

BONE HEALTH AT EVERY AGE

The Benefits of Prunes for Bone Health



PEAK BONE MASS:

The point when bones have reached their maximum strength and density.



CHILDREN & TEENS

ADULTS

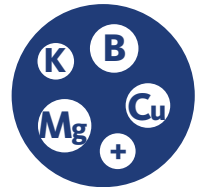
OLDER ADULTS

ELDERLY ADULTS

| IMPORTANT LIFE EVENTS | Growth and Development | Pregnancy | Menopause | Healthy Aging |
|-----------------------|---|--|---|--|
| BONE HEALTH | <i>Bone-building years</i> | <i>Bone-building years</i> | <i>Initial rapid bone loss</i> | <i>Gradual bone loss</i> |
| | 90% peak bone mass achieved by age 18-20 ¹ | Peak bone mass complete at age 30 ¹ | First five years after menopause ² | Men & women lose bone at the same rate by age 65-70 ³ |

BONE HEALTH RESEARCH

- Prunes have **fiber, vitamin K, magnesium, potassium, boron, copper and polyphenols**, which likely work together to help prevent bone loss.⁴



- Multiple studies suggest **prunes may help to prevent bone loss⁴** including **preserving bone hip mineral density, reducing hip fracture risk and reducing inflammatory mediators.⁵** A recent study showed benefits with just 5-6 prunes per day in postmenopausal women.⁶

- A yearlong study saw an **increase in bone mineral density** of certain regions of the body in men who ate 10-11 prunes per day.⁷ New research is showing similar bone-protective effects in terms of slowing bone breakdown in men who ate 10 prunes daily for six months.⁸



THE POWER OF PRUNES...

Prunes are an all-natural source of fiber, with 3g of fiber per serving (4-5 prunes) and only 100 calories



Prunes are a sweet snack with no added sugar. A serving of prunes counts toward your daily fruit goal.



Prunes have a low glycemic index.⁹



For more information, visit:
www.sunsweet.com



Amaz!n Prunes

¹ <https://www.bones.nih.gov/health-info/bone/osteoporosis/bone-mass>
² <https://www.panoramaortho.com/wp-content/uploads/2017/05/Peak-Bone-Mass.pdf>
³ <https://www.bones.nih.gov/health-info/bone/osteoporosis/men>

⁴ Arjmandi B, Johnson S, Pourafshar S, Navaei N, George K, Hooshmand S, Chai S, Akhavan N (2017) Bone-Protective Effects of Dried Plum in Post-menopausal Women: Efficacy and Possible Mechanisms. *Nutrients*. 9: 496. DOI: 10.3390/nu9050496; Wallace T (2017) Dried plums, prunes, and bone health: A comprehensive review. *Nutrients*. 9: 401. DOI: 10.3390/nu9040401

⁵ De Souza MJ, Strock NCA, Williams NI, Lee H, Koltun KJ, Rogers C, Ferruzzi MG, Nakatsu CH, Weaver C. Prunes preserve hip bone mineral density in a 12-month randomized controlled trial in postmenopausal women: the Prune Study. *Am J Clin Nutr*. 2022 Jul 7:nqac189. doi: 10.1093/ajcn/nqac189. Epub ahead of print. PMID: 35798020.

⁶ Hooshmand S, Kern M, Metti D, Shamloufard P, Chai SC, Johnson SA, Payton ME, Arjmandi BH. The effect of two doses of dried plum on bone density and bone biomarkers in osteopenic postmenopausal women: a randomized, controlled trial. *Osteoporos Int*. 2016 Jul;27(7):2271-2279. doi: 10.1007/s00198-016-3524-8. Epub 2016 Feb 22. PMID: 26902092.

⁷ Hooshmand S, Chai SC, Saadat RL, Payton ME, Brummel-Smith K, Arjmandi BH. Comparative effects of dried plum and dried apple on bone in postmenopausal women. *Br J Nutr*. 2011 Sep;106(6):923-30. doi: 10.1017/S000711451100191X. Epub 2011 May 31. PMID: 21736808.

⁸ Danielle Gaffen, Ashley Tunstall, Jonnatan Fajardo, Pavithra Ramachandran, Mark Kern, Shirin Hooshmand. Effects of Dried Plum on Bone Biomarkers in Men (P01-028-19). *Current Developments in Nutrition*, Volume 3, Issue Supplement_1, June 2019, nzzo28.P01-028-19, <https://doi.org/10.1093/cdn/nzzo28.P01-028-19>

⁹ Foster-Powell K, Holt S, Brand-Miller J (2002) International table of glycemic index and glycemic load values: 2002. *Am J Clin Nutr*. 76: 5-56.