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### **Mango and the Microbiota: New Research Reveals Potential Role of this Superfruit in Maintaining Gut Health**

*Mangos may play a beneficial role in modulating adverse effects associated with a high-fat diet*

**Orlando, Florida (November 10, 2016)** – Research published in the *Journal of Nutrition* has for the first time documented the **potential effects of mango consumption on gut microbiota of mice**.<sup>1</sup> When samples were compared from the beginning to the end of the study period, **mango supplementation was found to prevent the loss of beneficial gut bacteria often induced by a high-fat diet**. This is an important finding as specific bacteria in the intestinal tract may play a role in obesity and obesity-related complications, such as type 2 diabetes.<sup>2</sup>

In this [study](#), published in the *Journal of Nutrition*, 60 male mice were assigned to one of four dietary treatment groups for 12 weeks – control (with 10% of calories from fat), high fat (with 60% calories from fat), or high fat with 1% or 10% mango. All high-fat diets had similar macronutrient, calcium, phosphorus, and fiber content.

“Fiber and other bioactive compounds in plant-based foods are suggested to prevent gut dysbiosis caused by a high-fat diet,” said Edralin A. Lucas, Ph.D., professor of nutritional sciences at Oklahoma State University and lead researcher of the study. “Mango is a good source of fiber and has been reported in previous studies to have anti-obesogenic, hypoglycemic and immunomodulatory properties. The results of this animal study showed that adding mango to the diet may help maintain and regulate gut health and levels of beneficial bacteria levels. Further research is necessary to see if these study results can be replicated in humans.”

In previous studies, *Bifidobacteria*, for example, has been found to be lower in both obese individuals and those with type-2 diabetes.<sup>3</sup> Similar results have been observed with *Akkermansia* in animal studies.<sup>4</sup> High-fat diets have been linked to gut dysbiosis, or bacterial imbalances within the intestinal tract.

The high-fat dietary treatment with 10% mango (equivalent to 1½ cups of fresh mango pieces) was found to be the most effective in preventing the loss of beneficial bacteria from a high-fat diet without decreasing body weight or fat accumulation. Specifically, mango supplementation regulated gut bacteria in favor of *Bifidobacteria* and *Akkermansia* and enhanced short-chain fatty acid (SCFA) production. SCFAs have been shown to possess a wide range of beneficial effects, such as anti-inflammatory properties.<sup>5</sup>

One cup of mango is bursting with antioxidants and over 20 different vitamins and minerals and provides a good source of fiber. While it has been well-documented that compounds in mango exhibit anti-inflammatory activities and that fiber aids digestion, the effects of mango on the gut microbiota have not previously been investigated.



Although more research is needed on the effects of mango on human health, this study suggests that mango consumption may be important in improving gut health particularly for those consuming a high-fat diet.

### About National Mango Board

The [National Mango Board](http://mango.org) is an agriculture promotion group supported by assessments from both domestic and imported mangos. The board's vision, to bring the world's love of mangos to the U.S., was designed to drive awareness and consumption of fresh mangos in the U.S. marketplace. One cup of the superfruit mango contains 100 calories, 100% of daily vitamin C, 35% of daily vitamin A, 12% of daily fiber, and an amazing source of tropical flavor. Learn more at [mango.org](http://mango.org).

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