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Lobelia

Asthma weed; Bladderpod; Gagroot; Indian tobacco; Lobelia inflata; Pukeweed; Vomitroot



Lobelia (*Lobelia inflata*), also called Indian tobacco, has a long history of use as an herbal remedy for respiratory conditions such as asthma, bronchitis, pneumonia, and cough. Historically, Native Americans smoked lobelia as a treatment for asthma. In the 19th century, American physicians prescribed lobelia to induce vomiting in order remove toxins from the body. Because of this, it earned the name "puke weed." Today, lobelia is sometimes suggested to help clear mucus from the respiratory tract, including the throat, lungs, and bronchial tubes. Although few studies have evaluated the safety and effectiveness of lobelia, some herbalists today use lobelia as part of a comprehensive treatment plan for asthma.

Scientists think an active ingredient in the lobelia plant, lobeline, has similar effects to nicotine. For this reason, lobeline was once used as a nicotine substitute in many antismoking products and preparations designed to break the smoking habit. In 1993, the U.S. Food and Drug Administration (FDA) prohibited the sale of smoking products containing lobeline. The FDA reported that such products were not effective in helping people quit or reduce smoking.

Researchers now think that lobeline may actually reduce the effects of nicotine in the body, particularly the release of dopamine. Dopamine is a brain chemical that plays a number of important roles in the brain. It is also involved in drug addiction, so researchers think that lobeline may have some potential in treating addiction. So far, however, there have been no studies to determine whether lobeline is effective.

Lobelia is a potentially toxic herb. It can be safely used in small doses (particularly homeopathic doses), but moderate-to-large doses may cause side effects ranging from dry mouth and nausea to convulsions and even coma (see

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"Precautions" section). You should use lobelia only under the supervision of your the appropriate info (https://www.mountsinai.org/about/covid19), Vaccine Info (https://www.mountsinai.org/about/covid19/vaccine-information) and Vaccine Appointments (https://www.mountsinai.org/about/covid19/vaccine-information/schedule).

Plant Description

Lobelia is an attractive annual or sometimes biennial (reseeding every year or 2) herb that grows to a height of 3 feet. Its upright, hairy stem is angular, branching at the top, usually green with a tinge of violet. The pale green or yellowish leaves have a sharp taste and a slightly irritating odor. The sparse flowers are pale violet blue outside and pale yellow inside.

Parts Used

The above-ground portions of the lobelia plant (namely the leaves and seeds) are used for medicinal purposes.

Medicinal Uses and Indications

Few studies have examined at the effect of lobelia in either animals or people. It is sometimes suggested (usually in combination with other herbs) for the treatment of the following respiratory problems:

- Asthma
- Bronchitis
- Cough

In homeopathy, lobelia is also used alone or with other products for smoking cessation, muscle relaxation, nausea, vomiting, skin infections (bites, bruises, poison ivy, and ringworm), and various respiratory illnesses.

Available Forms

Lobelia is available in liquid extracts, tinctures, and as a dried herb in capsules and for teas. It may also be put on the skin in the form of ointments, lotions, and plastics.

How to Take It

Begin with low dosages and increase gradually, depending on response. Remember that even moderate doses can be toxic; herbal Lobelia should only

Adult

Lobelia comes in dried form to be used as a tea, liquid extract, tincture, and even vinegar tincture. Speak to a knowledgeable provider to find the right dose for you.

Precautions

The use of herbs is a time-honored approach to strengthening the body and treating disease. Herbs, however, contain substances that can trigger side effects and interact with other herbs, supplements, or medications. For these reasons, you should take herbs with care, under the supervision of a health care provider.

Lobelia is considered a potentially toxic herb. It can cause serious side effects, such as profuse sweating, nausea, vomiting, diarrhea, tremors, rapid heartbeat, mental confusion, convulsions, hypothermia, coma, and possibly even death. Check with your provider to determine the right dose for you, and do not exceed your provider's recommended dose.

People with high blood pressure, heart disease, liver disease, kidney disease, tobacco sensitivity, paralysis, seizure disorder, and shortness of breath, and those recovering from shock should not take lobelia.

Lobelia can irritate the GI tract. Lobelia may make symptoms worse for people with ulcers, Chron disease, inflammatory bowel disease (IBD), or intestinal infections.

Pregnant and breastfeeding women should also avoid this herb.

Possible Interactions

Few studies have looked at the effects of lobelia, so scientists are not clear about which medications might interact with this herb. Based on some of the chemicals contained in lobelia, use caution with the following medications:

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Psychiatric medications: Including antidepressants, Lithium, anti-anxiety a Gentle, latest syn FOND (Interpretation) and Laccine Appointments (https://www.mountsinai.org/about/covid19/vaccine-information) and Laccine Appointments (https://www.mountsinai.org/about/covid19/vaccine-information/schedule).

Nicotine substitutes: Such as nicotine patches or gum.

Chantix (varenicline): Chantix, a stop smoking medication, also affects dopamine levels in the brain.

Tobacco: Including cigarettes and smokeless tobacco.

Supporting Research

Auerbach, P. Auerbach: Wilderness Medicine. 5th ed. Philadelphia, PA: Elsevier Mosby; 2007.

Bradley P, ed. *British Herbal Compendium*. Vol. I. Dorset (Great Britain): British Herbal Medicine Association; 1992:149-150.

Brinker F. Herb Contraindications and Drug Interactions. 3rd ed. Sandy, OR: Eclectic Medical Publications; 2001:93-94.

Davison GC, Rosen RC. Lobeline and reduction of cigarette smoking. *Psychol Rep.* 1972;31:443-56.

Dwoskin LP, Crooks PA. A novel mechanism of action and potential use for lobeline as a treatment for psychostimulant abuse. *Biochem Pharmacol*. 2002;63(2):89-98.

Han SR, Lv XY, Wang YM, et al. A study on the effect of aqueous extract of Lobelia chinensis on colon precancerous lesions in rats. *Afr J Tradit Complement Altern Med.* 2013;10(6):422-5.

Karch SB. *The Consumer's Guide to Herbal Medicine*. Hauppauge, NY: Advanced Research Press; 1999:127-128.

Kuo YC, Lee YC, Leu YL, Tsai WJ, Chang SC. Efficacy of orally administered Lobelia chinensis extracts on herpes simplex virus type 1 infection in BALB/c mice. *Antiviral Res.* 2008;80(2):206-12.

Lim DY, Kim YS, Miwa S. Influence of lobeline on catecholamine release from the isolated perfused rat adrenal gland. *Auton Neurosci.* 2004;110(1):27-35.

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Marlow SP, Stoller JK. Smoking cessation. Respir Care. Dec 2665, the latest on 604/10 lates

Newall C, Anderson L, Phillipson J. Herbal Medicines: A Guide for Health-care Professionals. London: Pharmaceutical Press; 1996:187.

Rotblatt M, Ziment I. *Evidence-Based Herbal Medicine*. Philadelphia, PA: Hanley & Belfus, Inc; 2002:259-261.

Stead LF, Hughes JR. Lobeline for smoking cessation (Cochrane Review). In: *The Cochrane Library*, 1, 2002. Oxford: Update Software.

Subarnas A, Tadano T, Oshima Y, Kisara K, Ohizumi Y. Pharmacological properties of beta-amyrin palmitate, a novel centrally acting compound, isolated from *Lobelia inflata* leaves. *J Pharm Pharmacol*. 1993;45(ISS 6):545-550.

Subarnas A, Tadano T, Nakahata N, et al., A possible mechanism of antidepressant activity of beta-amyrin palmitate isolated from Lobelia inflata leaves in the forced swimming test. *Life Sci.* 1993;52(3):289-96.

Subarnas A, Oshima Y, Sidik, Ohizumi Y. An antidepressant principle of *Lobelia inflata* L. (Campanulaceae). J Pharm Sci. 1992;53(7):620-621.

Wilhelm CJ, Johnson RA, Eshleman AJ, Janowsky A. Lobeline effects on tonic and methamphetamine-induced dopamine release. *Biochem Pharmacol*. Mar 15 2008;75(6):1411-5.

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7 of 7