

20 WAYS  
MEDITATION  
CHANGES  
THE BRAIN



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## **The Power Of Meditation**

Meditation is a powerful tool when it comes to improving your mood and your health. However, did you know that its effects stem from actual changes to the brain? Science has shown that meditation actually changes the brain, offering a wide array of benefits these changes bring.

## **20 Ways Meditation Changes The Brain**

### **Slows Loss Of Brain Mass In Aging**

Meditation is kind of like a form of mental training for your brain, as the process of clearing your mind and focusing on a single concept activates and engages many different regions.

People that meditate consistently for many years are effectively exercising the brain, just like the other muscles in the body.

Studies have found that this “exercise” over a period of several decades led the practitioners to slow the loss of grey matter density, compared to people who did not meditate.

### **Decreases Worry And Boosts Mood**

A study by researchers at Yale University found that consistent mindfulness meditation—which involves introspection and honestly evaluating yourself and your actions--

decreased activity in the Default Mode Network of the brain, which is the area responsible for your mind wandering.

This area is also associated with worrying and focusing on your past and future, so by decreasing activity in this area meditation allows you to focus more on the present and achieve a greater level of overall happiness.

### **Thickens The Hippocampus**

Meditation can also thicken the cortical folds in the hippocampus, which is the area responsible for your ability to learn and remember things. The thickening that takes place allows the brain to better perform these actions, which leads to an increase in your memory and mental retention.

### **Decreased Volume In The Amygdala**

The amygdala is the area that controls fear and anxiety, releasing a hormone called cortisol that affects the way your body acts during times of stress. Meditation helps you to let go of these negative feelings by addressing the current situations that trigger them, which leads to less activity in the area and thus a decrease in volume and size.

### **Reduces Stress Hormones**

With a smaller and less active amygdala, the brain is less prone to releasing the harmful hormones in response to stressful situations. One Harvard study tracked the size of the amygdala with participants practicing meditation for eight weeks, and found that as the volume of the area decreased, so did reports of feeling stressed.

### **Lowers Anxiety Reaction**

Similarly, meditation helps to weaken the part of the brain that leads to feeling anxious. The focus on introspection and self-awareness through meditation helps you to overcome the initial inclination to feel uneasy about different areas of your life, which

enables other areas of your brain to take over and trigger more confident actions and positive feelings.

### **Reduces Feelings Of Depression**

One study from researchers at Johns Hopkins tracked the effects of meditation on patients suffering from depression, comparing it to the effectiveness of taking antidepressant medication. The results found that meditation was just as effective as medicine, likely due to the fact that meditation helps to break the links between the rational part of the brain and the amygdala. Meditation also trains the brain to stand up to negative thoughts and fears, rather than relent and indulge in worrying about the past or future.

### **Improves Concentration**

The Default Mode Network of the brain is also responsible for the mind wandering to different thoughts and topics, such as with daydreaming. It's also tied into your ability to focus on a single subject, in that it can lead to you getting distracted while trying to think.

Meditation helps decrease the activity in this area of the brain, and thus trains you to concentrate on the tasks in front of you rather than letting your consciousness shift to something else.

### **Alters The Lateral Prefrontal Cortex**

The lateral prefrontal cortex is one of the parts of the brain that regulates your emotions, and that deals with your emotional responses to different situations. Meditation engages this area of the brain and increases the thickness of its folds, which allows you to better separate your emotional responses and learned habits from the rational part of your brain so that you can better assess the correct action in emotional situations.

### **Better Handle Stressful Situations**

A stronger lateral prefrontal cortex, as well as other changes to the brain as a result of meditation, helps you react more quickly and effectively during stressful situations. Meditation causes you to think about more than just yourself, which trains your brain to engage the logical analysis areas more.

This means that when something stressful happens, such as entering into a verbal conflict or witnessing something frightening, you can separate your emotions from logic and identify how you should react based on the situation as a whole.

### **Fights Social Anxiety**

These changes can also help to decrease the effects of social anxiety, which is when the parts of the brain that control logic and worrying become overactive during social interactions. Meditation creates a brain that is better suited at facing uncomfortable situations and more capable of fighting the fear that comes with activities such as public speaking or meeting large groups of people.

### **Trains The Ventromedial Medial Prefrontal Cortex**

This part of the prefrontal cortex deals with your ability to draw connections between yourself and others, which can translate into a tendency to take things too personally. Meditation changes the way this region functions, allowing you to separate your personal feelings from situations and remain more objective.

### **Better Reaction To Negativity**

Another way meditation affects the ventromedial medial prefrontal cortex is by changing the way it processes negative information. Instead of logging it as an attack or an unnecessary criticism, meditation allows you to focus on what you can learn from negative actions and let go of any lasting ill effects on your mood or mental wellbeing.

### **Fights Addiction**

Meditation also alters the way the brain deals with addiction by separating the craving for something—such as food or alcohol—from the act of indulging the craving. The brain no longer links the two together, thus reducing the instances of relapses.

### **Improves Attention**

Meditation also helps you pay attention and ignore distractions. This come from weakening the parts of the brain that lead you to become distracted, as well as strengthening the parts of your brain that control your information retention. Consistently meditating does not mean you never get distracted, but research has found that it does help you to realize that you've lost focus and return your attention to the appropriate subject more quickly.

### **Increases Emotional Stability**

When the brain is able to separate emotional reactions from rational reactions, it creates a more stable and consistent mental state.

Meditation helps keep the parts of the brain that lead to sadness and worrying in check, while also training the parts of the brain that deal with happiness and letting go of negative feelings.

### **Trains The Dorsomedial Prefrontal Cortex**

Meditation increases grey matter in the dorsomedial prefrontal cortex deals with your ability to handle information in regards to people you perceive as being different from you. Taking in more details and literally thinking more about people that are different allows you to be more empathetic to them, relating to them despite your differences.

### **Decreases Connection To Fear Centers**

Meditation also helps you control the areas of your brain that control fear. It teaches you to see through fear by weakening its connections to the part of the brain the leads to anxiety, which allows you to act despite feelings of fear.

### **Increases Grey Matter In The Anterior Cingulate Cortex**

By improving the size and strength of the anterior cingulate cortex, you brain is better able to handle multiple cognitive functions at once. This allows you to think more quickly and handle situations that would otherwise be cognitively distracting, such as a read flashing warning sign while listening to a warning siren announcement.

### **Decreases Anger**

There are several areas of the brain that control your anger, most notably the area that deals with your emotional responses. By decreasing the strength of that area, and severing its connections with the part that leads to feeling angry, you can better handle situations that would make you mad.

Meditation also helps you analyze these situations more rationally, also reducing the occurrence of anger.