## What Meditation Can Do For Your Brain

Can meditation grow your brain, make you more compassionate, and slow the aging process? Sounds too crazy to believe, right?

Like most, I tended to look at the supposed positive effects of meditation as, at best, a tree-hugger's wishful thinking, or, at worst, utter poppycock. But recent studies are making me question my dismissal of the benefits of mediation.

According to Sara Lazar, a neuroscientist at Massachusetts General Hospital and Harvard Medical School, recent research indicates that not only does meditation help your brain resist the effects of aging, it can also grow the gray matter between your ears.

Researchers found that mediating for 20 to 40 minutes a day a few times a week resulted in observable brain changes (discovered using magnetic resonance imaging) in just a couple of months.

In an interview with the <u>Washington Post</u>, Lazar discussed the changes observed:

We found differences in brain volume after eight weeks in five different regions in the brains of the two groups. In the group that learned meditation, we found thickening in four regions:

- 1. The primary difference, we found in the **posterior** cingulate, which is involved in mind wandering, and self relevance.
- 2. The left hippocampus, which assists in learning, cognition, memory and emotional regulation.

- 3. The temporo parietal junction, or TPJ, which is associated with perspective taking, empathy and compassion.
- 4. An area of the brain stem called the **Pons**, where a lot of regulatory neurotransmitters are produced.

The amygdala, the fight or flight part of the brain which is important for anxiety, fear and stress in general. That area got smaller in the group that went through the mindfulness-based stress reduction program.

The change in the amygdala was also correlated to a reduction in stress levels.

<u>Britta Hölzel</u>, first author of the paper, and a research fellow at MGH and <u>Giessen University</u> in Germany, <u>sums up the implications</u> of the research: "It is fascinating to see the brain's plasticity and that, by practicing meditation, we can play an active role in changing the brain and can increase our well-being and quality of life."

The possibility that we can be an active participant in the health of our brain is an exciting one. The possibility that humans might be able to stave off the effects of aging, decrease the level of stress we feel, and even grow our empathy and compassion seem compelling enough that I might just need to dig through my storage unit to find that old yoga mat I know I have somewhere.

What about you? Is it time to assume the downward dog position—no matter how ridiculous it makes you feel—and give meditation a try?

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