

# UDDRAG

## WHAT MINDFULNESS DOES TO YOUR BRAIN AF MAGGIE SEAVER, 2023

### RESEARCH FINDS MINDFULNESS CAN PHYSICALLY CHANGE BRAIN STRUCTURES

Mindfulness—an intentional state of focused, nonjudgmental awareness of the present moment—doesn't just foster a pleasant moment of calm.

Scientists find it can be a powerful tool for altering and strengthening key brain networks for the better. Mindfulness techniques have been proven to promote positive change in the brain pathways involved in stress, focus and attention, memory, and mood. Some research has even found that a steady dose of mindfulness over a certain amount of time can physically change brain structures long term, including age-related brain degeneration.

As we age and experience stress, the cortex naturally thins out and loosens. This deterioration of the cortex helps explain why, for example, people forget their keys more often and find it harder to pick up new skills (among other frustrating changes) as they get older. But mindfulness training can actually help prevent the typical cortical thinning that comes with age.

### MINDFULNESS STRENGTHENS KEY BRAIN NETWORKS LINKED TO FOCUS, MEMORY, AND MOOD

Just as you can deliberately lift weights to build strength and dexterity in a specific muscle over time, you can also exercise certain brain networks associated with core cognitive functions (like attention, logic, and memory) and emotion regulation (like quelling anxiety or negative reactions).

Some of the primary brain systems to benefit from mindfulness are those involved in our ability to focus and regain focus when we get off track. One way we can fortify this crucial cognitive network is by applying a standard mindful

breathing exercise that involves sitting quietly, breathing naturally, and focusing awareness on the breath for just a few minutes.

Each time you force yourself to *focus* on the breath, *notice* when your focus strays from it, and actively *redirect* focus back to the breath—that's one pushup. The more mindfulness "pushups" you do, the stronger your ability to control your attention and maintain concentration—not just during a mindfulness session, but throughout your entire day.

These basic mindfulness pushups can also help suppress the default mode network, a brain network associated with mind wandering, self-centered cravings, and other off-task distractions. Mind wandering is completely natural and beneficial; it promotes creativity and problem-solving. But when you're trying to accomplish a cognitively demanding task (like paying attention in a meeting or making a rational decision), mind wandering can be a serious hindrance. When the default mode network is hyperactive you're more likely to cave to things like sugar cravings, anxious thought loops, or procrastination.

## BETTER COGNITIVE CONTROL CAN HELP REGULATE EMOTIONS AND MOOD, TOO

Distressing thoughts keep us awake at night. Anger colors our reactions. Fear of failure keeps us from achieving goals. At best, it's inconvenient; at worst, it contributes to debilitating mood disorders. Someone with consistent mindfulness experience, however, is equipped with powerful mental tools: the ability to step back and identify those emotional inhibitors and negative thought patterns, as well as the ability to actively steer away from them. They've developed the ability to reclaim power from problematic emotions.

This mindfulness method of decentering allows you to create mental space between yourself and your thoughts and emotions. Attention can't be in two places at once: You can't be watching a distressing thought and be *in* the distressing thought at the same time. So in addition to focusing, noticing, and redirecting, the capacity to psychologically distance yourself—to watch your thoughts, to be a good detective—really helps control things.

## SOURCES

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