

Gynostemma:

Unlike many herbs that are sour or bitter, Gynostemma has a wonderfully sweet flavor. The extract of the plant is so sweet in fact that it is used as a natural sweetener in Japan. A hot cup of Gynostemma tea starts off with a delicately herbal grassiness that leads into a natural sweetness and soft astringent finish.

Chinese census of the Southern provinces have always shown unusually high numbers for people over the age of 100. Once discovering that the locals in these provinces were drinking a particular herbal tea they called The Immortality Herb, Miracle Grass, also known as Jiaogulan, or here in the West as Gynostemma. This peaked the curiosity of researchers, thus leading to over 5000 scientific studies. These studies have proven the many incredible health and longevity benefits, those of like no other.

In the 1960s, a team of Chinese medicinal practitioners and herbalists researched the phenomena and made some interesting discoveries. They found that the herb was very high in antioxidants and functioned as a powerful adaptogen, an herb that increases the body's resistance to trauma, anxiety and fatigue.

Most know about ginseng (*Panax Ginseng*) and its benefits for human health. Many of these health benefits come from compounds called ginsenosides, which are classed as saponin compounds. Ginseng has 24 of these compounds, whereas Gynostemma has 82!

Below is an accumulation of information that we found online from various sites.

Gynostemma, the Herb of Immortality, a Strong Adaptogen with Ginseng-like Activity

Gynostemma pentaphyllum, or as the Chinese call it, *Jiaogulan*, is a climbing vine related to the cucumber or gourd family.

Many companies use the Chinese name, so it helps to know this herb as both. Gynostemma is growing in popularity in the West, where it is needed more than ever these days.

This plant did grow wild and was used in Southern China where much of the medicine was ignored for a long time by the Northern Chinese. Because of this, gynostemma first showed itself in the historical record only in the 14th century! It is safe to assume it has been traditionally locally used for far longer.

Gynostemma received its nickname, *The Herb of Immortality*, in Chinese medical texts a couple of centuries after its first historical written appearance in the 16th Century.

How Gynostemma is Ginseng-like

To fully understand gynostemma we must talk a bit about the well-known plant, *Panax ginseng*, commonly called Chinese or Asian ginseng.

Everyone knows ginseng has been studied heavily and found to be beneficial for human health (though you have to get the good stuff, 95% of what's on the market not being of any real quality).

Many of ginseng's health effects come from compounds called *ginsenosides*. *Panax* was originally thought to be the only plant genus that contained these compounds. These ginsenosides are classed as *saponin* compounds, of which ginseng has 24 total. *Gynostemma*, of no relation to *Panax sp.*, had about 82 different saponins!

Gynostemma has been found to contain these ginsenosides (all found in *Panax ginseng*):

- *Rb1* – one study found that Rb1 increased luteinizing hormone. Necessary for male hormones production.*
- *Rb3* – has been found to be highly hepatoprotective.*
- *Rd* – a study discovered that this ginsenoside attenuates oxidative damage related to aging in senescence-accelerated mice.*
- *F2* – many studies point to this compounds ability to promote apoptosis.*

Ginsenosides have been found to, "...exhibit their vast range of activities on CVD (Cardiovascular disease) through the inhibition of ROS production, stimulation of NO production, improvement in blood circulation, enhancement of vasomotor tone, and regulation of the lipid profile. However, the exact mechanisms of action of ginsenosides are still unidentified."(1)*

That, of course, means that the effects found in *Gynostemma* are similar to those achieved through consuming ginseng. It appears, though, that there is more of an effect towards healthy insulin and blood-sugar levels than that possessed by ginseng. That has more to do with the other compounds found in *Gynostemma* of which there are many. Some 80 different *gypenosides*, unique biochemicals found only in *Jioagulan* have been found. (2)(3)(4)*

Some notable ones include:

- Gylongiposide I
- Gypensapogenin A-D and gypensapogenin E-G
- Gypenbiosides A and B
- Gypenosides GC1 to GC7
- Gypenoside III at 0.9% dry weight (a glycoside of Ginsenoside Rb1), IV (a glycoside of Ginsenoside Rb3), VIII at 0.4% (Ginsenoside Rd), XII (Ginsenoside F2)
- Malonyl Gypenosides III and VIII (Malonyl Ginsenosides Rb1 and Rd, respectively)

Other well-known compounds include:

- Carotenoids
- Chlorophyll compounds
- Ombuine
- Allantoin
- Vitexin
- Quercetin
- Kaempferol
- Rutin
- 3,5,3'-trihydroxy-7,4'-dimethoxyflavone (a flavonoid found in the leaves)
- Selenium, Calcium, Magnesium and other trace minerals

Gynostemma for Longevity

A short word on why the name, the immortality herb, may be appropriate. Over the years, a strong connection has been established between the pancreatic hormone insulin and biological aging. Insulin seems to be an excellent predictor of longevity. This is perhaps why *Gynostemma* might help people live longer (5).

Many may have heard of a little prescription drug named *Metformin*. This drug is being investigated by the FDA as the first possible anti-aging drug for the U.S. market. *Metformin* is a slightly modified form of a traditional herb called *French Lilac* or *Goat's Rue*. *Goat's Rue* has insulin-balancing effects, and many believe that this is why it is not just good for people with diabetes but possibly, for all modern people.

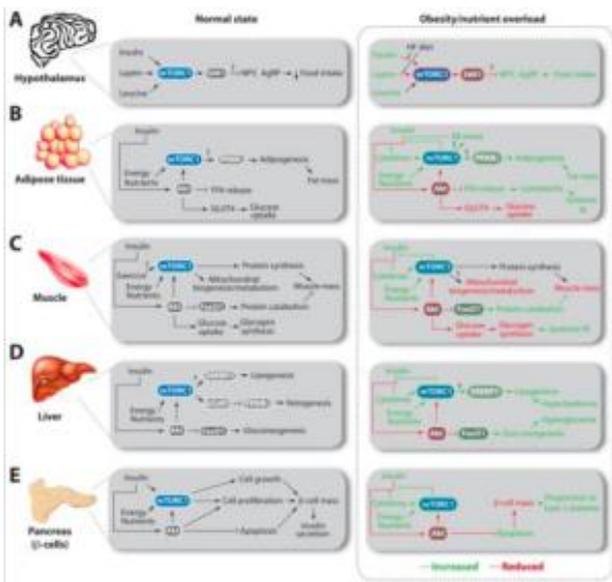
Gynostemma has insulin promoting effects as well (though not in the same way as *Metformin*), and this may be the key to why it has traditionally been observed as a longevity herb.(2)(3)

One study of 24 diabetics found that consuming six grams of the herb as a tea for 12 weeks found a significant statistical increase in insulin sensitivity and balancing of blood sugar (3).

A rat study found that an ethanol extract of gynostemma leaves had pancreatic protective powers, especially, “helping insulin-positive beta-cell numbers. (6)”

Our high-sugar/high-carb lifestyles can leave our pancreas exhausted. Gynostemma can help tonify and calm the pancreas, making it better able to handle high blood sugar loads and prevent its tendency to over-compensate by releasing too much insulin.

Too much insulin has been found to promote mTOR as shown below.



*The activation of mTORC1 by growth factors and nutrients inhibits autophagy and promotes protein synthesis. Over time, this may promote cellular stress (protein aggregation, organelle dysfunction, oxidative stress), which might lead to damage accumulation, a reduction in cell function and thus promote the development of aging-related diseases. Also, mTORC1 activation induces stem cell exhaustion, which reduces tissue repair and promotes tissue dysfunction. (7)**

What this is implying is the less mTORC1 we have in our cells, the better off we will be and the slower we shall decline. This compound is closely connected to diet, many of the studies on longevity and calorie restriction involve mTOR and have found that calorie restriction reduces its activation, primarily no doubt through lower levels of insulin and greater insulin receptor sensitivity. The herb of immortality may be found to affect mTOR through its health moderating effects on insulin one day.*

Gynostemma Helps Athletics

Probably of more interest to most younger people are the strong adaptogenic properties of Gynostemma tea that make it perfect for all things athletic.

Gynostemma has strong anti-fatigue effects. A study on mice that supplemented with it for 28 days was afterward forced to performed swimming tests and had their biochemical markers checked.

*The results demonstrated that GMP prolonged the exhaustive swimming time, increased the liver glycogen and muscle glycogen contents, and decreased the BLA (Blood Lactic Acid) and BUN (Blood Urea Nitrogen) levels. It also improved the SOD and GPH-Px activities in blood of mice.(8)**

Another forced swimming study, “...indicated that PGP (polysaccharides from *Gynostemma pentaphyllum*) supplementation had anti-fatigue effects, which could make mice swim for a longer time to exhaustion, with

*the blood lactic acid, serum urea nitrogen, serum triglycerides, and serum creatine kinase contents decreased, and the liver glycogen and muscle glycogen contents increased.(9)***

Let's examine a larger animal. You don't often find studies using horses as subjects but that we did. We won't go into the interesting case studies presented because that would take too long, instead, this quote neatly sums up the findings:

*The same changes in level of alertness, energy level and pink color of the gums and tongue, as seen in the horses on Gynostemma in the laminitis trial, was observed. **The higher energy level manifested as enthusiasm for work, not nervousness or jumpiness.**(11)**

That last bit is highlighted because we feel that might be of some importance to a few people. Enthusiasm for work (here they mean physical training) isn't something many people usually look for in their herbs. As can clearly be seen with these few studies though, mammals seem to derive very significant physical and stress-adaptive effects from consuming gynostemma.

Many other studies have been undertaken on animals that show similar results. None so far on humans. Though, there is one commonly cited on websites selling gynostemma that speak of a human study. It claims it was done on 30 healthy individuals and 270 athletes that showed many of the same results as above. We could not find the original source, so, for now, this line of marketing must be taken with a grain of salt.*

Gynostemma's Other Benefits

Gynostemma is one of those herbs that can seemingly do-it-all. In Chinese Medicine, it is considered *sweet* (building) and slightly *bitter* (good for digestion), growing *Yin* and supporting the *Yang*. It is applied to many conditions. Here are a few uses:

- Neuroprotective (11)(12)(13)*
- Helps support a healthy heart (14)(15)(16)*
- Works as a powerful antioxidant (11)(17)(18)*
- Immunomodulatory effects (13)(18)*
- Modulates the neurotransmitters serotonin and dopamine (12)(19)*

What Are Adaptogens? Healing Herbs for Stress and Fatigue | Time

[time.com](#) › [Health](#) › [Diet/Nutrition](#)

1.

Feb 28, 2018 - **Adaptogens** are non-toxic plants that are marketed as helping the body resist stressors of all kinds, whether physical, chemical or biological. These herbs and roots have been used for centuries in Chinese and Ayurvedic healing traditions, but they're having a renaissance today

Gynostemma Contraindications

No toxicity has been reported with moderate to high usage of gynostemma.*

If on anti-diabetic medication, have your doctor closely monitor any changes that might need to occur from taking gynostemma.*

Also, with blood thinners.

As no studies have determined if it is safe for pregnant women to consume, caution is advised.*

* These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure or prevent any disease.

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THIS WAS FROM ANOTHER SOURCE....

- Improve your circulation to sleep like a baby and start your day with so much energy your grandkids can't keep up with you, even if previously you haven't had a good night's sleep in years. (You may even find that sleeps not the only thing in the bedroom that's improved.)
- Stop forgetting where you parked your car and feel the brain fog finally lift.
- Supercharge your immune system and power through Winter without a care in the world.
- Support healthy blood pressure and cholesterol levels with no adverse side effects
- The list of scientifically proven health benefits continues to grow

Are there any side effects from Jiaogulan?

“Nausea, sometimes described as serious, has been associated with taking gynostemma. Also reported is a possible increase in the number of bowel movements.

No other side effects have been reported consistently from using gynostemma.

Are there any drug interactions I should be concerned about?

“Prescription Drugs

In studies, gynostemma has been shown to increase the time blood needs to clot. When it is taken with antiplatelet or anticoagulant drugs, the effect of the drug may be increased, resulting in uncontrolled bleeding.

- Antiplatelets include clopidogrel and ticlopidine
- Anticoagulants include heparin and warfarin

Because it can affect immune system function, gynostemma may interfere with the effects of drugs used to suppress the immune system after organ transplants or in other conditions. Taking gynostemma is not recommended for patients who take drugs such as:

- azathioprine (Imuran)
- CellCept
- cyclosporine (Neoral, Sandimmune)
- Prograf
- Rapamune
- Zenapax

Non-prescription Drugs

Gynostemma may reduce the ability of blood to clot after an injury. Aspirin may also decrease clotting, so gynostemma should not be taken at the same time as aspirin.

Herbal Products

- Danshen
- Devil's Claw
- Eleuthero
- Garlic
- Ginger (in high amounts)
- Ginkgo
- Horse Chestnut
- Panax Ginseng
- Papain

When should I be careful about consuming Jiaogulan?

*Pregnant or expecting women are advised to avoid gynostemma.

*Very little information is available on how gynostemma might affect an infant or a small child. Therefore, its use is not recommended while breastfeeding or during early childhood

I don't care for hot tea in the warm weather. Can I prepare Jiaogulan as an iced tea?

Jiaogulan is a refreshing iced tea. Just prepare the tea as normal and then chill or try preparing it as a sun tea.

Can I eat the leaves?

Yes. Most people find they have a pleasant taste.