

AMALAKI (Emblica officinalis)

वयस्यामलकी वृष्याजातीफलरसंशिवम् ।
धात्रीफलंश्रीफलं च तथामृतफलंस्मृतम् ॥ ३५ ॥
त्रिष्वामलकमाख्यातं धात्री तिष्यफलाऽमृता ज
हरीतकीसमं धात्रीफलं किन्तु विशेषतः ज
रक्तपित्तप्रमेहघ्नं परं वृष्यं रसायनम् जज३६जज
हन्ति वातं तदम्लत्वात्पित्तं माधुर्यशैत्यतः ज
कफं रूक्षकषायत्वात्फलं धात्र्यास्त्रिदोषजित् जज३७जज
यस्य यस्य फलस्येह वीर्यं भवति यादृशम् ज
तस्य तस्यैव वीर्येण मज्जानमपि निर्दिशेत् जज३८जज
भावप्रकाश हरितक्यादिवर्गः (३७-४१)

What the Shlok Says

As mentioned in Bhavprakash, the Sanskrit synonyms of amalaki are:

Vayasya, Amalaki, Vrushya, Jatiphalam, Shivam, Dhatriphalam, Shriphalam, Amrutaphalam are all synonyms of Amalaki.

Some interesting synonyms and their meanings are as follows:

वयस्या (Vayasya) - Rejuvenator of life. Anti-ageing

अमृतफल (Amrutaphala) - The fruit that ensures longevity for the human being

आमलकी (Amalaki) - One that helps to retain (dharana) health due to its rasayana property.

This indicates that amalaki ensures all the poshak dravya (nutrients) are used by cells for rejuvenation.

Qualities of Amalaki –

Amalaki is much like Haritaki in its qualities. However it has some unique specialties. Amalaki is highly effective in **raktapitta** and **prameha**. It is also a superior **vrshya**. It has **rasayana** qualities. Amalaki controls tridoshas in the body by reducing **vata dosha** owing to its amla taste, controlling **pitta dosha** by virtue of its madhura taste and sheeta quality and reducing **kapha dosha** through its rooksha nature and kashay taste.

Charak says–Amalaki is Vayasthapana, Cakshushya, Rasayana, Tridoshajit, Vrshya

Properties:

Rasa: Madhura, Amla, Katu, Tikta, Kashaya

Guna: Laghu, Ruksha

Virya: Sheeta

Vipaka: Madhura

Important formulations –

Cyavanaprasha, Dhatri Lauha, Dhatriyadi Ghrita, Triphala Churna

Therapeutic uses –

Raktapitta, Amlapitta, Prameha, Daha

Dose - 3-6 g of the drug in powder form
5-10 ml of fresh juice

Active ingredient–Tannins, Phyllembin

Phyllanthus emblica is highly nutritious and could be an important dietary source amino acids and minerals. The plant also contains phenolic compounds, tannins, phyllemblic acid, phyllembin, rutin, and emblicol. Alkaloides ie., phyllantidine, phyllantine. All parts of the plant

are used for medicinal purposes, especially the fruit, which has been used in Ayurveda as a potent rasayana.

Phyllemblin, one of the major constituents, is an ester by chemical composition. It potentiates the action of adrenaline hormone in the body. It is a CNS depressant and also has a spasmolytic activity. It is known to exhibit anti-bacterial and anti-viral activity.

Amalaki is called vayasthapani. Research has proven that phyllemblin, the active ingredient in amalaki, has an action on endothelial dysfunction. It works to restore a healthy endothelial lining. This helps the endothelium function as it normally should. Endothelial function is vital for most body process to take place at a physiological and biochemical level. By improving and maintaining endothelial dysfunction amalaki improves quality and longevity of life.

Presence of flavonoids in Amalaki and its anti-ageing property

Flavonoids are compounds in plants that give colour to the fruits of the plant. All flavonoids are basically a polyphenol compounds. There are many types of flavonoids. The flavonoids found in amalaki are “quercetin” and “embelin”. Flavonoids interact with factors in the blood and the structure of arteries and blood vessels. It possess anti-oxidant and antiinflammatory and tissue - rejuvenating properties. It has also been found to be operating at the gene level to help enhance health. By virtue of these qualities flavonoids are anti-ageing.

What does it mean in modern scientific days?

Over the years extensive research has been done on Amalaki. Researches on amalaki have concluded that it has a wide range of pharmacological activity on the human body. It is used for preventative and therapeutic purposes. It appears to be very effective for regulating glucose metabolism and heart health, and also have neuroprotective properties.

Apart from this, many studies are done on Amalaki that has demonstrated analgesic, anti-tussive, anti-atherogenic, adaptogenic, chemopreventive, radio and chemo modulatory and anti-cancer properties. Amalaki is also reported to possess potent free radical scavenging, antioxidant,

antiinflammatory, antimutagenic, immunomodulatory activities, which are efficacious in the prevention and treatment of various diseases like cancer, atherosclerosis, diabetes, liver and heart diseases.

Anti-diabetic action of Amalaki

Recent researches about the hypoglycemic effect of Amalaki are abundant. In recent study streptozotocin- and alloxan-induced diabetic rats were employed for the evaluation of antidiabetic potential of *P. emblica*. After oral administration of the Amalaki (aqueous, methanol, and ethanol) extracts for 21–45 days, the concentration of blood glucose was significantly reduced.

Antioxidant properties of Amalaki in patients with Type 2 Diabetes -

The pathology of Type 2 diabetes shows endothelial dysfunction (affected function of the endothelium - inner layer of blood and lymph vessels). The oxidative stress and systemic inflammation of endothelium cause atherosclerosis in patients suffering from type 2 diabetes.

A study was conducted in the department of Pharmacology and Therapeutics in Hyderabad, India. They studied *Phyllanthus emblica* in comparison to Atorvastatin in divided cases. Half the patients were administered Atorvastatin and half of them were given extract of *Phyllanthus emblica*. It was found that both atorvastatin and *P. emblica* significantly improved endothelial function and reduced biomarkers of oxidative stress and systemic inflammation in patients with type 2 diabetes mellitus. This study was published in Dove press Journal - Diabetes, Metabolic syndrome and Obesity July 2013.

Amalaki for increasing life span -

Journal of Ethnopharmacology in 1994 published a study testing *Phyllanthus emblica* for its action on mice with tumour. Mice with Dalton's tumour were administered *Phyllanthus emblica*. A significant enhancement of Antibody dependant cellular cytotoxicity was documented. It was found that there was a definite *increase in life span (ILS)* (35%) of the mice treated with *P.*

emblica. This was attributed to the quality of P. emblica to augment natural cell mediated cytotoxicity. The above study established that Amalaki extract possesses the ability to work on cellular level and is able to influence cell mediated cytotoxicity. It can work towards cellular rejuvenation and thus help increase longevity.

Antidepressant Activity of Amalaki -

A study published in CNS Neuroscience & Therapeutics, 2012, evaluated the antidepressant-like activity of Amalaki fruits in Swiss young male albino mice employing tail suspension test and forced swim test. The aqueous extract showed antidepressant-like effect by interaction with α 1-adrenoceptors, dopamine D2- receptors, serotonergic, and GABA-B receptors. The constituents like flavanoids, tannoid principles, and polyphenolic substances present in the aqueous extract of E. officinalis might be also responsible for its antidepressant-like activity.

You may find this interesting:

- ❖ Amalaki churna may prove to be a useful therapy for the management of Alzheimer's disease on account of its beneficial effects such as, memory improving property, cholesterol lowering property and anticholinesterase activity. The preparation was also proved to reverse the amnesia induced by diazepam and scopolamine.

https://www.jstage.jst.go.jp/article/yakushi/127/10/127_10_1701/pdf

- ❖ Did you know? Complete review of animal and human trials on Amalaki is listed on drugs.com. <https://www.drugs.com/npp/emblica.html>

- ❖ ***Herbal Treatment of Children: Western and Ayurvedic Perspectives by Anne McIntyre***, is a comprehensive and authoritative text providing information on the usefulness, effectiveness and appropriateness of the use of herbal remedies in childhood. It provides a practical guide to the safe and effective use of herbal medicines in pediatric primary care, written by a respected and internationally known expert. Amalaki and many other

herbs are researched and included in the book for pediatric primary care.
<http://www.amazon.in/Herbal-Treatment-Children-Ayurvedic-Perspectives/dp/0750651741>

- ❖ This interesting review on genus *Phyllanthus* discusses the ethnopharmacological, phytochemical, and pharmacological studies of *Phyllanthus* over the past few decades. Reference - Evidence-Based Complementary and Alternative Medicine Volume 2016 (2016), The Genus *Phyllanthus*: An Ethnopharmacological, Phytochemical, and Pharmacological Review. <http://www.hindawi.com/journals/ecam/2016/7584952/#B324>
- ❖ Check this link for all the clinical trials on herb *Emblica officinalis* on PUBMED. <http://www.ncbi.nlm.nih.gov/pubmed>

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