

## **Meditation Connects Your Mind and Body**

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✓ Fact Checked

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#### **STORY AT-A-GLANCE**

- > Evidence shows your mind and body are intricately connected in fact, thousands of genes have been identified that appear to be directly influenced by your subjective mental state
- Along with eating a healthy diet, getting a variety of exercise and ensuring proper sleep, meditation is a daily life-giving practice I highly recommend
- > Meditative practices have been shown to reduce your risk for heart disease by lowering your blood pressure, cortisol and heart rate and optimizing LDL cholesterol, as well as improving your overall stress level
- > Specific types of meditation, such as those focused on attention control, emotions and theory of mind, have been shown to have positive effects on your brain

# This article was previously published January 4, 2018, and has been updated with new information.

I believe meditation practice can be an important part of health and well-being. Meditation not only is a powerful means of relaxing, but also useful for addressing anxiety, managing pain, preventing disease and relieving stress.

#### **Meditation Reduces Your Risk of Heart Disease and More**

There is growing evidence demonstrating your mind and body are intricately connected, and wide acceptance that whatever is going on in your mind has some bearing on your physical health. Brain imaging has shown meditation alters your brain in beneficial ways, and scientists have identified thousands of genes that appear to be directly influenced by your subjective mental state. The mind-body connection is real, and what you think does affect your health.

In fact, research<sup>1</sup> suggests a persistent negative state of mind is a risk factor for heart disease. Conversely, happiness, optimism, life satisfaction and other positive psychological states are associated with a lower risk of heart disease.

The study authors said:<sup>2</sup> "[The] findings suggest that positive psychological well-being protects consistently against cardiovascular disease, independently of traditional risk factors and ill-being. Specifically, optimism is most robustly associated with a reduced risk of cardiovascular events."

While some people appear to be born with a sunnier disposition than others, meditation has been shown to boost optimism and help regulate mood. Meditative practices have also been shown to help optimize your LDL cholesterol and lower your:<sup>3</sup>

- Blood pressure
- Cortisol
- Heart rate

Such findings are consistent with a downregulation of your hypothalamic-pituitaryadrenal axis and sympathetic nervous system, both of which are overactivated by stress. Stress is also a well-known risk factor for heart disease, making meditation all the more important. In addition to promoting heart health, meditation:<sup>4</sup>

Boosts emotional health and well-being	Encourages self-awareness
Helps fight addictions	Improves sleep

Increases feelings of compassion and kindness	Lengthens attention span
Lessens anxiety and depression	Manages pain
Promotes concentration and memory	Reduces stress

## **Your Brain Benefits From Meditation**

Meditation can be considered a form of "mental exercise" for your brain. The goal is to continually draw your attention to your breath to the exclusion of everything else. Whenever your mind wanders, you seek to gently bring it back to your breath. According to Forbes.com, meditation helps us connect with and leverage our minds:<sup>5</sup>

"Through meditation, we get better acquainted with the behavior of our minds, and we enhance our ability to regulate our experience of our environment, rather than letting our environment dictate how we experience life.

With recent neuroscientific findings, meditation as a practice has been shown to literally rewire brain circuits that boost both mind and body health. These benefits of meditation have surfaced alongside the revelation that the brain can be deeply transformed through experience — a quality known as 'neuroplasticity.'''

Indeed, neuroplasticity allows the nerve cells in your brain to adjust to new situations and changes in their environment. The short-term effects of meditation include enhancing attention, inhibiting inflammation, lowering blood pressure and reducing stress.

Long-term meditation benefits, reaped over time with consistent practice, include enhanced empathy and kindness, greater emotional resilience and increased gray matter in brain regions related to memory and emotional processing. As noted in one of the largest studies<sup>6</sup> to date on meditation and the human brain, different types of meditation produce different changes to your brain.

Neuroscience researchers at Germany's Max Planck Institute of Human Cognitive and Brain Sciences conducted a meditation program through which 300 participants were examined with respect to three different types of meditation, for three months each.

Brain scans performed after each three-month program showed more gray matter in regions of the brain involved in each type of meditation, as compared to scans from the control group. The focal point for each type of meditation and the brain changes elicited were as follows:<sup>7,8</sup>

Type of Meditation	Meditation Focused On	Brain Region Showing Increased Gray Matter
ATTENTION (MINDFULNESS)	Mindful attention to breath and body	Prefrontal cortex and parietal lobes, both of which are linked to attention control
COMPASSION	Emotional connections established through loving-kindness meditations and partner- based problem-sharing sessions	Limbic system, which processes emotions, and anterior insula, which assists in bringing emotions into conscious awareness
<b>COGNITIVE SKILLS</b>	Thinking about issues from different perspectives through both partner activities and individual meditation	Regions involved in theory of mind, which helps attribute thoughts, desires and intentions to others as a means of predicting or explaining their actions

The study authors suggested additional research is needed to evaluate the effectiveness of meditation training for individuals suffering from social cognition deficits, such as those related to autism or psychopathy. Other areas of potential future work include meditation-related training to increase cooperation and well-being in corporate settings and social intelligence in children. About the current outcomes, the study authors stated:<sup>9</sup>

"[O]ur findings of structural plasticity in healthy adults in faculties relevant to social intelligence and social interactions suggest that the type of mental training matters.

Depending on whether participants' daily [meditation] practice focused on cultivating socio-emotional capacities (compassion and prosocial motivation) or socio-cognitive skills (putting oneself into the shoes of another person), gray matter increased selectively in areas supporting these functions. Our findings suggest a potential biological basis for how mindfulness and different aspects of social intelligence could be nurtured."

## **Reduce and Manage Stress With Meditation**

Stress is one of the biggest challenges facing U.S. adults, with many reporting the negative impact stress has on their mental and physical health. The American Psychological Association's 2015 Stress in America survey revealed a sizable portion of adults did not feel they were doing enough to manage their stress.<sup>10</sup> Nearly half of Americans said they engage in stress management activities just a few times a month or less, while 18% said they never do.

Nearly 40% reported overeating or eating unhealthy foods as a result of stress, while 46% said they lie awake at night due to high stress levels. In October 2021, the APA reported new findings after more than two years under the pandemic. In that report:<sup>11</sup>

 32% said sometimes they are so stressed about the coronavirus pandemic that they struggle to make even basic decisions, such as what to wear or eat

- 48% of millennials said they were particularly affected in this way
- 63% of all respondents said that uncertainty about what the next few months will be like causes them stress
- 49% said the pandemic makes planning for their future feel impossible
- 45% of Gen Z adults and 50% of millennials said they do not know how to manage the stress they feel due to the pandemic

Given the extent of stress and its far-reaching effects, meditation is a simple technique you can practice anytime, anywhere to alleviate stress. If you are not sure where to begin, gratitude can be a great focal point for lower stress.

Simply reflecting on things for which you can be thankful (versus what is irritating or lacking) can do wonders to energize your mood and ratchet down your stress levels. One type of meditation easily applied to virtually any activity is called "mindfulness," which involves paying attention to the moment you're in right now.

Rather than letting your mind wander, you actively choose to live in the current moment, while letting distracting thoughts pass through your mind without getting caught up in them.

You can incorporate mindfulness into virtually any aspect of your day – eating, doing household chores, driving or working – simply by reining in your mind and paying attention to the sensations you are experiencing in the present moment. In a 2017 study,<sup>12</sup> 70 adults with generalized anxiety disorder who completed a Mindfulness-Based Stress Reduction (MBSR) class fared better when facing stressful situations than those who were trained in stress-management techniques alone.

In the MBSR class, participants learned elements of mindfulness meditation, including paying attention to the present moment, as well as gentle yoga and body scan meditation. The MBSR group reported meditation helps reduce stress. Notably, their physical measures of stress were also lower, including the stress hormone ACTH (adrenocorticotropic hormone) and proinflammatory cytokines, which are markers of inflammation.

#### **Essential Oils Are a Wonderful Accompaniment to Meditation**

Essential oils can enhance your meditation experience by promoting relaxation, peacefulness and mental clarity. If you have trouble calming your mind when meditating, try incorporating essential oils, which have even been shown to help attention deficit hyperactivity disorder (ADHD). You can use essential oils during meditation by:

- Diffusing oils into the air When essential oils are diffused into the air through an essential oil diffuser, they help stimulate your senses and promote relaxation during meditation.
- Applying oils directly to your skin Apply essential oils to pulse points and the bottoms of your feet, or your wrists for self-directed inhalation as you meditate. You can also apply a drop or two of essential oil to any bodily area that becomes a distraction during meditation.

When you inhale the fragrance of an essential oil, the aroma penetrates your bloodstream via your lungs. This is thought to be one of the mechanisms by which aromatherapy exerts its physiological effects. The fragrance affects your brain's limbic system, which controls both memories and emotions.

While it would be difficult to state all of their benefits for meditation, essential oils have shown particular promise in alleviating stress, boosting your energy, enhancing your sleep, improving your memory, reducing nausea and pain and stabilizing your mood.

Many essential oils have antibacterial, antifungal and/or antiviral qualities and, unlike antibiotics, they do not promote resistance.<sup>13</sup> Essential oils are a great way to enhance your meditation experience,<sup>14</sup> and you will receive maximum benefits if you use 100% pure, therapeutic-grade essential oils derived from the highest quality ingredients.

Bergamot, lavender, lemon, peppermint, pine, vetiver and ylang ylang have been shown to be effective in reducing stress, while clary sage, lavender, orange, Roman chamomile and sandalwood are a few of the oils used to soothe anxiety.<sup>15</sup>

#### **Seven Tips for Leveraging Your Mind-Body Connection**

According to The Chopra Center, those who practice mind-body medicine recognize the interconnection of all things — your mind, body and surrounding environment. As such, every breath puts you in harmony, or sets you at odds, with whatever is going on in and around you. That said, health is best defined as a state of optimal well-being, wholeness and vitality, not simply the absence of disease. About the mind-body connection, the editors at Chopra.com suggest:<sup>16</sup>

"Since the body and mind are inextricably connected, every time [you] have a thought, [you] set off a cascade of cellular reactions in [y]our nervous system that influence all the molecules in [y]our body.

[Yo]ur cells are constantly observing [y]our thoughts and being changed by them ... [You] have amazing potential to heal and transform [yourself] through [y]our thoughts, perceptions, and choices. The body is a magnificent network of intelligence, capable of far more than current medical science can explain."

The following tips will help you maintain a healthy balance of dialogue between your mind and your body. When your thoughts and physical nature are in harmony, you are more likely to listen to your body, treat it well and make choices that support your well-being. To cultivate your personal mind-body connection, each day you may want to:<sup>17</sup>

- Take time to quiet your mind and meditate Research led by a team from Massachusetts General Hospital<sup>18</sup> found that as little as eight weeks of meditation induced not only calmness, but also produced positive brain changes. Areas of the brain affected by meditation included those responsible for empathy, memory and stress regulation.
- 2. Eat a healthy diet Eating a diet filled with organic fruits and vegetables, plenty of healthy fats and moderate amounts of grass fed meat is vital to nourishing your body and fueling your mind. Be sure to eat mindfully and chew your food well.

- 3. Engage in daily exercise and nonexercise movement Exercise not only benefits your body, but also energizes your mind and promotes emotional well-being. Whatever you choose, be sure your program includes a range of activities such as core training, stretching and weight training.
- 4. Get adequate sleep I cannot emphasize enough the importance of getting sufficient, high-quality sleep every night. Most adults need about eight hours of sleep for proper brain and immune function. In addition, adequate sleep enables you to better handle stressful situations.
- 5. Release toxic emotions If you make a habit of harboring unprocessed feelings such as anger, disappointment and hurt, you may be unknowingly infecting yourself with toxic emotions that drag down your mind and body. The Emotional Freedom Techniques (EFT) is a great tool to release emotional toxins. EFT has been shown to be especially helpful in soothing anxiety.
- **6. Cultivate loving relationships** A strong social support network is vital to your mental and physical health. Loneliness has been shown to be more hazardous to your health than obesity or smoking. If your network of friends is small, consider volunteering.
- 7. Enjoy laughter Some suggest laughter is the best medicine, and scientific research supports the belief that laughter boosts your immune system and curbs the production of stress hormones. If you haven't laughed in a while, the laughing baby in the video below is just what this doctor recommends to lighten your mood.

#### **Sources and References**

- <sup>1, 2</sup> Psychological Bulletin July 2012; 138(4): 655-691
- <sup>3</sup> Harvard Health Publications, Harvard Medical School August 2013
- <sup>4</sup> Mayo Clinic. Meditation: A Simple, Fast Way to Reduce Stress
- <sup>5</sup> Forbes.com May 15, 2017
- <sup>6, 9</sup> Science Advances October 4, 2017; 3(10): e1700489
- <sup>7</sup> LIVESCIENCE October 5, 2017
- <sup>8</sup> New Scientist October 4, 2017

- <sup>10</sup> American Psychological Association, 2015 Stress in America
- <sup>11</sup> APA. Stress in America 2021, October 25, 2021
- <sup>12</sup> Psychiatry Research January 25, 2017 [Epub ahead of print]
- <sup>13</sup> BMC Complementary Medicine and Therapies, April 17, 2021
- <sup>14</sup> AromaWeb. Meditating With Essential Oils
- <sup>15</sup> Organic Facts, 10 Amazing Benefits of Essential Oils
- <sup>16, 17</sup> The Chopra Center, 7 Tips for Mind-Body Balance
- <sup>18</sup> Psychiatry Research January 30, 2011; 191(1): 36–43