

Brazil Nuts

Brazil nuts are grown in the Amazon rainforests and most **Brazil nut** production is still gathered from wild trees. Rich rainforest soils contribute to the wide range of vitamins, minerals, antioxidants and phytochemicals found in **Brazil nuts**. Like fruits, vegetables and nuts, **Brazil nuts** are like nature's own vitamin pill – beneficial to health and protection from disease. Enjoying a handful of nuts (30g) regularly as part of a healthy diet may reduce your risk of heart disease and type 2 diabetes and can help with weight management.¹⁻⁵ So eat two serves of fruit, five serves of veggies and a handful of nuts every day. A 30g serve of **Brazil nuts** is about 10 nuts depending on the size. Have you had yours today?



Nutrition and health benefits of Brazil nuts

Here's why Brazil nuts make a worthwhile addition to your diet:

- **An excellent source of selenium**
 - Brazil nuts are the richest dietary source of selenium, with just two nuts providing the recommended dietary intake of 70mcg per day.^{6,7} Selenium, is a powerful antioxidant which may reduce the risk of heart disease and is important for the immune system⁸.

Nutrient content of natural Brazil nuts⁷

Nutrient	Per 100g
Energy (kJ)	2886
Protein (g)	14.4
Arginine (g)	2.2
Fat, total (g)	68.5
Fat, saturated (g)	14.8
Fat, monounsaturated (g)	21.8
Fat, polyunsaturated (g)	29.0
Carbohydrate, total (g)	2.4
Carbohydrate, sugars (g)	2.1
Dietary fibre (g)	8.5
Sodium (mg)	2.0
Potassium (mg)	560
Calcium (mg)	150
Phosphorus (mg)	660
Iron (mg)	2.2
Zinc (mg)	4.1
Copper (mg)	1.7
Selenium (mcg)	1917
Manganese (mg)	0.8
Folate (ug)	22
Vitamin E (mg)	5.3
Total polyphenols (mg GAE) ¹⁷	310

Studies have found that eating Brazil nuts can increase selenium levels in the blood.^{9,10} Which explains why New Zealand, with its volcanic soils low in selenium, recommends eating Brazil nuts to boost levels.⁹ They found that just two Brazil nuts per day was as effective for increasing selenium levels and enhancing the activity of glutathione peroxidase as a supplement containing 100 micrograms (mcg) of selenium.⁹ Glutathione peroxidase is an enzyme that protects the body from oxidation by free radicals.

- **Source of plant protein particularly arginine** – Brazil nuts contain around 4g protein in every handful (30g).⁶ Arginine is an amino acid building block of protein which is converted to nitric oxide in the body. Nitric oxide causes blood vessels to relax and remain elastic, and helps prevent blood clotting. Hardening of the arteries and blood clotting can lead to heart disease.¹¹
- **A rich source of healthy fats** – Brazil nuts contain a mixture of heart healthy polyunsaturated and monounsaturated fats.⁷ While they are high in saturated fat (14.8g/100g) the proportion is much lower compared to their healthy fats (50.8g/100g).
- **A good source of dietary fibre** – a handful of Brazil nuts provides around 10% of the recommended dietary intake of fibre or 2.6g fibre per 30g serve.^{6,7} Fibre is important for digestive and heart health, and can help to manage blood glucose levels.¹²

- **Reduces heart disease risk** – research has shown eating a handful of nuts most days, including Brazil nuts, can reduce the risk of heart disease by 30–50%.¹⁻⁵ This can be attributed to their content of healthy fats, dietary fibre, arginine, plant sterols and antioxidant vitamins and minerals including vitamins E, zinc and selenium.^{6,13}
- **Reduces cholesterol levels** – a meta analysis combining the results of 25 nut studies found that around two handfuls of nuts (~67g/day) significantly reduced total and LDL cholesterol levels.¹⁴ There have only been three studies specifically looking at Brazil nuts, two with healthy people with normal blood cholesterol, which found a neutral effect or improvements in cholesterol.^{10,16} The third study in young obese people found that 15–25g (about 3–5 Brazil nuts) per day reduced total cholesterol and oxidised LDL cholesterol.¹⁵

continued next page

For further information on the nutritional benefits of nuts and for recipes visit www.nutsforlife.com.au
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Go Nuts for Life.
Go Nuts for Health.



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- **Helps with weight loss** – although high in fat, research has found that eating nuts regularly does not lead to weight gain and in fact a number of studies have found that those who eat nuts regularly tend to have a lower body mass index (BMI) than those who don't eat nuts.¹⁻⁵
- **A source of calcium** – important for bone health.^{6,7} Brazil nuts also contain phosphorus, magnesium and zinc other bone building nutrients.^{6,7}
- **Rich in magnesium**, for bone health. Magnesium also works with other enzyme systems to generate energy for the body and a 30g handful of Brazil nuts supplies a quarter of daily requirements of this important mineral.^{6,7}
- **Contains zinc** – a handful of Brazil nuts provides around 9% of the recommended daily intake for men and more than 20% of the recommended intake for women.^{6,7} Zinc plays many roles in the body but is particularly important for healthy skin and hair, reproductive health and a healthy immune system.

Buying and storage tips

When choosing nuts, look for crisp, plump kernels. If buying them in the shell, select clean nuts free from cracks and holes – they should be heavy for their size. To keep nuts in the best condition, store them in an airtight container in the refrigerator or freezer. Nuts can be refrigerated for up to four months and frozen for up to six months. Return nuts to room temperature before eating to bring back their nutty taste profile.



8 ways to include Brazil nuts in your diet

- Team Brazil nuts with fresh dates for an after dinner snack to satisfy your sweet cravings or pop a Brazil nut inside a pitted prune for a sweet crunchy surprise.
- For an antioxidant-rich meal, combine your favorite pasta with broccoli, sundried tomato and Brazil nut pesto.
- Chopped Brazil nuts are great added to cereal or yogurt.
- For a change from peanut butter, try ABC spread (a combination of almonds, Brazil nuts and cashews).
- Brazil nut burgers – combine Brazil nuts, red kidney beans, grated carrot, parsley, spring onions, lemon juice and garlic in a food processor. Form into patties and cook in a frying pan or BBQ using a little olive oil. Serve on a wholegrain roll with avocado and salad.
- Add Brazil nuts for a nutty variation on your favourite fruit cake.
- Combine chopped Brazil nuts with fresh breadcrumbs, herbs and egg to make a tasty Christmas turkey stuffing or use to coat fish or chicken.
- Add chopped Brazil nuts to herbs and use to stuff mushrooms.

References

1. Albert CM, et al. Nut consumption and decreased risk of sudden cardiac death in the Physicians Health Study. *Arch Intern Med.* 2002;162(12):1382-7.
2. Ellsworth JL, Kushi LH, Folsom AR. Frequent nut intake and risk of death from coronary heart disease and all causes in postmenopausal women: the Iowa Women's Health Study. *Nutrition Metabolism and Cardiovascular Disease.* 2001;11(6):372-7.
3. Hu FB, et al. Frequent nut consumption and risk of coronary heart disease in women: prospective cohort study. *British Medical Journal.* 1998;317(7169):1341-5.
4. Fraser GE, et al. A possible protective effect of nut consumption on risk of coronary heart disease. *Arch Intern Med.* 1991;152:1416-24.
5. Afshin A, et al. Consumption of nuts and legumes and risk of incident ischemic heart disease, stroke, and diabetes: a systematic review and meta-analysis. *Am J Clin Nutr.* 2014 Jul;100(1):278-88.
6. National Health & Medical Research Council. Nutrient Reference Values for Australia and New Zealand. Canberra, ACT: Australian Government Department of Health & Ageing 2006.
7. Nuts for Life. 2016 Nutrient Composition of Tree Nuts. Sydney: Nuts for Life; 2016.
8. Brown KM, Arthur JR. Selenium, selenoproteins and human health: a review. *Public Health Nutr.* 2001;4(2B):593-9.
9. Thomson CD, et al. Brazil nuts: an effective way to improve selenium status. *Am J Clin Nutr.* 2008;87(2):379-84.
10. Strunz CC, et al. Brazil nut ingestion increased plasma selenium but had minimal effects on lipids, apolipoproteins, and high-density lipoprotein function in human subjects. *Nutr Res.* 2008;28(3):151-155.
11. Ros E. Nuts and novel biomarkers of cardiovascular disease. *Am J Clin Nutr.* 2009;89(5):1649S-56S.
12. Brennan CS. Dietary fibre, glycaemic response, and diabetes. *Mol Nutr Food Res.* 2005 Jun;49(6):560-70. Review. Erratum in: *Mol Nutr Food Res.* 2005;49(7):716.
13. Ryan E, et al. Fatty acid profile, tocopherol, squalene and phytosterol content of Brazil, pecan, pine, pistachio and cashew nuts. *Int J Food Sci Nutr.* 2006;57(3-4):219-28.
14. Sabaté J, et al. Nut consumption and blood lipid levels: a pooled analysis of 25 intervention trials. *Arch Intern Med.* 2010;170(9):821-7.
15. Maranhão PA, et al. Brazil nut intake improves lipid profile, oxidative stress and microvascular function in obese adolescents: a randomised controlled trial. *Nutr & Metab.* 2011;8:32.
16. Colpo E, et al. A single consumption of high amounts of the Brazil nuts improves lipid profile of healthy volunteers. *J Nutr Metab.* 2013;2013:653185.
17. Wu X, et al. Lipophilic and hydrophilic antioxidant capacities of common foods in the United States. *J Agric Food Chem* 2004;52 4026-4037