

Horny Goat Weed



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Epimedium grandiflorum

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Other common names: Epimedium, Yinyanghuo

Botanical Family: Berberidaceae

Where is it found? China, the Himalayas, and Japan.

According to Chinese herbal folklore, this property was discovered by a goat herder who noticed sexual activity among the herd after the animals ate the plant.

Parts of the plant used: The leaves, stems, and flowers

How is it used? Horny goat weed is available as an herbal supplement; usually in raw herb, tablet, or capsule form and sometimes combined with other herbs such as Yohimbé bark (*Pausinistalia johimbe*), Saw palmetto (*Serenoa repens*), and Maca (*Lepidium meyenii*), for example.

What is it used for? Various species of the botanical genus *Epimedium* are purported to have aphrodisiac properties, especially *E. sagittatum*. For this reason, the plants are employed to treat impotence, as well as to increase libido or sexual desire.

Various species of *Epimedium* are also used in Traditional Chinese Medicine (TCM) to treat rheumatism and hypertension (high blood pressure) in menopausal women

Horny goat weed's main active ingredient is known as *icariin*, which can be found in certain herbal products as a standardized extract which range from 5% - 60% potency.

Icariin is purported to work by increasing levels of certain chemicals in the body, such as nitric oxide, which relaxes smooth muscle. Laboratory tests have shown that the plant's active ingredients relax rabbit penile tissue by augmenting nitric oxide and PDE-5 activity. Other studies have demonstrated that injections of *Epimedium* extract directly into the penis of the rat result in an increase in the flow of blood to that organ.

Icariin, the main active chemical compound in *Epimedium*, inhibits the activity of PDE-5, in a similar way as the pharmaceutical drugs sildenafil, commercially known as *Viagra*® and vardenafil (*Levitra*®). More research regarding the therapeutic use of this herb in humans is needed before it can be safely recommended for the treatment of erectile dysfunction.

A recent study undertaken by Italian scientists modified the chemical structure of icariin and also investigated various other chemical substances derived from it. Inhibitory concentrations for PDE-5 similar to those of the prescription drug sildenafil could be reached. Additionally, the most potent PDE-5 inhibitor of this series was also a potent inhibitor of the enzymes phosphodiesterase-6 (PDE-6) and cyclic adenosine monophosphate-phosphodiesterase (cAMP-PDE).

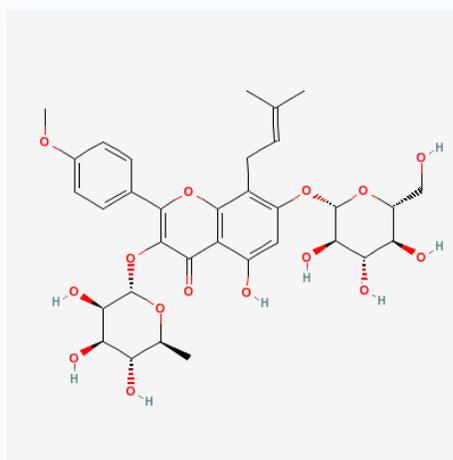


Illustration from Pub Chem/NCBI

Chemical structure of Icariin

Extracts of *Epimedium* have estrogenic action due to the presence of newly discovered potent *phytoestrogens* (plant substances which act as female hormones).



Safety/Precautions: The safety of this herb has not been adequately studied, especially during pregnancy and lactation. Also, some other herbs which are sometimes combined with Epimedium, such as yohimnbé bark, for example, may cause hypertension and mania in high doses.

Quality control in some herbal supplements is sometimes lacking, so it is best to consult first with a qualified health provider before taking any product containing this herb.

There are no known studies regarding the potential herb-drug interactions between horny goat weed and prescription pharmaceuticals used to treat erectile dysfunction, such as sildenafil and vardenafil. Therefore, it is not recommended to take horny goat weed, or any other herb purported to treat impotence along with these medications, without prior medical advice.



Before you decide to take any medicinal herb or herbal supplement, be sure to consult with a health care professional first. Avoid self-medication and self-diagnosis: Always be on the safe side!

References

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