

Native American Botanics

Skullcap - Native Women's Tonic



Scientific Name

Scutellaria lateriflora

Botanical Family

Labiatae

Common Names

Skullcap, scutellaria, Virginian skullcap, blue pimpernel, helmet flower, hoodwort, mad-dog weed, madweed, Quaker bonnet

Plant Part Used

Herb

Overview

Skullcap (*Scutellaria lateriflora*) is one of nature's most treasured nervines -- a plant drug that simultaneously eases nervous tension and renews the activity of the central nervous system. Skullcap has been used traditionally to treat anxiety, nervous tension, hysteria, convulsions, hydrophobia, and epilepsy. For centuries it has been recognized as a tonic, sedative, and antispasmodic that affects the nervous and musculo-skeletal systems. Also called mad-dog, skullcap was a popular therapy for rabies during the 19th century, but it is no longer used for this purpose. Today, skullcap is a common herbal treatment for insomnia, stress-related headaches, and symptoms of premenstrual syndrome (PMS).

Botanical Description

Skullcap, *Scutellaria lateriflora*, a perennial herb in the mint family, is native to North America, and grows throughout Canada and the Northern United States. This slender, herbaceous plant reaches about 60 cm in height. Its erect stem is heavily branched, and the plant has a thick cover of simple and glandular hairs. The English named the plant "skullcap" after the shape of the calyx, or sepals, at the base of the flowers. The fluffy calyx is flattened with two rounded, complete lips that resemble miniature medieval helmets.

Chemical Constituents

Flavonoids (apigenin, hispidulin, luteolin, scutellarein, lateriflorin), flavonoid glycoside (scutellarin) iridoids (catalpol), volatile oils (limonen, terpineol [monoterpenes], d-cadinene, caryphyllene, trans-B-farnesene, b-humulene [sesquiterpenes]), other constituents (lignin, resin, tannin).

Medicinal Uses

Traditional Uses: hysteria, nervous tension, nervous headaches, epilepsy, chorea, bitter tonic, febrifuge (for fever), rickets, neuralgia, pain, hiccups, headaches with incessant coughing.

Clinical Applications: Anxiety-related conditions of nervous tension, hysteria, agitation, epileptiform convulsions; muscle spasm, nervous exhaustion, PMS-related symptoms, stress-related headaches, post febrile nervous weakness, insomnia, nightmares, restless sleep, restless legs syndrome, mild Tourette's syndrome, chorea.

Pharmacological and Clinical Findings

A recent study showed that scutellarin and ikonnikoside, two compounds isolated from dried skullcap (*Scutellaria lateriflora*) extract bind to the serotonin 5-HT(7) receptor in the brain. This receptor may be involved in neuronal activity linked to hyperalgesic pain and neurogenic inflammation. The 5-HT(7) receptor is thought to play a role in both the pathogenesis and preventive treatment of several disorders, including migraine, depression, and cardiovascular disease. Therapeutic agents (not derived from skullcap) such as migraine prophylactic 5-HT receptor antagonists also bind to the serotonin 5-HT(7) receptor. This suggests that at least some of the pharmacological activity of skullcap may involve serotonin processing and neurotransmission.

In animal studies, extracts of *S. lateriflora* produced anxiolytic effects in test animals, apparently due to the presence of a flavonoid, baicalin, and its aglycone, baicalein, in the extract. GABA, the primary inhibitory neurotransmitter that promotes muscle relaxation, sleep, and analgesia, was also identified in water and ethanol

extracts of *S. lateriflora*. In other in vitro studies, both baicalin and baicalein were found to bind to the benzodiazepine site of the GABAA receptor. In a double blind, placebo-controlled clinical trial, skullcap produced anxiolytic effects in healthy volunteers. The results of this study and preclinical investigations strongly suggest that *S. lateriflora* has clinical benefits as a relaxing nerve

Dosage Range

Dried herb: 1-2 g or by infusion 3 x per day.

Safety

Skullcap is considered safe for healthy persons when taken in recommended dosages.

Side Effects

Skullcap should not be taken in excessive quantities because of its potential to cause liver damage.

Warnings/Contraindications/Precautions

Persons with hepatitis, other liver disorders, or potential liver problems should consult with a qualified health care provider knowledgeable about skullcap before using this plant. Skullcap should not be used by women who are lactating, pregnant, or planning to become pregnant. Over dosage of skullcap tincture has produced serious symptoms due to liver toxicity. However, the cause of the reported cases of liver toxic reactions was not the skullcap itself, but rather impurities from another herb, *Teucrium*. Potential adverse side effects of skullcap are minimal for dry herbal products such as Native American Botanicals Skullcap which are manufactured under strict standards of quality control.

Interactions

Although no specific interactions have been reported, skullcap should be avoided by persons taking sedative medications (including antihistamines), anti-anxiety medications such as benzodiazepines, or sleep aids such as barbiturates.

References

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Native American Botanics
4721 West Calle Torim
Tucson, Arizona 85746-9746
Toll Free: 1-800-915-8742
Voice: (520) 883-8300
Fax: (520) 292-1584