditation and brain structure.

"The researchers found significantly larger cerebral measurements in meditators compared with controls, including larger volumes of the right hippocampus and increased gray matter in the right orbito-frontal cortex, the right thalamus and the left inferior temporal lobe. There were no regions where controls had significantly larger volumes or more gray matter than meditators.

"Because these areas of the brain are closely linked to emotion, Luders said, 'these might be the neuronal underpinnings that give meditators the outstanding ability to regulate their emotions and allow for well-adjusted responses to whatever life throws their way.'" (PhysOrg—May 13, 2009. Source: University of California-Los Angeles)

3. "People who meditate grow bigger brains than those who don't.

Researchers at Harvard, Yale, and the Massachusetts Institute of Technology have found the first evidence that meditation can alter the physical structure of our brains. Brain scans they conducted reveal that experienced meditators boasted increased thickness in parts of the brain that deal with attention and processing sensory input.

"In one area of gray matter, the thickening turns out to be more pronounced in older than in younger people. That's intriguing because those sections of the human cortex, or thinking cap, normally get thinner as we age.

"Our data suggest that meditation practice can promote cortical plasticity in adults in areas important for cognitive and emotional processing and well-being,' says Sara Lazar, leader of the study and a psychologist at Harvard Medical School.

"The researchers compared brain scans of 20 experienced meditators with those of 15 non-meditators. Four of the former taught meditation or yoga...the rest worked in careers such as law, health care, and journalism....During scanning, the meditators meditated; the others just relaxed and thought about whatever they wanted.

"Some had been doing [meditation] for only a year, others for decades. Depth of the meditation was measured by the slowing of breathing rates. Those most deeply involved in the meditation showed the greatest changes in brain structure. 'This strongly suggests,' Lazar concludes, 'that the differences in brain structure were caused by the meditation, rather than that differences in brain thickness got them

into meditation in the first place.'

"Since this type of meditation counteracts the natural thinning of the thinking surface of the brain, could it play a role in slowing—even reversing—aging? That could really be mind-boggling in the most positive sense." (PhysOrg—January 31, 2006. Harvard University. William J. Cromie.)

Another report on this study in the *New Scientist*, titled "Meditation Builds Up the Brain," says that "meditating actually increases the thickness of the cortex in areas involved in attention and sensory processing, such as the prefrontal cortex and the right anterior insula.

"You are exercising it while you meditate, and it gets bigger,' she [Sara Lazar] says....It is further evidence, says Lazar, that yogis 'aren't just sitting there doing nothing."

4. "There was a study reported at the American Geriatric Association convention in 1979 involving forty-seven participants whose average age was 52.5 years. It found that people who had been meditating more than seven years were approximately twelve years younger physiologically than those of the same chronological age who were not meditating." (Gabriel Cousens, M.D., *Conscious Eating*, p. 281.)

More on Meditation:

- What Is the Mind?: A Meditator's Guide, Part 1
- What is Yoga?
- Seven Signs of Progress in Meditation, by Paramhansa Yogananda

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