

Nuts and weight management

Watching your weight? You can manage your weight and eat nuts too. Surprised?

Despite what many people believe, eating nuts regularly can actually help you maintain a healthy body weight and not cause weight gain. Low fats diets are out and Healthy fats diets are In. The fats, fibre and protein in nuts help satisfy your appetite so you eat less food overall and since nuts are a tasty food that people enjoy, you stick to your healthy eating plan for longer achieving greater success. So eat a healthy handful (30g) each day or find interesting ways to add nuts to your meals.



Helping to control weight

It is well established that eating 30g of nuts a day, as part of a healthy varied diet, contributes to heart health¹ but we now know that this can occur without the risk of weight gain according to a systematic literature review which assessed the results of 65 nut weight studies.¹ Overall consuming nuts was associated with a small average reduction of 0.32% for weight, 0.67% for BMI and 0.84% for waist circumference. This is supported by a meta-analysis that combined the results of 33 clinical trials with 1806 participants. Researchers found that nut consumption was associated with a non-significant decrease in body weight of 0.47kg, BMI of 0.40kg/m², and waist circumference of 1.25cm.² Nut consumption has also been linked to a lower risk of developing obesity.³

Here's how nuts can help manage weight

Satisfying hunger & reducing appetite

Protein and fibre in nuts helps to satisfy hunger and reduce appetite.^{4,5} Plus healthy fats help release satiety hormones in the digestive system which also help to tell you when you are full.⁶⁻⁹ Eating a snack of nuts

can reduce the desire to overeat later in the day, helping to reduce your overall daily kilojoule intake.¹⁰

Fewer kilojoules absorbed

As a wholefood with fibre, the digestion and absorption of the energy in nuts is incomplete. It's estimated that you don't absorb between 5% and 15% of the energy in nuts. This is because some of the fat passes through your digestive system trapped in the nuts' fibrous structure.^{8,10-12} Research has also uncovered that the real available energy in nuts is about 20% less than is predicted by energy calculations often used in food composition databases.¹³⁻¹⁵

Increased energy expenditure

The physical effort the body uses to digest nuts may result in an increase in energy expenditure, estimated to be around 10% of the energy the nuts contain.¹⁰

Low glycemic index effect

When mixed with foods containing carbohydrate nuts can slow the digestion of the meal resulting in a slower rise in blood glucose. This helps to satisfy appetite for longer through sustained energy levels.¹⁶⁻¹⁸ A meta-analysis combining 12 trials with 450 participants found diets including around 56g of nuts a day significantly lowered

glycosylated haemoglobin (HbA1c) by 0.07% and fasting blood glucose by 0.15 mmol/L compared with control diets.¹⁹ Good news for those with Type 2 diabetes, pre-diabetes or insulin resistance.

Improving insulin sensitivity

Diets high in saturated and trans fat have been linked to an increased risk of insulin resistance. Insulin resistance can lead to weight gain as insulin influences fat storage. However, diets rich in monounsaturated and polyunsaturated fats appear to improve insulin sensitivity.²⁰ Nuts are rich in these healthy fats although research studying the effect of nuts on measures of insulin show either no effect or a possible insulin sparing effect.⁹ When 30g of nuts are eaten in a daily Mediterranean diet however fasting insulin and insulin resistance is reduced.²¹

For all these reasons, and their positive impact on blood cholesterol,²² nuts are an excellent addition to a healthy eating pattern for managing weight.

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Tips for including nuts daily

- Snack on natural, unsalted nuts throughout the day
- Sprinkle almonds or cashews through a stir fry.
- Roast chestnuts or pine nuts and toss them through a salad.
- Sprinkle crushed roasted hazelnuts onto a warming soup for winter.
- Crumble macadamias or pistachios onto grilled fish
- Crush pecans or walnuts over low-fat yoghurt and fruit.
- Sprinkle a handful of chopped nuts over a wholegrain breakfast cereal.
- Stuff mushrooms, tomatoes or capsicums with a mix of Brazil nuts, chickpeas and ricotta

For further information on the nutritional benefits of nuts and for recipes visit

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Go Nuts for Health.



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How much and how often?

Enjoy 30g or a handful of nuts each day. To make managing your weight easier, swap poor food choices such as biscuits, cakes, pastries and fried snack foods for a health-boosting snack of nuts.

Nuts are nutrient dense with a wide variety of vitamins, minerals and antioxidants similar to other plant foods – fruit and veg. For good health we need two serves of fruit and five serves of vegetables each day – so remember 2 + 5 + a handful of nuts, every day.

Why low-fat diets don't keep the weight off

The low-fat mantra of the 80s and 90s is a thing of the past. A moderate-fat diet may keep the weight off for longer. Research shows when people lose weight, only 14% keep their weight off in the long term.

One study tested the idea that by including moderate amounts of foods high in healthy fats in a weight-loss diet, people would enjoy their food more and would stick to their diet for longer. The results of the study showed that this was the case. After 18 months, people who followed the moderate-fat, low-kilojoule, Mediterranean style diet, lost more weight than people on the traditional low-fat, low-kilojoule diet. In fact, the people on the low-fat diet actually gained an average of 2.9kg. Including healthy fats foods such as nuts and olive oil, made the diet tastier and easier to stick to in the long term.²³

Similarly the long term PREDIMED Mediterranean diet which followed around 7200 people found compared to those consuming less than one 30g serving of nuts per week, those consuming more than three serves had a 40% lower risk of obesity and a 32% lower risk of the abdominal obesity.²⁴

Another PREDIMED study found BMI and waist circumference decreased by 0.78kg/m² and 2.1cm respectively, for each additional 30g serving of nuts eaten.²⁵

There is no reason to fear fat or fear gaining weight from eating nuts.

Grab your healthy handful today.

References

1. Neale, E, Nolan Clark D and Tapsell LT. The effect of nut consumption on heart health: a systematic review of the literature. Nuts for Life North Sydney 2015. (unpublished). Summary http://www.nutsforlife.com.au/wp-content/uploads/2015/11/Nuts_for_life_Heart_Report_2015.compressed.pdf
2. Flores-Mateo G et al Nut intake and adiposity: meta-analysis of clinical trials. *Am J Clin Nutr.* 2013;97(6):1346-55.
3. Bes-Rastrollo M, et al. Prospective study of nut consumption, long-term weight change, and obesity risk in women. *Am J Clin Nutr* 2009;89:1913-9.
4. Noakes M. The role of protein in weight management. *Asia Pac J Clin Nutr.* 2008;17(S1):169-71.
5. Pereira MA, et al. Dietary fiber and body-weight regulation. Observations and mechanisms. *Pediatr Clin North Am.* 2001;48(4):969-80.
6. Pasmán WJ, et al. The effect of Korean pine nut oil on in vitro CCK release, on appetite sensations and on gut hormones in post-menopausal overweight women. *Lipids Health Dis.* 2008;20:7:10.
7. Hughes GM, et al. The effect of Korean pine nut oil (PinnoThin) on food intake, feeding behaviour and appetite: a double-blind placebo-controlled trial. *Lipids Health Dis.* 2008;7:6.
8. Cassidy BA, et al. Mastication of almonds: effects of lipid bioaccessibility, appetite, and hormone response. *Am J Clin Nutr.* 2009;89(3):794-800.
9. Kendall CW et al Acute effects of pistachio consumption on glucose and insulin, satiety hormones and endothelial function in the metabolic syndrome. *Eur J Clin Nutr.* 2014;68(3):370-5.
10. Mattes R, The energetics of nut consumption. *Asia Pac J Clin Nutr* 2008;17(S1):337-9.
11. Ellis PR, et al. Role of cell walls in the bioaccessibility of lipids in almond seeds. *Am J Clin Nutr.* 2004;80:604-13.
12. Traoret CJ, et al. Peanut digestion and energy balance. *Int J Obes (Lond).* 2008;32(2):322-8.
13. Novotny JA, Gebauer SK, Baer DJ. Discrepancy between the Atwater factor predicted and empirically measured energy values of almonds in human diets. *Am J Clin Nutr.* 2012;96(2):296-301.
14. Baer DJ, Gebauer SK, Novotny JA. Measured energy value of pistachios in the human diet. *Br J Nutr.* 2012;107(1):120-5.
15. Baer DJ, Gebauer SK, Novotny JA. Walnuts Consumed by Healthy Adults Provide Less Available Energy than Predicted by Atwater Factors. *J Nutr.* 2016;146(1):9-13.
16. Kendall CW et al The impact of pistachio intake alone or in combination with high-carbohydrate foods on post-prandial glycemia. *Eur J Clin Nutr.* 2011;65(6):696-702.
17. Jenkins DJ, et al. Almonds decrease postprandial glycemia, insulinemia, and oxidative damage in healthy individuals. *J Nutr.* 2006;136(12):2987-92.
18. Kendall CW et al The glycemic effect of nut-enriched meals in healthy and diabetic subjects. *Nutr Metab Cardiovasc Dis.* 2011;21 Suppl 1:S34-9.
19. Vigiiliouk E et al Effect of tree nuts on glycemic control in diabetes: a systematic review and meta-analysis of randomized controlled dietary trials. *PLoS One.* 2014;9(7):e103376.
20. Casas-Agustench P, et al. Nuts, inflammation and insulin resistance. *Asia Pac J Clin Nutr.* 2010;19(1):124-130.
21. Casas-Agustench P et al Effects of one serving of mixed nuts on serum lipids, insulin resistance and inflammatory markers in patients with the metabolic syndrome. *Nutr Metab Cardiovasc Dis.* 2011;21(2):126-35.
22. Del Gobbo LC, Falk MC, Feldman R, Lewis K, Mozaffarian D. Effects of tree nuts on blood lipids, apolipoproteins, and blood pressure: systematic review, meta-analysis, and dose-response of 61 controlled intervention trials. *Am J Clin Nutr.* 2015;102(6):1347-56.
23. McManus K, et al. A randomized controlled trial of a moderate fat, low energy diet compared with a low fat, low energy diet for weight loss in overweight adults. *Int J Obesity* 2001;25:1503-11.
24. Ibarrola-Jurado N et al Cross-sectional assessment of nut consumption and obesity, metabolic syndrome and other cardiometabolic risk factors: the PREDIMED study. *PLoS One.* 2013;8(2):e57367.
25. Casas-Agustench P, et al. Cross-sectional association of nut intake with adiposity in a Mediterranean population. *Nutr Metab Cardiovasc Dis.* 2011;21(7):518-25.