

Elderberry

A cough is a symptom, not a disease. Take it to your doctor and he can give you something serious to worry about.

Robert Morley (1908–1992), English actor

OVERVIEW

Elderberry (*Sambucus nigra*) is native to Europe, Africa, and parts of Asia, but it has become widespread in the United States. *Sambucus canadensis*, also known as American black elderberry, is a species of elderberry native to a large area of North America east of the Rocky Mountains and south through eastern Mexico and Central America to Panama.

Elderberry flowers and fruit (berries) have been used in folk remedies for centuries in North America, Europe, western Asia, and North Africa and are widely used in herbal medicine today. Often referred to as “nature’s medicine chest,” elderberry is most recognized for its immune-supporting properties and its ability to fight viral and bacterial infections. In the early 1990s, elderberry extract was used to effectively treat flu symptoms during an influenza epidemic in Panama. Currently no satisfactory medication is available that can cure influenza types A and B, but elderberry extract, with its promising clinical trials, low cost, and absence of side effects, could potentially offer a safe treatment.

Elderberries are rich in vitamin C as well as anthocyanins, one of the most widely studied flavonoid categories. Anthocyanins, which have impressive antioxidant capacities and immunostimulant effects, are the water-soluble pigments responsible for the dark red-purple color found in certain flowers, fruits, and vegetables. The darker the berry, the more anthocyanins are present. Elderberries contain nearly four times the anthocyanins as other commonly consumed berries, outranking blackberries, blueberries, cranberries, and goji berries in total flavonoid content. The anthocyanins and other flavonoids in elderberry, including quercetin, are believed to account for the therapeutic actions of the plant’s berries and flowers.

Elderberry has been used for centuries to treat wounds when applied to the skin. Some evidence suggests that chemicals in the berries and flowers may have anticancer and anti-inflammatory effects and may help reduce swelling in mucous membranes, including the sinuses, thereby relieving nasal congestion. Herbal practitioners often prescribe elderberry to treat the flu and other viral infections, reduce inflammation, and boost the immune system. The herb may also be prescribed to treat allergic rhinitis (hay fever), chronic fatigue syndrome, constipation, neuralgia (nerve pain), sciatica, and sinus pain, and to increase urine output and sweating. Elderberry is believed to help combat diabetes; research has shown that extracts of the flowers stimulate glucose metabolism and the secretion of insulin, which may help to lower blood sugar levels.

Sambucol brand products are based on a standardized black elderberry extract. These natural remedies have proven antiviral properties, especially against different strains of the influenza virus. In fact, Sambucol was shown to be effective in vitro against ten strains of the influenza virus. And in a double-blind, placebo-controlled, randomized study, Sambucol decreased the duration of flu symptoms to about three days. In addition to its antiviral properties, Sambucol elderberry extract and its formulations have been shown in studies to boost immune function by increasing inflammatory cytokine production, which benefits healthy individuals as well as people with a variety of diseases. Research also suggests that Sambucol could have immunoprotective and immunostimulant effects when administered to patients with acquired immune deficiency syndrome (AIDS), cancer, or human immunodeficiency virus (HIV) in conjunction with chemotherapy or related treatments.

Although there are several species of elderberry, *Sambucus nigra* and *Sambucus canadensis* are the ones typically used for medicinal purposes. Always use trusted preparations of elderberry because the raw and unripe fruit, as well as the bark, leaves, and seeds, contain a chemical related to cyanide, which is poisonous.

PRIMARY EFFECTS

Elderberry has the following key actions on the body:

BARK

- Diuretic
- Laxative
- Emollient (topical)
- Promotes vomiting (in large doses)

BERRIES

- Diaphoretic (promotes sweating)
- Diuretic
- Laxative

FLOWERS

- Anti-inflammatory
- Circulatory stimulant
- Diaphoretic (promotes sweating)
- Diuretic
- Expectorant
- Reduces phlegm

PLANT DESCRIPTION

Elderberry is a large, hardy, deciduous shrub that thrives in sunny areas in wet or dry soil and can reach heights of thirty feet. Its broad leaves grow in opposite pairs of five to seven leaflets and exude a distinctive aroma. The flowers are white and flat, topped with five primary rays. The berries turn from green to red to black, dark blue, or purple when ripe. The unripe (green and red) berries are toxic and should not be consumed; only the ripe black, blue, and purple berries of elderberry are edible and are used for medicinal purposes. The elderberry plant flowers in May to July and produces berries between September and October.

AVAILABLE FORMS

Elderberry is available in the following forms:

- Capsules
- Dried flowers
- Liquid extract
- Lozenges
- Syrup
- Tincture

Dried elderflowers are usually standardized to at least 0.8 percent flavonoids. Sambucol brand black elderberry products are standardized to 38 percent elderberry extract for adults and 19 percent for children. Sinupret (made by Bionorica) syrup and tablets contain 18 milligrams of elderflowers.

USAGE AND PRECAUTIONS

Do not give elderberry or any product containing any part of the plant to children without the approval and supervision of a pedia-

trician. Herbal remedies containing elderberry should be avoided by pregnant and breastfeeding women, as there is insufficient information regarding their safety.

The flowers and fruit of the elderberry plant contain a mildly poisonous alkaloid that is destroyed by cooking; the leaves are also poisonous. Never use unripe or raw (uncooked) elderberries, as they may be toxic.

Elderflowers and elderberries occasionally cause allergic reactions. When used for short periods (up to five days) in appropriate dosages, elderberry appears to have few side effects.

Because elderberry may stimulate the immune system, consult with your doctor before using it if you have an autoimmune disease, such as lupus or rheumatoid arthritis.

A standard dose of Sambucol brand black elderberry extract for adults is 4 tablespoons per day for three days to treat symptoms of the common cold and flu. A standard dose of Sinupret (made by Bionorica) for adults is 2 tablets taken three times per day for bacterial sinusitis. To make elderberry tea, steep 3–5 grams of dried elderflowers in 1 cup of boiling water for 10–15 minutes. Strain before serving. Drink 1 cup of the tea three times per day.

DRUG INTERACTIONS

Do not use elderberry if you are taking medications to suppress the immune system, including corticosteroids, as the herb may reduce their effectiveness. Organ transplant recipients who must take immunosuppressant drugs should not use elderberry. Avoid elderberry and products containing it except under a doctor's supervision if you are taking any of the following medications, as the herb may increase, decrease, or counteract their effects, or cause the drug to build up in the body:

- Chemotherapy drugs
- Corticosteroids (such as prednisone)
- Diabetes medication
- Diuretics (water pills)
- Immunosuppressants
- Insulin
- Laxatives
- Theophylline (a drug used to treat asthma and other respiratory conditions)