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## Medicinal Properties of Papaya

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Plant compounds from natural goods contain a wide range of medicinal qualities with a wide range of pharmacological importance. The fruit and other plant components of the papaya (*Carica papaya*) are well-known in traditional medicine, as well as for their culinary and nutritional value around the world. Due to the short juvenile phase and wider adaptability papaya occupied its crucial place in kitchen gardens and rooftop gardens too.

Papaya is a very common tropical fruit. Its center of origin is Central America but now it's being cultivated in almost all the tropical and subtropical countries. It was the 16th-century when papaya was introduced in India from Malaysia and now India alone producing almost 50 percent of world papaya. Scientifically it's known as *Carica papaya* and belongs to the **caricaceae** family.

The papaya plant is full of medicinal properties each and every part of the plant is used for one or another medicinal purpose. Papaya is full of numerous nutrition and elements which makes it helpful in Intestinal Gastrointestinal discomfort, Cardiovascular problems, viral infection, dengue, kidney disorders, cancer, liver detoxification, bacterial infection, Diabetes ulcer and Sores, inflammation, etc. papaya is in natural contraception for men, high in proteolytic enzymes, and improve digestion. Now we will see it from the nutritive value points which protect us from the various diseases.

**Beta carotene** - It is the precursor of vitamin A. Vitamin A is very necessary for maintaining night vision its deficiency causes a disease called night blindness or rataundhi. If we consume a higher amount it also fights against asthma and various types of cancers if consumed in the early stage of life, that's why papaya must be added implant in children's diet.

**Vitamin B** - Vitamin B in papaya are Folic acid, pyridoxine (Vitamin B<sub>6</sub>), riboflavin, and thiamine. These are called essential elements because our bodies can't synthesize themselves and required from the outer source. Each and every body part of the body require vitamin B to function fluently.

### PAPAYA BENEFITS



Papayas Good Source of

- Vitamin A
- Magnesium
- Pantothenic
- Folate
- Copper
- Fiber

Eat Healthy Feel Healthy

**Vitamin K** - Vitamin K prevents blood clotting that's why it is very beneficial for heart patients. It is very necessary for the absorption of calcium and prevents urinary loss of it and thus it improves the bone strength and Calcium uptake of the body.

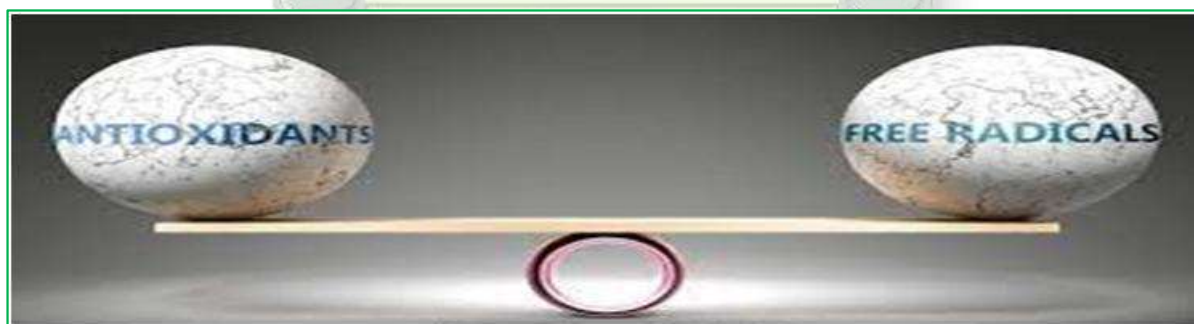
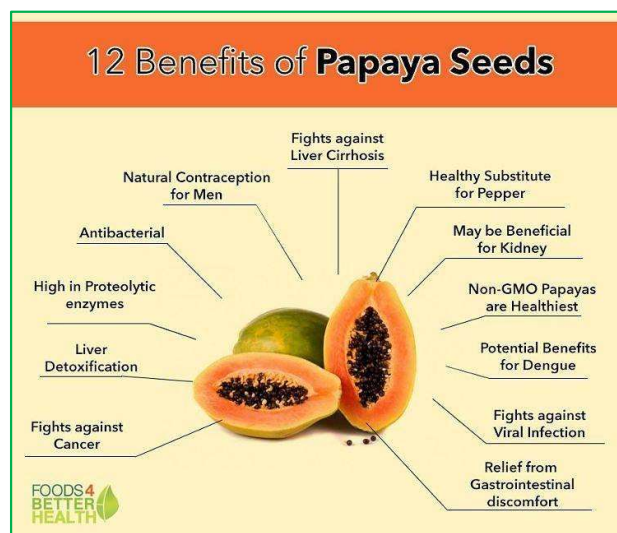
**Zeaxanthin** - It is a very powerful antioxidant that helps in maintaining normal vision. This antioxidant checks the ultraviolet rays and protects our retina.

**Papain and hymopapain** - It is found in an ample amount in milky latex excreted from the raw papaya fruit and plant parts on the injury. Basically, papain is a proteolytic enzyme that is used for many medicinal purposes. It is a remedy to reduce pain, inflammation, swelling, helminthic and amoebic infections, diarrhea, and allergies. Papaya is a storehouse of Cancer-fighting antioxidants and enzymes.

**Lycopene** - It is a pigment that is also found in tomatoes that imparts its characteristic reddish yellow color to the fruit. It is very necessary for our body cell membrane integrity and maintenance that's why it is useful for skin and hair problems full stop its consumption enhances the skin glow, keratin and collagen quality. Lycopene also has its anti-cancer properties due to the function of cell cycle regulation by inhibiting abnormal cellular growth.

Bacteriostatic activity has been shown by the *C. papaya* seed extract against many enteropathogens such as *Salmonella typhi*, *Escherichia coli*, *Proteas vulgaris*, *Pseudomonas aeruginosa*, *Enterobacter cloacae*, *Bacillus subtilis* and *Klebsiella pneumonia*. Gram-negative bacteria showed more susceptible to the seed extract.

In all living species, papain plays a crucial part in biological processes. Papain is a cysteine protease enzyme found in papaya and is also known as papaya proteinase I. It has a wide range of proteolytic activity on proteins, short chain polypeptides, amino acid ester and amide linkages, and it is widely used in the food and pharmaceutical industries. It prefers to break peptide bonds that include basic amino acids. Furthermore, it is a single-chain globular protein (23406 DA) with four disulphide bonds and 212 amino acids. Furthermore, it is active and stable in a variety of situations.



Other than these there are numerous benefits of papaya. Papaya leaves are been used since time immemorial in traditional medicines and home remedies. Dengue comes every year and takes several lives in poor and mediocre societies. According to medical reports, 25ml of leaf extracts were given to the patient in the morning, and the evening and it was observed that platelet count increased from 73000 per microliter to 120000 per microliter just in 24 hours.



**Papaya leaf extracts preparation and using method for enhancing platelets count**

- Collect some mature leaves from the middle of the plant canopy.
- Wash it properly to remove dust and chemicals from both sides,
- Grind it and have its extract using a muslin cloth.
- Add some sugar in 25 ml leaf extract to reduce its bitterness.
- Leaf extract is quite bitter and it may cause vomiting to some people so fruit juice can be recommended with it.
- Consume it twice a day for five consecutive days.

**Get papaya leaves at home**

Papaya is a heavy feeder and grows 3-4 m tall. Commercially grown papaya variety in northern India is Red lady. It is a heavy bearer hence it can't be grown in pots and rooftop gardens. There is a variety named Pusa Nanha and Pusa Dwarf that can be grown in pots of the size 18 inches and above. In the field also this variety can be planted with the spacing of 1.2 m \* 1.2 m. Economical life of the papaya plant is 3-4 years only. With proper care and management enough leaves and be recovered for protective measure purposes.

**Conclusion**

Papaya (*Carica papaya* Linn.) is well-known over the world for its nutritional and therapeutic benefits. Papaya plant, including leaves, seeds, ripe and unripe fruits, and their juices, were widely used in traditional medicine. The most of the studies showed no negative or harmful impacts from eating papaya. Significant research has been done on biological activity, and as a result, a thorough investigation of its kinetics, pharma-codynamics clinical trials, is required to investigate therapeutic applications against various disorders.

**References**

1. Krishna KL, Paridhavi M, Patel JA. Review on nutritional, medicinal and pharmacological properties of Papaya (*Carica papaya* Linn). *Natural Product Radiance*. 2008; 7(4): 364-373.
2. Lim TK. *Edible Medicinal and Non-Medicinal Plants*. Volume 1, Fruits. 2012: 110-118.
3. Gurung S, Skalko-Basnet N. Wound healing properties of *Carica papaya* latex: in vivo evaluation in mice burn model. *J Ethnopharmacol*. 2009; 121(2): 338-341. doi: 10.1016/j.jep.2008.10.030
4. Sagadevan P, Selvakumar S, Raghunath M, et al. Medicinal properties of *Carica papaya* Linn: Review. *Madridge J Nov Drug Res*. 2019; 3(1): 120-125
5. Krishna KL, Paridhavi M, Patel JA. Review on nutritional, medicinal and pharmacological properties of Papaya (*Carica papaya* Linn). *Natural Product Radiance*. 2008; 7(4): 364-373