GOTU KOLA

Other Names:
Brahma-Buti, Brahma-Manduki, Centellase, Centella asiatica, Centella Asiática, Centella Asiaticque, Centella coriacea, Divya, Gota Kola, Hydrocotyle asiatica, Hydrocotyle Asiaticque, Hydrocotyle Indien, Indischer Wassernabel, Indian Pennywort, Ind...

gotu kola Overview Information
Gotu kola is an herb that is commonly used in Traditional Chinese and Ayurvedic medicine. The above-ground parts are used to make medicine.

Gotu kola is used to treat bacterial, viral, or parasitic infections such as urinary tract infection (UTI), shingles, leprosy, cholera, dysentery, syphilis, the common cold, influenza, H1N1 (swine) flu, elephantiasis, tuberculosis, and schistosomiasis.

Gotu kola is also used for fatigue, anxiety, depression, psychiatric disorders, Alzheimer's disease, and improving memory and intelligence. Other uses include wound healing, trauma, and circulation problems (venous insufficiency) including varicose veins, and blood clots in the legs.

Some people use gotu kola for sunstroke, tonsillitis, fluid around the lungs (pleurisy), liver disease (hepatitis), jaundice, systemic lupus erythematosus (SLE), stomach pain, diarrhea, indigestion, stomach ulcers, epilepsy, asthma, "tired blood" (anemia), diabetes, and for helping them live longer.

Some women use gotu kola for preventing pregnancy, absence of menstrual periods, and to arouse sexual desire.

Gotu kola is sometimes applied to the skin for wound healing and reducing scars, including stretch marks caused by pregnancy.

How does it work?
Gotu kola contains certain chemicals that seem to decrease inflammation and also decrease blood pressure in veins. Gotu kola also seems to increase collagen production, which is important for wound healing.

gotu kola Uses & Effectiveness 🌟

Possibly Effective for:
• Decreased return of blood from the feet and legs back to the heart (venous insufficiency). Taking gotu kola or a specific extract of gotu kola (Centellase) by mouth for 4-8 weeks seems to improve blood circulation and reduce swelling in people with poor blood circulation in the legs.

Insufficient Evidence for:
• Hardening of the arteries (atherosclerosis). People with atherosclerosis have fatty deposits called plaques along the lining of their blood vessels. There is some evidence that taking gotu kola for 12 months might help stabilize these plaques so they are less likely to break off and trigger clot formation, causing a heart attack or stroke.

• Mental function. Early research suggests that taking a combination of gotu kola, ginkgo, and docosahexaenoic acid (DHA) for 4 months does not improve mental function in healthy elderly adults.

• Preventing blood clots in the legs while flying. Gotu kola might help prevent blood clots related to long plane flights. Developing evidence suggests that gotu kola might decrease fluid and improve blood circulation in people traveling on
airplanes for more than 3 hours. However, it is not known if this finding translates into fewer blood clots.

- Increasing circulation in people with diabetes. Taking gotu kola for 6-12 months might help increase circulation and decrease fluid retention in people with diabetes whose small blood vessels have been damaged by their disease.

- Poor brain function related to liver disease. Early research suggests that taking a specific product containing gotu kola, brahmi, ginkgo, cat’s claw, and rosemary (Cognoblend) twice daily for 5 weeks, in addition to standard therapy, improves symptoms in people with poor brain function related to liver disease better than standard therapy.

- Excess scar tissue (keloids). There is some evidence that applying an extract of gotu kola known as madecassol to the skin might help reduce excess scar tissue.

- Red, scaly skin (psoriasis). Some evidence suggests that applying gotu kola on the skin might help reduce symptoms of psoriasis.

- Scarring. Early research suggests that applying a specific gotu kola cream (Alpha centella, not available in the U.S.) to the skin twice daily for 6-8 weeks after the removal of stitches might help reduce scarring.

- Schistosomiasis. There is some evidence that gotu kola injected by a healthcare provider might help blister wounds caused by a parasitic infection called schistosomiasis.

- Stretch marks associated with pregnancy. Early research suggests that applying a specific mixture of gotu kola, vitamin E, and a collagen compound in a cream (Trofolastin, not available in the U.S.) daily during the last 6 months of pregnancy might reduce stretch marks. There is also some evidence that another specific mixture of gotu kola, vitamin E, essential fatty acids, hyaluronic acid, elastin, and menthol in an ointment (Verum, not available in the U.S.) might help prevent stretch marks during pregnancy.

- Wound healing. Some evidence suggests that applying gotu kola on the skin might help improve wound healing.

- Fatigue.
- Anxiety.
- Common cold and flu.
- Sunstroke.
- Tonsillitis.
- Urinary tract infection (UTI).
- Hepatitis.
- Jaundice.
- Diarrhea.
- Indigestion.
- Other conditions.

More evidence is needed to rate the effectiveness of gotu kola for these uses.

**gotu kola Side Effects & Safety**

Gotu kola is **POSSIBLY SAFE** in pregnant women when applied to the skin. However, not enough is known about the safety of taking gotu kola by mouth during pregnancy. Avoid taking gotu kola by mouth if you are pregnant. There also is not enough reliable information about the safety of using gotu
kola during breast-feeding. Avoid using any form of gotu kola if you are nursing.

**Special Precautions & Warnings:**

**Pregnancy and breast-feeding:** Gotu kola is **POSSIBLY SAFE** in pregnant women when applied to the skin. But don’t take it by mouth. Not enough is known about the safety of taking gotu kola orally. There also isn’t enough known about the safety of using gotu kola during breast-feeding. Avoid using it if you are nursing.

**Liver disease:** There is concern that gotu kola might cause liver damage. People who already have a liver disease such as hepatitis should avoid using gotu kola. It might make liver problems worse.

**Surgery:** Gotu kola might cause too much sleepiness if combined with medications used during and after surgery. Stop using gotu kola at least 2 weeks before a scheduled surgery.

**gotu kola Interactions 🎧**

⚠️ **Major Interaction** Do not take this combination

- Sedative medications (CNS depressants) interacts with GOTU KOLA

  Large amounts of gotu kola might cause sleepiness and drowsiness. Medications that cause sleepiness are called sedatives. Taking gotu kola along with sedative medications might cause too much sleepiness.

  Some sedative medications include clonazepam (Klonopin), lorazepam (Ativan), phenobarbital (Donnatal), zolpidem (Ambien), and others.

⚠️ **Moderate Interaction** Be cautious with this combination

- Medications that can harm the liver (Hepatotoxic drugs) interacts with GOTU KOLA

  Gotu kola might harm the liver. Taking gotu kola along with medication that might also harm the liver can increase the risk of liver damage.

  Some medications that can harm the liver include acetaminophen (Tylenol and others), amiodarone (Cordarone), carbamazepine (Tegretol), isoniazid (INH), methotrexate (Rheumatrex), methyl dopa (Aldomet), fluconazole (Diflucan), itraconazole (Sporanox), erythromycin (Erythrocin, Ilosone, others), phenytoin (Dilantin), lovastatin (Mevacor), pravastatin (Pravachol), simvastatin (Zocor), and many others.

**gotu kola Dosing**

The following doses have been studied in scientific research:

**BY MOUTH:**

- For blood circulation problems in the legs (venous insufficiency): 60-180 mg daily of gotu kola extract.

Conditions of Use and Important Information:
This information is meant to supplement, not replace advice from your doctor or healthcare provider and is not meant to cover all possible uses, precautions, interactions or adverse effects. This information may not fit your specific health circumstances. Never delay or disregard seeking professional medical advice from your doctor or other qualified health care provider because of something you have read on WebMD. You should always speak with your doctor or health care professional before you start, stop, or change any prescribed part of your health care plan or treatment and to determine what course of therapy is right for you.
Gotu Kola

**Scientific names:** *Centella asiatica* (L.) Urban. Family: Apiaceae (carrots).

**Common names:** Gotu kola, hydrocotyle, Indian pennywort, Brahmi, Manduukaparani, Tsubokusa, talepetrako, spadeleaf, Asiatic pennywort

**Efficacy-safety rating:**

••...Ethno or other evidence of efficacy.

**Safety rating:**

●...Little exposure or very minor concerns.

**What is Gotu Kola?**

*Centella asiatica* is a perennial creeping herb in the carrot family. The plant is also known as gotu kola and grows abundantly in shady, moist, or marshy areas. It is distributed widely in many parts of the world, including India, Sri Lanka, Madagascar, South Africa, Australia, China, and Japan.

**Slideshow: Cystic Fibrosis: Living With The Octopus Inside Your Chest**

**What is it used for?**

**Traditional/Ethnobotanical uses**

Gotu kola has a long history of use in numerous medical systems. In India, the plant has been used to treat skin inflammation, diabetes, cough, cataracts and other eye conditions, and to improve memory. In Europe, an infusion of the aerial parts of the plant was used to purify the blood and treat wounds, ulcers, skin inflammation, and hypertension. A similar infusion has been used in Indonesia and Brazil to help improve memory. In Malaysia, the plant was used to treat respiratory ailments, such as bronchitis and asthma, and stomach complaints, including dysentery, kidney trouble, inflammation of the urethra, and swelling. In Malaya, an infusion from this plant is sold as a tonic and cold beverage to treat liver ailments, tuberculosis, and blood in the urine. In the past, people in Japan valued the plant for its diuretic and detoxicant properties. Sri Lankans noticed that elephants, known for their longevity, ate the leaves of the plant. Thus, the leaves were believed to promote long life, with a suggested “dosage” of a few leaves each day. In South China, the plant is used as a dietary supplement to promote health and immune system function.

**General uses**

Gotu kola has been traditionally used as treatment for a variety of conditions and as an aphrodisiac. It may be useful in treating wounds, varicose veins, skin disorders, blood flow problems, and to enhance memory, although there is little clinical information to support these claims.

**What is the recommended dosage?**

Dosages of gotu kola in crude form range from 1.5 to 4 g/day. Various extracts standardized to asiaticoside content also are available and have been studied in clinical
trials in blood flow problems and wound healing at extract doses of 30 to 90 mg/day. Wound-healing studies have involved topical application of a hydrogel ointment containing a titrated extract of *C. asiatica* (TECA). Commercial manufacturers have numerous dosage regimens listed for gotu kola.

**How safe is it?**

**Contraindications**

Avoid use if hypersensitive to any of the ingredients of gotu kola.

**Pregnancy/nursing**

Avoid use during pregnancy and lactation because gotu kola may induce menstruation.

**Interactions**

None well documented.

**Side Effects**

Contact dermatitis is documented in some clinical trials.

**Toxicities**

Three cases of liver toxicity have been reported with patients using *C. asiatica* for 20 to 60 days.


Gotu Kola (Centella Asiatica)

**Gotu Kola Benefits**

Gotu Kola is a rejuvenative nervine recommended for nervous disorders, epilepsy, senility and premature aging. As a brain tonic, it is said to aid intelligence and memory. It strengthens the adrenal glands and cleanses the blood to treat skin impurities. It is said to combat stress and depression, increase libido and improve reflexes. It has also been indicated for chronic venous insufficiency, minor burns, scars, scleroderma, skin ulcers, varicose veins, wound healing, rheumatism, blood diseases, congestive heart failure, urinary tract infections, venereal diseases, hepatitis and high blood pressure.

In India, Gotu kola is regarded as perhaps the most spiritual of all herbs. Growing in some areas of the Himalayas, gotu kola is used by yogis to improve meditation. It is said to develop the crown chakra, the energy center at the top of the head and to balance the right and left hemispheres of the brain, which the leaf is said to resemble. It is regarded as one of the most important rejuvenative herbs in Ayurvedic Medicine. Sri Lankans noticed that elephants, renowned for their longevity, munched on the leaves of the plant. Thus the leaves became known as a promoter of long life. It is said to fortify the immune system, both cleansing and feeding it and to strengthen the adrenals. It has been used as a pure blood tonic and for skin health. It has also been used to promote restful sleep. Gotu kola is often confused with kola nut. Due to this confusion, some people assume the rejuvenating properties of gotu kola are due to the stimulating effects of caffeine contained in kola nut. In fact, gotu kola is not related to kola nut and contains no caffeine.
energizes the central nervous system and rebuilds energy reserves.

Gotu Kola can relieve high blood pressure and helps the body defend against various toxins. It is used to treat rheumatism, blood diseases, congestive heart failure, urinary tract infections, venereal diseases, hepatitis and high blood pressure. It is a mild diuretic that can help shrink swollen membranes and aid in the elimination of excess fluids. It hastens the healing of wounds.

Gotu kola has a positive effect on the circulatory system. It improves the flow of blood while strengthening the veins and capillaries. It has been used successfully to treat phlebitis, leg cramps, and abnormal tingling of the extremities. It soothes and minimizes varicose veins and helps to minimize scarring.

It reduces scarring when applied during inflammatory period of the wound. It was found effective when applied on patients with third degree burns, when the treatment commenced immediately after the accident. Daily local application to the affected area along with intramuscular injections, limited the shrinking of the skin as it healed. It is known to prevent infection and inhibit scar formation. It is also useful in repairing skin and connective tissues and smoothing out cellulite.

The primary active constituent is triterpenoid compounds. Saponins (also called triterpenoids) known as asiaticoside, madecassoside, and madasiatic acid are the primary active constituents. These saponins beneficially affect collagen (the material that makes up connective tissue), for example, inhibiting its production in hyperactive scar tissue.

Due mostly to the actions of asiaticoside and madecassoside that it contains, gotu kola may prevent, delay and treat a condition known as chronic venous insufficiency. This occurs when valves in the veins that carry blood back to the heart are weak or damaged and blood collects in the veins of the legs. This collection of blood can lead to varicose veins, spider veins, or sores on the legs. More serious results can include blood clots in the legs. Asiaticoside and madecassoside may help keep veins and other blood vessels from leaking. Because it strengthens the walls of blood vessels, gotu kola may also be effective for slowing retinopathy, the gradual break down of the retina in the eyes. It may also help to relieve hemorrhoids. These same effects are thought to strengthen the lining of the gastrointestinal tract, making gotu kola potentially useful for treating ulcers.

Gotu kola has long been used in topical, oral, and injected forms to treat leprosy. In addition to its ability to heal the sores associated with leprosy, gotu kola may also have antibacterial properties. Evidence from studies shows that asiaticoside may damage the cell walls of the bacteria that cause leprosy. The weakened bacteria are easier for the body's immune system to eliminate.

Modern Studies

According to modern studies, gotu kola does offer support for healthy memory function. A study conducted in 1992 by K. Nalini at Kasturba Medical College showed an impressive improvement in memory in rats which were treated with the extract (orally) daily for 14 days before the experiment. The retention of learned behavior in the rats treated with gotu kola was 3 to 60 times better than that in control animals. Preliminary results in one clinical trial with mentally retarded children was shown to
increase scores on intelligence tests (Bagchi, 1989). This does not mean gotu kola will improve intelligence for all special or normal children.

According to pharmacological studies, one outcome of gotu kola's complex actions is a balanced effect on cells and tissues participating in the process of healing, particularly connective tissues. One of its constituents, asiaticoside, works to stimulate skin repair and strengthen skin, hair, nails and connective tissue (Kartnig, 1988).

**Gotu Kola Herb Notes / Side Effects**

**Latin Names**

Centella asiatica, Hydrocotyle asiatica

**Common Names**

Gotu Kola, Brahmi, Chi-hsueh Ts'ao, man t‘ien hsing, Indian Pennywort, Brahma-manduki, Marsh penny, Water pennywort.

**Properties**

Alterative, diuretic, febrifuge, nervine, rejuvenative

**Uses**

Chronic venous insufficiency, mental function, minor burns, scars, scleroderma, skin ulcers, varicose veins, wound healing, rheumatism, blood diseases, congestive heart failure, urinary tract infections, venereal diseases, hepatitis and high blood pressure, phlebitis, leg cramps, and abnormal tingling of the extremities. Improves circulation, strengthens veins and capillaries.

**Indicated for**

Ayurvedic practitioners suggest the following applications for Gotu Kola: Adrenal purifier, AIDS, blood purifier, eczema, epilepsy, insanity, hypochondria, intermittent fevers, hair loss, immune system boost (cleansing and nourishing), longevity, memory, nervous disorders, psoriasis, senility, skin conditions (chronic and obstinate), tetanus, convulsions, elephantiasis, bowel disorders. Rejuvenative for brain cells and nerves and promotes intelligence.

Gotu kola may cause miscarriage if it is taken or applied during pregnancy. Therefore, pregnant women should avoid using it in any form.

Gotu Kola may raise cholesterol and blood sugar levels so individuals with high cholesterol or diabetes should not take or apply it.

Very little information is available on how gotu kola might affect an infant or a small child. Therefore, its use is not recommended while breast-feeding or during early childhood.


**Gotu Kola: The Cure for Varicose Veins?**

Written by Elea Carey | Published on October 8, 2014

Medically Reviewed by Peggy Pletcher, MS, RD, LD, CDE on October 8, 2014

**Can gotu kola get rid of your varicose veins?**

Some of us would do just about anything to get rid of varicose veins, but they’re notoriously difficult to abolish.
Many people have turned to folk remedies to treat varicose veins. One of the most popular is gotu kola, which is said to increase blood flow and reduce swelling. A few contemporary studies have confirmed that gotu kola has beneficial health effects.

More information is needed to determine just how useful the herb is. That said, small amounts of gotu kola are harmless for most people and just might do you some good. Pregnant and nursing moms should ask their doctors about using gotu kola. It’s also not advised for people who have liver problems.

What Is Gotu Kola?

Gotu kola is a member of the parsley family that grows in India, Southeast Asia, and Africa. It thrives at the edge of calm bodies of water, spreading its venous stems. The leaves and stems are the part of the plant we eat or as a medicine. Like the parsley you use to garnish a plate, it has almost no flavor.

Gotu kola has been used as a medicine in the Indian Ayurvedic tradition, and in African and Chinese medicine. In addition to varicose veins, it’s used to treat conditions as varied as syphilis, asthma, and skin problems like psoriasis. People also use it in dishes much in the same way you’d use parsley or watercress.

Does Gotu Kola Really Help Varicose Veins?

Gotu kola contains a chemical called triterpenic fraction of Centella asiatica (TTFCA). TTFCA is particularly beneficial for varicose veins since it stimulates the production of collagen and elastin. These connective tissues are needed to strengthen the internal lining and walls of your veins.

What Are Varicose Veins?

You know them when you see them: purple, bulging ridges and bumps on your legs. Varicose veins are caused when your veins lose their youthful elasticity. They’re made worse by the pressure you put on the veins in your legs and feet when you stand or sit a lot. Since veins are blood vessels that need help to return blood to the heart, such as muscle contraction, movement such as exercise is essential. This is another example why exercise and movement make you healthier all over. Pregnancy can also increase the likelihood of varicose veins.

Many women will get varicose veins. While some accept them, others can’t wait to get rid of them. Even if yours don’t bother you, consider asking your doctor about your varicose veins. They’re not just a cosmetic problem — they could indicate you have a more dangerous condition, such as poor blood flow.
Stronger veins mean fewer varicose veins. Collagen and elastin are also elements of healthy skin that we lose as we age, so there is reason to believe gotu kola can help your skin look healthier.

In addition to helping with varicose veins, gotu kola could help with venous insufficiency by reducing swelling and improving blood flow. Venous insufficiency is a medical condition in which your blood has a hard time flowing properly. It can be caused by varicose veins and contribute to their unsightliness.

What’s the Bottom Line?

Gotu kola comes in many different forms. If you are interested in using it in a tea, then the dried herb form would be best. If tea is not your thing, try the powdered herb that comes in capsules. There are also tinctures, both alcoholic and alcohol-free.

Read the label of your particular gotu kola preparation for dosage instructions.

In most cases, gotu kola won’t hurt you. It seems likely that it could help you get rid of varicose veins, though not likely to banish them entirely. If the recommended dosage doesn’t produce any bad side effects, and your doctor says it’s all right, enjoy gotu kola in moderation. If your varicose veins don’t go away, talk to your doctor about your circulation.

http://www.healthline.com/health/gotu-kola-varicose-veins

Benefits & Uses for Gotu Kola

by Don Amerman

Gotu kola is a low-growing perennial plant known scientifically as Centella asiatica. The tropical plant, a member of the parsley family, has small fan-shaped leaves and flowers that range in color from white to pink and light purple. The traditional healers of China and India have long prized gotu kola’s leaves and stems for their reputed medicinal properties, some of which have been confirmed in scientific studies. Consult your doctor before using gotu kola or any other herbal remedy.

Traditional and Contemporary Uses

For centuries, traditional healers -- most notably in China, India and Indonesia -- have used gotu kola to treat a wide array of illnesses and medical conditions. Traditional uses include the healing of wounds, treatment of skin conditions such as leprosy and psoriasis, and improvement of cognitive function. Others have used the herbal remedy to treat such diverse ailments as syphilis, gastric ulcers, mental fatigue, epilepsy, asthma, diarrhea, fever and hepatitis. The University of Maryland Medical Center says that gotu kola today is used most often to treat varicose veins, chronic venous insufficiency and psoriasis. However, modern research studies indicate the herb may have additional medicinal applications.

Reduces Anxiety

Indian researchers conducted a small-scale clinical trial to determine what, if any, effect gotu kola might have on generalized anxiety and related symptoms, such as depression. They assembled a group of 33 test subjects, who were given two 500-milligram capsules
of gotu kola extract daily over a 60-day test period. Researchers observed test participants throughout the study period and gave them questionnaires to fill out at the outset of testing, after 30 days and at the conclusion of testing. Based on their observations and student responses, researchers found that the gotu kola supplement significantly reduced symptoms of anxiety. Writing in a 2010 issue of “The Nepal Medical College Journal,” the research team said their findings suggest that gotu kola may be useful in the treatment of generalized anxiety disorder, or GAD.

Promotes Wound Healing

In a broad review of preclinical and clinical studies on the pharmacological properties of gotu kola, a team of Indian researchers noted that multiple animal studies suggest the herbal remedy effectively speeds the healing of wounds. They cited a study in which various formulations -- cream, gel and ointment -- of an aqueous gotu kola extract were applied to open wounds on laboratory rats. After 24 days of treatment, researchers found that thrice-daily gotu kola applications had stimulated cellular proliferation and collagen synthesis at the animals’ wound sites. The review of the herb’s medicinal properties was published in the September-October 2010 issue of “Indian Journal of Pharmaceutical Sciences.”

Antioxidant Properties

Brazilian researchers evaluated an aqueous extract of gotu kola in terms of its levels of antioxidant and cytotoxic activity. They also looked into the extract’s contents of both phenolics and flavonoids, plant-based compounds with significant medicinal properties. Reporting their findings in a 2009 issue of “International Journal of Molecular Sciences,” the research team reported that the extract showed strong antioxidant properties during testing. Researchers also noted that the gotu kola extract exhibited promising cell-killing abilities when tested in vitro on mouse melanoma, human breast cancer and rat glioma cell lines.


Gotu kola

Botanical name

Centella asiatica

Actions

Gotu kola has been used as a medicine for thousands of years in India, China, and Indonesia, particularly for healing wounds, improving mental function and treating the symptoms of leprosy. It even has a reputation for promoting longevity.

Gotu kola has been shown to:

- increase the strength of the dermis and increased keratinisation (healing) of the epidermis of the skin
- stimulate blood vessel growth into connective tissue
- increase antioxidant and collagen concentration in wounds and stimulate wound healing
- enhance production of mucin, hyaluronic acid, and chondroitin sulfate, all required for connective tissue, skin, hair, nail and joint repair and growth
• exhibit anti-anxiety activity and enhance mental function

• have anti-inflammatory activity

Conditions commonly used for

Historically, gotu kola has been used for chronic skin conditions (including psoriasis and leprosy), abscesses, syphilis, hepatitis, gastric ulcers, rheumatism, mental fatigue, epilepsy, diarrhoea, fever, and asthma. Modern research and use particularly applies gotu kola to:

• Connective tissue disorders - including wounds, burns, scleroderma, psoriasis

• Joint disease - including psoriatic arthritis, ankylosing spondylitis, rheumatoid and osteoarthritis

• Blood vessel disorders, especially venous insufficiency (varicose veins, varicose ulcers, leg oedema)

• Mental health - as an aid for mental fatigue and learning, and to reduce anxiety and insomnia. Potential applications include Alzheimer's dementia.

Common dosage range

Generally recommended doses include 2 medium fresh leaves each day with food or half a teaspoon of dried leaf infused as a tea, taken three times per day.

Standardised extracts in tablets or capsules usually contain a certain concentration of triterpenes (known active constituents), with doses used in studies ranging from 20 mg to 180 mg three times per day.

Cautions, Contraindications and Side Effects

• Gotu kola is generally regarded as safe and well tolerated. Rare side effects may include contact dermatitis, headache, gastric upset, nausea, and sedation.

• Exceedingly high doses may result in sedation, vertigo and stupor.

• Not recommended during pregnancy and breastfeeding and in infants.

Links & Other Information

is not within the scope of the YourHealth website to provide comprehensive information on documented or potential herb-drug interactions. Please seek the advice of your healthcare practitioner.

Contact YourHealth for referenced material regarding this herb, any conditions or therapies mentioned.

A Medical Practitioner specialising in Integrative Medicine, a qualified Nutritionist or Naturopath will be well trained in the use of nutrients, including their proper dosage, contraindications and potential drug interactions.


Centella asiatica

From Wikipedia, the free encyclopedia
**Scientific classification**

Kingdom: Plantae

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Order: Apiales

Family: Apiaceae

Subfamily: Mackinlayoidae

Genus: Centella

Species: C. asiatica

**Binomial name**

Centella asiatica (L.) Urban

**Synonyms**

Hydrocotyle asiatica L.
Trisanthus cochinchinensis Lour.

**Centella asiatica**, commonly known as centella and gotu kola, is a small, herbaceous, frost-tender perennial plant of the family Mackinlayaceae or subfamily Mackinlayoideae of family Apiaceae, and is native to wetlands in Asia. It is used as a medicinal herb in Ayurvedic medicine, traditional African medicine, and traditional Chinese medicine. It is also known as the Asiatic pennywort or Indian pennywort in English, among various other names in other languages.

**Description**

Centella grows in tropical swampy areas. The stems are slender, creeping stolons, green to reddish-green in color, connecting plants to each other. It has long-stalked, green, rounded apices which have smooth texture with palmately netted veins. The leaves are borne on pericladial petioles, around 2 cm. The rootstock consists of rhizomes, growing vertically down. They are creamish in color and covered with root hairs.

The flowers are white or pinkish to red in color, born in small, rounded bunches (umbels) near the surface of the soil. Each flower is partly enclosed in two green bracts. The hermaphrodite flowers are minute in size (less than 3 mm), with 5-6 corolla lobes per flower. Each flower bears five stamens and two styles. The fruit are densely reticulate, distinguishing it from species of Hydrocotyle.
which have smooth, ribbed or warty fruit. The crop matures in three months, and the whole plant, including the roots, is harvested manually.

**Habitat**

*Centella asiatica* is indigenous to the Indian subcontinent, Southeast Asia, and wetland regions of the Southeastern US. Because the plant is aquatic, it is especially sensitive to biological and chemical pollutants in the water, which may be absorbed into the plant.

**Culinary use**

*Bai bua bok* served as a refreshing drink in Thailand

Centella is used as a leafy green in Sri Lankan cuisine, where it is called *gotu kola*. In Sinhalese, *gotu* is translated as "conical shape" and *kola* as "leaf". It is most often prepared as *malluma* (මලුම), a traditional accompaniment to rice and curry, and goes especially well with vegetarian dishes, such as *dhal*, and *jackfruit* or *pumpkin curry*. It is considered quite nutritious. In addition to finely chopped *gotu kola, malluma* almost always contains grated *coconut*, and may also contain finely chopped green *chilis*, *chili powder*, *turmeric* powder and *lime* (or lemon) juice. A variation of the nutritious porridge known as *kola kenda* is also made with *gotu kolaby* the Sinhalese people of Sri Lanka. *Kola Kenda* is made with very well-boiled red rice (with extra liquid), coconut milk and *gotu kola*, which is pureed. The porridge is accompanied with *jaggery* for sweetness. Centella leaves are also used in sweet "pennywort" drinks.

In *Indonesia*, the leaves are used for *sambai oi peuga-ga*, an *Aceh* type of salad, and is also mixed into *asinan* in Bogor.

In *Vietnam* and *Thailand*, this leaf is used for preparing a drink or can be eaten in raw form in salads or *cold rolls*. In Bangkok, vendors in the famous *Chatuchak Weekend Market* sell it alongside coconut, *roselle, chrysanthemum*, orange and other health drinks.

In *Malay cuisine* the leaves of this plant are used for *ulam*, a type of Malay salad.

It is one of the constituents of the Indian summer drink *thandaayyee*.

In *Bangladeshi cuisine* mashed centella is eaten with rice.

Centella is widely used in various *Indian Regional cuisines*. It is known as *vallarai* in Tamil. It is an important component of *unave marunthu* concept which translates to food is medicine. Vallarai Kootu is a dish made out of centella and Dal. Vallarai thuvaial/thugaiyal, poriyal, spice podi (to be mixed with rice and ghee) and chutney are all various applications of centella in home cooking.

**Medicinal effects**

According to the *American Cancer Society*, although *C. asiatica* is promoted for its health benefits, "available scientific evidence does not support claims of its effectiveness for treating cancer or any other disease in humans".

**Potential as phytoremediation tool**

In the context of *phytoremediation*, *C. asiatica* is a potential *phytoextraction tool* owing to its ability to take up and *translocate* metals from root to shoot.
when grown in heavy-metal-contaminated soil.

Chemistry[edit]

Centella asiatica has large amounts of pentacyclic triterpenoids including asiaticoside, brahmoside, asiatic acid, and brahmic acid also known as madecassic acid. Other products include centellose, centelloside, and madecassoside.

The triterpenecompounds of Centella asiatica

<table>
<thead>
<tr>
<th>Compound</th>
<th>R′</th>
<th>R″</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asiatic acid</td>
<td>H</td>
<td>OH</td>
</tr>
<tr>
<td>Brahmic acid/Madecassic acid</td>
<td>O</td>
<td>OH</td>
</tr>
<tr>
<td>Asiaticoside</td>
<td>H</td>
<td>O-glucose-glucose-rhamnose</td>
</tr>
<tr>
<td>Madecassoside</td>
<td>O</td>
<td>O-glucose-glucose-rhamnose</td>
</tr>
</tbody>
</table>

Other names[edit]

In South Asia, other common names of centella include ଥକକଡ (Thalkudi) in Odia[14] కడవ (sarswathi aku) in Telugu; കടവൻ (kudavan), തുടച്ചി (muthhil), or കുടങലി (kudangal) in Malayalam; පංකුණි (thankuni) in Bengali; උජුගුමා (gotu kola) in Sinhala; අරාම්භි / අරාම්භී (brahmi) in Marathi; ఓడెలగ (ondelaga) in Kannada; மாலூரை (vallaarai) in Tamil; ສ்ய ຝක (myin-khwar) in Burmese; brahmi booti in Hindi; perook in Manipuri; മാട്രിമുണി (manimuni) in Assamese; timare in Tulu; tangkuanteh in Paite; ब्रह्मबुटी (brahmatapre) or थोड़तापे (ghodtapre) in Nepali; and කྲོལྦ སྐྱ སྐྱུ སྐྱ སྐྱུ (kholcha ghyan) in Newari (Nepal Bhasa).

In India, particularly, it is popularly known by a variety of names: bemgsag, brahma manduki, brahmanduki, brahmi, ondelaga or ekpanni (south India, west India), sarswathi aku (Andhra Pradesh), gotu kola, khulakhudi, mandukaparni, mandookaparni, or thankuni (Bengal), depending on region. Bacopa monnieri is the more widely known Brahmi; both have some common therapeutic properties in Vedic texts and are used for improving memory. C. asiatica is called brahmi particularly in north India, although that may be a case of mistaken identity introduced during the 16th century, whenbrahmi was confused with mandukaparni, a name for C. asiatica. Probably the earliest study of mandookaparni as medya rasayana (improving the mental ability) was carried out at the Dr. A. Lakshmipathy Research Centre (now under CCRAS).

In Southeast Asia, it is known as ស្ដេចតាអ៉ាក្រ (sleuk tracheakkranh) in Khmer; မိုင်းချောင်း (mying khwar which means "Horse Hoof leaf") in Burmese; ไบบัวบก (bai bua bok) in Thai; rau má ("mother vegetable") inVietnamese; pegagan or antanan in Indonesian; takip-kohol (literally "snail lid") or yahong yahong ("little bowl") inFilipino; and pegagan or pegaga in Malay.

In East Asia, it is known as 雷公根 (lei gong gen; literally "thunder god's root") or 崩大碗 (bang dai wun; literally "chipped big bowl") in Chinese; and 병풀 (byeong-pul, 瓶—, literally “bottle/jar grass”) in Korean.
Folklore[edit]

Gotu kola is a minor feature in the longevity tradition of the T'ai chi ch'uan master Li Ching-Yuen. He purportedly lived to be 197 or 256, due in part to his usage of traditional Chinese herbs, including gotu kola.

See also[edit]