Asthma

Asthma is a lung disorder in which spasms of the bronchial passages restrict the flow of air in and out of the lungs. The number of people with asthma and the death rate from this condition have been increasing since the late 1980s. Environmental pollution may be one of the causes of this growing epidemic.

**Dietary and other natural therapies that may be helpful:** A vegan (pure vegetarian) diet given for one year in conjunction with many specific dietary changes (such as avoidance of caffeine, sugar, salt, and chlorinated tap water) and combined with a variety of herbs and supplements led to significant improvement in a group of asthmatics.\(^1\) Although sixteen out of twenty-four people who continued the intervention for the full year were much better and one person was actually cured, it remains unclear how much of the action was purely a result of the dietary changes compared with the many other therapies employed.

Although most people with asthma do not suffer from food allergies,\(^2\) unrecognized food allergy can be an exacerbating factor.\(^3\) A medically supervised “allergy elimination diet” followed by reintroduction of the eliminated foods often helps identify problematic foods. A healthcare professional must supervise this allergy test, because there is a chance of triggering a severe asthma attack during the reintroduction.\(^4\)
Some asthmatics react to food additives, such as sulfites, tartrazine (yellow dye #5), aspirin, and aspirin-like substances found in foods called natural salicylates. A nutritionally oriented doctor or an allergist can help determine whether chemical sensitivities are present.

Ionized air may also play a role in allergies. Research suggests that some allergy-provoking substances, such as dust and pollen, have a positive electrical charge. Meanwhile, negative ions appear to counteract the allergenic actions of these positively charged ions on respiratory tissues. Negative ions generally lead to favorable actions, and many individuals experience relief from their respiratory allergies. Other allergy sufferers report considerable relief, with a few allergy reactions resolving completely, after negative ion therapy. The majority of allergy sufferers appear to be able to reduce reliance on other treatments (nutritional, biochemical, or prescription) during negative ion therapy.

A set of breathing exercises called Buteyko breathing techniques has been reported to significantly reduce the need for prescription drugs for people with asthma. Although the people in this blinded randomized trial had improved quality of life while doing these exercises, objective measures of breathing capacity did not improve despite the decreased need for drugs.

**Nutritional supplements that may be helpful:** Vitamin B6 deficiency is common in asthmatics. This deficiency may relate to the asthma itself or to certain asthma drugs.
such as theophylline and aminophylline) that deplete vitamin B6. In a double blind study of asthmatic children, 200 mg per day of vitamin B6 for two months reduced the severity of their illness and reduced the amount of asthma medication needed. In another study, asthmatic adults experienced a dramatic decrease in the frequency and severity of asthma attacks while taking 50 mg of vitamin B6 twice a day. Nonetheless, the research remains somewhat inconsistent, and at least one double blind study did not find high levels of B6 to help asthmatics who require the use of steroid drugs.

Magnesium levels are frequently low in asthmatics. Magnesium supplements might help prevent asthma attacks because magnesium can prevent spasms of the bronchial passages. Intravenous injection of magnesium has been reported to stop acute asthma attacks within minutes in double blind research. Although the effect of oral magnesium has not been appropriately studied, many doctors recommend magnesium supplements for their asthma patients. The usual amount of magnesium taken by an adult is 200–400 mg per day (children take proportionately less based on their body weight).

Supplementation with 1 gram of vitamin C per day reduces the tendency of the bronchial passages to go into spasm, an action that has been confirmed in double blind research. Some individuals with asthma have shown improvement after taking 1–2 grams of vitamin C per day. A buffered form of vitamin C (such as sodium ascorbate or
calcium ascorbate) may work better for some asthmatics than regular vitamin C (ascorbic acid).18

Very high amounts of vitamin B12 supplements (1,500 mcg per day) have been found to reduce the tendency for asthmatics to react to sulfites.19 The trace mineral molybdenum also helps the body detoxify sulfite,20 though the ability of supplemental molybdenum to help asthma patients remains mostly unexplored. A nutritionally oriented physician should be involved in any evaluation and treatment of sulfite sensitivity.

People with low levels of selenium have a high risk of asthma.21 22 Asthma involves free radical damage23 that selenium might protect against. A double blind trial gave 45 mcg of selenium to twelve people with asthma.24 Half showed clear clinical improvement even though lung function tests did not change. Most doctors of natural medicine recommend 200 mcg per day for adults (and proportionately less for children)—a much higher, though still safe level.

Double blind research shows that fish oil partially reduces reactions to allergens that can trigger attacks in some asthmatics.25 Although a few researchers report small but significant improvements when asthmatics supplement fish oil,26 27 a review of the research shows that most fish oil studies with asthmatics come up empty handed.28 Nonetheless, there is evidence that children who eat oily fish may have a much lower risk of getting asthma.29 Therefore, even though evidence supporting the use of fish
oils remains weak, eating more fish may still be worth considering.

Stomach levels of hydrochloric acid were reported to be low in asthmatic children many years ago. Supplementation with betaine HCl in combination with avoidance of known food allergens led to clinical improvement.30

Quercetin, a flavonoid found in most plants, has an inhibiting action on lipoxygenase, an enzyme that contributes to problems with asthma.31 No human studies have confirmed whether quercetin decreases asthma symptoms. Some nutritionally oriented doctors are currently experimenting with 400–1,000 mg of quercetin three times per day.

Bromelain reduces the thickness of mucus, which may be beneficial for those with asthma,32 though clinical actions in asthmatics remain unproven.

**Are there any side effects or interactions?** Refer to the individual supplement for information about any side effects or interactions.

**Herbs that may be helpful:** Ephedrine, an alkaloid extracted from ephedra, is an approved over-the-counter treatment for bronchial tightness associated with asthma.33 Over-the-counter drugs containing ephedrine can be safely used by adults in the amount of 12.5–25 mg every four hours. Adults should take a total dose of no more than 150 mg every twenty-four hours. They should refer to labels for
children’s dosages. Ephedrine has largely been replaced by other bronchodilating drugs, such as alupent and albuterol. *Ephedra sinica*, also known as ma huang, continues to be a component of traditional herbal preparations for asthma, often in amounts of 1–2 grams of the herb per day.

Traditionally, herbs that have a soothing action on bronchioles are also used for asthma. These would include marshmallow, mullein, and licorice.

Ginkgo extracts have been considered a potential therapy for asthma for some time. This is because the extracts block the action of platelet-activating factor (PAF), a compound the body produces that in part causes asthma symptoms. A study using isolated ginkgolides from ginkgo (not the whole extract) found they reduced asthma symptoms.34 A controlled study used a highly concentrated tincture of ginkgo leaf and found this helped decrease asthma symptoms.35 For asthma, 120–240 mg of standardized extract or 3–4 ml of regular tincture three times daily can be used.

Eclectic physicians—doctors at the turn of the century in North America who used herbs as their main medicine—considered lobelia to be one of the most important plant medicines.36 Traditionally, it was used by Eclectics to treat coughs and spasms in the lungs from all sorts of causes.37
Are there any side effects or interactions? Refer to the individual herb for information about any side effects or interactions.

References:

3. Rowe AH, Young EJ. Bronchial asthma due to food allergy alone in ninety-five patients. JAMA 1959;169:1158.
