

Expert Herbal Reality Resource

Goldenseal

Names

Botanical Name: *Hydrastis Canadensis* (LINN.)

Family: Ranunculaceae

Common names: Goldenseal, Yellow Root, Orange Root, Yellow Puccoon, Ground Raspberry, Wild Curcuma, Jaundice Root, Eye Root, Eye Balm, Hydrastis root

Description

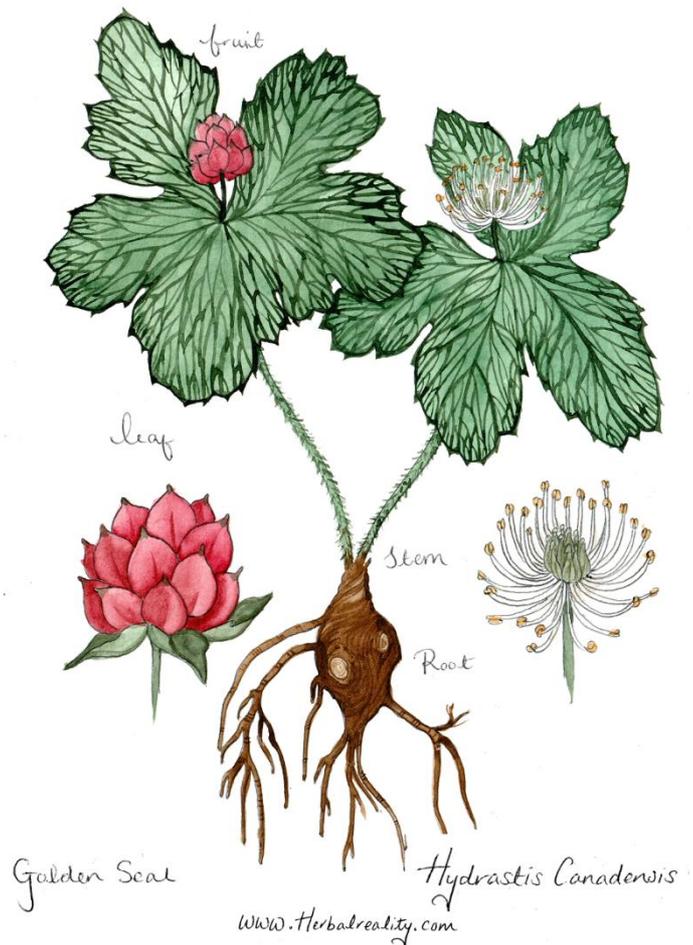
Goldenseal is a small herbaceous perennial herb that grows up to 30cm tall. The thick, knotted rhizome is yellow-is brown on the outside, with bright yellow interior pulp and has numerous roots growing from it. The stem is erect, thick and hairy, and grows from the root in spring. There are two leaves, that are alternate, dark green, and the lower leaf is larger than the upper leaf. There is one solitary flower with no petals but several stamens and pistils. The fruit looks like an enlarged raspberry. It flowers from April to May and fruits in July.

The plant is native to North America, and grows best in moist deciduous woodland. It requires 75% shade and moist, well-drained, rich soil that is covered in dead leaves. The roots are harvested in the second or third year.

Due to being over harvested over a prolonged period of time, Goldenseal was listed as endangered in 1997 and is now rarely found in a wild habitat. Cultivated Goldenseal should be sought for medicinal use, and it used rarely by herbalists because of the sustainability concerns.

Constituents

- Isoquinoline alkaloids (2.5- 6%): hydrastine (3.2-4%), berberine (up to 6%), canadine (0.5-1%), berberastine (2-3%)
- Fatty acids
- resin
- phenylpropanoids: meconin, chlorogenic acid
- phytosterins
- small amount of volatile oil



Traditional use

The early settlers of the United States learned of the medicinal uses of Goldenseal from the indigenous people. The Cherokee used the plant as a stomachic, a remedy for sore eyes, and a yellow dye. The plant quickly became a popular remedy with the pioneers for these uses. BY the twentieth century, it was widely in use. By 1905, The United States of Agriculture had recognised the growing demand for the plant as a medicine, when an estimated 20,000lb to 30,000lb per year was being supplied.

Traditionally, the root has been used as a wide-ranging digestive remedy. Goldenseal was applied in cases of digestive inflammation, constipation, haemorrhoids, vomiting, dyspepsia, and loss of appetite. It was used as a snuff for nasal catarrh. Reportedly, it was historically used in cases of sexually transmitted diseases, though this is not an acceptable application of herbal medicine currently. It has been used in labour to aid in contractions, though this use is not recommended.

It was considered to be a specific to prevent pitting of small pox.

Traditional actions

- Mucous membrane trophorestorative
- Antimicrobial
- Bitter
- Choloretic
- Stomachic
- Oxytotic
- Laxative
- Hepatic
- Alterative
- Anticatarrhal
- Emmenagogue
- Vulnerary
- Depurative
- Anti-hemorrhagic



Taste: Bitter with a sweet aftertaste, resinous

Tissue states: atrophy, torpor, depression

What practitioners say

Goldenseal is considered an extremely effective tonic for mucous membranes, and may be applied in a formula tending to any mucous membrane that may be over-producing catarrh or mucus.

Digestive system: Goldenseal continues to be an excellent remedy for many digestive complaints because of its tonic effect on mucous membranes. Its bitter activity helps stimulate bile flow for cases of sluggish digestion or lack of appetite. It is also well applied to digestive ulcerations, such as peptic ulcers, and colitis. Goldenseal is especially indicated if there are hepatic symptoms.

Integumentary system (skin): Goldenseal is very antimicrobial and anti-inflammatory which makes it a great remedy for wounds, fungal infections, and rashes. The tincture can be added to a cream. The powder is also useful topically. Goldenseal may also be added to a wash for infections of the eyes, mouth, and gums.

Reproductive system: Goldenseal, although a uterine stimulant, is also anti-hemorrhagic and can be used in a formula to assist in reducing heavy menstrual bleeding. Goldenseal can also be used in a douche for thrush and other vaginal infections.



Evidence

There is limited available clinical research on the root of Goldenseal, though berberine has been the focus of many studies.

In animal and human studies, berberine has shown to be hypoglycaemic (1). In one pilot human study, berberine was found to be comparable to metformin for the treatment of diabetes mellitus 2 (2). As berberine has been found to increase insulin sensitivity, it is also useful in the treatment of polycystic ovarian syndrome (PCOS). One study found that administration of berberine improved ovulation rate in patients with PCOS (3).

Berberine has also been found to improve cardiovascular parameters. Berberine has been found to lower blood pressure, lower blood lipids, and have anti-arrhythmic effects (4, 5, 6).

Berberine has been demonstrated to have a wide spectrum cytotoxic activity against human cancer cell lines (7). In addition to this, it has shown chemoprotective activity in vitro and in vivo (8).

The anti-bacterial properties of berberine have also been extensively studied. It has been shown to be effective against *Actinobacillus pleuropneumoniae*, *Shigella dysenteriae*, *Streptococcus agalactiae*, and *Helicobacter pylori*. It has also been demonstrated to increase the effectiveness of antibiotics against antibiotic resistant strains of bacteria (5).

Further human trials with both Goldenseal and its constituents are required.

Safety

When used within the recommended dose, Goldenseal is considered a safe herb.

Goldenseal is contraindicated for those with high blood pressure as hydrastine may increase blood pressure. Prolonged use may inhibit vitamin B absorption.

Goldenseal is not recommended for use during pregnancy or lactation.

Due to the high price of the root and its status as an endangered plant, many Goldenseal products may be adulterated. Sourcing sustainable and reputable Goldenseal is imperative to safety.

Dosage

Dried root: 0.7-2g per day

Tincture 1:3 : 2-4ml per day

Tincture 1:5: 3.5-7ml per day

References

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