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# Asthma

Asthma is a chronic lung disease that affects people of all ages. It causes episodes of wheezing, coughing, shortness of breath, and chest tightness. Although there is no cure, most people with asthma are able to manage the disease with medications and behavioral changes.

Researchers also are studying various complementary health approaches for asthma relief. This fact sheet provides basic information about asthma, summarizes scientific research on the effectiveness and safety of complementary health approaches for asthma, and suggests sources for additional information.

## Key Points

- Conventional medical treatments are very effective for managing asthma symptoms. See your health care provider to discuss a comprehensive medical treatment plan for your asthma.
- There is not enough evidence to support the use of any complementary health approaches for the relief of asthma.
- Tell all your health care providers about any complementary health approaches you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care.

## About Asthma

In asthma, the airways that carry air into and out of the lungs become irritated, inflamed, and narrowed. The muscles around the airways tighten and the cells in the airway produce more mucus than normal. This makes it difficult for air to flow into and out of the lungs and causes wheezing, shortness of breath, and other symptoms.

More than 24 million people in the United States have been diagnosed with asthma, including approximately 7 million children. It is not known why some people develop asthma, but the tendency runs in families and the chance of having the disease appears to be increasing, especially among children.

Conventional treatment for asthma focuses on preventing attacks and relieving symptoms once an attack is underway. Prevention may include avoiding “asthma

## Asthma

triggers” (the things that can set off or worsen symptoms) or taking medicine every day to prevent symptoms.

Once an asthma attack is underway, quick-relief medications may be used to relax muscles around the airways and open up airways so air can flow through them. Prevention techniques are generally preferred over quick-relief medications.

For more information about asthma, visit the National Heart, Lung, and Blood Institute Web site at <http://www.nhlbi.nih.gov/health/health-topics/topics/asthma>.

## Complementary Health Approaches for Asthma

Most people are able to control their asthma with conventional therapies and by avoiding the substances that can set off asthma attacks. Even so, some people turn to complementary health approaches in their efforts to relieve symptoms. According to the 2002 National Health Interview Survey (NHIS), which included a comprehensive survey on the use of complementary health approaches by Americans, asthma ranked 13th as a condition prompting use of complementary health approaches by adults; 1.1 percent of respondents (an estimated 788,000 adults) said they had used a complementary approach for asthma in the past year. In the 2007 NHIS survey, which included adults and children, asthma ranked eighth among conditions prompting use of complementary health approaches by children, but did not appear in a similar ranking for adults.

## What the Science Says About Complementary Health Approaches and Asthma

According to reviewers who have assessed the research, there is not enough evidence to support the use of any complementary health approaches for the relief of asthma.

- Several studies have looked at actual or true **acupuncture**—stimulation of specific points on the body with thin metal needles—for asthma. Although a few studies showed some reduction in medication use and improvements in symptoms and quality of life, the majority showed no difference between actual acupuncture and simulated or sham acupuncture on asthma symptoms. At this point, there is little evidence that acupuncture is an effective treatment for asthma.
- There has been renewed patient interest in **breathing exercises** or **retraining** to reduce hyperventilation, regulate breathing, and achieve a better balance of carbon dioxide and oxygen in the blood. A review of seven randomized controlled trials found a trend toward improvement in symptoms with breathing techniques but not enough evidence for firm conclusions.
- A 2011 study examined the placebo response in patients with chronic asthma and found that patients receiving a placebo (placebo inhaler and simulated acupuncture) reported significant improvement in symptoms such as chest tightness and perception of difficulty breathing. However, lung function did not improve in these patients. This is an important distinction because although the patients felt better, their risk for becoming very sick from untreated asthma was not lessened.

## Asthma

### NCCIH-Funded Research

NCCIH is currently funding studies to determine whether:

- Mindfulness meditation practices might help manage symptoms or improve quality of life for people with asthma
- Vitamin E might reduce lung inflammation in mice and humans with allergic asthma
- Borage oil or *Ginkgo biloba* might reduce airway inflammation
- Under-the-tongue (sublingual) immunotherapy might build tolerance to substances that trigger allergic asthma.

### If You Are Considering Complementary Health Approaches for Asthma

- Conventional medical treatments are very effective for managing asthma symptoms. See your health care provider to discuss a comprehensive medical treatment plan for your asthma.
- Do not use any complementary approaches to postpone seeing your health care provider about asthma-like symptoms or any health problem.
- Do not replace conventional treatments for asthma with unproven products or practices.
- Keep in mind that dietary supplements can act in the same way as drugs. They can cause health problems if not used correctly or if used in large amounts, and some may interact with medications you take. Your health care provider can advise you. If you are pregnant or nursing a child, or if you are considering giving a child a dietary supplement, it is especially important to consult your (or your child's) health care provider. To learn more, see the NCCIH fact sheet *Using Dietary Supplements Wisely* at [nccih.nih.gov/health/supplements/wiseuse.htm](http://nccih.nih.gov/health/supplements/wiseuse.htm).
- Tell all your health care providers about any complementary or integrative health approaches you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care.

### For More Information

#### NCCIH Clearinghouse

The NCCIH Clearinghouse provides information on NCCIH and complementary and integrative health approaches, 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

TTY (for deaf and hard-of-hearing callers): 1-866-464-3615

Web site: [nccih.nih.gov](http://nccih.nih.gov)

E-mail: [info@nccih.nih.gov](mailto:info@nccih.nih.gov)

#### PubMed®

A service of the National Library of Medicine (NLM), PubMed contains publication information and (in most cases) brief summaries of articles from scientific and medical journals.

Web site: [www.ncbi.nlm.nih.gov/sites/entrez](http://www.ncbi.nlm.nih.gov/sites/entrez)

## Asthma

### NIH Clinical Research Trials and You

The National Institutes of Health (NIH) has created a Web site, NIH Clinical Research Trials and You, to help people learn about clinical trials, why they matter, and how to participate. The site includes questions and answers about clinical trials, guidance on how to find clinical trials through [ClinicalTrials.gov](http://ClinicalTrials.gov) and other resources, and stories about the personal experiences of clinical trial participants. Clinical trials are necessary to find better ways to prevent, diagnose, and treat diseases.

Web site: [www.nih.gov/health/clinicaltrials/](http://www.nih.gov/health/clinicaltrials/)

### National Heart, Lung, and Blood Institute (NHLBI)

NHLBI provides global leadership for a research, training, and education program to promote the prevention and treatment of heart, lung, and blood diseases.

Web site: [www.nhlbi.nih.gov/](http://www.nhlbi.nih.gov/)

National Asthma Control Initiative: [www.nhlbi.nih.gov/health/prof/lung/asthma/naci/](http://www.nhlbi.nih.gov/health/prof/lung/asthma/naci/)

### MedlinePlus

To provide resources that help answer health questions, MedlinePlus (a service of the National Library of Medicine) brings together authoritative information from National Institutes of Health as well as other Government agencies and health-related organizations.

Web site: [www.medlineplus.gov](http://www.medlineplus.gov)

Information on asthma: [www.nlm.nih.gov/medlineplus/asthma.html](http://www.nlm.nih.gov/medlineplus/asthma.html)

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What Is Asthma? National Heart, Lung, and Blood Institute Web site. Accessed at [www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma\\_WhatIs.html](http://www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma_WhatIs.html) on March 19, 2012.

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**Asthma**

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