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### Traditional and Medicinal Uses of Indian Black Berry

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Jamun or Indian Black berry is considered as a traditional medicine that helps in controlling diabetes. Specifically, jamun has an action on the pancreas, the main organ responsible for causing diabetes. The fruit, the seeds and even the juice of the jamun all play an important role in the treatment of diabetes. The jamun seeds contain a type of glucose called Jamboline, which checks the conversion of starch into sugar in cases of increased production of glucose, the main reason behind your high sugar levels. It has anti-cancer and anti-viral properties. Jamun juice has carminative and mild astringent properties. The extracts of the bark, seeds and leaves are used for the treatment of diabetes. The leaves have antibacterial properties and used for strengthening teeth and gums. Oral administration of dried alcoholic extracts of the seeds to diabetic patients was found to reduce the level of blood sugar and glycosuria in trials conducted at CDRI, Lucknow, India. The bark of black berry tree is astringent, digestive, diuretic, anthelmintic and is considered useful for throat problems. A decoction of the bark and powdered seeds is believed to be very useful in the treatment of diarrhea, dysentery and dyspepsia. The antibiotic activity of black berry extract has been widely studied and found useful against a number of microbial agents. The fruit is also considered to be stomachic, carminative, antiscorbutic and diuretic. Vinegar made from black berry fruit is administered in cases of enlargement of spleen, chronic diarrhoea and urine retention for ringworm treatment, water diluted juice is used as lotion

*Keyword:* Indian Black berry, Antibacterial Properties, Diabetes, Ringworm Treatment

#### 1. Introduction

Traditional Indian medicines like Ayurveda and Unani prescribe jamun for different health problems including diabetes, dental issues, digestive disorders, liver trouble and skin ailments.

While the fruit is rich in antioxidants (that prevent cancer) like tannic and oxalic acids, the bark contains diuretic (promotes urine) and digestive properties.

The seed is prescribed for diabetes. Jamun as a whole is a good blood purifier in the traditional systems of medicine. Jamun fruit can also be consumed with a pinch of salt to beat its astringent or slightly bitter taste. But those suffering from hypertension should

avoid adding salt to the fruit. While the fruit is available during June-August, jamun bark and leaves can be utilized all through the year. One may also add fruit jams containing jamun fruit to their daily routine. Diabetics may consume the jamun fruit in limited quantity to keep the blood sugar under control. Take seeds of jamun, dry and grind to a powder.

Strain and consume a small quantity and consume it with water. Repeat every day to regulate blood sugar levels. Jamun is a good general tonic to keep the body healthy. The fruit also has a cooling effect when the day is hot and sultry.

Jamun juice is good for the body. Take some jamun fruit, wash and remove the pulp. Blend the pulp, add honey and consume. Jamun seed powder will also help in clearing skin blemishes left by acne and blackheads.

Practitioners of traditional system of medicine recommend the powder prepared from the jamun seeds mixed with a small piece of jaggery for relief from diarrhoea and dysentery. Those suffering from bleeding gums and unhealthy teeth may use the ash from the burnt jamun leaves to brush the teeth twice a day. You may also take it without honey.

For relief from nagging wounds, take a few fresh jamun leaves, make a paste of them and apply on the affected portion of the skin. The leaves of jamun are natural antibiotic, so they help in the healing of injuries fast.



Fig 1: A Branch Of Black Berry

### 1.1 Biological Sources

Scientific classification	
Kingdom:	Plantae
(unranked):	Angiosperms
(unranked):	Eudicots
(unranked):	Rosids
Order:	Myrtales
Family:	Myrtaceae
Genus:	<i>Syzygium</i>
Species:	<b><i>S. cumini</i></b>
Binomial name	
<i>Syzygium cumini</i> (L.) Skeels.	
Synonyms	
<ul style="list-style-type: none"> <li>• <i>Eugenia cumini</i> (L.) Druce</li> <li>• <i>Eugenia jambolana</i> Lam.</li> <li>• <i>Syzygium jambolanum</i> DC.</li> </ul>	

### 1.2 Properties of Jamun

Ancient Rishies and Munies did enough research works on blackberries. According to them, the fruit is small, rough, sour, sweet, acidic, coolant, destroys cough, pitt (bile) and vat (wind), blood circulator, highly helping in digestion and anti-acidic, useful in skin diseases, activator of liver, thirst extinguisher, anti diarrhoeic, destructs bad bacteria in stomach and effective in respiratory system.

#### 1.2.1 Nutritional Properties

It is a fairly good source of mineral salts (calcium = 15 mg; potassium = 55 mg; magnesium = 35 mg; phosphorus = 15 mg; sodium = 26.2 mg/100 g fruit) and vitamin C (18 mg/100 g of fruit). It provides 62 Kcal energy per 100 g of edible fruit. It contains fairly good amount of carotene (48 ug/100 g), folic acid (3 mg/100 g).

#### 1.2.2 Medicinal Value of Jamun

JAMBOLAN or Jamun (*syzygium*) is an important indigenous minor fruit of commercial value. The tree is tall, evergreen, also grown for shade and windbreak. The fruit possesses considerable nutritive value. It is a good source of iron, apart from the usual contents, e.g, minerals, protein etc. The nutritive value of this fruit is given below. Jamun fruit is usually shaken with

salt before eating which has spicy flavor. It is also used in making beverages, jellies, jam, squash, wine, vinegar and pickles. Jamun squash is a refreshing drink in summers. Jamun syrup is beneficial in diarrhoea. Juice of Jamun and mango if mixed in equal quantity is good in quenching thirst of diabetic patients. Jamun wine is prepared, particularly in Goa. The vinegar prepared from the slightly unripe fruit is stomachic, carminative and diuretic, apart from having cooling and digestive properties. Smaller fruits are used in beverage industry for being rich in acidity, tannins and anthocyanins. Its seed can be used as a concentrate for animals because it is rich in protein, carbohydrates, and calcium. Jambolan crop is easily grown in neglected and marshy areas where annual rainfall is between 1,500-10,000mm. The fruit is black or purple in colour, sweet in taste. The fruit has received more recognition in folk medicine and in pharmacy. The juice of ripe fruit or a decoction of it is administered in spleen enlargement, chronic diarrhoea and urine retention. The seed extract in liquid or powdery form are given to patients with diabetes mellitus or glycosuria. In many cases blood sugar level drops quickly. Dried alcoholic extract of Jamun seeds reduces blood sugar and glycosuria. Seeds contain an alkaloid, jambosine and glycoside jambolin or antimellin which halts the conversion of starch into sugar. Seed extract lowers blood pressure by 34.6 per cent. The leaf juice is effective in dysentery either alone or in combination with the juice of mango. Jamun leaves may be helpful as poultices on skin disease. Leaves, stems, flower buds, open blossoms, and bark have antibiotic properties. A decoction of bark is good for dyspepsia, dysentery, and diarrhoea. Bark decoctions are taken for asthma and bronchitis and are gargled or used as mouthwash for the astringent effect on mouth ulcerations. There are no named or standard cultivars of this fruit. The common cultivar grown in Pakistan is 'Ra Jamun'. It produces big-sized oblong, deep purple or bluish black fruit. Its pulp is purple pink and fruit is juicy and sweet. The stone is small in size. Climate and soil: Jamun is grown in tropical and subtropical climate. It requires dry atmosphere at

the time of flowering and fruiting. Early rains are beneficial to proper growth, development and ripening of fruits. The young plants are susceptible to cold and drought conditions. The Jamun tree requires deep loam and well-drained soil. Its cultivation should be avoided in very heavy or light sandy soils.

### 1.2.3 Planting:

Jamun can be transplanted in February-March or in July-August. The plants are transplanted with the soil ball intact. Jamun propagation is by seed. Seedling plants bears fruits of variable size and quality, such trees are generally hardy and long live for improved and selected true-to-type plants, vegetative methods of propagation, like inarching, budding, cutting, and air-layering are advocated. Regular pruning is not required however in later years. The dry twigs and crossed branches are removed. In the early age, the plants require 8-10 irrigation in a year. Intercropping of Jamun orchard with suitable crop not only brings good income but also improves fertility of soil. A full dose of 20kg rotten FYM during the pre-bearing period of tree and at bearing stage 80kg FYM per tree should be supplied for proper growth and fruiting. Seeds sown fresh usually show a high percentage of germination within two or three weeks, but if stored they lose their viability rapidly. Leaf eating caterpillar infests the leaves and may defoliate the trees. Treatment with Malathion is effective. White fly damages the tree in all parts, sometimes the fruits of Jamun get wormy due to attack of fruit fly.

### 1.3 Medicinal Properties of Black Berry:

1. The extracts of the bark, seeds and leaves are used for the treatment of diabetes.
2. The leaves have antibacterial properties and used for strengthening teeth and gums.
3. Oral administration of dried alcoholic extracts of the seeds to diabetic patients was found to reduce the level of blood sugar and glycosuria in trials conducted at CDRI, Lucknow

4. The bark of black berry tree is astringent, digestive, diuretic, anthelmintic and is considered useful for throat problems
  5. A decoction of the bark and powdered seeds is believed to be very useful in the treatment of diarrhea, dysentery and dyspepsia
  6. The antibiotic activity of black berry extract has been widely studied and found useful against a number of microbial agents.
  7. The fruit is also considered to be stomachic, carminative, antiscorbutic and diuretic.
  8. Vinegar made from black berry fruit is administered in cases of enlargement of spleen, chronic diarrhoea and urine retention
  9. For ringworm treatment, water diluted juice is used as lotion
  10. A decoction of bark is used in cases of asthma and bronchitis and are gargled or used as mouthwash for the astringent effect on mouth ulcerations, spongy gums, and stomatitis.
4. Pimples: Rub the guthali with and apply this to get relief from pimples. Ghamaury coming off during summers also get cured from this.
  5. Boils and ulcers of mouth: Chew fresh and soft black berries leaves for a while and gargle after wards.
  6. Bloody piles: Grind soft leaves of jamun like chutney and mix a little of jaggary with this and lick it.
  7. Diabetic: Drop 25 gm of good fresh jamun in 200 gm of boiling water (after taking the pot down from the burner. Crush it after ½ an hour and filter it. Make it into three portions and drink it thrice during the day. Continue this process and keep monitoring your sugar levels apart from having a balanced diet.
  8. Come June and the market is flooded with small shiny oval black fruits attracting our attention. Tradition has it that one should take at least one jamun fruit in a season to clear the digestive system and keep the human machine running.
  9. Jamun or Indian blackberry no doubt, is a wonder tree. Every part of the jamun tree, also called the black plum, has one or more medicinal uses, right from its fruit to its seed and bark to the leaves.

### 1.3.1 Benefits of Black Berries

Jamun is useful in diabetic apart from being effective in other diseases too. Let's now discuss its benefits in various diseases.

1. Jeern Atisaar and rakta Pradar: Gind mango guthli powder along with the guthli powder of jamun and fried up small harrey powder in equal proportions. Eat 3gm of this mixture with water till the complications clear off.
2. Rakt Pradar: With marh of rice should be gulped 3 gm of jamun guthli powder to cure Rakt Pradar.
3. Cataract ( motiabind): stir well the guthli powder with honey and prepare tablets of 3 gm each. Take 1-2 tablets with cow milk. Apply on eyes the tablet by making a paste of it with honey to cure the beginning of cataract.

### 1.4 Jamun Remedies you can use at Home

1. If your child is doing bed wetting then you should give 1 tea spoon ground seed with water to child.
2. In case of dysentery (bloody) take 20 gm powdered seeds and take with 1/2 cup of water twice daily.
3. In case diarrhea take two soft leaves of Jamun and make paste of it. Now add some rock salt to it and make small pills and take twice daily with water.
4. In case of conjunctivitis boil soft 20 leaves of Jamun and boil in in 2 cup water till it reduces to 100 ml. Cool down this and wash eyes with this water (decoction).
5. In case of acidity drink 10 ml Jamun vinegar with some water it will give you relief.



## 2. Conclusion

Jamun has also anticancer and anti-viral properties. Its fruits extract inhibit growth and induces apoptosis of breast cancer. Jamun juice is carminative, having mild astringent effect, stomachic and diuretic, give a soothing effect in digestive system. The powder of Jamun bark is applied extremely to effectively control the bleeding. The fruits are effectively in blood purifying and fruits pulps with sesame oil are effective in higher fever.

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