



## **Amla – The Wonder Of Ayurvedic Medicine**

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### **Introduction**

An interesting trend in the use of “food as medicine” is the emergence and classification of some lesser known fruits as “super fruits”, with benefits that go far beyond nourishment alone. Amla fruit enjoys a special place in Ayurveda, as a nurturing food, that is credited with a number of health benefits. In the Ayurvedic tradition, the fruit forms an integral part of medicinal preparations that are used to support wellness and healthy aging (Majeed *et al.*, 2009). According to believe in ancient Indian mythology, it is the first tree to be created in the universe (Khan, 2009). Amla is known for its medicinal and nutritional properties. It is the richest source of vitamin C among fruits like Barbados cherry or West Indian cherry. It is one of minor fruits even though it has got an important fruit crop among the farmers, nursery man and scientist because of commercial significance and highly remunerative without much care. The demand for its processed products is gearing up day by day in domestic as well as in global market (Periyathambi, 2006).

The amla (*Emblica officinalis syn. Phyllanthus emblica*) or Indian goose berry is an important minor arid zone fruit and a crop of commercial significance. There is growing evidence that the humble amla berry offers nearly legendary powers in healing and preventing atherosclerosis and related cardiovascular disease (Kim and Yokozawa, 2005). The amla can make a landscape attractive ornamental tree, especially when he wears his pale green berries.



### **Geographical Distribution**

Amla is found throughout India, the sea-coast districts and on hill slopes upto 200 meters, and is also cultivated in plains (IMP, 1997). It is a potential crop which grows in the marginal soils and various kinds of

degraded lands such as salt-affected soils, salines and dry and semi-dry regions. It is common all over tropical and sub-tropical India and also found in Burma (Dey 1896)), it is abundant in deciduous forests of Madhya Pradesh also grows in tropical and subtropical parts of Ceylon, Malay Peninsula and China (Thakur *et al.*, 1989).

### The Botanical Classification

Kingdom	Plantae
Division	Angiospermae
Class	Dicotyledonae
Order	Geraniales
Family	Euphorbiaceae
Genus	<i>Emblica</i>
Species	<i>officinalis</i> Geartn

### Synonym: *Phyllanthus emblica* Linn.

The *Emblica officinalis* is the medium to large deciduous plant of Euphorbiaceae family. A small to medium sized deciduous tree, 8-18 meters height with thin light grey bark exfoliating in small thin irregular flakes, leaves are simple, sub sessile, closely set along the branchlets, light green having the appearance of pinnate leaves; flowers are greenish yellow, in axillary fascicles, unisexual, males numerous on short slender pedicels, females few, sub sessile, ovary 3-celled; fruits globose, fleshy, pale yellow with six obscure vertical furrows enclosing six trigonous seeds in 2-seeded 3 crustaceous cocci (Singh and Singh, 2002)

### Vernacular Names:

English	Emblic myrobalan, Indian Goose berry
Sanskrit	Amalaki
Hindi	Amla
Kannada	Nelli Kayi
Marathi	Amla
Gujarati	Amba la
Malayalam	Nelli Kayi
Tamil	Nelli
Telgu	Usirika ya
Kashmir	Aonla

### Parts Used

It is a plant that is used in its entirety and so presents the herbalist with excellent value for money! The dried fruit, the nut or seed, leaves, root, bark and flowers are frequently employed. The ripe fruits are generally used fresh, but dried fruit are also used. The green fruit is described as being exceedingly acidic. The dried fruit is sour and astringent. The flowers are cooling and aperient. The bark is astringent (Nadkarni and Nadkarni, 1999). There are two forms of amla, the wild one with smaller fruits and the cultivated form sometimes called "Banarsi" with larger fruits (Thakur *et al.*, 1989).

## The Ayurvedic Description of Amla

The fruit has following properties as per Ayurvedic literature

- **Rasa (taste):** sour and astringent are the most dominant, but the fruit has five tastes, including sweet, bitter, and pungent
- **Veerya (nature):** cooling
- **Vipaka (taste developed through digestion):** sweet
- **Guna (qualities):** light, dry
- **Doshas (effect on humors):** quietens all three doshas: *vata*, *kapha*, *pitta*, and is especially effective for *pitta*

## Uses of Amla in Health Care and Nutrition

The plant is used in many forms. One of the most popular use is as a decoction and infusion of leaves and seeds. However, it is also used as liquor, a fixed and an essential oil; in confection; as a powder and also in paste and pickles. It makes an astringent extract equal to catechu, which is prepared from the root by decoction and evaporation. The fresh juice of the round, acidulous fruit is used in combination with that of other Myrobalans - chebulic (*Terminalia chebula*) and Beleric (*Terminalia belerica*) in the form of a decoction known as *Triphala* (three fruits). It is used as a cooling and refrigerant *sherbet*, and as an astringent medicine in diarrhoea, haemoptysis (spitting blood), haematemesis (vomiting blood) and other similar conditions (Dey, 1896).

### (1) Aperient:

The green fruits are made into pickles and preserves to stimulate the appetite.

### (2) Antibacterial, Antifungal, Antiviral:

Medical studies conducted on amla fruit suggest that it has antiviral properties (Udupa, 1985) and also functions as an antibacterial and anti-fungal agent (Treadway, 1994).

### (3) Antioxidant:

The use of amla as an antioxidant has been examined by a number of authors (Battacharya, 1999 and Chaudhri, 2004). Experiments conducted at the Niwa Institute of Immunology in Japan have shown amla to be a potent scavenger of free radicals. The studies showed that amla preparations contained high levels of the free-radical scavenger, superoxide dismutase (SOD), in the experimental subjects (Treadway, 1994). Amalaki's cascading antioxidant power makes it one of today's hottest super-fruits. With an ORAC (Oxygen Radical Absorbance Capacity) value of 1770, Amalaki has almost twice the antioxidant power of acai and about 17 times that of pomegranate.

### (4) Aphrodisiac:

Amla is believed to increase *ojas*, and is considered to be one of the strongest rejuvenative herbs in Ayurvedic medicine. It is the primary ingredient used in one of the renowned Ayurvedic herbal formulae, called *Chayavanprasha* which has great respect as a tonic.

### (5) Boils and Spots:

The pericarp of the fruit is often used in decoctions along with other ingredients and also applied externally on boils with cow ghee to promote suppuration (Jayaweera, 1980).

**(6) Dental Problems:**

The leaves of *Emblica officinalis* are squeezed and the juice extracted and used as a relief from toothache.

**(7) Diabetes:**

The fruits are used in the treatment of diabetes (Drury, 1873) and in other references an infusion of the seeds are also used (Nadkarni & Nadkarni, 1999). Decoctions of the leaves and seeds are used in the treatment of diabetes mellitus (Treadway, 1994).

**(8) Diarrhoea:**

It is used medicinally for the treatment of diarrhoea. As a fruit decoction it is mixed with sour milk and given by the natives in cases of dysentery (Drury, 1873).

**(9) Diuretic:**

The fresh fruit is diuretic (Nadkarni & Nadkarni, 1999). A paste of the fruit alone or in combination with *Nelumbium speciosum* (the Egyptian Lotus), saffron and rose water is a useful application over the pubic region in irritability of the bladder, in retention of urine. A sherbat prepared from the fresh fruit with (or without) raisins and honey is a favoured cooling drink which has a diuretic effect. A decoction of the fruit with stems of *Tinospora cordifolia* is a well-known remedy for various urinary diseases (Jayaweera, 1980).

**(10) Fevers:**

Malays use a decoction of its leaves to treat fever [Burkill 1966]. The fresh fruit is refrigerant (Nadkarni & Nadkarni, 1999). The seeds are given internally as a cooling remedy in bilious affections and nausea, and in infusion make a good drink in fevers (Drury, 1873; Nadkarni & Nadkarni, 1999). The flowers are employed by the Hindoo doctors for their supposed refrigerant and aperient qualities. Often after a fever there is a loss of taste and a decoction of the emblic seed, dried grapes and sugar is used for gargling. A decoction of the emblic seed, chitrak root (*Plumbago zeylanica* or Leadwort), chebulic myrobalan and *pipili* (*Piper longum*) is given in fevers and there is also a compound powder composed of equal parts of the emblic seed (*Emblica officinalis*), chitrak root, chebulic myrobalan, pipili and saindhava (rock salt) which may also be used.

**(11) Constipation:**

The fruit is occasionally pickled or preserved in sugar. When dry it is said to be gently laxative (Drury, 1873), according to some sources the fresh fruit is also laxative (Nadkarni & Nadkarni, 1999). The fresh ripe fruits are used extensively in India as a laxative, one or two fruits being sufficient for a dose.

They have been exported to Europe, preserved in sugar, and are valued as a pleasant laxative for children and made into a confection consisting of the pulp of the de-seeded fruit. Fruits along with those of *Terminalia bellirica* and *T. chebula* are the constituents of "Triphala" which are used as a laxative (Thakur *et al.*, 1989).

**(12) Hair growth:**

A fixed oil is obtained from the berries that are used to strengthen and promote the growth of hair. The dried fruits have a good effect on hair hygiene and have long been respected as an ingredient of shampoo

and hair oil (Thakur *et al.*, 1989). Indian gooseberry is an accepted hair tonic in traditional recipes for enriching hair growth and also pigmentation. A fixed oil obtained from the berries strengthens and promotes the growth of hair. The fruit, cut into pieces, is dried, preferably in shade and then boiled in coconut oil, the resulting oil is said to be excellent for preventing hair greying - in Ayurvedic terms, a classic sign of excess *pitta dosha*. The water in which dried amla pieces are soaked overnight is also said to be nourishing to the hair.

**(13) Indigestion:**

Fruit is carminative and stomachic (Nadkarni & Nadkarni, 1999). The tender shoot given in butter-milk cures indigestion and it is known that green fresh leaves combined with curds have similar effect.

**(14) Mouth Ulcers:**

A decoction of the leaves is used as a chemical-free bactericidal mouthwash (Treadway, 1994). Bark of the root mixed with honey is applied to aphthous inflammations of the mouth (Drury, 1873) and a decoction of the leaves is also useful as a mouth wash in the treatment of aphthae (Nadkarni & Nadkarni, 1994). Another remedy suggests root bark rubbed with honey is used in aphthous stomatitis (an inflammation of the mouth) (Nadkarni & Nadkarni, 1994).

**(15) Nose Bleed:**

The seeds are fried in ghee and ground in *conjee* (the liquid from boiled rice) is applied to the forehead to stop bleeding from the nose.

**(16) Perfumery:**

An essential oil is distilled from the leaves that are used in perfumery.

**(17) Pruritis:**

The seed are burnt, powdered and mixed in oil as a useful application for scabies or itch.

**(18) Respiratory Problems:**

The fresh fruit is used in Turkeystan in inflammations of the lungs. The juice or extract of the fruit is mixed with honey and pipit added is given to stop hiccough and also in painful respiration. The ex-pressed juice of the fruit along with other ingredients is used to cure cough, hiccough, asthma and other diseases (Jayaweera, 1980).

**(19) Scurvy:**

Anti-ascorbatic virtues have been attributed to the fruits, which are known as the *Emblica myrobalans*.

**(20) Skin Sores and Wounds:**

The milky juice of the leaves is a good application to sores. Grind the bark of *Emblica officinalis* (10 g) into a paste and apply to the cut or wound area once daily for 2 to 3 days (Treadway, 1994).

**(21) Tonic:**

The juice of the fresh fruit when mixed with ghee is considered a good restorative tonic. The leaves are used as infusion with fenugreek seeds in chronic dysentery and as a bitter tonic. A powder made from equal quantities of emblic seed and *Withania somnifera* root are given with ghee and honey as a restorative invigorator. These rejuvenation and longevity tonics are known as the "*rasayana*".

### **(22)Vaginal Complaints:**

A mixture of the fruit juice and sugar is used for the relief of burning in the vagina.

### **(23) Water Purification:**

In certain districts (Travancore) the natives put the young branches into the wells to impart a pleasant flavour to the water, especially if it be impure from the accumulation of vegetable matter or other causes.

### **Home Remedies with Amla or *Emblica officinalis*:**

- Amla juice mixed with water help to lower the body temperature during summers. It also helps to reduce body temperature during fever.
- Amla helps to expel body toxins. Regular use of amla in the form of powder, juice or raw fruit helps to detoxify body, retard aging process and boosts body immunity.
- Wash face thoroughly and apply juice of amla or amla water (3 tea spoons of concentrated amla water). Its astringent properties help to reduce wrinkles and close pores. Amla keeps the skin healthy and increases its fairness and glow.
- The berries of amla help to normalize metabolism thus preventing accumulation of fat.
- Amla powder improves immunity and adds to the physical strength of an individual.
- Regular consumption of amla helps to rejuvenate liver, reduce acidity and problems arising due to pitta. Researchers have shown that amla can reduce blood sugar level. For this add 3 tea spoons of amla water to a glass of regular water and consume regularly around 4-5 times a day.
- Amla is known to improve health of hair. Use pure coconut oil boiled with amla fruits for regular application on hair. Apply this oil at night and massage scalp. Wash it off next day morning. Persons with oily hair can use amla water (mix 3 tea spoons of amal water + 3 tea spoon of lemon juice + water - quantity required) as hair wash.
- Amla is known as "vrishya" in Ayurveda. Vrishya means aphrodisiac. It helps to rejuvenate male reproductive system and to increase the fertility of women.
- Indian gooseberry is said to help in the treatment of hemorrhage, menorrhagia, leucorrhoea and discharge of blood from uterus ([www.ayurwiki.com](http://www.ayurwiki.com)).

### **Preparations**

The plant is used in many forms. One of the most popular is as a decoction and infusion of leaves and seeds. However, it is also used as liquor, a fixed and an essential oil; in confection; as a powder and also in paste and pickles. It makes an astringent extract equal to catechu, which is prepared from the root by decoction and evaporation. The fresh juice of the round, acidulous fruit is used in combination with that of other Myrobalans – chebulic (*Terminalia chebula*) and Beleric (*Terminalia belerica*) in the form of a decoction known as *Triphala* (three fruits). It is used as a cooling and refrigerant *sherbet*, and as an astringent medicine in diarrhoea, haemoptysis (spitting blood), haematemesis (vomiting blood) and other similar conditions (Dey, 1896).

### **Culinary Applications of Amla**

Several value added products have been reported from amla. Amla was used to prepare ready-to-serve beverage (Deka *et al.*, 2001), candy, powder (Tripathi *et al.*, 1988), sauce (Chauhan *et al.*, 2005) etc.

Amla is a highly versatile fruit which is widely used in food preparations. As a culinary addition, the Indian gooseberry is popular in South India. It can be eaten either raw or cooked into various dishes. Amalaki is used in many culinary preparations like pickles, juices and soups. Amla pickles are very popular in South India and is used as an accompaniment for various dishes like curd rice and chappathies. Fresh juice prepared with amla with or without the addition of sugar is an excellent refreshing drink loaded with vitamin C. Amalaki ghee can be prepared and used in food preparations. Amla candy is another novel recipe that can be prepared with sugar or jaggery and makes an excellent nutritious snack for children. Chutney made with amla promises to be a healthy side dish for dosas and iddies. Amla murabba (preserve) is a method of preservation of amla that has a long shelf life of upto 6 months and can be eaten as such or with other preparations.

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