

Effects of Fresh Mango and Dried Mango Consumption on Satiety and Postprandial Glucose

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Objectives: Mangos are a nutrient-dense fruit containing high levels of various vitamins, minerals, dietary fiber, and bioactive phytochemicals (mangiferin, flavonoids, phenolic acids, and carotenoids). Many studies have investigated the beneficial effects of mango consumption through powders and extracts; however, few studies have examined fresh mango, specifically in contrast to the dried variety. The objective of the study was to determine the effects of fresh versus dried mango consumption on satiety levels and postprandial glucose.

Methods: In a randomized crossover design, 34 adults (29 females/5 males, age 25.0 ± 6.0 years, BMI 23.8 ± 4.3 kg/m²) consumed 100 Kcal of fresh mangos, dried mango or white bread (control) on three separate occasions. Satiety was measured via a VAS (visual analogue scale) questionnaire at baseline and every 15 minutes for 90 minutes after

snack consumption. Blood glucose measured via finger pricks was assessed at baseline and every 30 minutes for 90 minutes post snack consumption.

Results: Fresh mango consumption resulted in the greatest satiety increase (more fullness, less desire to eat) in participants. When compared to the dried mango and the bread, the fresh mango also significantly reduced the participants' level of thirst. Furthermore, fresh mango promoted greater stability in blood glucose levels by exhibiting a more efficient decrease in postprandial glucose levels than dried mango or white bread ($P < 0.05$). Dried mango consumption also significantly lowered postprandial glucose compared to white bread ($P < 0.05$).

Conclusions: These results suggest that fresh mango consumption may be beneficial in reducing the risk of obesity and diabetes by improving satiety responses and postprandial glucose control, reducing food intake, and preventing weight gain.

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