

Monograph #15

Lobelia

By Daibhaid A. O'Broder

WARNING: Because of the toxic nature of this herb, this warning is being used. This herb contains lobeline which in large doses can cause respiratory arrest and seizures. Please read then entire monograph and use with care. Great Care!

Common Name —

Lobelia Capsules, Lobelia Extract, Lobeline Lozenges, Lobitram Computabs, Pukeweed, Rapuntium Inflatum, Vomitwort, Asthma weed, Bladderpod, Cardinal Flower

Genus —

Lobelia siphilitica

Source —

The crude drug form is primarily extracted from the dried leaves and tops of *Lobelia inflata*, native to the moist forests and woodlands of the North American Continent. Other species of this herb include, *L. berlandieri*, *L. cardinalis*, *L. inflata*, and *L. siphilitica*.

Chemical Components —

Lobelia species contain at least 14 different piperidine alkaloids. The primary alkaloid occurring in most species is lobeline; however, *L. cardinalis* has lobinaline as its primary alkaloid. The emetic alkaloids, lobelanine and lobelanidine, are also found. Lobeline is similar to nicotine, both structurally and pharmacology.

Parts Used —

Practically all parts are used, the rootstock, leaf, flowers, seeds and all.

Description —

Lobelia is a leafy perennial with lance shaped leaves with tubular blue flowers. Each leaf having serrated edges being stalkless and uneven in size.



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Similar in nature, lobeline is not as potent as nicotine. However it acts on nicotine receptors in the body and readily crosses both through the blood and placental barriers. Depending on the receptor site, lobeline can produce several pharmacological responses. The herb can cause a release of epinephrine and norepinephrine, producing effects on the myocardium both chronotropic and inotropic. It can create a rise in both the systolic and diastolic levels of blood pressure.

Common Forms —

Capsules: 395mg standard

Tablets: 2mg standard

Lozenges: 1mg

Also available as a dried loose herb, essential oil, and an extract.

Reported Uses —

Lobelia is claimed to be useful as a spasmolytic, antiasthmatic, and emetic. The Native American and the early settlers used this herb as a smoke to treat asthma, bronchitis, and other respiratory ailments. Some data also suggest that the nicotine pattern can and has been used as a smoking deterrent.

Dosage —

As a Smoking Deterrent use tablets or lozenges in doses of 0.5 to 2.0 mg. The usual dose is 2mg after each meal with 1/2 glass of water for no more than 6 weeks. Dosages as high as 8mg have been used but it is noted that there have been reports of significant GI distress. Lobeline doses exceeding 20mg daily are considered toxic.

Adverse Reactions —

- Coughing
- Decreased heart rate
- Diaphoresis
- Dizziness
- Epigastric pain
- Fluid Retention
- Increased blood pressure
- Nausea, vomiting in higher doses
- Palpitations
- Respiratory depression at high doses or stimulation at lower doses
- Seizures
- Severe heartburn
- Tremors

- Although less potent than nicotine, all *Lobelia* species should be considered dangerous. Death has occurred from respiratory depression and paralysis of the respiratory muscles. Symptoms of lobeline overdose include sinus arrhythmia, tachycardia, extrasystoles, partial bundle branch block, profound diaphoresis, hypotension, muscular twitching, seizures, hypothermia, and coma.

Interactions —

Nicotine therapy: may potentiate adverse effects of lobeline. Avoid concomitant use.

Contraindications —

Avoid use in pregnant patients and children. Use with caution in patients who have a history of hepatic or renal impairment.

Special Considerations —

- Urge the patient to stop smoking if lobeline is being used to avoid additive effects of nicotine and increased risk of adverse reactions.
- Suggest smoking cessation programs, counseling, behaviour modification, nicotine replacement, and other pharmacotherapy to help quit smoking.
- Advise the female patient to avoid use of this herb during pregnancy or when breast-feeding.
- Monitor patient for adverse reactions.
- Warn patient of chronic use patterns if used in excess of the 6 week recommended pattern.

Analysis —

Lobeline has been used as a smoking deterrent because of its similarity to nicotine. Long-term data is not available however, and clinical trials have been inconclusive in this study.

Magickal Uses —

The powdered herb is used by the Iriquois as a sachet in bed if a couple is argumentative.

References —

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- Westfall, T.C. and Meldrum, M.J. "Ganglionic Blocking Agents," in Craig, C.R. and Stizel, R.E., *Modern Pharmacology*, 2nd ed. Boston: Little, Brown, & Co., 1986
- Fetrow, C.W. and Avila J. R., both PharmD, *Professional's Handbook of Complementary & Alt Medicines*, Spinghouse Corp, 1999, <http://www.springnet.com>

Links to visit —

- http://www.csdl.tamu.edu/FLORA/cgi/ruled_html_query?colldir=kartesz%2Fmgdata&collname=bonap98&query=Lobelia

- <http://www.williams-nursery.com/lobelia.htm>
- http://www.desert-tropicals.com/en_francais/Plants/Campanulaceae/Lobelia_erinus.html
- <https://www.naturalhealthlink.com/ReferenceLibrary/healthnotes.asp?ArticleID=923&type=1> (you may need to increase the size of this website as the font used is courtesy of JAWA press. (Star Wars joke.))
- <http://hawk.foto.no/pinhole/nikon/frstart.html>
- <http://www.northernlight.com/nlquery.fcgi?cb=0&q=Lobelia> (wonderful search engine giving over 20,000 contacts for the herb.)

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