Walnuts

Walnuts are easily distinguished as the nut that looks like the brain, and have always been thought of as a ‘brain food’. Similar to other nuts, fruits and vegetables walnuts are packed with a wide range of vitamins, minerals and phytochemicals beneficial to health. 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 may help with weight management.1–5

Remember to eat two serves of fruit, five serves of veggies and a handful of nuts every day. A 30g serve of walnuts equals about 9 walnut kernels or 5 walnuts in shell. Have you had yours today?

Nutrition and health benefits of walnuts

Walnuts provide not only nutrients and positive health benefits, but interesting flavours and textures making them a worthwhile addition to your diet:

• **Rich source of essential fats** – walnuts have a high polyunsaturated fat content (72% of total fat), with smaller amounts of monounsaturated fat and very low levels of ‘unhealthy’ saturated fat (6% of total fat).6

• **One of the few plant sources of omega-3 fats** – walnuts contain significant amounts of omega-3 fats, in the form of alpha-linolenic acid (ALA) – 6280mg per 100g or 1884mg per 30g handful.6 We need 1300mg of ALA/day.7 Research has shown that ALA from a 37g handful of walnuts each day can reduce inflammation, an important factor in the development of chronic disease such as heart disease.8 Another study has shown you need just four walnuts a day to positively affect ALA levels.9

• **Improves blood cholesterol** – a recent meta-analysis of 13 studies found that 40–100g of walnuts a day can lower both total and ‘bad’ LDL cholesterol levels without effecting ‘good’ HDL cholesterol. In addition it was found that walnut enriched diets raised antioxidant capacity and improved inflammatory markers, with no adverse effects on body weight measured as BMI.10

• **Keeps blood vessels healthy** – eating just 40g walnuts a day appears to counteract the inflammatory effects on blood vessels that occur after eating a fatty meal.11 Another study found that eating 40–65g of walnuts each day as part of a low-fat, plant-based diet significantly improved endothelial vasodilatation (relaxation of the blood vessel walls).12 This combination keeps blood vessels healthy and reduces the development of atherosclerosis or hardening of the arteries.13

• **Contains amino acid arginine**6 – arginine is converted to nitric oxide in the body, also helping blood vessels to dilate and remain elastic.14

• **Rich in antioxidants** – polyunsaturated fats are susceptible to going rancid, so Mother Nature gave walnuts a big dose of antioxidants to protect them. Walnuts contain a number of different antioxidants including; ellagic acid, ellagittannins and proanthcyanidins which contribute to their overall high antioxidant capacity.15, 27 Ellagic acid in particular has an anti-inflammatory effect.16

• **High in potassium and low in sodium** – similar to other nuts walnuts are very low in sodium just 3mg/100g and contain 450mg potassium per 100g.8 A low sodium, high potassium diet containing nuts (DASH-style diet) has benefits for blood pressure and heart health.17

A combination of the healthy polyunsaturated fats, plant omega-3s, antioxidants such as ellagic acid, fibre and arginine in walnuts, plus their antioxidant and cholesterol-lowering effects, may help explain why walnuts promote heart health.

Walnuts also...

• **Helps diabetes** – people with diabetes have twice the risk of heart disease compared to those that don’t.18 Research has shown that if people with diabetes include walnuts in their diet their blood cholesterol improves, insulin levels are reduced and blood vessels are more relaxed.19–21 proving walnuts are cardioprotective.

• **Good source of plant protein** – like all nuts, walnuts, with 14g protein per 100g6, are a vegetarian protein source. Protein also plays a role in appetite control, helping with weight management.22

For further information on the nutritional benefits of nuts and for recipes visit www.nutsforlife.com.au
Follow us @nutsforlife or like us www.facebook.com/nuts4life or for walnuts go to www.walnut.net.au

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Go Nuts for Life. Go Nuts for Health.

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**Nutrient content of natural walnuts**6

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Per 100g</th>
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<tbody>
<tr>
<td>Energy (kJ)</td>
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<tr>
<td>Protein (g)</td>
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<tr>
<td>Arginine (g)</td>
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<td>Fat, polyunsaturated (g)</td>
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<td>Fat, omega-3 (mg) as ALA</td>
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<tr>
<td>Carbohydrate, sugars (g)</td>
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<tr>
<td>Dietary fibre (g)</td>
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<td>Sodium (mg)</td>
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<tr>
<td>Zinc (mg)</td>
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<tr>
<td>Total polyphenols (mg GAE)</td>
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</tr>
</tbody>
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Walnuts

- Helps weight management – although high in fat, research has found that eating walnuts (and other nuts) maintains body weight as measured by BMI.\textsuperscript{1–4, 10} One study found eating around a handful of walnuts a day did not result in weight gain.\textsuperscript{23}

- May affect brain health – yes, walnuts look like the brain, contain polyunsaturated fat like the brain and are often thought of as ‘brain food’, but does science support this claim? Preliminary research has found that walnut extracts appear to have anti-inflammatory affects on brain cells.\textsuperscript{24} Daily walnut consumption has been linked with better cognitive function in US adults.\textsuperscript{25, 26} These are promising results, so eating walnuts may in fact be of benefit to brain health.

Future research
New areas of walnut research include PCOS\textsuperscript{28}, semen quality\textsuperscript{29} and cancer\textsuperscript{30–31} with preliminary animal and test tube studies showing promising results.

Buying and storage tips
When choosing nuts, look for crisp, plump kernels with a light skin colour. If buying walnuts in the shell, select clean nuts free from cracks and holes. 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 4 months and frozen for up to 6 months. Return nuts to room temperature before eating.

6 ways to include walnuts in your diet

- Walnuts make a great addition to muffins or cake – try banana and walnut cake, date and walnut muffins or carrot, zucchini and walnut loaf.
- Mix natural yoghurt with berries and top with chopped walnuts, pepitas and sunflower seeds for a quick and tasty breakfast or dessert.
- Add finely chopped walnuts to turkey and cranberry for a tasty sandwich filling.
- Replace pine nuts with walnuts in your favourite pesto recipe.
- Add chopped walnuts to home baked bread for add extra fibre and flavour.
- Bring back the Waldorf salad – walnuts, apple, celery, cos lettuce.

References
9. Marangoni F, et al. Levels of the n-3 fatty acid eicosapentaenoic acid in addition to those of alpha linolenic acid are significantly raised in blood lipids by the intake of four walnuts a day in humans. Nutr Metab Cardiovasc Dis. 2007;17(6):457-61.