

# Consuming prunes may improve the gut microbiome in postmenopausal women

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New research published in the journal *Food & Function* indicates that daily prune consumption may improve the gut fecal microbiome of postmenopausal women. The fecal microbiome—the ecosystem of microorganisms found in one's fecal matter—reflects an individual's overall gut health. Results from the study showed notable enrichment in bacteria from the family Lachnospiraceae. This group of bacteria has been associated with an ability to decrease inflammatory markers in the body and help maintain the integrity of the gut barrier.

The goal of this study was to characterize the effect of prune supplementation on the [gut microbiome](#) of postmenopausal women. Menopause is marked by a decline in ovarian hormones, which may negatively impact the gut [microbiome](#). In turn, these changes in the gut microbiome potentially contribute to [health risks](#), including increased body fat, decreased metabolism, and insulin resistance.

"Previous research has shown that postmenopausal women experience [health](#) benefits from consuming prunes," says study author Mary Jane De Souza, Ph.D., FACSM, Distinguished Professor, Pennsylvania State University. "It is likely that the gut microbiome helps facilitate these benefits. With that, we wanted to look more closely at the specific effects that prune consumption has on populations of gut microorganisms in postmenopausal women."

The [randomized controlled trial](#) included 143 postmenopausal women between the ages of 55 and 75. Participants were assigned to one of three treatment groups: no prunes (n=52), 50g prunes per day (n=54), or 100g prunes day (n=37). Results collected at the 12-month mark indicated significant changes in the microbiomes for those in the prune

treatment groups—most notably, the enrichment of the Lachnospiraceae family of bacteria. Researchers suggest that these results may have implications for the use of prunes as a non-pharmacological whole food intervention for gut health.

"Consumers are becoming more concerned with their gut health and this study supports prunes' long-standing reputation as a gut-healthy food. Prunes are a natural, whole food that is easy and convenient for consumers to incorporate into their daily meals or snacks," says Andrea N. Giancoli, MPH, RD, Nutrition Advisor to the California Prune Board.

This new study adds to the growing body of research that explores the relationship between prune consumption, gut health, and the potential favorable effects on other major body systems. For instance, [a recently published scientific review](#) from Pennsylvania State University suggests that the [phenolic compounds](#) and dietary fiber content in prunes may alter the gut microbiome in a manner that ultimately supports bone health.

The findings are published in the journal *Food & Function*.

**More information:** Abigayle M. R. Simpson et al, Prune supplementation for 12 months alters the gut microbiome in postmenopausal women, *Food & Function* (2022). [DOI: 10.1039/D2FO02273G](#)

Provided by The California Prune Board

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