

backgrounder

Meditation: An Introduction

Meditation is a mind-body practice in complementary and alternative medicine (CAM). There are many types of meditation, most of which originated in ancient religious and spiritual traditions. Generally, a person who is meditating uses certain techniques, such as a specific posture, focused attention, and an open attitude toward distractions. Meditation may be practiced for many reasons, such as to increase calmness and physical relaxation, to improve psychological balance, to cope with illness, or to enhance overall health and well-being. This Backgrounder provides a general introduction to meditation and suggests some resources for more information.

Key Points

- People practice meditation for a number of health-related purposes.
- It is not fully known what changes occur in the body during meditation; whether they influence health; and, if so, how. Research is under way to find out more about meditation's effects, how it works, and diseases and conditions for which it may be most helpful.
- Tell your health care providers about any complementary and alternative practices you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care.

Overview

The term *meditation* refers to a group of techniques, such as mantra meditation, relaxation response, mindfulness meditation, and Zen Buddhist meditation. Most meditative techniques started in Eastern religious or spiritual traditions. These techniques have been used by many different cultures throughout the world for thousands of years. Today, many people use meditation outside of its traditional religious or cultural settings, for health and well-being.

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In meditation, a person learns to focus attention. Some forms of meditation instruct the practitioner to become mindful of thoughts, feelings, and sensations and to observe them in a nonjudgmental way. This practice is believed to result in a state of greater calmness and physical relaxation, and psychological balance. Practicing meditation can change how a person relates to the flow of emotions and thoughts.

Most types of meditation have four elements in common:

- **A quiet location.** Meditation is usually practiced in a quiet place with as few distractions as possible. This can be particularly helpful for beginners.
- **A specific, comfortable posture.** Depending on the type being practiced, meditation can be done while sitting, lying down, standing, walking, or in other positions.
- **A focus of attention.** Focusing one's attention is usually a part of meditation. For example, the meditator may focus on a mantra (a specially chosen word or set of words), an object, or the sensations of the breath. Some forms of meditation involve paying attention to whatever is the dominant content of consciousness.
- **An open attitude.** Having an open attitude during meditation means letting distractions come and go naturally without judging them. When the attention goes to distracting or wandering thoughts, they are not suppressed; instead, the meditator gently brings attention back to the focus. In some types of meditation, the meditator learns to "observe" thoughts and emotions while meditating.

Meditation used as CAM is a type of mind-body medicine. Generally, mind-body medicine focuses on:

- The interactions among the brain/mind, the rest of the body, and behavior
- The ways in which emotional, mental, social, spiritual, and behavioral factors can directly affect health.

Uses of Meditation for Health in the United States

A 2007 national Government survey that asked about CAM use in a sample of 23,393 U.S. adults found that 9.4 percent of respondents (representing more than 20 million people) had used meditation in the past 12 months—compared with 7.6 percent of respondents (representing more than 15 million people) in a similar survey conducted in 2002. The 2007 survey also asked about CAM use in a sample of 9,417 children; 1 percent (representing 725,000 children) had used meditation in the past 12 months.

People use meditation for various health problems, such as:

- Anxiety
- Pain

- Depression
- Stress
- Insomnia
- Physical or emotional symptoms that may be associated with chronic illnesses (such as heart disease, HIV/AIDS, and cancer) and their treatment.

Meditation is also used for overall health and well-being.

Examples of Meditation Practices

Mindfulness meditation and Transcendental Meditation (also known as TM) are two common forms of meditation. NCCAM-sponsored research projects are studying both types of meditation.

Mindfulness meditation is an essential component of Buddhism. In one common form of mindfulness meditation, the meditator is taught to bring attention to the sensation of the flow of the breath in and out of the body. The meditator learns to focus attention on what is being experienced, without reacting to or judging it. This is seen as helping the meditator learn to experience thoughts and emotions in normal daily life with greater balance and acceptance.

The TM technique is derived from Hindu traditions. It uses a mantra (a word, sound, or phrase repeated silently) to prevent distracting thoughts from entering the mind. The goal of TM is to achieve a state of relaxed awareness.

How Meditation Might Work

Practicing meditation has been shown to induce some changes in the body. By learning more about what goes on in the body during meditation, researchers hope to be able to identify diseases or conditions for which meditation might be useful.

Some types of meditation might work by affecting the autonomic (involuntary) nervous system. This system regulates many organs and muscles, controlling functions such as heartbeat, sweating, breathing, and digestion. It has two major parts:

- The **sympathetic nervous system** helps mobilize the body for action. When a person is under stress, it produces the “fight-or-flight response”: the heart rate and breathing rate go up and blood vessels narrow (restricting the flow of blood).
- The **parasympathetic nervous system** causes the heart rate and breathing rate to slow down, the blood vessels to dilate (improving blood flow), and the flow of digestive juices to increase.

It is thought that some types of meditation might work by reducing activity in the sympathetic nervous system and increasing activity in the parasympathetic nervous system.

In one area of research, scientists are using sophisticated tools to determine whether meditation is associated with significant changes in brain function. A number of researchers believe that these changes account for many of meditation's effects.

It is also possible that practicing meditation may work by improving the mind's ability to pay attention. Since attention is involved in performing everyday tasks and regulating mood, meditation might lead to other benefits.

A 2007 NCCAM-funded review of the scientific literature found some evidence suggesting that meditation is associated with potentially beneficial health effects. However, the overall evidence was inconclusive. The reviewers concluded that future research needs to be more rigorous before firm conclusions can be drawn.

Side Effects and Risks

Meditation is considered to be safe for healthy people. There have been rare reports that meditation could cause or worsen symptoms in people who have certain psychiatric problems, but this question has not been fully researched. People with physical limitations may not be able to participate in certain meditative practices involving physical movement. Individuals with existing mental or physical health conditions should speak with their health care providers prior to starting a meditative practice and make their meditation instructor aware of their condition.

If You Are Thinking About Using Meditation Practices

- Do not use meditation as a replacement for conventional care or as a reason to postpone seeing a doctor about a medical problem.
- Ask about the training and experience of the meditation instructor you are considering.
- Look for published research studies on meditation for the health condition in which you are interested.
- Tell all your health care providers about any complementary and alternative practices you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care. For tips about talking with your health care providers about CAM, see NCCAM's Time to Talk campaign at nccam.nih.gov/timetotalk/.

NCCAM-Funded Research

Some recent NCCAM-supported studies have been investigating meditation for:

- Relieving stress in caregivers for elderly patients with dementia
- Reducing the frequency and intensity of hot flashes in menopausal women
- Relieving symptoms of chronic back pain
- Improving attention-related abilities (alerting, focusing, and prioritizing)
- Relieving asthma symptoms.

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For More Information

NCCAM Clearinghouse

The NCCAM Clearinghouse provides information on CAM and NCCAM, including publications and searches of Federal databases of scientific and medical literature. The Clearinghouse does not provide medical advice, treatment recommendations, or referrals to practitioners.

Toll-free in the U.S.: 1-888-644-6226

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Web site: www.ncbi.nlm.nih.gov/sites/entrez

CAM on PubMed®: nccam.nih.gov/research/camonpubmed/

ClinicalTrials.gov

ClinicalTrials.gov is a database of information on federally and privately supported clinical trials (research studies in people) for a wide range of diseases and conditions. It is sponsored by the National Institutes of Health and the U.S. Food and Drug Administration.

Web site: www.clinicaltrials.gov

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