



# LICORICE ROOT

Benefits *Adrenal Fatigue & Leaky Gut*

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FOOD IS MEDICINE

Licorice has become synonymous with a strong candy flavor, but the herb itself — *Glycyrrhiza glabra* — has very different strengths. An [adaptogen herb](#), licorice root can be found growing in Europe, the Mediterranean and Asia, and it's been used for thousands of years and dozens of purposes, including as a [leaky gut remedy](#).

If licorice root benefits so many conditions, though, why do we only think of it as a candy flavoring? What is DGL licorice root, and is it necessary to buy special licorice root supplements?

Let's walk through the history, uses and questions surrounding licorice root. This ancient herb has much to offer. Licorice is a household name in sweet treats, but it's time licorice root becomes famous for its benefits.

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## Licorice Root History

Licorice is a member of the legume family, and while there are species that grow in the U.S., *Glycyrrhiza glabra* is primarily native to Europe and Asia. Also, you might see "Chinese licorice" listed on products. In that case, it's likely *Glycyrrhiza uralensis*, the second variety.

Licorice root benefits are primarily the same between the two varieties, according to the *Journal of Advanced Research*. (1) However, it's worth noting that *glabra* is typically the variety referred to when discussing licorice root.

*Glycyrrhiza*'s name reflects its most popularly known claim to fame: "sweet root." (2) With an extract that can be 30 to 50 times sweeter than sugar, we can see why our ancestors were inspired to turn it into candy! In Chinese medicine, [anti-inflammatory](#) licorice root has been used for centuries for many of the same uses that science has confirmed now — coughs and colds, gastrointestinal issues, and female reproductive issues.

One interesting note about the way licorice has been used in Chinese medicine is that it was used as a "guide drug." Licorice root was used in tandem with other herbs and remedies to enhance their effects and essentially guide the other herbs to where they would be most beneficial. In 2013, this use was observed and reviewed by the Tianjin University of Traditional Chinese Medicine. (3) This ancient purpose, along with other licorice root benefits, no doubt contributed to licorice root being the most used herb in Chinese medicine! (4)

Europeans didn't ignore the benefits of licorice as supplement, either. Licorice root has documented uses from antiquity, from ancient Greece and Rome to the Middle Ages and beyond. (5) By the 20<sup>th</sup> century, manufacturing allowed the root to be stripped for pharmaceutical uses and then extracted for candy sweetener. (6)

Now, that familiarly strong licorice flavor is usually replicated by the similarly flavored anise seed (a common [biblical herb](#)), but you can still get genuine licorice candy

— usually “black licorice” to distinguish it from the red imitation candy.

The medicinal strength and benefits of licorice root are prominent enough that the FDA issued a notice for consumers to be aware that black licorice is more than just a sweet treat. (7) Even when the root extract is used just to sweeten, it can't be ignored as a potent compound. And while the root is the primary portion used for supplements and remedies, the leaves have been evaluated for their antimicrobial benefits, as well. In an *Iranian Journal of Pharmaceutical Research* study, the leaves tested well against bacteria and thus may work as a staph and [candida cure](#). (8)

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## DGL Licorice vs. Licorice Extract

Thanks to its odd name, licorice supplement labels can be a bit daunting to process. In order to understand deglycyrrhized (DGL) licorice, we first need to break down some of the main compounds in licorice root extracts.

Licorice root is so complex that researchers have isolated 134 different compounds in the glabra variety and 170 in Chinese licorice. Obviously, we don't have time to discuss them all, and researchers learn more about compounds in herbs every day. But there are at least four main types of compounds found in licorice root: flavonoids, coumarins, triterpenoids and stilbenoids. (9)

There are countless compounds and variations within each categorization, but we can generally understand a compound by its type:

- **Flavonoids:** Flavonoids, for example, are responsible for a plant's deep pigment (like the blue in [blueberries](#) or the black in black licorice) and are usually [rich antioxidants](#) and [anti-inflammatory](#), among other benefits.
- **Coumarins & Stilbenoids:** Coumarins and stilbenoids are polyphenols that are often anti-inflammatory and antibiotic.
- **Triterpenoids:** Triterpenoids are typically stronger in nature and sometimes include steroidal substances. (10)

A prominent example of the benefits found in these compounds is the flavonoid glabradin, which contributes to numerous licorice root benefits. First described in the 1970s, researchers have since discovered many of its effects. It's observed to be anti-inflammatory, have an effect on [metabolism](#) and function as a phytoestrogen — having a very positive effect on women's health. (11)

Now that we have broken down a little bit of the structure of licorice root, we can look at the compound that's sometimes removed from standardized licorice supplements. The licorice plant's namesake and cause of the sweet flavor in the root is the triterpenoid glycyrrhizin. It's a potent anti-inflammatory, mild [natural laxative](#) and expectorant, among other benefits — meaning, it's not removed because of inherent danger. (12)

With excessive use, however, glycyrrhizin has been noted to create side effects, such as increased blood pressure, [reduced potassium levels](#), edema (swelling) and other issues. Because this would exclude people with blood pressure, liver and [kidney issues](#), as well as pregnant women, licorice supplements can be standardized to remove this compound — known as *deglycyrrhized licorice*. Having a standardized supplement without this compound also makes the product generally safer for widespread sales.

For otherwise healthy adults without a contraindication, however, glycyrrhizin can absolutely be beneficial, as noted above. In order to minimize the risk of complications, licorice root extract shouldn't be overused, and it shouldn't be taken long term without giving the body a break periodically. (13)

Limitations aren't the same as contraindication. Licorice root benefits a number of conditions and is an excellent addition to any herbal supplement toolbox.

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## 7 Benefits of Licorice Root

When looking at the varied compounds in licorice and their clear benefits, it's not surprising that this ancient herb has lasted through the centuries! Just a few indications for licorice root include [heartburn](#), leaky gut, [adrenal fatigue](#), PMS and pain relief.

These kinds of conditions are terribly prominent in our society. You would be hard-pressed to find someone who isn't affected by one (or more!) of these conditions. Heartburn alone is a facet of gastrointestinal disorders that Americans spend \$90 billion (!) to remedy, every single year. (14) Let's take a quick look at each of these common conditions and how licorice root benefits them.

### 1. Heartburn and [acid reflux](#)

Published in the journal *Evidence-based Complementary and Alternative Medicine*, an extract of *Glycyrrhiza glabra* was found to be effective against functional dyspepsia, which includes not only heartburn but also a [natural remedy for nausea](#), indigestion and stomach pain. (15)

The type used for the study was DGL licorice, which left participants without any negative side effects associated with glycyrrhizin. DGL can be purchased as chewable tablets that can be taken before meals.

## 2. Leaky Gut

Tied to systemic health issues, [leaky gut syndrome](#) can be difficult to tackle. As an anti-inflammatory and demulcent (soothing) herb, licorice root works as a [natural remedy for ulcers](#) and can be a beneficial [leaky gut supplement](#). (16)

## 3. Adrenal fatigue

In spite of living in a relatively simple time in history, our society is plagued by environmental, physical and mental stress disorders. So many of us have sent our adrenal glands in overdrive, like we're running from woolly mammoths when we're really just dealing with a budget issue or a decision at work.

In the medical journal *Molecular and Cellular Endocrinology*, licorice was found to help the body more efficiently regulate cortisol — the stress hormone — thus giving your adrenals a break. (17) It turns out it's one of the main [adaptogen herbs to lower cortisol](#).





## 1. HEARTBURN

An extract of *Glycyrrhiza glabra* was found to be effective against functional dyspepsia, which includes not only heartburn but indigestion, nausea, and stomach pain.



## 2. LEAKY GUT

As an anti-inflammatory and demulcent (soothing) herb, licorice root protects against ulcerative disorders and can be a beneficial weapon in the battle for gut health.



## 3. ADRENAL FATIGUE

Licorice can help the body to more efficiently regulate cortisol – the stress hormone – giving your adrenals a break.



## 4. IMMUNITY

Licorice is emerging as a prominent player in the search for treatment and prevention for diseases like Hepatitis C, HIV, and influenza. The triterpenoid content has been confirmed as an anti-viral, making licorice extract a potentially strong partner for the immune system.



## 5. COUGH/SORE THROAT

Licorice root is an effective expectorant, helping to loosen and expel mucous that the cough is trying to eliminate. Its soothing demulcent, anti-inflammatory properties can



bring relief to an irritated sore throat.

## 6. PMS/MENOPAUSE

Licorice root also appears to have an estrogen-like effect in women, lending itself as an option for menstrual and fertility related concerns. For menopausal hot flashes, licorice was shown to be better than hormone replacement therapy and reducing the duration of hot flashes.



## 7. PAIN RELIEF

As an antispasmodic, licorice can have an effect on cramps both abdominally and potentially in the muscles, as well. Topically, licorice can soothe pain associated with eczema and other dermal conditions as it acts as a hydrocortisone.

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## 4. Immunity

Licorice is emerging as a prominent player in the search for treatment and prevention for diseases like hepatitis C, HIV and [influenza](#). The triterpenoid content has been confirmed as an antiviral, making licorice extract a potentially strong partner for the immune system. (18) One study published in *Food Chemistry* described licorice as having “antioxidant, free-radical scavenging, immunostimulating” properties. (19)

## 5. Cough/sore throat

Licorice root benefits a sore throat or [cough](#) immensely as an effective expectorant, helping to loosen and expel mucus that the cough is trying to eliminate. Its soothing demulcent, anti-inflammatory properties can bring [fast relief for sore throat](#). Demulcents need to make contact with the part of the body that needs to be soothed, so extracts in cough drops and syrups, as well as tea, are most effective.

(20)

## 6. P MS/Menopause

Licorice root also appears to have an estrogen-like effect in women, lending itself as an option for menstrual- and fertility-related concerns, including as a [natural remedy for PMS](#). (21) For [treatment of menopause](#), licorice was shown in a *Health Care for Women International* study to be better than hormone replacement therapy at reducing the duration of hot flashes. (22)

## 7. Pain relief

As an antispasmodic, licorice can have an effect on cramps both abdominally and potentially in the muscles, as well. (23) Topically, licorice can [alleviate eczema](#) discomfort and other dermal conditions as it acts as a hydrocortisone. (24) Anti-inflammatory benefits may also help relieve pain, including acting as a [natural remedy for joint pain](#).

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## Side Effects and Recommended Use

The side effects of licorice root are primarily connected to glycyrrhizin, so if any of them concern you, DGL licorice is probably the best option. Don't consume licorice root extract if you're pregnant or have heart, liver or kidney issues.

If you do consume licorice root extract, the recommended dosage is a maximum of six grams a day when used for a 130-pound person in order to limit the amount of glycyrrhizin. (25) Side effects to watch for include edema, [high blood pressure](#), [low potassium](#) levels and [chronic fatigue](#). (26)

Also, licorice extract shouldn't be taken longer than four weeks. (27) DGL licorice can be taken longer, but caution is always on your side with potent herbal medications, and giving yourself a break periodically is recommended. When pursuing licorice root benefits, be sure to consider the ultimate cause of the issue. Treat with a holistic approach instead of merely addressing the symptoms to prevent the need for long-term consumption.

**Read Next:** [How to Test for Leaky Gut Syndrome](#)

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