

LICORICE & HEALTH

Licorice in Medicine

The medical profession, most notably in Europe but also in Japan, has been rediscovering the medicinal uses of licorice and certain of its key components in the last three decades.



Stomach Troubles

Licorice has a centuries-old history as a natural home remedy for gastritis, acid reflux and heartburn. It acts to support and enhance the stomach's natural self-protective mechanisms, and promotes growth of new cells in the stomach lining. "Licorice has been an effective treatment of peptic ulcers in many countries for hundreds of

years, reports US Pharmacist. But modern medicine also recognizes its benefits: Carbenoxolone, a derivative of one of the main compounds in licorice, was developed by researchers in London in the early 1960s and has become, in the UK and elsewhere in Europe, the preferred form of licorice used to promote healing of ulcers.

Anti-viral Properties

Some of the most recent research discoveries, potentially very exciting, have explored the ability of glycyrrhizin to inhibit or prevent certain classes of virus from replicating themselves in the cells of the body. Although considerable work remains to be done, several researchers have reported positive results using licorice derivatives against SARS, influenza, and HIV. In an article in US Pharmacist titled Herbal Pharmacy: Licorice, Wendell L. Combest, PhD, Associate Professor of Pharmaceutical Sciences at Campbell University School of Pharmacy writes that "Since 1980 strong evidence has accumulated supporting the efficacy of several compounds in licorice in the treatment of many types of viral infections. ... The mechanism of this effect appears to be both a direct inhibitory action on viral replication and function and a stimulating effect on the host immune system to produce interferon, which has known antiviral effects."

Throat and Respiratory Ailments

Licorice has long been used in folk medicine and by herbal medicine practitioners as an expectorant and cough suppressant. Colds and flu have been treated with licorice since at least Roman times. Most cough medicines include licorice extract for its soothing effects on mucous membranes.

Anti-oxidant Effects

In the 1990's, studies began to examine the antioxidant effects of licorice, in particular its effectiveness against oxidation of LDL cholesterol, which is a key factor in atherosclerosis. Some 300 different compounds in natural licorice are suspected or confirmed effective antioxidants. (Vaya J, Belinky P, et al. "Antioxidant constituents from licorice roots: isolation, structure elucidation and antioxidative capacity toward LDL oxidation." Free Radical Biology & Medicine. 1997; Volume 23, issue 2, pages 302-313.)

THE SURPRISING FACTS ABOUT LICORICE

Alan Gilbertson

Traditional herbal remedies have long been under major onslaught, particularly in the US, from heavily funded, highly organized, and fiercely protective medical and pharmaceutical interests. Yet licorice, to take one example, is not only still around; its efficacy in helping combat a wide range of ailments is being validated in widely diverse studies across the world.

Licorice is one of the most widely used medicinal herbs across the world, and broadly used especially in almost all Chinese herbal formulas. It is well known for treating coughs, bronchitis, and chest complaints in general.

In Germany, Commission E is a body of scientists that is the equivalent of our Food and Drug Administration. Commission E approves licorice as a sore throat treatment, and its effectiveness in this role has been scientifically documented. "**Licorice not only soothes a sore throat, it also has an expectorant effect that can help treat colds and other respiratory conditions,**" according to *The Green Pharmacy* by James A. Duke, Ph. D. (Rodale Press).

Licorice in some form is an ingredient in almost all popular cough medicines, because of its soothing properties. In fact, it is an ingredient in almost all herbal formulas with soothing properties.

"German physicians have always been more open to herbal medicine than doctors in the United States," Duke says, "and have researched herbal alternatives extensively. **Commission E approves licorice as an ulcer treatment.** This recommendation is based on the medical traditions of Asia, the Middle East and Europe, plus literally dozens of scientific studies." (op. cit.)

Licorice, in fact, **contains several anti-ulcer compounds**, including glycyrrhizic acid, which is the substance that makes it sweet. (There is **no sugar** in natural licorice, making it entirely suitable for diabetic use.) The soothing effects of these compounds are what make licorice so effective in the prevention and treatment of **acid reflux** and other forms of **gastritis**.

In an article on the Life Extension Foundation's website, titled *Detoxification, What Is It?* We find: "**Licorice protects the blood supply** by defending the liver, the detoxification plant of the body. In

fact, so strong is licorice's contribution toward detoxification that [Daniel B.] Mowrey, [Ph.D.] (1986) reminded us that the Chinese have dubbed it the 'The Great Detoxifier.'"

The liver isn't the only organ whose function is assisted by licorice. According to the World Preservation Society, Inc. "Licorice ... **helps support the adrenal glands** and stimulate the excretion of hormones from the adrenal cortex. It is **excellent for the lungs and spleen.**" (*Powerful and Unusual Herbs from the Amazon and China*, The World Preservation Society, Inc. 1993,1995)

The antioxidant properties of licorice have been noted in a number of studies world wide.

"Beneficial for hypoglycemia, bronchitis, colitis, diverticulosis, gastritis, stress, colds, nausea, and inflammation," says James F. Balch, M.D., in *Prescription for Nutritional Healing* (Avery Publishing Group, 1990) Balch also notes that licorice "Cleanses the colon, promotes adrenal gland function, decreases muscle or skeletal spasms, and increases the fluidity of mucus from the lungs and bronchial tubes."

There are also reports of licorice in use against infection. According to DrugDigest.org: "In laboratory and animal studies, true licorice and chemicals contained in it have stopped or slowed the growth of certain bacteria, fungi, and parasites."

These antiviral/antibacterial properties have prompted numerous ongoing studies to gauge the effectiveness of certain components of licorice against hepatitis, flu, herpes, and others. Results in vitro have been promising. As to why there should be such a wide spectrum of anti-viral and antibacterial effects, Balch points out that "studies show **licorice root stimulates the production of interferon.**" (Interferon, according to the *American Heritage Dictionary*, is "Any of a group of glycoproteins that are produced by different cell types in response to various stimuli, such as exposure to a virus, bacterium, parasite, or other antigen, and that prevent viral replication in newly infected cells and, in some cases, modulate specific cellular functions.")

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The Unique Properties of (real) Licorice

Licorice enjoys a rare position in the long catalog of plants used by mankind. We use it as a candy, a sweetener and flavoring agent, and in both modern and traditional medicine to treat heartburn, coughs, various kinds of gastritis, acid reflux, even stomach ulcers. An extract of licorice is commonly used in the UK and other parts of Europe in the treatment of such ulcers, and the root has long been the home remedy for heartburn and acid reflux.

Real licorice has a strong and distinctive sweet flavor that has been prized for its own sake and its soothing qualities for centuries. Napoleon sucked on licorice sticks because he liked them. The Egyptian pharaoh, Tutankhamen, was buried with a substantial quantity of licorice for use in the afterlife (whether this was for its value as a candy or as medicine, or both, we don't know).

In short, real licorice not only tastes good, it's also good for you.

Not all licorice is licorice

When you buy licorice candy in your local supermarket or candy store, what exactly are you buying? If you live in the United States, the chances are it isn't licorice. So-called "licorice" candy is flavored with anise (the same herb that gives Pernod its distinctive flavor) or synthetic substitutes. Sugar then becomes a major ingredient, since anise lacks the sweetness of real licorice. Oddly enough, although actual licorice extract is produced in the United States, 90% or more is used to flavor other things, such as cough medicines and (believe it or not) tobacco.

Even if you do manage to find the real thing, it will almost certainly have been chemically altered in various ways. (See "Deglycyrrhizinated Licorice (DGL)" for more information.) Only licorice extract in its pure, original form can be certified organic.

Only the real thing is the Real Thing...

Like any natural plant extract, real licorice contains a large complex of interacting components that give it its unique combination of flavor and properties. This rich and complex flavor, from the interaction of literally hundreds of organic chemicals and trace elements, is impossible to manufacture artificially. Only the incredibly tiny cellular "chemical factories" in living plants have that subtlety.

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Why Deglycyrrhizinated Licorice (DGL)?

Different species of the licorice plant, and even the same species grown in different parts of the world, vary in their proportion of the compound glycyrrhizin. Much of the raw licorice imported for medicinal and other purposes in the United States, for example, comes from China, and typically has a glycyrrhizin content of 15% to as much as 24%. European licorice typically has a lower glycyrrhizin content, but is more expensive than its oriental counterpart so is less desirable from a commercial standpoint. (Note: these remarks do not apply to almost all “licorice” candy sold in the United States, which do not contain actual licorice — the “licorice” flavor in US-produced candy is from an entirely different herb called anise.)

Glycyrrhizin is responsible for several of the traditional health benefits of licorice, but in too high a dosage it can cause undesirable adverse reactions, such as elevated blood pressure, loss of potassium, and sodium retention (leading to fluid retention).

For this reason, glycyrrhizin is chemically removed, partially or totally, from imported licorice to form deglycyrrhizinated licorice (DGL), before it is used in other products. Unfortunately, and inevitably, this chemical process alters the delicate natural balance of compounds found in the original extract from the fresh plant. Such altered products cannot be sold or advertised as “organic.”

Zagarese licorice comes from a species (*glycyrrhiza glabra*) grown in the southern part of Italy. Its natural glycyrrhizin content is only 4% to 5%, so there is no need to deglycyrrhizinate it. The Zagarese family has been producing pure licorice extract as its sole product since 1886. Only organic methods of cultivation are used to make our products. For these reasons, Phyto-Plus is able to offer the ONLY certified organic licorice extract available in the world.

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