

## Asthma - Risk Versus Benefit Overview of Alternative Therapies

Therapy	Benefit	Risk	Comment
<b>Acupuncture</b>	♦adjunct in asthma (insufficient evidence)	♦	♦
<b>Agrimony</b>	♦rumored antiasthmatic (no evidence)	♦photodermatitis	♦don't waste your \$
<b>Alfalfa</b>	♦leaf/tablets touted as antiasthmatic (no evidence)	♦↑risk of colon cancer, pancytopenia, SLE; 1 death from contaminated tablets; DIs: OCs, HRT, warfarin	♦leave this leaf for the cows
<b>Ammi</b> (Bishop's weed)	♦contains coumarins and psoralens (one of which is Khellin). This was the basis for cromolyn sodium (Intal®).	♦ ophthalmic toxicity documented: pigmentary retinopathy, photosensitization & dermatitis, ↑liver enzymes, N&V	♦drugs are better & safer
<b>Anise</b> (sweet cumin; aniseed)	♦contains anethole which may have catecholamine type effect (like adrenaline); high doses have antispasmodic & antiseptic effect in asthma/bronchitis	♦allergic reactions, contact sensitivity, photosensitivity; ingestion of oil can cause pulmonary edema, vomiting & seizures ♦DIs: warfarin, MAOIs, & hormones (↓effect of oral contraceptives)	♦toxicity outweighs the benefit (this herb can hurt you)
<b>Apricot</b> (Chinese almond)	♦small amounts of toxic prussic acid (hydrogen cyanide) is prescribed in Chinese medicine for asthma & cough	♦excess ingestion may cause bone & muscle damage, blindness, hair loss, mental effects (kernels - cyanide poisoning)	♦good fruit but bad medicine
<b>Bitter melon</b> (balsam pear; cerasee)	♦folk remedy (no evidence in asthma)	♦hypoglycemia; toxic to children; contraindicated in pregnancy (bleeding & uterine contractions)	♦bitter fruit seed, not useful in asthma
<b>Butterbur</b> (fuki)	♦may have bronchospasmodic & expectorant actions	♦side effects not reported, but contains alkaloids & high doses cause organ damage/cancer in animals	♦may help, but ?? the long term effects
<b>Coltsfoot</b> (coltswort)	♦smoked to relieve asthma; used in Chinese medicine; contains mucilage	♦can also cause respiratory irritation; ↑BP; risk of cancer, hepatotoxicity	♦ not safe enough for me
<b>Devil's Dung</b> (asafetida)	♦folk remedy (no evidence in asthma)	♦case of methemoglobinemia in 5wk old	♦OK as a spice
<b>Digitalis</b>	♦powdered leaves used in S. America	♦extremely toxic plant, even in small amounts	♦Avoid!
<b>Ephedras</b> (ma huang, yellow horse, etc.)	♦stimulant effect; bronchodilator; decongestant; related to ephedrine and pseudoephedrine (in OTC products)	♦dose dependent toxicity: ↑ blood pressure & heart rate, nervousness, insomnia, dizziness, palpitations, toxic psychosis; >17 deaths reported from overdose	♦common & more dangerous than Rx alternatives.
<b>Feverfew</b>	♦claims but no evidence in asthma	♦local oral irritation, rare ↑ heart rate; avoid in pregnancy & lactation; DI with warfarin	♦may relieve fever & headache, not asthma
<b>Gelsemium</b> (Carolina jessamine)	♦contains alkaloid (gelsemine) with potential stimulant activity	♦Very toxic: may cause paralysis & death; also weakness, dilated pupils, respiratory depression, etc.	♦she's a beautiful but deadly plant
<b>Ginkgo biloba</b>	♦inhibit binding of platelet-activating factor to its membrane receptor may reduce allergic and inflammatory reactions ♦some studies & one DB RC study suggest +ve effect in early & late phases of airway hyperactivity	♦rare side effects; headache, dizziness, palpitations; ginkgo pollen itself may be allergenic ♦DIs: warfarin?	♦minimal, but some evidence for effect, & appears relatively safe; slow onset?
<b>Honey</b>	♦used in cough preps; reported benefit in asthma	♦very safe; except in infants where infant botulism has been seen ("Honey, I poisoned the kids")	♦love your honey; treat your asthma
<b>Hyssop</b>	♦folk remedy; volatile oil may soothe sore throats and act as expectorant	♦although regarded as safe, there is a risk of seizures related to neurotoxicity of terpene ketones	♦find a better way to "seize the day"
<b>Kava-Kava</b>	♦used for sedative effect	♦scaly rash; visual disturbance; avoid in depression, pregnancy and lactation; DIs: other CNS drugs	♦rather a java than Kava-Kava
<b>Labrador Tea</b>	♦folk remedy (no evidence)	♦contains grayanotoxin-intoxication, paralysis, death	♦don't steep too long
<b>Lobelia extract</b>	♦alkaloid (lobeline) -nicotinic effects	♦N&V, dizzy; Toxic: convulsions, coma, death; DIs	♦risk > benefit
<b>Marijuana</b>	♦folk remedy (prone to abuse)	♦harm to lungs, brain, & endocrine system	♦No, no, no, no...
<b>Meditation/Exercise</b>	♦possible improvement in quality of life?		♦adjunct option
<b>Mullein</b>	♦demulcent, expectorant, and antitussive	♦no toxicity documented	♦OK for sore throat
<b>Nettle</b>	♦folk remedy; one DB trial found improvement in 57% of pts with hay fever	♦rare allergic adverse effects; can cause skin and irritation & gastric distress; DIs: antihypertensives?	♦will this one have seasonal potential?
<b>Oleander</b>	♦similar to digitalis (above)	♦Extreme toxicity (up to & including death)	♦Avoid death
<b>Passion Flower</b> (granadilla, water lemon)	♦contains alkaloids and flavonoids; reduces anxiety; sedating; some MAOI	♦CNS depression with large doses ♦DIs: several potential - similar to MAOIs	♦minimal effect in decreasing anxiety
<b>Perilla</b>	♦oriental remedy; immunosuppressant?	♦dose related toxicity: pulmonary edema in animals	♦worth some study
<b>Sage</b>	♦dried leaves have been smoked to relieve asthma; little evidence	♦very safe; cheilitis and stomatitis reported from sage tea; dry mouth & local irritation	♦the voice of this sage: don't smoke
<b>Senega Root</b>	♦folk remedy (antitussive effect✓)	♦high doses cause N&V (self-limiting toxicity)	♦wintergreen herb
<b>Tung Seed</b>	♦Hawaiian asthma remedy; no evidence	♦toxic: N&V, stomach pain, ↓reflexes, death	♦use in paints/varnish
<b>Yerba Santa</b>	♦American folk remedy; no evidence	♦no significant toxicity reported	♦little good no harm

N&V = nausea & vomiting; DIs = drug interactions; DB = double blind; RC = randomized controlled; MAOI = monoamine oxidase inhibitor

A variety of other vitamins (A, B complex, C, E) and nutrients (Quercetin C, Coenzyme Q10) are also promoted for asthma treatment; however, lack evidence.

**Note:** due to the high and increasing degree of morbidity and mortality associated with asthma, medications which have well documented benefit and safety profiles are strongly recommended for optimal asthma control. A "Canadian Asthma Consensus Report" has recently been published in the CMAJ 1999;161(11 Suppl).

References: 1. The Review of Natural Products, Facts and Comparisons, 2000.  
2. Boun H, Smith M. The Botanical Pharmacy 1999. 3. Medline abstracts 97-00.

**Caution: due to the lack of regulation of natural products, some may not contain what they claim, and some may contain contaminants & other non-labeled ingredients.**