Mango and diabetes

Bharti Kalra, Lovely Gupta¹, Deepak Khandelwal², Nishant Choubey³

Department of Gynecology, Bharti Hospital, Karnal, ¹Department of Culinary Science, The Roseate, Gurgaon, Haryana, ²Department of Dietetics, Maharaja Agrasen Hospital, ³Department of Endocrinology, Maharaja Agrasen Hospital, New Delhi, India

Abstract

The mango is considered as the king of fruits. It is one of the most consumed seasonal fruits in South Asia. Most persons with diabetes and health-care providers assume that mango should be strictly avoided by persons with diabetes. However, mango is a fruit with good nutritive value, low glycemic load as well as with acceptable glycemic index. In this short review, we summarize the nutritive values of mango, as well as the ways in which mangoes can be enjoyed, in moderation, by persons with diabetes.

Keywords: Diabetes, fruits, glycemic index, mango

INTRODUCTION

The mango is considered as the king of fruits by all. For people with diabetes, however, it is thought to be the Menaka of fruits. Irresistible because of its taste, it is thought to lure its consumers to metabolic doom. In this way, it is similar to the fairy (apsara) Menaka, who seduced the venerable sage, Vishvamitra, and interrupted his meditation. Our brief communication aims to correct this misconception.

SOURCE

The mango is a fruit of the Mangifera tree. It can be eaten raw or ripe. Mango is the national tree of Bangladesh, as well as the national fruit of India, Pakistan, and the Philippines. Apart from these countries, it is majorly produced in China, Thailand, Indonesia, and Mexico as well.

NUTRITIONAL VALUE

The mango has been the subject of much research in clinical nutrition. The mango provides all the significant Vitamins A, B, C, and K along with calcium, iron, copper, and potassium, respectively [Table 1]. There is no cholesterol in mango.[¹]

The glycemic load of mango is 51, which is classified as low. Its glycemic index has been found to be similar to that of other tropical and subtropical fruits.[²]

Mangiferin, a bioactive substance found in mango seeds (0.42 mg/kg), peel (1690.4 mg/kg), and pulp (4.4 mg/kg), is thought to have hypoglycemic properties. Mangiferin is a xanthone with high antioxidative activity. It inhibits sucrase, isomaltase, and maltase, and thus decreases in glucose intestinal absorption. Mango also contains dietary fiber, which can reduce digestion of carbohydrate and lower glucose absorption.[³]

EVIDENCE

Human studies suggest that mango consumption may improve postprandial glucose and markers of...
Mangoes are weighed and bought by the kilogram. This makes it easy to explain the concept of serving size, and glycemic load calculation, to the average consumer. One must note that the peel and seed contribute to about 20%–25% of the total weight of the fruit. Mango peel, leaves, and mango kernel flour have been used to modulate glycemia in animal models, but are not part of South Asian diet.[8–10]

**RECIPES**

Mango is a versatile fruit which is a gift to the chef. It adds taste, color, flavor, and variety to recipes and can be used in raw as well as cooked form. It can be grilled, boiled, steamed, roasted, baked, as well as stewed. Beverages such as aam panna or mango kanji can also be prepared from mango pulp. Tasty and healthy recipes which allow people with diabetes to taste its flavor include mango and cucumber salads, baked mango tart with mushroom, mango and dried nuts, mango salsa, and steamed mango idli. Boiled mango can be used to make sauces with a garnishing of chia seed, flax seed, and aniseed. Raw mango slices can be dusted with a starch and can be turned into a fritter, a great snack. Mango can be added as a natural sweetening agent to desserts, obviating the need for sugar.

**SUMMARY**

Mangoes may be eaten in moderation by persons with diabetes. While they are purported to have multiple benefits on metabolism, one must be mindful of total caloric intake, portion size, frequency and glycemic load, while consuming this fruit.

**Financial support and sponsorship**

Nil.

**Conflicts of interest**

There are no conflicts of interest.

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