

## Nutrition Facts and Health Benefits of Mulberries

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### Introduction:

Mulberries (*Morus spp.*) are a type of fruit that belong to the Moraceae family. The term *Morus* is derived from the Latin word 'mora', which means delay, most likely because of the slow development of its buds. It is an economical and widespread woody plant and has an enormous economic value other than sericulture leading to its several unique and special features. These trees, which are indigenous to North America, Asia, and the Middle East and they produce small, colorful berries known as mulberries. The fruits of mulberry are known as toot and shahtoot. They grow hanging on deciduous trees in temperate regions such as India, China, Japan, North Africa, Arabia, and South Europe. The berries come in a variety of colors, including red, white, and black, and can be eaten dry or fresh. Mulberries are a favorite because of their flavor, which is sweet and somewhat acidic. The only food source for silkworms is the mulberry leaf. The leaves are very useful in the pharmaceutical, cosmetics and food industries;

thus, the tree is also known as 'Kalpavriksha'.



### Types of Mulberry:

There are numerous mulberry species that grow all over the world, and they differ in taste, color, and shape. However, the three most common species of mulberries are black, red and white.

**Black Mulberries-** Black mulberries are indigenous to the Middle East and can be found from Turkey to India. However, these berries are now found in much of Europe. Despite their "black" label, these mulberries are a dark purple color with a slightly sweet, tangy flavor.

**Red Mulberries-** Red mulberries are native to North America and range in color

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from bright blood red to burgundy. This type has a slightly acidic flavor, similar to black mulberries.

**White Mulberries-** White mulberries are native to East Asia and can be found in Eastern China, Korea, and Japan. Unlike black and red mulberries, white mulberries are sweeter and lack acidic overtones. White mulberries make up the majority of commercial dried mulberry goods.

**Nutrition Facts of Mulberry:**

Mulberry fruits are recognized for the well-being of human beings due to their high nutritional significance. Additionally, mulberry fruits hold a diversity of nutrient elements that play a vital function in human metabolism. For example, mulberry is good resource of carbohydrate. Due to their great taste, mulberries contain a moderate amount of calories per serving. Below are some nutrition facts.

Nutritional components	Value (per 100g)
Energy (kcal)	43
Water (%)	75
Fat (g)	0.4
Sugar (g)	8.1
Protein (g)	1.4
Dietary fiber (g)	1.7
Total carbohydrate (g)	9.8
Iron (mg)	1.9
Sodium (mg)	10
Calcium (mg)	48
Potassium (mg)	192
Ascorbic acid (mg)	36

**Properties of Mulberry:**

Various parts of mulberry shows numerous properties as those mentioned below which may be helpful:

- Anti-inflammatory (may reduce inflammation and swelling).
- Anti-pyretic (may help to reduce fever).
- Anthelmintic (may be used to destroy some types of parasitic worms).
- May slow the formation of abnormal blood clots.
- Helps lower the deposition of fatty material on the inner walls of arteries.
- May offer some benefit in Blood sugar level lowering.

**Health Benefits of Mulberries:**

Here is some of the health benefits associated with mulberries:

**Heart Health-** The flavonoid resveratrol is found in mulberry leaves. This flavonoid may help to alleviate tightness in blood arteries, thus lowering the risk of heart failure. Mulberries include resveratrol, which may aid in the formation of nitric oxide, which acts as a vasodilator. This means it may have a relaxing effect on the blood vessels and may reduce the chance of blood clot development. As a result, it may have a favorable effect on heart-related illnesses such as heart attacks or strokes caused by blood clot formation.

**Immune System Boost-** Mulberries are high in vitamin C, which is necessary for a healthy immune system. Vitamin C aids in the development of white blood cells, which play an important role in the body's defense against infections.

**Improves blood circulation-** Mulberries are rich in antioxidants that improve the functioning of the blood vessels by dilating them. This leads to a free flow of blood from the heart to other parts of the body thus ensuring blood pressure control. Mulberries are rich in iron and the presence of iron encourages the production of red blood cells.

**Digestive Health-** Mulberries may help to improve digestion due to their high dietary fibre content; a single serving of mulberries contains about 10% of the daily requirement. This dietary fibre adds bulk to the stool, which improves the speed of food movement within the digestive tract and thus contributes to improved digestion. It may be helpful in digestive tract conditions such as stomach cramps, bloating, and constipation.

**Eye Health-** Mulberry fruits contain carotenoids, one of which is zeaxanthin. Zeaxanthin is an antioxidant that may help to maintain retinal health. Free radicals cause macula degeneration and cataracts. Zeaxanthin from mulberry fruits may be able to alleviate oxidative stress on retinal cells

caused by these free radicals. As a result, it may imply that mulberry has the ability to slow cataract formation. More research is needed to determine the impact of mulberries on cataracts in humans.

**Skin and Hair Health-** Mulberry fruits are abundant in vitamins A and E, as well as a wide range of carotenoid components. These molecules act as potent antioxidants, protecting the hair, skin, tissue, and other organs from the dangers of free radicals. Antioxidants may aid in the reduction of blemishes and the maintenance of smooth skin. Mulberry fruits may help maintain hair bright and healthy by reducing the oxidative effects of free radicals. Mulberry may be beneficial for acne-prone skin since it reduces skin oil production and irritation. All of these mulberry qualities require additional research to fully comprehend their potential applications in humans.