

# Mushrooms boost immunity

April 17 2015, by Brad Buck

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Could a mushroom a day help keep the doctor away? A new University of Florida study shows increased immunity in people who ate a cooked shiitake mushroom every day for four weeks.

Of the thousands of mushroom species globally, about 20 are used for culinary purposes. Shiitake [mushrooms](#) are native to Asia and are cultivated for their culinary and medicinal value.

In a 2011 study led by UF Food Science and Human Nutrition Professor

Sue Percival, 52 healthy adults, age 21 to 41, came to the Gainesville campus, where researchers gave them a four-week supply of dry [shiitake mushrooms](#). Participants took the mushrooms home, cleaned and cooked them. Then they ate one, 4-ounce serving of mushrooms each day during the experiment.

Through blood tests before and after the experiment, researchers saw better-functioning gamma delta T-cells and reductions in [inflammatory proteins](#).

"If you eat a shiitake mushroom every day, you could see changes in their [immune system](#) that are beneficial," said Percival, an Institute of Food and Agricultural Sciences faculty member. "We're enhancing the immune system, but we're also reducing the inflammation that the immune system produces."

To be eligible for the study, participants could not be vegans or vegetarians. They also could not drink tea, take antioxidant supplements or probiotics before the study. They also could not consume more than 14 glasses of alcoholic beverages per week or eat more than seven servings of fruits and vegetables per day during the experiment.

Percival explained the dietary restrictions as follows: Fiber, tea and probiotics help the body's immune system, so researchers didn't want to start with people who already had a strong immune system. Additionally, that much alcohol could suppress immunity, she said.

The study was published online April 11 in the *Journal of the American College of Nutrition*.

**More information:** "Consuming Lentinula edodes (Shiitake) Mushrooms Daily Improves Human Immunity: A Randomized Dietary Intervention in Healthy Young Adults." *Journal of the American College*

*of Nutrition*, 1–10. [DOI: 10.1080/07315724.2014.950391](https://doi.org/10.1080/07315724.2014.950391)

Provided by University of Florida

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