

Medicinal properties of Giloy for Human Health (*Tinospora cordifolia*)

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Introduction

In ancient India, Ayurveda is a five thousand-year-old system of medicine, which helps to guide our modern lifestyle and develop beneficial habits for health. In this, products, medicines and substances used in everyday life are prepared from natural things including herbs. Whose treatment of diseases and leading a healthy lifestyle was considered one of the best. The literal meaning of Ayurveda is "the science of life". It is a holistic system of health which is being followed since ancient times. According to Ayurveda, health is not merely freedom from diseases or ailments, but it is a state of physical, mental and spiritual balance. Present human lifestyle is so modern that it has become a dumping ground of chemicals day by day. The food we eat, the air we breathe and the water we drink, all become contaminated. These harmful, fat-soluble chemicals can easily accumulate in the fat cells of the human body. And if our medicine completely depends on chemical

drugs and medicines, it will be injustice to our body. Plants are considered the safest form of therapy, with a multi-target action with minimal or no side effects. It is necessary to explore the world of herbs to create a platform for natural, traditional and alternative health. Giloy, Sanskrit name is Amrita which means Nectar of Life and it is also known as Roots of Immortality in English.



Giloy (*Tinospora cordifolia*), is a perennial, vine-like plant commonly known as Guduchi, Amrita, Gurcha, Tinospora and other common names and synonyms, Amruthavalli, Madhuparni, Guduchika, Chinnobhava,

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Vatsadani, Tantrika, Kundalini, Chakralakshnika (Sanskrit), Gulancha (Bengali), Gurcha (Hindi), Garo, Galak (Gujarati), Thippathiga (Telugu), Amritvalli (Kannada), Amrita, Gilo (Kashmiri), Chittamruthu (Malayalam), Gulvel (Marathi).



It is highly regarded for its medicinal value. This has long branches, wavy aerial roots and betel leaf stems. Stems are succulent, creamy white to grey, deeply cracked, papaya bark and rosette-like pores (lentils). The leaves are simple, alternate, cordate-oval, and very thin with a long leaf stalk at the base and apex. Inflorescences, called racemes, are both axillary and terminal; Flowers small, greenish-yellow, sessile bisexual. The fruits are subglobose drupes with three early stalks, turning red when ripe. The plant bears flowers in summer and fruits in winter. The plant is genetically diverse with different component.

Medicinal properties: -

Giloy have different constituents in various part of the plant in which use to treatment of various human diseases. It is a multipurpose plant and used for various purposes in Ayurvedic system for its general

tonic, antipatriotic, anti-spasmodic, anti-inflammatory, antipyretic, anti-arthritic, anti-lepritic, anti-allergic and anti-diabetic properties.

1. Purpose of Chronic Fever: -

According to Ayurveda, fever occurs due to imbalance of Pitta (fire), Vata (air) and Kapha (phlegm) energies in the human body. Stress, lifestyle disorders or wrong nutrition can cause imbalances, which can lead to poor digestion. This means that toxins in the small and large intestine disintegrate and spread throughout the body. Add a viral or bacterial infection, and you get a fever. In Ayurveda, it is reported that Giloy, an anti-inflammatory, antipyretic herb, fresh Giloy juice, the antipyretic substance present in it, works wonders in chronic fever and recurrent fever. And it is also helpful in speedy recovery. Giloy has jwarghana (febrile) property which reduces fever. It also increases platelet count and can help with dengue fever.



2. **Immunity booster** Giloy contains a number of antioxidants which fight free-radicals, keep your cells healthy and get rid of diseases. It helps to remove toxins and purifies blood, fights against bacteria. It improves the immune system and the body resistance against infections. The stem is bitter, stomachic, diuretic, stimulates bile secretions, allays thirst, enriches the blood and cures jaundice.
3. **Beneficial for Anti-diabetic:-** As per the research for anti-diabetic potential in giloy, it was found that By adenosine monophosphate-activated protein kinase activation, it decreases the blood sugar and cholesterol level and maintains the blood pressure. Besides, tinosporin, isocolumbin, palmatine, tinocordiside, cordioside and β -sitosterol compounds present in stem and root which are also reported to possess antidiabetic, antihyperlipidemic and antioxidant properties which help to treat diabetes particularly Type 2 diabetes. It also helps to lower bloodsugar. It has been reported to mediate its anti-diabetic potential through mitigating oxidative stress (OS), promoting insulin secretion and also by inhibiting gluconeogenesis and glycogenolysis, thereby regulating blood glucose. The major phytoconstituents of *Tinospora cordifolia* are alkaloids, tannins, cardiac glycosides, flavonoids, saponins, and steroids as have been reported to play an anti-diabetic role.
4. **Beneficial in digestion:-** Giloy drug, the antiamoebic effect of a crude drug formulation containing *T. cordifolia* against *Entamoeba histolytica* was studied. There were varying degrees of inhibition of the enzymes, viz. DNase, RNase, aldolase, alkaline phosphatase, acid phosphatase, α -amylase and protease activities of crude extracts of axenically cultured amoebae. It is very beneficial in improving digestion and treating bowel related issues. Giloy powder with some amla can use regularly to maximum results, or with jaggery for treating constipation.
5. **Beneficial for Anti-HIV effects:-** HIV came to the attention of the world in the 1980s and about 75 million people are living with HIV. The reason which, According to a report, rapidly increasing prostitution, population and use of infected needles in pharmacies may be the reason for the spread of this virus. Ayurveda researcher told that in Ayurveda texts there is a mention of a disease with symptoms like AIDS,

whose name has been given as Oja Kshaya. Alkaloids, flavonoids, carbohydrates, tannins, phenolic compounds, amino acids, proteins and glycosides may also account for its very high antimicrobial activity against test microorganisms which is very beneficial for people who are suffering from HIV. Giloy is useful in treating other autoimmune disorders. Regular use of giloy will help in decreasing the symptoms related to HIV. It helps to improve the immune system of persons with HIV or other immune disorders. The side effects caused by HIV or other immune disorders can be treated by giloy. Around 55-60% of persons suffering from HIV feel relieved from the symptoms. Not only the stem of giloy but also the leaves are used in making medicines for the diseases.

6. Beneficial for Anti-cancer: -

Tinospora cordifolia (Giloy) isolated Palmatine, could notably increase the antioxidant enzyme levels for antioxidant enzyme activity like GSH, SOD, catalase, and inhibited lipid peroxidation, showing its role in the detoxification pathway. Both enzyme activities and histological analysis suggest that environmental carcinogens that induce skin carcinogenesis can be

inhibited by oral administration of palmatine in the daily diet to achieve some protection against skin cancer and different samples of palmatine can inhibit papilloma growth.

7. Beneficial for Skin problems:-

Tinospora cordifolia (Giloy), It is well thought-out good for treating skin conditions like acne, urticaria, scabies, wounds, ringworm infection etc. In some diseases giloy may not work alone so it is then individual with Neem and turmeric for topical application. In Sajawal Sindh district of India, paste of Giloy leaves is useful daily for scabies whereas in District Nawabshah it is taken orally for one week. It leaves are tied as a bandage for ringworm infections in District Thatta (Sindh).