

What Is Mindfulness?

Living in the moment

Mindfulness is living in the now. It is essentially about being more aware and awake in every moment of your life. It is about intentionally paying attention to each moment, being fully engaged in whatever is happening around you and within you. It involves bringing an attitude of curiosity, acceptance and friendliness to whatever is experienced, rather than habitual patterns of judgment and criticism.

Default mode

² Sheline, Y. I., Barch, D. M., Price, J. L., Rundle, M. M., Vaishnavi, S. N., Snyder, A. Z., ... & Raichle, M. E. (2009). The default mode network and self-referential processes in depression. *Proceedings of the National Academy of Sciences*, 106(6), 1942-1947.

³ Broyd, S.J., Demanuele, C., Debener, S., Helps, S.K., James, C.J., & Sonuga-Barke, E.J. (2009). Default-mode brain dysfunction in mental disorders: a systematic review. *Neuroscience & Biobehavioral Reviews*, 33(3), 279-296.

⁴ Brewer, J.A., Worhunsky, P.D., Gray, J.R., Tang, Y.Y., Weber, J., & Kober, H. (2011). Meditation experience is associated with differences in default mode network activity and connectivity. *Proceedings of the National Academy of Sciences*, 108(50), 20254-20259.

⁵ Mitchell, J. P., Banaji, M. R., & MacRae, C. N. (2005). The link between social cognition and self-referential thought in the medial prefrontal cortex. *Journal of cognitive neuroscience*, 17(8), 1306-1315.

⁶ Farb, N.A., Segal, Z.V., Mayberg, H., Bean, J., McKeon, D., Fatima, Z., & Anderson, A.K. (2007). Attending to the present: mindfulness meditation reveals distinct neural modes of self-reference. *Social Cognitive and Affective Neuroscience*, 2(4), 313-322.

The Science Of Mindfulness

There is growing evidence that even relatively short mindfulness programs such as this one can result in improvements to:

Cognitive and academic performance

- ! Improves ability to maintain preparedness and orient attention^{7 8}
- ! Improves short term memory and processing speed⁹
- ! Improves ability to process information quickly and accurately¹⁰
- ! Increased thickness of brain regions involved in self-awareness and sensory processing¹¹
- ! Long-term mindfulness meditation practice has even been shown to result in the ability to bring 100% concentration to a chosen object or mental state for an *indefinite period* (the experiment, using an fMRI brain imaging device, was stopped after 30 minutes, but the monk being studied said he could have gone on concentrating as long as they needed him to!)

Health and wellbeing

- ! Decreases stress, anxiety, and depression¹²
- ! Supports better regulation of emotional reactions and increases positive psychological states¹³
- ! Decreases burnout¹⁴
- ! Increased immunity to the influenza virus¹⁵

Improved relationships

- ! Increases creativity¹⁶
- ! Improves skills needed for interpersonal relationships¹⁷
- ! Improves empathy and compassion¹⁸

Brain imagining research also shows that regular mindfulness practice for 15 minutes a day over a 6-week period produces growth in brain areas associated with learning and memory processes, emotion regulation, self-referential processing, and perspective-taking¹⁹.

⁷ Chan, D., & Woollacott, M. (2007). Effects of level of meditation experience on attentional focus: is the efficiency of executive or orientation networks improved?. *The Journal of Alternative and Complementary Medicine*, 13(6), 651-658.

⁸ Shapiro, S.L., Oman, D., Thoresen, C.E., Plante, T.G., & Flinders, T. (2008). Cultivating mindfulness: effects on well being. *Journal of clinical psychology*, 64(7), 840-862.

⁹ Chambers, R.H., Lo, B.C.Y., & Allen, N.B. (2008). The impact of intensive mindfulness training on attentional control, cognitive style, and affect.

Mindfulness And The Brain

The brain is comprised of 100 billion neurons (nerve cells) arranged in a circuit with around 100 trillion connections.