



## NUTS AND HEALTH

*This information is brought to you by many of the Australian nutrition professionals who regularly contribute to the Nutritionists Network ('Nut-Net'), a nutrition email discussion group.*

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### **Okay, a peanut isn't a true nut; so what exactly are 'nuts'?**

The nutritional effects of different kinds of nuts vary considerably. The International Nut and Dried Fruit Foundation recognises the following nuts (which all grow on trees) as having similar nutritional characteristics: almonds, Brazil nuts, cashews, hazelnuts, macadamias, pecans, pine nuts, pistachios and walnuts.

Although the peanut is technically a legume, the International Nut and Dried Fruit Foundation recognises that the nutritional composition of the peanut is close to that of tree nuts, and thus includes peanuts in the list of nuts it represents.

### **What nutrients do nuts provide?**

Uncharacteristic of foods from plant origin, nuts contain moderate amounts of protein (9–20%) and, with the sole exception of chestnuts, also contain large quantities of fat (49–74% total fat). This fat is mostly monounsaturated or polyunsaturated fat. Currently, nuts are included in the protein food group along with meat, fish, poultry, eggs and legumes.

Nuts are also a good source of dietary fibre and provide a wide range of essential nutrients, including several B group vitamins, vitamin E, minerals such as iron, zinc, potassium and magnesium, antioxidant minerals (selenium, manganese and copper), plus other antioxidant compounds (such as flavonoids and resveratrol).

### **Is there a nutritional difference between raw and roasted nuts?**

Preliminary results indicate little difference in the nutrient content of raw and roasted nuts. Roasting reduces the water content of nuts, making the nutrients a little more concentrated. However, roasting may potentially reduce the concentration of several B group vitamins (as they are not heat stable).

Moreover, many roasted nut varieties are salted and therefore have a higher sodium content than raw nuts. If you like the taste of roasted nuts, but want to reduce your salt intake, choose only unsalted roasted nuts.

## **If nuts are high in fat, does that mean they are bad for heart health?**

Based on both the composition of the fats (a high proportion of healthy monounsaturated and polyunsaturated fats, and a low proportion of saturated fats) and the results of studies comparing heart disease rates among people who eat nuts with those who do not, the answer seems to be a resounding no! Studies suggest that consuming about 30 grams (a small handful) of nuts per day provides protection against heart disease.

It seems a number of heart-healthy nutrients in nuts work together to achieve this heart protective effect. These include:

- Health-promoting fats that help regulate blood cholesterol
- Fibre and plant sterols that help reduce cholesterol re-absorption from the gut
- Arginine (an amino acid which is converted to nitric oxide in the body) which keeps blood vessels elastic, thereby reducing the risk of atherosclerosis (hardening of the arteries)
- Antioxidant vitamins and minerals, e.g. vitamin E, copper, manganese, selenium and zinc, and other antioxidant compounds such as flavonoids and resveratrol that reduce oxidation and inflammation
- Naturally low sodium and high potassium levels which assist in maintaining healthy blood pressure

## **What about diabetes—is there an effect of nuts on the risk of developing type 2 diabetes?**

The situation seems to be similar for diabetes as for heart disease—nuts may be protective. A large study found that women who ate about 30 grams of nuts per day on five or more days of the week had approximately 30% less risk of developing diabetes compared with those who ate few or no nuts. This effect was attributed at least partly to the high levels of monounsaturated and polyunsaturated fats found in nuts, which (in addition to their positive effects on blood cholesterol) are believed to enhance insulin sensitivity.

Nuts can also be of benefit to those already suffering from diabetes. Nuts reduce the overall glycaemic index of the diet. When added to meals rich in carbohydrate, nuts slow the passage of the meal through the gut and reduce blood glucose levels following the meal.

## **Should I avoid nuts if I don't want to put on any more weight?**

It seems strange that a food very rich in fat might be suitable for people who may be carrying some excess body fat. Nevertheless, several studies have indicated that moderate intake of nuts (30–50 grams per day, a small handful) is not associated with a tendency to gain weight and may also help reduce the risk of obesity. Recent research has also found that eating nuts increases release of satiety hormones in the gut, thereby helping to control appetite.

For those who decide to increase their nut consumption, it is important to ensure that overall kilojoule intake does not increase. Nuts should therefore be substituted for less nutritious foods rather than simply being added to the diet. For example, nuts could replace some processed meats, refined cereal foods such as white bread, fatty and/or sugary snack foods and so on.

## **Are there any special health problems associated with nuts?**

Most nuts are not associated with any health problems in the vast majority of people. However, nut allergies are a major cause of concern for a small proportion of the population. Some people are allergic to one or more of the tree nuts (almonds, Brazil nuts, cashews, chestnuts, hazelnuts, macadamias, pecans, pine nuts, pistachios and walnuts), some are allergic to peanuts, and a few unfortunate people are allergic to both tree nuts and peanuts.

## **Are there any other health benefits associated with eating nuts?**

Much research has been conducted on the health benefits of nuts in the last few years. Although more research is required, preliminary studies have indicated that nuts may play a role in:

- Reducing symptoms of metabolic syndrome
- Reducing the risk of gall stones
- Reducing age-related macular degeneration (which can lead to blindness)
- Maintaining bone health and
- Slowing brain aging

## **You've mentioned that a daily intake of 30–50 grams of nuts seems to be health promoting; how many nuts does this correspond to?**

A health-promoting daily intake of 30–50 grams of nuts is about one small handful. 30 g of nuts corresponds to approximately:

- 20 almonds
- 15 cashews
- 20 hazelnuts
- 15 macadamias
- 15 pecans
- 2 tbsp pine nuts
- 60 pistachios in shells (30 g of kernels)
- 10 whole walnuts or 20 walnut halves
- a small handful of mixed nuts

## **Suggested further reading:**

*Nuts for Life* is an education initiative of the Australian Tree Nut Industry with Australian Government funding for R&D activities to raise the awareness of the

health benefits of tree nuts. For more information and innovative suggestions on how nuts can be added to your diet, go to: <http://www.nutsforlife.com.au/>

*Disclaimer: This material is provided on the basis that it constitutes advice of a general nature only. It is not intended to replace the advice of a physician or a dietitian.*