

A Short Review on Medicinal Uses of Guava

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Abstract—Guava also known as the 'guava-pear' in various regions, is a common tropical fruit cultivated in many tropical and subtropical regions. The common guava *Psidium guajava* (lemon guava, apple guava) is a small tree in the myrtle family (Myrtaceae). In Sanskrit and classical Ayurvedic texts, it goes by several names: Perala, Amruta-phalam (literally "immortal fruit"). Guavas originated from an area thought to extend from Mexico, Central America or northern South America throughout the Caribbean region. India is now one of the lead manufacturer of guava. A raw common guava contains 81% water, 14% carbohydrates, 3% protein, and 0.5% fat. In a reference amount of 100 grams (3.5 oz), raw guava supplies 285 kilojoules (68 kilocalories) of food energy and is a rich source of dietary fiber and vitamin C (254% of the Daily Value, DV), with moderate levels of folate (12% DV) and potassium (14% DV). Raw guava contains lycopene. In Ayurveda guava is called as a superfruit with high beneficial medicinal important like having tridoshiy property for balancing vata, pitta and kapha when consumed properly. In ayurveda guava holds an important place for various benefits like chewing of guava leaves for fighting against toothache or cramps, lowering sugar level also boiling fruit for gut health, as guava fruit, seeds, leaves have many types of medicinal value. A comprehensive review for study of medicinal uses of guava is important. In this article we will explore medicinal uses of guava fruit.

Index Terms—Tridosha, Guava, T2DM, Fasting blood glucose, Vitamin C etc.

I. INTRODUCTION

Guava plant cultivated many tropical and subtropical countries in the world. Guava originated from an area from Mexico, Central America. India is one of the most lead manufacturer of guava now a day. Guava fruit is cultivated largely due to its high vitamin content like vitamin c. Nutritionally, it is a considered as a healthy fruit, containing relatively high amounts of vitamin C and total fiber. Guava has the potential to become a commercially important tropical fruit crop not only for processing, but also for fresh

consumption. Improved propagation techniques have produced fruits with better quality and thus increased the commercial importance of the fruit in many countries³. Some medicinal importance of this plant is enlisted and describe below.

II. BLOOD SUGAR LEVEL

Some study can help to suggest that guava leaves or extract of guava leaves lowers the blood sugar level. Several cell culture and animal studies found that guava leaf extract improved blood sugar levels, long-term blood sugar control, and insulin resistance⁷. This can benefit people with diabetes or those at risk of the disease. Similar responses have been recorded in studies on people. The study showed that guava leaves extract treatment decreased fasting plasma glucose levels and body weight by alleviating insulin resistance, thereby ameliorating type 2 diabetes mellitus. Additionally, these effects might be mediated through the activated PI3K/Akt signaling pathway and IRS1 expression in the livers of T2DM mice⁴. Research showed that guava leaves contain phytochemicals with hypoglycemic properties, such as flavonoids, phenolic acids, triterpenes and sesquiterpenes⁵. The study reported that long-term feeding of GLE could significantly reduce the FPG levels of T2DM rats. Similarly, some study also found that GLE could promote the absorption of glucose through hepatocytes, which in turn can contribute to the reduction of hyperglycemia in diabetic patients⁶.

III. HEART HEALTH

Heart health can be boost by guava in many ways. Many researchers and scientist believe that much abundant level of antioxidants and vitamins provide protection to heart from free radicles also high level of potassium and soluble fibers can improve heart health. Additionally, guava leaf extract has been linked to

lower blood pressure, a decrease in “bad” LDL cholesterol, and a rise in “good” HDL cholesterol. Since high blood pressure and high levels of LDL cholesterol are linked to higher risks of heart disease and stroke, taking guava leaf extract could lead to valuable benefits⁷. The study carried out for to study of guava in heart diseases reveals indicates that higher consumption of guava fruit may also result in a significant rise in serum K and Mg with a significant decrease in serum sodium. It is clear that a part of the reduction in Blood pressure may be on account of these nutrients⁸.

IV. DIGESTIVE SYSTEM

Guavas are an excellent source of dietary fiber. Eating more guavas may aid healthy bowel movements and prevent constipation. Just one guava can provide 12% of your recommended daily intake of fiber. Additionally, guava leaf extract may benefit digestive health. Many studies suggest that it may reduce the intensity and duration of diarrhea. Several studies have also shown that guava leaf extract is antimicrobial. This means that it can neutralize harmful microbes in your gut that can cause diarrhea⁷.

V. MENSTRUATION PAIN

Many experience dysmenorrhea painful symptoms of menstruation, such as abdominal cramps. However, there is some evidence that guava leaf extract may reduce the pain intensity of menstrual cramps. Some research suggests that taking guava leaf extract may reduce menstrual pain intensity, as well as uterine bleeding and other symptoms⁷.

VI. IMMUNITY BOOSTER

As guava is a rich source of vitamin C, Low level or deficiency of vitamin C leads to the low immunity problems. vitamin C has been shown to reduce a cold's severity. It's also linked to antimicrobial benefits. This means that it helps kill off bad bacteria and viruses that can lead to infections⁷. A single guava (*Psidium guajava*) contains trusted Source 125 mg of vitamin C, or 138% of the DV. Guava is particularly rich in the antioxidant lycopene. A small study suggests that lycopene may have some anticancer benefits and that

guava contains fiber which may help with constipation¹⁰.

Skin

Guava contains wide range of vitamins and antioxidants. Vitamin C is important antioxidant and can protect against free radical damage that can cause tissue damage, resulting in uneven skin tone. Its antioxidants may protect trusted Source your skin from damage, which can slow down its aging process, helping prevent wrinkles. Guava leaf extract may help treat acne when applied directly to your skin⁷.

Antimicrobial anti Helminthic Activity

Leaf and bark extracts associated with flavonoids, such as morin glycosides, quercetin, and quercetin glycosides acts against a wide range of gram-positive and gram-negative human pathogens¹¹.

Effects on Doshas

Guava's energetic profile makes it generally balancing for Pitta due to its sweetness and occasional cooling effect. It can be slightly aggravating to Vata if eaten raw and unripe, especially without the rind, which acts as a digestive buffer. As for Kapha, it has mixed effects. On one hand, guava helps stimulate digestion and metabolism great for sluggish Kapha types. Decoctions of the leaves are used as a remedy for coughs, colds, and sore throats. On the other, its heaviness can increase Kapha if overeaten, especially in jelly or sweet forms².

Precautions before eating guava fruit

While generally safe, overconsumption of unripe guava can occasionally lead to digestive heaviness or bloating due to its "guru" (heavy) nature in Ayurvedic terms. It is best consumed during the day rather than late at night to ensure optimal digestion.

VII. DISCUSSION AND CONCLUSION

Guava plant contains seeds, leaves, fruit, bark is rich source of many vitamins also tannins, phenols, triterpenes, flavonoids, essential oils, saponins, carotenoids lectins, fiber and fatty acids, The various research study shows that guava is a superfood which is used for many medicinal beneficial uses for humans. As discussed earlier guava is used for preventing or treating many disease conditions as used in a proper

manner. Due to this importance of guava more study to be required on this plant product for use as medicinal products.

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