

Health Benefits of Jackfruit

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SUMMARY

Jackfruit, botanically known as *Artocarpus heterophyllus*, grows in tropical and subtropical regions throughout the world. The Jackfruit can be used raw as vegetable and ripe as fruit. The Jackfruit is an extremely versatile and sweet tasting fruit that possesses high nutritional value. From the time immemorial, the whole jackfruit tree is used as a traditional medicine. *Artocarpus heterophyllus* has multifaceted medicinal properties. The medicinal properties of Jackfruit include anti-asthmatic, antioxidant, antibacterial, antifungal, anticancer, hypoglycemic, antimalarial, anti-diarrhoeal, antiarthritic, anti-helminthic, anti-inflammatory, ant carcinogenic, anti platelet, antiviral, anti tubercular, anti atherosclerotic activities. It has also shown wound healing effect and causes decrease in the sexual arousal, libido, performance and vigor in men. The present paper reviews the Introduction, Geographical distribution, history, cultivation, uses, strange facts, side effects, synonyms, varieties, nutritional value, botanical description, taxonomical classification, phytochemical constituents, and pharmacological activities along with the current trends in research on jackfruit.

INTRODUCTION

Jackfruit is a unique tropical fruit that has increased in popularity in recent years. It has a distinctive sweet flavor and can be used to make a wide variety of dishes. It's also very nutritious and may have several health benefits. Jackfruit is an exotic fruit grown in tropical regions of the world. It is native to South India. It is part of the Moraceae plant family, which also includes fig, mulberry and breadfruit. Jackfruit has a spiky outer skin and is green or yellow in color. One unique aspect of jackfruit is its unusually large size. It is the largest tree fruit in the world and can reach up to 80 pounds (35 kg) in weight. Jackfruit has a subtle sweet and fruity flavor. It has been said to taste similar to a combination of fruits, including apples, pineapples, mangoes and bananas. Vegans and vegetarians often use this fruit as a meat substitute due to its texture, which is comparable to shredded meat. Since jackfruit is able to withstand tropical climates, it can be a major source of calories and carbs for people in developing countries who are at risk of starvation.



Although jackfruit is grown in tropical areas, it is becoming more widely available in other parts of the world, including the US. It is in season during the summer. The most commonly consumed part of jackfruit is the flesh, or fruit pods, which are edible both when ripe and unripe. It can be used in sweet and savory dishes, including desserts and curries. The seeds are also safe to eat. The world of meat substitutes has expanded rapidly in recent years, with various options made to fit the various meals you're looking to recreate sans meat. One item you won't find hanging around tofu and the likes is jackfruit, a massive produce item with a green horned exterior, which may leave you a bit puzzled at first. You'll likely be seeing it popping up on menus more as we approach 2020, so it's time to get to know this meat replacement.

Origin and Distribution

Jackfruit is considered to be originated in the rain forests of the Western Ghats in the Southwestern part of India, but some authors argue that Malaysia could be the possible centre of origin. It is found in many parts of Asia, Africa, and South America. Jacktree grows in warm and moist regions

Chemical Composition and Nutritional Value

The chemical composition of jackfruit varies depending on the variety. When compared with other tropical fruits jackfruit flesh and seeds contain more protein, calcium, iron, and Thiamine. A study has explored that the ripe jackfruit is richer than apple, apricot, avocado, and banana in some minerals and vitamins. The caloric content of jackfruit is low, where 100 g of jackfruit only contains 94 calories.

Chemical Composition of jackfruit (100g edible portion)

Composition	Young fruit	Ripe fruit
Water (g)	76.2 - 85.2	72.0 - 94.0
Protein (g)	2.0 - 2.6	1.2 - 1.9
Fat (g)	0.1 - 0.6	0.1 - 0.4
Carbohydrate (g)	9.4 - 11.5	16.0 - 25.4
Fibre (g)	2.6 - 3.6	1.0 - 1.5
Water (g)	76.2 - 85.2	72.0 - 94.0
Protein (g)	2.0 - 2.6	1.2 - 1.9
Fat (g)	0.1 - 0.6	0.1 - 0.4
Total sugars (g)	-	20.6
Total minerals (g)	0.9	0.87 - 0.9
Calcium (mg)	30.0 - 73.2	20.0 - 37.0
Magnesium (mg)	-	27.0
Phosphorus (mg)	20.0 - 57.2	38.0 - 41.0
Potassium (mg)	287-323	191-407
Sodium (mg)	3.0-35.0	2.0-41.0
Iron (mg)	0.4-1.9	0.5-1.1
Vitamin A (IU)	30	175-540
Thiamine (mg)	0.05-0.15	0.03-0.09
Riboflavin (mg)	0.05-0.2	0.05-0.4
Vitamin C (mg)	12.0-14.0	7.0-10.0
Energy (KJ)	50-210	88-410

Health Benefits of Jackfruit

Jackfruit Is Packed With Nutrients, Jackfruit has an impressive nutrition profile. It contains a moderate amount of calories, providing 155 in a one-cup (165-gram) serving. Approximately 92% of the calories come from carbs, while the rest come from protein and a small amount of fat. Furthermore, jackfruit contains some of almost every vitamin and mineral that you need, as well as a decent amount of fiber.

One cup of sliced fruit provides the following nutrients.

- **Calories:** 155
- **Protein:** 3 grams
- **Riboflavin:** 11% of the RDI
- **Copper:** 15% of the RDI
- **Carbs:** 40 grams
- **Vitamin A:** 10% of the RDI
- **Magnesium:** 15% of the RDI
- **Manganese:** 16% of the RDI
- **Fiber:** 3 grams
- **Vitamin C:** 18% of the RDI
- **Potassium:** 14% of the RDI

What makes jackfruit unique from other fruits is its protein content. It provides more than 3 grams of protein per cup, compared to 0–1 grams in other similar types of fruit, such as apples and mangoes. Jackfruit is also rich in several types of antioxidants, which are likely responsible for the majority of its health benefits.

It May Benefit Blood Sugar Control

Jackfruit has several properties that may help with blood sugar management. It has a fairly low glycemic index (GI), which is a measure of how quickly your blood sugar rises after eating a food. This has been attributed to the fiber it provides, which slows digestion and helps prevent blood sugar spikes. Diets that include lots of low-GI foods have been shown to be helpful for promoting blood sugar control. Moreover, jackfruit provides some protein, which may help prevent blood sugar levels from rising too quickly after a meal. In one study, adults who consumed jackfruit extract were found to have significantly improved blood sugar levels. Additionally, a study of diabetic mice found that jackfruit leaf extract helped reduce fasting blood sugar levels and provided long-term blood sugar control. These effects were attributed to jackfruit's content of flavonoid antioxidants, which are known for their ability to promote balanced blood sugar levels. Although the results from these studies are promising, more studies of people eating fresh jackfruit are necessary to confirm these potential benefits.

It May Protect Against Disease

Jackfruit is high in a few powerful antioxidants that provide various health benefits, including a reduced risk of several diseases. Antioxidants protect your cells from oxidative stress and inflammation, which often result from damage caused by molecules called free radicals. Here's an overview of the antioxidants that are most abundant in jackfruit:

- **Vitamin C:** Jackfruit contains high amounts of vitamin C, which may help prevent the inflammation that can lead to chronic diseases like heart disease and cancer.
- **Carotenoids:** Carotenoids have been shown to help lower inflammation and reduce the risk of various chronic diseases, such as type 2 diabetes and heart disease.
- **Flavanones:** Flavanones contain anti-inflammatory properties that may help lower blood sugar, blood pressure and cholesterol levels — important factors in reducing the risk of type 2 diabetes and heart disease.

Other Potential Health Benefits

Jackfruit is said to have several other health benefits that have not been studied specifically.

- **Immune health:** Jackfruit's content of immune-boosting vitamins A and C may help prevent illnesses. Eating this fruit is also claimed to be helpful for reducing the risk of viral infections.
- **Preventing skin problems:** This fruit provides several nutrients and antioxidants, such as vitamin C, that may improve skin health. There is anecdotal evidence that eating it may slow the aging of your skin.
- **Heart health:** Jackfruit may have the potential to reduce the risk of heart disease due to its content of potassium, fiber and antioxidants.

Furthermore, the roots and extracts have been used in traditional Indian and Sri Lankan medicine to treat several conditions, including asthma, diarrhea and stomach ulcers, but these effects have never been scientifically proven. Although these reported benefits are not supported by scientific evidence, including jackfruit in your diet is certainly worth a try if you want to improve your health.

Risks of Eating Jackfruit

Although safe for most, some people may need to limit or avoid jackfruit. Certain people are allergic to it, especially those who are allergic to birch pollen. Moreover, due to its potential to lower blood sugar levels, individuals with diabetes may need to have their medication dosages changed if they eat this fruit on a regular basis. Nevertheless, consuming jackfruit has never been reported to cause any serious side effects, and it is safe for most people to eat.

How to Eat It

Jackfruit is very versatile and can be eaten raw or cooked. To prepare it, you will first want to slice it in half and remove the yellow fruit pods and seeds from the skin and core. You can do this with a knife or your hands. It is important to note that the white, fibrous part inside of jackfruit is incredibly sticky, so it may be helpful to wear gloves while handling it. Jackfruit can be consumed plain or cooked into both sweet and savory dishes, depending on its ripeness. Unripe fruit generally tastes best in savory recipes, while the sweetness of the ripe fruit is great for desserts. Since it is an exotic fruit, fresh jackfruit can be difficult to come across in grocery stores, especially when it is not in season. However, it is often sold canned, which is a convenient option. Vegetarians and vegans often use jackfruit as a meat alternative due to its texture. For example, you can use the fruit as a meat replacement in jackfruit tacos by cooking it and then combining it with vegetables and seasonings. Additionally, you can incorporate jackfruit into curries or soups. The ripe fruit also tastes great when added to yogurt or oatmeal. Jackfruit seeds are edible, too. They can be roasted or boiled and then combined with seasonings. You can even use the seeds to make hummus.

The Bottom Line

Jackfruit is very good for you for many reasons. It is high in nutrients and antioxidants and may have a number of health benefits, including improved blood sugar control. You can easily incorporate jackfruit into your diet by eating it plain or in various dishes. It makes an excellent meat alternative in vegetarian and vegan recipes. Fresh jackfruit is easiest to find when it's in season during the summer months, but you can find canned jackfruit in most grocery stores year-round. Adding jackfruit to your diet is worth a try, as it is quite healthy and a unique food to experiment with.

CONCLUSION

Artocarpus heterophyllus is an excellent plant due to its multifaceted medicinal properties like antiasthmatic activity, antioxidant, antibacterial, antifungal, anticancer, hypoglycemic, antimalarial, antiarrhythmic, antiarthritic, antihelminthic, antiinflammatory, anticarcinogenic, antiplatelets, antiviral, antitubercular, antiatherosclerosis and show wound healing effect and decrease in the sexual activity. In addition *Artocarpus heterophyllus* also has food value with numerous culinary uses. The wood of the tree is also used for making musical instruments and furniture. So we can conclude that jackfruit is a health boon to the mankind.

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