



# *Pipsessipua*

## *Wintergreen Herb*

**Benefits and uses:** Acute Breathing Disorders, Backache, Colds, Corns, Earache, Fevers, Gout, Hangover, Headaches, Kidney ailments, Lumbago, Muscle, joint, and nerve pain, Rheumatism, Sciatica, Sore Throat, Stomach aches.

**Information:** Herbs/Nutritionals/Medicinals can be very strong, consequently, if each one is not tailored to your specific needs, then you can risk more harm than good. This information is meant to be used by your VHC Medical Team and personal Physician as they build your Total Health Plan. Never attempt to adjust your prescribed medications and/or Natural Treatments without your physician's and Medical Team's knowledge and guidance. Since herbs/nutritionals and medications can interact with each other, it is always advisable to consult with your health care provider and The Vibrant Health Community at [www.VibrantHealthCommunity.com](http://www.VibrantHealthCommunity.com) (or call 1-866-378-8253) before starting or changing your program.

### **Details**

Wintergreen, *Gaultheria procumbens* L. [Fam. Ericaceae], also known as teaberry, checkerberry and boxberry, is native to eastern Canada from southeastern Manitoba to Newfoundland and Nova Scotia and then south in the U.S. to Minnesota and Georgia. Wintergreen is found in dry or moist mainly coniferous woods. The leaves and fruits have a very pleasant fragrance and taste, familiar to many as the wintergreen flavor in candies, chewing gum and toothpaste. Methyl salicylate (oil of wintergreen) is widely available in many over-the-counter liniments, ointments, lotions or medicated oils for the relief of musculo-skeletal aches and pains. The plant has many traditional medicinal uses including as an antiseptic, carminative, diuretic, emmenagogue (to stimulate menses), galactagogue (to stimulate breast milk production in lactating women), nervine (to calm frayed nerves), rubefacient (to stimulate blood circulation to the skin), stimulant and anti-rheumatic. Wintergreen oil is most often used in medicinal preparation for treating breathing congestion due to colds (such as with Olbas Oil) or as a refreshing alternative to eucalyptus and menthol in liniments. Many Indigenous Peoples in Canada ate the berries of wintergreen as food and used the leaves in teas for both medicinal and beverage purposes. Traditionally, the leaf tea was used for colds, headaches, stomachaches, fever, kidney ailments, and externally as a wash for rheumatism, sore muscles and lumbago. Experimentally, the essential oil of wintergreen (methyl salicylate) is analgesic, carminative (relieves gas and digestive problems), anti-inflammatory and anti-septic. Dr. James Duke, in *The Green Pharmacy*, also recommends wintergreen for treating backache, corns, earache, hangovers, sciatica and sore throat. Dr. Duke also notes that wintergreen and other herbs that contain aspirin-like compounds may aggravate tinnitus. One must always remember that wintergreen essential oil, essentially pure

methyl salicylate, is toxic in overdose. Oral intake of 4-6 grams of pure wintergreen oil can be fatal.

**Active Ingredients:** Wintergreen essential oil contains approximately 98-99% methyl salicylate. Wintergreen leaves contain: Approximately 0.5% volatile oil (oil of wintergreen); arbutin, ericolin and ursol. Dr. J. Duke in the CRC Handbook of Medicinal Herbs also notes the occurrence of: gallic acid; gaultherine; gaultherilene; gaultheric acid; mucilage; wax; an ester, triacontane; and a secondary alcohol are also reported. Other plant acids include: O-pyrocatechusic; gentisinic; salicylic; p-hydroxybenzoic; protocatechusic; vanillic, syringic; p-cumaric; caffeic and ferulic acids. Mr. J. Oxley, in 1872, found the leaves to contain glucose, chlorophyll, gum and tannic acid. A quantitative proximate analysis of the leaves made by F. W. Droelle (Amer. Jour. Pharm., 1887, p. 289) largely confirmed these results. Volatile oil was found to the extent of 0.5%. *Gaultheria procumbens* was ascertained by Prof. Power and N. C. Werbkke to be free from andro-medotoxin, a neutral poisonous principle present in several plants of the natural order Ericaceae (see Amer. Jour. Pharm.,

**Drug Interactions:** Oil of wintergreen can potentiate the effects of warfarin and aspirin for thinning the blood and is contraindicated in pre-existing therapy for clot prevention. To appreciate the danger of this oil it can be compared to aspirin tablets (325 mg dose): one teaspoon (5 ml) of Oil of Wintergreen is equivalent to approximately 7000 mg of salicylate or 21.7 adult aspirin tablets. Even topical use of many over-the-counter liniments, ointments, lotions or medicated oils for the relief of musculo-skeletal aches and pains containing the oil can potentiate the effects of warfarin and cause bleedings.

**Contraindications:** Wintergreen essential oil is contraindicated for persons taking warfarin. Wintergreen is also contraindicated for persons suffering from chronic or severe tinnitus and other persons sensitive and/or allergic to aspirin and aspirin-like compounds.

**Side Effects:** Wintergreen leaf and oil can cause contact allergies. **Warning:** Wintergreen essential oil (methyl salicylate) is highly toxic. Oral intake of 4-6 grams of pure wintergreen oil can be fatal. If absorbed through the skin in high dosages it can produce central nervous system problems, fluid build-up in the lungs, and collapse. Excessive intake of the leaves can damage kidneys and liver. Salicylism is usually marked by tinnitus, nausea and vomiting and may result from excessive dosage of salicylic acid and/or its salts. Oil of wintergreen (methyl salicylate) also has blood-thinning effects similar to aspirin. Methyl salicylate (oil of wintergreen) is widely available in many over-the-counter liniments, ointments, lotions or medicated oils for the relief of musculo-skeletal aches and pains. Ingestion of methyl salicylate poses the threat of severe, rapid-onset salicylate poisoning because of its liquid, concentrated form and lipid solubility. Excessive usage of these preparations in patients receiving warfarin may result in adverse interactions and bleedings. To appreciate the danger of this oil it can be compared to aspirin tablets (325 mg dose): one teaspoon (5 ml) of Oil of Wintergreen is equivalent to approximately 7000 mg of salicylate or 21.7 adult aspirin tablets. Ingestion of as little as 4 ml in a child can be fatal. Keep products containing wintergreen oil or any product containing methyl salicylate

out of the reach of children. An example of the potential risk posed by a product containing this essential oil is as follows: Methyl salicylate (oil of wintergreen) in the form of candy flavoring was ingested by a 21-month-old male infant who subsequently developed vomiting, lethargy and hyperpnea. A "swallow" of the solution resulted in a serum salicylate concentration of 81 mg/dL six hours after ingestion. The infant was treated with parenteral (intravenous) fluids and sodium bicarbonate and he recovered rapidly. Hazards associated with salicylate use in this form include lack of parental awareness of the substance's toxic potential, the attractiveness of the candy-like odor, and the availability of the liquid in non-child-resistant packaging containing potentially lethal quantities. [Howrie DL, Moriarty R, Breit R. 1985. Candy flavoring as a source of salicylate poisoning. *Pediatrics*. 1985 May; 75(5): 869-71; Chan TY. 1996. Potential dangers from topical preparations containing methyl salicylate; *Hum Exp Toxicol*. 1996 Sep; 15(9): 747-50. Review].

**Prevention of Accidental Ingestion:** Prevention of accidental ingestion of methyl salicylate containing products can be achieved by keeping the products out of reach of children, using child resistant bottles, restricting the size of the openings of the bottles, appropriate labeling on products and reducing the salicylate content. Immediate action should be taken to treat a patient with accidental poisoning and hospitalization is needed for monitoring and treatment.