

WALNUTS & THE MEDITERRANEAN DIET

THERE ARE VARIOUS FORMS of the Mediterranean diet, which emphasizes more fruits and vegetables, nuts and seeds (including walnuts), grains, olive oil, moderate amounts of fish, poultry, eggs and wine, and limits the amounts of red meat, processed meat, dairy and sweets.¹ The U.S. 2015-2020 Dietary Guidelines for Americans recommends a Mediterranean-style eating pattern as one example of a healthy diet plan.²

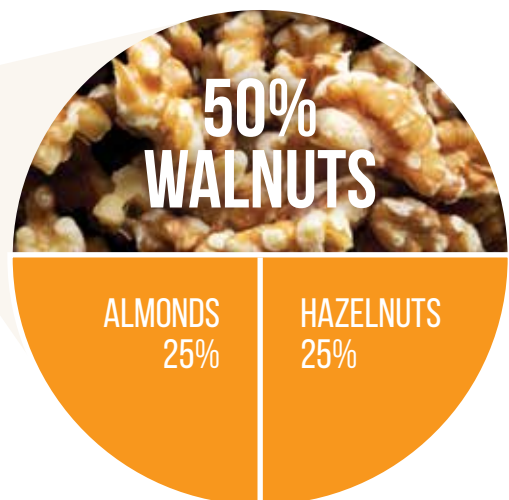
PREDIMED (PREvención con Dieta MEDiterránea = Prevention with Mediterranean Diet) was a landmark study aimed at assessing the efficacy of the Mediterranean diet in the primary prevention of cardiovascular disease.³ Researchers examined whether a Mediterranean diet supplemented with extra-virgin olive oil or mixed tree nuts (50% walnuts, 25% almonds, and 25% hazelnuts), compared to a low-fat diet, could help reduce the risk of major cardiovascular events, including cardiovascular death, myocardial infarction (heart attack) and stroke.

The study was a parallel group, multi-center, single blind, randomized clinical trial that was conducted by 16 research groups and seven communities and supported by the Spanish Health Ministry. Participants included 7,447 Spanish individuals (ages 55-80) at high risk of cardiovascular disease, but without symptoms at baseline, and were followed for a median of 4.8 years. Subjects were randomly assigned to one of three diet groups, content listed below, and were given dietetic support and educational sessions to ensure compliance. Energy intake was not specifically restricted in any intervention group.

A Mediterranean diet including tree nuts, primarily walnuts, was associated with a 30 percent lower risk of cardiovascular events (myocardial infarction, stroke or cardiovascular death) and specifically, a 46 percent lower risk of stroke, when compared to a low-fat diet.

PREDIMED DIET GROUPS

1. Mediterranean diet supplemented with **MIXED NUTS** (30 g per day; 15g walnuts (about 0.5 ounces), 7.5g almonds and 7.5g hazelnuts)
2. Mediterranean diet supplemented with **EXTRA VIRGIN OLIVE OIL** (at least 50g or 4 tablespoons per day)
3. **LOW-FAT DIET** (control group; American Heart Association guidelines)



The Mediterranean diet enriched with extra-virgin olive oil also reduced the risk of cardiovascular diseases by 30 percent. More than 300 additional publications have resulted from the PREDIMED research investigating outcomes such as cognitive function,⁴ blood pressure,⁵ total cholesterol,⁵ and fasting glucose.⁵

The study had some limitations including the fact that participants lived in a Mediterranean country and were at high risk for cardiovascular disease. More research is needed to clarify the health benefits in other populations. Additionally, it is difficult to precisely define what part of the Mediterranean diet was associated with cardiovascular benefits.

The seminal paper, “Primary Prevention of Cardiovascular Disease with a Mediterranean Diet,” was originally published in 2013, but was withdrawn from the New England Journal of Medicine (NEJM) in 2018 due to irregularities in the randomization procedures. The researchers reanalyzed the data and the updated

manuscript was subsequently republished in the NEJM. There were no significant changes to the findings, despite the revised randomization methods.

Interested in more resources? Oldways,⁶ a non-profit food and nutrition education organization, has created numerous helpful resources on the Mediterranean diet.

¹Willett WC, Sacks F, Trichopoulos A, et al. Mediterranean diet pyramid: a cultural model for healthy eating. *Am J Clin Nutr* 1995;61(6 Suppl):1402S-1406S.

²U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015 - 2020 Dietary Guidelines for Americans. 8th Edition. December 2015. Available at <http://health.gov/dietaryguidelines/2015/guidelines/>.

³Estruch R, Ros E, Salas-Salvadó J, et al. Primary Prevention of Cardiovascular Disease with a Mediterranean Diet Supplemented with Extra-Virgin Olive Oil or Nuts. *N Engl J Med*. 2018;378(25):e34. doi: 10.1056/NEJMoa1800389.

⁴Valls-Pedret C, Sala-Vila A, Serra-Mir M, et al. Mediterranean diet and age-related cognitive decline: a randomized clinical trial. *JAMA Intern Med*. 2015;175(7):1094-103.

⁵Doménech M, Roman P, Lapetra J, et al. Mediterranean diet reduces 24-hour ambulatory blood pressure, blood glucose, and lipids: one-year randomized, clinical trial. *Hypertension*. 2014 Jul;64(1):69-76.

⁶<http://www.oldwayspt.org/>

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Beet, Goat Cheese and Walnut Salad