

Indian gooseberry and its health benefits

Mayuri Kapoor and Chahak Tandon

Introduction

Mother Nature has gifted mankind with tremendous medicinal plants to create a disease free and healthy life (Maurya U & Srivastava S, 2011).

Emblica officinalis Gaertn. (synonym *Phyllanthus emblica* L.) (Euphorbiaceae family) is a deciduous tree, popular as 'Amla' or 'Aonla' or 'Indian gooseberry'. 'Amla' tree is said to be the very first tree that originated on earth, as claimed by age-old Indian mythology. The fruit of this tree is a reservoir of various nutraceuticals like calcium, vitamin-C, lysine, minerals, methionine, nicotinic acid, phosphorus, riboflavin, tryptophane and is said to have immune-boosting efficiency against multiple diseases and are also extensively applied in Ayurveda, an Indian ancient system of medicine (Bhagat 2014).

Though the plant's entire structure is employed for therapeutic purposes, the fruits in particular have a wide range of pharmacological benefits (Shrivastava S et al., 2022). This tree contains major secondary metabolites like emblicanin-A and emblicanin-B, and also is an affluent source of vitamin-C.

Additionally, some other secondary metabolites like tannins, gallic acid, pyrogallol, and pectin are also present in significant amounts (Gantait S et al., 2021).



Source: Jiradelta/Getty Images

Amla is a deciduous tree of the family Phyllanthaceae. Its native range is tropical and Southern Asia (web.archive.org) The tree is small to medium in size, reaching 1–8 metres (3+1/2–26 feet) in height. The bark is mottled. The branchlets are finely pubescent (not glabrous), 10–20 centimetres (4–8 inches) long, usually deciduous. The leaves are simple, subsessile and closely set along branchlets, light green, resembling pinnate leaves. The flowers are greenish–yellow. The fruit is nearly spherical, light greenish–yellow, quite smooth and hard on appearance, with six vertical stripes or furrows (Huxley. A, 1992).

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Reports of pharmacological research on amla reveals its anti-tussive, analgesic, anti-atherogenic, adaptogenic; gastro, cardio, nephro, anticancer properties and neuro protective. Amla is also reported to possess immunomodulatory, free radical scavenging, chemo-preventive, anti-inflammatory, anti-mutagenic and antioxidant properties. These properties are effective in the treatment and prevention of numerous diseases like atherosclerosis, cancer, peptic ulcer, diabetes anemia, heart diseases, liver disorders and various others (Dasaraju and Gottumukkala, 2014). The biogenic synthesis of nanoparticles from *E.officinalis* is getting popularity due to the low cost factor along with the enhanced antimicrobial activity of the nanoparticles produced (Khurana S.K et al.,2019).

Amla is an anodyne, ophthalmic, carminative, digestive, stomachic, alterant, aphrodisiac, rejuvenate, antipyretic and tonic. It is useful in vitiated conditions of tridosha, diabetes, cough, asthma, bronchitis, cephalalgia, ophthalmopathy, dyspepsia, colic, flatulence, hyperacidity, peptic ulcer, erysipelas, skin diseases, leprosy, haematogenesis, inflammations, anaemia, emaciation, hepatopathy, jaundice, strangury, diarrhoea, dysentery, haemorrhages, leucorrhoea, menorrhagia, cardiac disorders, intermittent fevers and greyness of hair etc; (Nadkarni K. M,1993). It also play role in

enhancing memory, lowering cholesterol levels, neutralizing snake venom, curing infectious diseases and usage as a potent immunomodulator (Jain, R. et al.,2015).

They are used for generations as a food source as they have the rejuvenating potential applications (Borah,N et al.,2022). Experience the tremendous health benefits by incorporating Indian gooseberry in your daily diet. Further scientific research are needed to explore more health benefits of Indian gooseberry in special reference to food and nutrition with diseases.

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