



Prunes and Bone Health: Research Summary

A growing body of evidence suggests that prunes can have a positive impact on bone health. Not only do prunes contain a variety of nutrients that play a role in bone building, structure, maintenance and breakdown—like vitamin K, phosphorus, boron and potassium—but research continues to show that prunes help support healthy bones. Read on for an overview of various studies looking at the connection between prunes and better bones.

Exciting research published in *Osteoporosis International* in 2024 builds on existing research supporting the bone health benefits of prunes. Researchers found that post-menopausal women who ate 4-6 prunes a day (or 50 grams)—in addition to getting the recommended amount of vitamin D and calcium—over twelve months had **improved bone structure and strength**, compared to a non-prune consuming control group.²

Previous research, including a 2022 study in the *American Journal of Clinical Nutrition* found that eating 5-6 prunes a day (50 grams) over twelve months **preserved bone hip mineral density, reduced hip fracture risk and reduced inflammatory mediators** in post-menopausal women.³ This study was twice as long as a previous clinical trial that looked at osteopenic, post-menopausal women who ate 5-6 prunes per day for six months, and found that **one serving of prunes was effective in preventing bone loss**.⁴

Additional research also found that eating 10-12 prunes per day (100 grams) for one year was associated with **increased bone mineral density and improved indicators of bone turnover** in postmenopausal women.⁵

A first-of-its kind study saw **positive effects on markers of bone health** after men ate 10-12 prunes per day for one year.⁶

Interesting animal research suggests that **prunes may help prevent bone loss in people exposed to radiation**, such as astronauts in space. Researchers compared prune powder to different antioxidant and anti-inflammatory interventions and found that mice on the prune diet **did not have bone volume loss after exposure to radiation**, and the prune diet was the most effective in reducing the undesired responses to radiation seen in bone cells.⁷

Emerging animal research looked at the effect of prunes on growing mice to determine whether or not prunes may have an effect on peak bone mass (the amount of bone present at the point of maximum strength and density). In growing and young adult mice, those who were given prunes saw **an increase in bone volume**.⁸

Additional animal research looked at the effect of prunes on preventing bone loss after spinal cord injury. Researchers found that dietary supplementation with prune was effective at **preventing spinal cord injury-related bone loss**. Additionally, prune consumption was associated with a slight restoration of bone loss, while also helping to lessen loss of bone strength after spinal cord injury.⁹

NEW

A 12-month randomized controlled trial, research published in 2024 in *Current Developments in Nutrition*, of 90 women ages 18-25 years old who were put into one of three groups: control, oral contraceptive users, or oral contraceptive users who will eat prunes. Participants adding prunes were given 50g, or 5-6 prunes, to eat every day for one year. At the end of the study, results showed that bone density decreased over time only in individuals who were taking oral contraceptives and not consuming prunes, suggesting prunes may have a protective effect.¹



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