

# Brain Change and Mindfulness . . . In 8 Weeks?

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Could someone who has never before been exposed to mindfulness begin to see results in as little as 8 weeks?

Eight weeks isn't all that long.

But it could be just enough to cause significant change in someone's brain (and therefore in their life).

A group of researchers out of the University of Siena, in Italy, led by Emiliano Santarnecchi, PhD, set out to answer that question. They also wanted to find out if there might be a correlation between physical changes in the brain and how folks fared psychologically.

The team randomized 48 right-handed participants who had never meditated before into either a mindfulness-based stress reduction (MBSR) training or a wait-list control group.

(And in case you were wondering why they only looked at right-handed people, that's because there are physical brain differences related to "handedness" – so this was just an added control measure.)

All of the participants were evaluated before and after the 8-week investigation. Their brains were scanned using magnetic resonance imaging (MRI), and their psychological well-being was assessed using a handful of self-report questionnaires (the TAS-20, PSWQ, STAI, BDI II, and the MAAS).

The 8-week MBSR training consisted of weekly 2.5-hour-long face-to-face sessions. During the week, participants were asked to practice on their own for at least 45 minutes each day, writing about what they did as they went. They also attended a day-long silent retreat at the end of their first week in the program.

Meanwhile, the control group underwent the brain scans and psychological tests while waiting 8 weeks to learn MBSR.

Dr. Santarnecchi used voxel-based morphometry (VBM) to calculate the cortical thickness of grey matter (the goal being to increase grey matter).

Now, [I've talked about VBM before](#), but to recap, it's a computer analysis technique researchers often use to calculate brain volume from imaging scans like MRIs.

So, were 8 weeks of mindfulness enough to see a significant change?

According to Dr. Santarnecchi and his team, yes. They found an increase in right insula thickness. Plus, for all of the self-report tests, with the exception of the MAAS which wasn't significantly different, participants were significantly better able to express their feelings.

The control group showed no changes at the end of the 8 weeks.

Now, this study doesn't take into account the effects a short intervention might have on folks who are already struggling with psychological well-being, so we can't assume that this is for everyone. Plus, I'd really like to see a treatment control here.

But this work shows one more way that mindfulness could enhance people's lives.

If you want to know more, you can get the details of the study at *PLOS ONE* (Volume 9, Issue 10).

But for now, I'd like to know what you think.

Would you consider recommending an 8-week MBSR trial to any of your clients? If not, what would prevent you? Please let me know what you think in the space below.