

Peanuts and herbs and spices may positively impact gut microbiome

December 2 2022



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Adding a daily ounce of peanuts or about a teaspoon of herbs and spices to your diet may affect the composition of gut bacteria, an indicator of overall health, according to new research from Penn State. In two

separate studies, nutritional scientists studied the effects of small changes to the average American diet and found improvements to the gut microbiome.

The human [gut microbiome](#) is a collection of trillions of microorganisms that live inside the intestinal tract. The bacteria there can affect nearly all systems of the body, including metabolism and the building and maintaining of the immune system.

"Research has shown that people who have a lot of different microbes have better health, and a better [diet](#), than those who don't have much bacterial diversity," said Penny M. Kris-Etherton, Evan Pugh University Professor of Nutritional Sciences, Penn State.

For the peanut study, which published in the journal *Clinical Nutrition*, Kris-Etherton and her colleagues compared the effects of snacking on 28 grams (approx. 1 ounce) of peanuts per day, versus a higher carbohydrate snack—crackers and cheese. At the end of six weeks, participants who ate the peanut snack showed an increased abundance of Ruminococcaceae, a group of bacteria linked to healthy liver metabolism and immune function.

In the herbs and spices study, which published in *The Journal of Nutrition*, scientists analyzed the impact of adding blends of herbs and spices—such as cinnamon, ginger, cumin, turmeric, rosemary, oregano, basil and thyme—to the controlled diets of participants at risk for cardiovascular disease. The team examined three doses—about 1/8 teaspoon per day, a little more than 3/4 teaspoon per day and about 1 1/2 teaspoon per day. At the end of four weeks, participants showed an increase in gut bacteria diversity, including an increase in Ruminococcaceae, most notably with the medium and high doses of herbs and spices.

"It's such a simple thing that people can do," said Kris-Etherton. "The average American diet is far from ideal, so I think everyone could benefit by adding herbs and spices. It's also a way of decreasing sodium in your diet but flavoring foods in a way that makes them palatable and, in fact, delicious! Taste is really a top criterion for why people choose the foods they do."

In both studies, the increase in Ruminococcaceae and [bacterial diversity](#) was viewed positively, as scientists continue to learn more about the connection between the [gut microbiota](#) and a spectrum of health factors, from blood pressure to weight. However, Kris-Etherton is quick to point out that more research is needed to understand all of the implications.

She said, "We need a lot more research on the microbiome to see what its proper place is in terms of overall health."

More information: Philip A. Sapp et al, Peanuts as a nighttime snack enrich butyrate-producing bacteria compared to an isocaloric lower-fat higher-carbohydrate snack in adults with elevated fasting glucose: A randomized crossover trial, *Clinical Nutrition* (2022). [DOI: 10.1016/j.clnu.2022.08.004](#)

Kristina S Petersen et al, Herbs and Spices Modulate Gut Bacterial Composition in Adults at Risk for CVD: Results of a Prespecified Exploratory Analysis from a Randomized, Crossover, Controlled-Feeding Study, *The Journal of Nutrition* (2022). [DOI: 10.1093/jn/nxac201](#)

Provided by Pennsylvania State University

Citation: Peanuts and herbs and spices may positively impact gut microbiome (2022, December

2) retrieved 23 April 2023 from

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