



## A study on nutritional and health importance of “Sapotas”

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### Abstract

Zapota, Sapota, Chico, Naseberry or sapodilla (Manilkara zapota) are common names denominating a popular tropical fruit native to Central America and the Caribbean islands. Sapodilla is a dull looking fruit but with potent antiviral, antibacterial as well as anti-inflammatory properties. It boasts a good vitamin C an iron content and is a rich source of antioxidants called tannins. Regular consumption is believed to protect cells against free radical damage and reduce oxidative stress. While it may cause a dry mouth sensation as a result of its saponins content, eating sapodilla has several wonderful benefits for the digestive, cardiovascular and immune system health. so this paper strongly overviews the nature, types, properties, nutritional value and health importance of sapota.

**Keywords:** chikooos, sapodilla, health, nutrition, nutrients, consumption, anti-inflammatory

### Introduction

Sapota is, most commonly known as ‘Sapota’ in India, is a very familiar fruit. It is also called as Naseberry, Mud Apples, and Sapodilla Plum. The Chikoo fruit is a delicate brown fruit which tastes sweet and yummy.

Chikoo is scientifically known as ‘Sapodilla.’

It comes from the Sapotaceae family in Central America. Chikoo is also grown in Thailand, Vietnam, Pakistan, Maldives, Sri Lanka, Bangladesh, Indonesia, Belize, and the Caribbean. In Mexico, Sapodilla is used for making chewing gum.

Chikoo has black bean-shaped seeds. It has a texture similar to that of a kiwi fruit. Chikoo grows in a hot climate and takes about 5-8 years to mature. The chikoo tree produces chikoo

fruits two times a year. It has a surprising number of health benefits, medicinal uses and is very nutritious.

### Fruit

Sapota is the fruit of the plant family Sapotaceae which is generally available from May-September. Initially brown and somewhat sweet in taste, Sapodilla is pale yellow-brown colour with grainy texture and shaped like ovoid or ellipsoid. Their brownish flesh has 3 to 12 smalls, smooth, flattened, black seeds of ¼ inch in length at the centre. The fruit come in variety of sizes ranging from 3/8-inch (9.5 mm) in diameter and weighs about 150 gm. Sapota is thin skinned and possess sweet, pleasant flavour.

Sapodilla - Nutritional Facts per 100 g		
Nutrients	mg	Percentage
Folates	14 µg	3.5%
Niacin	0.200 mg	1%
Pantothenic acid	0.252 mg	5%
Pyridoxine	0.037 mg	3%
Riboflavin	0.020 mg	1.5%
Thiamin	0.058 mg	5%
Vitamin A	60 IU	2%
Vitamin C	14.7 mg	24.5%
Sodium	12 mg	1%
Potassium	193 mg	4%
Calcium	21 mg	2%
Copper	0.086 mg	9%
Iron	0.80 mg	10%
Magnesium	12 mg	3%
Phosphorous	12 mg	2%
Selenium	0.6 µg	1%
Zinc	0.10 mg	1%



Fig 1: Different Types of Chikooos

### 1. Brown Sugar

Brown sugar is a member of chikoos family first introduced in 1948. Brown sugar is deliciously sweet and also has a sweet-scented fragrance.

It is a baby fruit of 2-2.5 inches length. It is of warm brown colour and has a granular texture with excellent quality.



Fig 2

### 2. Prolific

Prolific was first introduced in 1951. It has a cone shape. Skin of prolific is brown in colour and inside is pink. It has a sweet taste and fragrance. It is 2.5-3.5 inches long with a smaller width. The quality of prolific is termed as good.

### 3. Russell

Russell is the oldest member of the family available since 1935. It is 3-5 inches long and has a spherical shape. It is rich in taste and is similar to that of other family members.

### 4. Tikal

Tikal is a special variety smaller than other types and ripens fast. It has a great taste. Tikal is oval in shape and has a light brown colour.

### Health benefits of Sapota

Sapota possesses anti-inflammatory properties. It contains dietary fiber in very good amount. The people of India used it for anti-bacterial and anti-viral properties. It maintains the overall health as it is loaded with various nutrients. Sapodilla is rich in calories. Along with the fruit, other parts are also used to the colds and cough because it contains antidiarrheal, diuretic, antihyperglycemic, antibiotic and hypercholesteraemic effects.

### Relieves stress

The study analysis shows that Vitamin C helps the weakened immune system which is caused due to stress. The stress has become the common health problems which could be relieved with the adequate intake of Vitamin C that improves the overall health. Vitamin C could be found in Sapodilla by 39.33%.

### Helps in digestion

Fiber is essential to improve the digestion. Insoluble fiber assists to pass the stool and bulk through the body which

forbids the health conditions such as colon cancer, diverticulitis and inflammatory bowel.

### Anti-Inflammatory agent

The high content of tannins makes sapota or chikoo an important anti-inflammatory agent. In other words, it helps in improving the condition of the digestive tract through prevention of diseases like esophagitis, enteritis, irritable bowel syndrome and gastritis. It also reduces inflammation by reducing any swelling and pain.

### Prevention of certain cancers

The Vitamins A and B help in maintaining the health of the mucus lining of the body and the texture of the skin. The antioxidants, dietary fiber and nutrients found in sapota provide protection against cancer and tightly bind the carcinogens (toxins) to protect the mucus membrane of the colon. Vitamin A provides protection from lung and oral cavity cancers.

### Healthy bones

Additional amounts of calcium, phosphorus and iron are required by bones to increase their endurance. Being rich in calcium, iron and phosphorus, sapota fruit greatly helps in enhancing and strengthening the bones. Copper is essential for the growth of bones, connective tissue and muscles. The deficiency of copper increases the chances of osteoporosis, muscle weakness, low strength, breakage, weak joints etc. The studies show that the intake of copper with manganese, zinc, calcium slows the loss of bone in older women.

### Controls blood pressure

The magnesium in sapota keeps the blood vessels up and running, and the potassium regulates blood pressure and circulation. It's also good to treat anaemia with, as it's also rich in iron.

### Relief from constipation

Sapota fruit provides a high amount of dietary fiber (5.6/100g). Thus, it is regarded as an excellent bulk laxative. The fiber content provides relief from constipation. It supports the colons' membrane and makes it resistant to infections.

### Haemostatic properties

The sapota herb is known for its haemostatic properties i.e. stopping blood loss. Thus, this herb is beneficial in reducing bleeding in case of piles and injuries. The ground seeds can be applied as a paste for alleviating stings and insect bites.

### Anti viral and anti-fungal properties

Due to the presence of polyphenolic antioxidants, sapota is found to have several anti-viral, anti-parasitic and anti-bacterial properties. The antioxidants prevent bacteria from entering into the human body. Vitamin C destroys the harmful free radicals whereas potassium, iron and folate, niacin and pantothenic acid facilitate proper functioning of the digestive system.

### Anti-Diarrheal

Sapota is regarded as an anti-diarrheal due to its purgative

properties. A decoction made by boiling this fruit in water can cure diarrhoea. It also helps in the alleviation of piles and dysentery.

#### **Mental health**

Being a potent sedative, sapota fruit helps to calm the nerves and alleviate stress. Thus, it is advisable for individuals suffering from insomnia, anxiety and depression.

#### **Cold and cough**

Sapota fruit is effective in keeping congestion and chronic coughs at bay by removing the phlegm and mucus from the nasal passage and respiratory tract. Thus, it helps in the alleviation of cold and coughs.

#### **Kidney stones**

The crushed seeds of this fruit act as a diuretic, thus helping to expel bladder and kidney stones. It provides protection against kidney diseases as well.

#### **Aids in weight loss**

Sapota fruit indirectly helps in weight loss and prevents obesity by regulating the secretion of gastric enzymes, thereby regulating metabolism.

#### **As a detoxifying agent**

Sapota acts as a diuretic and thus helps in removing waste materials from the body through frequent urination. It prevents oedemas or water retention by maintaining the water concentration within the body.

#### **Tooth cavities**

The high latex content of sapota fruit can be used as a crude filling for tooth cavities.

#### **Prevents anaemia**

Anaemia is caused due to the deficiency in iron. The body won't be able to produce haemoglobin and transport oxygen due to inadequate presence of iron. The patients of anaemia experience the symptoms such as poor mental function, lack of energy and apathy. Anaemia is mostly seen in children and menopausal women so they should consume the foods rich in iron.

#### **Proper function of brain**

The brain requires oxygen for efficient function. The iron assists to deliver the oxygen to the brain and eliminates poor memory and apathy. The deficiency in iron results in restless, irritable and inattentive.

#### **Heals wound**

The studies show that Vitamin B5 speeds up the healing process of cuts and wound and also treats the skin reactions from radiation therapy. It also slows down the aging process such as dark spots and wrinkles. The recent studies show that Vitamin B5 accelerates the healing process by improving the multiplication of cells.

#### **Good for the eyes**

Sapota contains a high amount of Vitamin A. According to

research, Vitamin A helps in improving vision even during old age. Thus, in order to get or maintain good vision, you must try eating sapota fruit.

#### **Assist nervous system**

Potassium is vital for the cellular function, nerve impulses and electrical signals that the function of brain depends on. Potassium deficiency leads to poor concentration, fatigue, trouble in remembering and learning and change in mood.

#### **Benefits during pregnancy**

Having a high dose of carbohydrates and essential nutrients, sapota is extremely beneficial for pregnant and lactating mothers. It helps in reducing weakness and other symptoms of pregnancy such as nausea and dizziness

#### **Other health benefits**

Magnesium contained in sapota is beneficial for blood and blood vessels whereas potassium helps in regulating blood pressure and promoting healthy circulation. Folate and iron prevent anaemia. Sapota helps in strengthening the intestines and in improving their performance. In short, eating sapota or chikoo fruit helps in developing body resistance against many infectious diseases.

#### **Traditional uses**

The decoction of this fruit is useful to treat diarrhoea. The infusion of the young fruits and flowers helps to soothe the pulmonary ailments. The seed of this fruit contains quercetin and saponins which are used as aperient, febrifuge, diuretic and tonic. The compressed seeds are used to eradicate the bladder and kidney stones.

The decoction of old, yellowed leaves is effective for colds, coughs and diarrhoea. The daily intake of decoction made from the Schum elude leaves and Sapodilla helps to reduce the blood pressure. In the tropics, the latex is used for tooth cavities. The decoction of bark is useful to cure diarrhoea, dysentery and paludism. The flowers are used in Indonesia as an ingredient of a powder which is rubbed on the woman's body after childbirth. The fever and diarrhoea are treated in Cambodia with the bark as it possesses tannin.

#### **How to eat**

Sapodilla is consumed raw by scooping the flesh out or made jam or sherbet. It is also added to the pancakes and cakes. It is also found in the form of custard, juice, ice creams or milkshakes.

#### **Tips to buy & store chikoos**

1. Always select fresh and ripened chikoos. The ripeness of chikoos can be tested by pressing it gently with fingers.
2. Select chikoos which are in good shape and color.
3. Avoid rotten, hard and spotted chikoos.
4. You can store it at room temperature for a few days.
5. You can store it in a cool and dry place.
6. Store it in a refrigerator at a low temperature for a week.
7. After buying, it is best to consume chikoos within 3-4 days.
8. Raw chikoos, when stored in a rice of bag for two days, can be ripened

## Conclusion

Sapodilla is a moderately nutritious fruit with a high antioxidant content. It is a potent anti-inflammatory and antiviral agent with immune system boosting properties and beneficial effects on digestive and cardiovascular health. It has a soothing action on the stomach lining and a good overall vitamin and mineral content, although eating too much may not be good for gastritis sufferers who should limit their fiber intake.

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