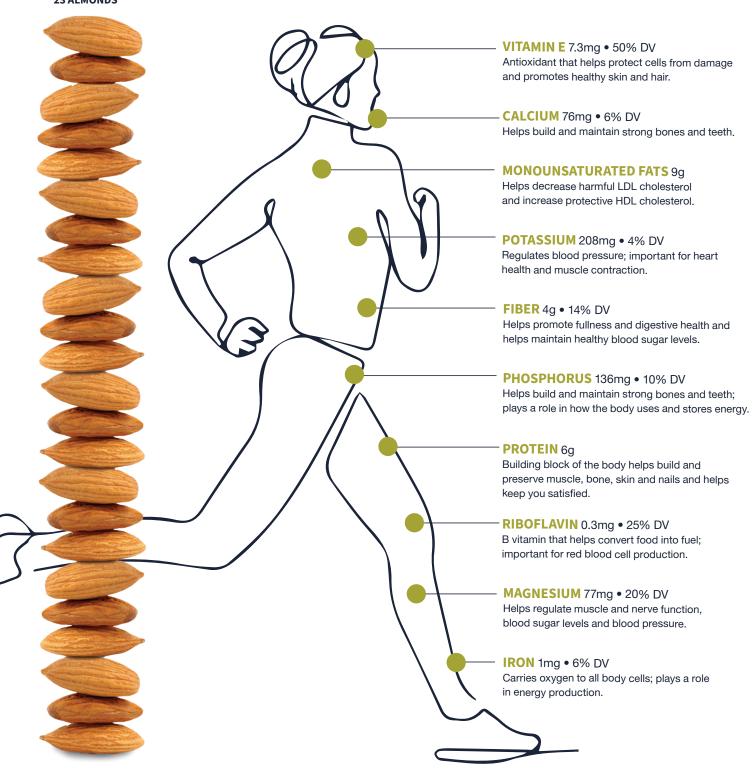
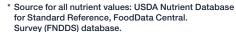
## **HEAD-TO-TOE NUTRITIONAL BENEFITS**

### IN A 1-OUNCE SERVING OF ALMONDS











# ALMONDS ARE ONE OF THE MOST RESEARCHED FOODS

Spanning two decades, almonds have over 200 peer-reviewed publications on their nutrition profile and health benefits.\* Research from top scientists and universities globally has uncovered that almonds may help support heart health, gut health, weight management, skin health, exercise recovery and more.

#### 200+ SCIENTIFIC PUBLICATIONS LINK ALMONDS TO VARIOUS HEALTH BENEFITS.

#### **HEART HEALTH**



Scientific evidence suggests, but does not prove, that eating 1.5 ounces per day of nuts, such as almonds, as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease. In a systematic review and meta-analysis (837)

participants, 18 studies) from several genetically diverse groups, and for people with a range of BMIs, almond consumption was associated with reductions in total and LDL cholesterol (the bad one) and with no effect on HDL cholesterol (the good one).<sup>1-4</sup>

#### **WEIGHT MANAGEMENT**



Multiple studies have investigated the effects of almonds on weight management when included in a healthy diet. For the studies have explored almonds' role in weight loss and maintenance in people with overweight/obesity. Moreover,

almonds have satiating properties that promote feelings of fullness, which may help keep hunger at bay between meals.

#### **HEALTHY BLOOD SUGAR LEVELS**



The unique nutrient package in almonds—including 4g of slow-digesting fiber, 6g of plant protein, 9g of good monounsaturated fat, only 1 gram of saturated fat per 28-gram serving and zero sugar—makes them a smart choice

for managing healthy blood sugar levels. Research suggests that eating a small serving of almonds (20g) before major meals may help to control blood sugar levels in adult Asian Indians (ages 18-60) with prediabetes and overweight/obesity and even reverse prediabetes in about one-quarter of the people studied.<sup>10</sup>

#### **EXERCISE RECOVERY**



Three studies have been conducted so far to explore the impact of daily almond consumption on aspects of exercise recovery such as muscle soreness, muscle damage and post-

exercise muscle performance. Sports nutrition research<sup>11</sup> reported that eating 2 ounces (57g) of almonds daily for one month is associated with better recovery after exercise, including reduced feelings of post-exercise fatigue and tension, increased leg/back strength during recovery, improved mood and decreased muscle damage during the first day of recovery in 46 healthy adults who exercised less than three times per week.

#### **SKIN HEALTH**



Recent studies have explored how eating almonds affects wrinkle severity, skin tone and UV resistance in certain populations.\*\* Skin health clinical researchers concluded that

eating almonds may help reduce facial wrinkles in postmenopausal women with sun-sensitive skin types (Fitzpatrick skin types I-II)<sup>12-13</sup> and provide increased resistance to harmful UVB rays in young Asian women with Fitzpatrick skin types I-II.<sup>14</sup>

#### GEEK OUT ON THE PUBLISHED PAPERS AND SUPPORTING SCIENCE ON ALMONDS.COM

- Berryman CE, West SG, Fleming JA, Bordi PL, Kris-Etherton PM. Effects of Daily Almond Consumption on Cardiometabolic Risk and Abdominal Adiposity in Healthy Adults with Elevated LDL-Cholesterol: A Randomized Controlled Trial. Journal of the American Heart Association. 2015;4:e000993.
- Musa-Veloso, K., et al. (2016). The effects of almond consumption on fasting blood lipid levels: a systematic review and meta-analysis of randomised controlled trials. J Nutr Sci vol. 5 e34. 16.
- Dikariyanto, V., et al. Snacking on whole almonds for six weeks increases heart rate variability during mental stress in healthy adults: a randomized controlled trial. Nutrients. 2020 Jun 19;12(6):1828.
- 4. Dikariyanto V., et al. Snacking on whole almonds for 6 weeks improves endothelial function and lowers LDL cholesterol but does not affect liver fat and other cardiometabolic risk factors in healthy adults: the ATTIS study, a randomized controlled trial. Amer J of Clin Nutr 2020;111(6): 1178-1189.
- Fraser, G.E., et al. (2002). Effect on body weight of a free 76 Kilojoule (320 calorie) daily supplement of almonds for six months. J Am Coll Nutr, 21(3), 275–283.
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- Hollis, J., & Mattes, R. (2007). Effect of chronic consumption of almonds on body weight in healthy humans. Br J Nutr, 98(3), 651–656.
- Tan, S.Y., & Mattes, R.D. (2013). Appetitive, dietary and health effects of almonds consumed with meals or as snacks: a randomized, controlled trial. Eur J Clin Nutr, 67(11), 1205–1214.

- Carter S., et al. Almonds vs. carbohydrate snacks in an energy-restricted diet: Weight and cardiometabolic outcomes from a randomized trial. Obesity. 2023 Oct;31(10):2467-2481.
- Gulati, S., et al. (2023). Premeal almond load decreases postprandial glycaemia, adiposity and reversed prediabetes to normoglycemia: A randomized controlled trial. Clin Nutr ESPEN, 54, 12–22.
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- 12. Foolad, N., et al. (2019). Prospective randomized controlled pilot study on the effects of almond consumption on skin lipids and wrinkles. Phytother Res, 33(12), 3212–3217.
- Rybak, I., et al. (2021). Prospective randomized controlled trial on the effects of almonds on facial wrinkles and pigmentation. Nutrients, 13(3), 785.
- Li, J.N., et al. (2021). Almond consumption increased UVB resistance in healthy Asian women. J Cosmet Dermatol, 20(9), 2975–2980.
- \* All highlighted studies used for the included research topics have been funded by the Almond Board of California.
- \*\*These findings are limited and more research is needed to confirm the results; however, the study suggests almonds' potential role for skin health.

