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UNIVERSITY

Papaya





Synonym

- Gujarati: પપૈયું (Papaiyum), પપૈયો (Papaiyo).
- Hindi: पपीता (Papita).
- English: Papaw/Pawpaw, Melon tree.

Botanical name

- *Carica papaya*

Family

- Caricaceae

Chemical Constituents

- Leaves contain flavonoids (rutin, clitorin, manghaslin, nicotiflorin, methyl gallate, kaempferol derivatives), alkaloids (carpaine, dehydrocarpaine I and II), enzymes (papain,

chymopapain, cystatin), saponins, tannins, and vitamins (C, B1, B2, E, beta-carotene).

- Fruit is rich in vitamins (A, C, E), minerals (magnesium, calcium, potassium, phosphorus), carotenoids, dietary fiber, and papain.
- Seeds possess proteins, fats, crude fiber, and significant phytochemicals such as benzyl isothiocyanate.
- Leaf extract shows notable quantities of alkaloids, saponins, flavonoids, and tannins.

Therapeutic Uses

- Papaya leaf extract boosts platelet count (important in dengue fever), shows anti-inflammatory, antibacterial, antiviral, antitumor, hypoglycemic, and wound-healing properties.
- Fruit used for digestive health, cardiovascular support, improved immunity, relief from menstrual pain, and skin care.
- Seeds have shown anti-helminthic and antimicrobial activity.
- Traditionally, papaya is used for treating constipation, high blood pressure, dyspepsia, amenorrhoea, and reproductive stimulation.
- Clinical research supports papaya's use as a nutraceutical for managing oxidative stress,

diabetes (blood sugar regulation), anticancer, and hepatoprotective effects.

Marketed Preparations

- Papaya leaf extract capsules/tablets (Caripill, POP-e) for platelet support and immunity.
- Proprietary herbal and nutraceutical preparations, powders, and juices.
- Papaya seed oil, enzyme powders, and supplements for digestive and skin health.
- Papaya-based products such as jams, beverages, skincare creams, and wound-healing ointments.
- Ayurvedic formulations often combine papaya extract with other herbs for enhanced therapeutic activity.