Nuts and Seeds

BY MARK BERRIMAN

Nuts are one of the best plant sources of protein, fibre, minerals, antioxidants and phytonutrients. They are high in plant sterols and healthy monounsaturated and polyunsaturated oils.

Nuts include almonds, pecans, coconuts, cashews, Brazil nuts, hazelnuts, macadamias, pistachios and walnuts. Commonly used seeds are sesame, sunflower, poppy and pumpkin seeds. While peanuts are classified as legumes, they have a similar nutrient profile to nuts.

USES

A handful of nuts can be eaten as a snack instead of biscuits, cakes or chips. They can be eaten as nut butters and pastes and sprinkled on top of breakfast cereals. Add nuts and seeds to baked goods such as breads, cakes and muffins. Include nuts and seeds in soups, salads and stir-fries. They can be sprinkled on top of dishes as a garnish and you can use sesame seeds as a coating instead of breadcrumbs.

NUTS ARE NOT FATTENING

It is a myth that nuts are fattening. Eating nuts regularly can actually help achieve and maintain a healthy body weight when incorporated into a moderate fat, kilojoule-controlled diet. They can prevent weight gain because their high fibre and protein satisfy hunger for longer and reduce appetite.

In one major study, the addition of nuts to standard diets did not substantially alter body mass index (BMI). In other words, nuts are not fattening as long as they are not salted, heavily roasted or eaten to excess.

Another recent study showed that, when moderate amounts of foods high in healthy fats were included in a weight-loss diet, people enjoyed their food more and stuck to the diet longer. 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!

NUTRITIONAL BENEFITS

Nuts and seeds are a good source of protein, soluble and insoluble fibre, antioxidants, folate, calcium and arginine (an amino acid) and provide mainly mono- and polyunsaturated fats (coconut being an exception). Many are sources of important minerals and trace minerals, such as iron, zinc, magnesium and calcium.

Studies show that, by eating a handful of nuts five to seven times a week, you can halve your risk of developing heart disease. This is the equivalent of doing regular aerobic exercise. Even those who eat nuts once a week have less heart disease than those eat no nuts. Frequent nut consumption seems to be associated with lower levels of inflammatory markers which may partially explain the lower risk of heart disease and diabetes.

WHAT IS IN NUTS?

Healthy Fats - Nuts are a great source of healthy fats. Healthy fats are monounsaturated or polyunsaturated fats which play an important role in vascular (blood vessel) health. Nuts high in monounsaturated fat include macadamias, cashews, almonds, pistachios and pecans. Nuts high in polyunsaturated fat include walnuts, hazelnuts, pine nuts and Brazil nuts. Alpha-linolenic acid - a short-chain omega-3 essential fatty acid (polyunsaturated) - is found in pecans, walnuts and hazelnuts. Eating a variety of nuts will help provide the right balance of healthy fats in your daily eating plan.

Plant Sterols - Tree nuts contain plant sterols. These are substances that can reduce cholesterol absorption from the gut. Pistachios, cashews, almonds and pecans provide plant sterols.

Antioxidants - Nuts contain a variety of antioxidants including flavonoids, other phenolic compounds, vitamins C and E, beta-carotene, other carotenoids and luteolin. These antioxidants have benefits for the health of blood vessels and for reducing the risk of clogged arteries and cancer. Vitamin E may have particular benefits as it has been associated with reduced risk of death from heart disease.

Arginine - Nuts contain arginine, an amino acid that helps keep blood flowing smoothly through the blood vessels. It can slow the formation of blood clots and reduce the clogging of arteries.

Folic Acid - Folic acid (or folate) is a B vitamin that helps reduce high levels of a potentially dangerous amino acid called homocysteine, which is a strong risk factor for heart disease. Cashews, chestnuts, hazelnuts, pine nuts, pistachios and walnuts provide useful amounts of folic acid.

Fibre - All nuts contribute fibre to the diet. Fibre, especially soluble fibre, helps reduce excessive levels of cholesterol in the bloodstream. Fibre is a major contributor to preventing constipation.

Dr Katrine Baghurst has developed dietary models to determine which combination of foods best meets the new Nutrient Reference Values (NRVs) from the National Health and Medical Research Council (NHMRC). Her findings suggest that including nuts in the diet is very important for reaching required levels of many essential nutrients because they are a concentrated source of protein, essential fats, minerals and vitamins, containing more than 28 important nutrients, all in safe levels as nature intended.

Research has shown that people who eat a small handful of nuts (30g) up to five times a week have a 30 - 50% reduced risk of heart disease.
TIPS FOR INCLUDING NUTS IN YOUR EVERYDAY DIET

- Munch on pistachios as a pre-dinner appetiser
- Sprinkle almonds or cashews through a stir-fry.
- Roast chestnuts or pine nuts and toss them through a salad.
- Chop walnuts and add them to a dipping sauce.
- Crumble pecans or walnuts into a yoghurt dessert topping and serve with fruit.
- Sprinkle chopped, roasted hazelnuts or almonds onto low-fat ice cream.
- Add roasted pine nuts to your favourite pasta dish.
- Make a great pesto by blending pistachios or macadamias with fresh herbs, Parmesan and a little olive oil.
- Crushed Brazil nuts mixed with cashews and couscous make great vegetarian patties.

WARNING RE INFANTS AND CHILDREN

Because of the high risk of allergies, nuts - even smooth nut butters such as peanut butter - are discouraged for babies until after 12 months of age. For children with a strong family history of food allergy, all peanut products should be avoided until after 3 years of age. Children under 5 should not eat whole nuts due to the risk of choking.

BUYING AND STORAGE

Nuts can be purchased in their shells, or shelled and packaged as whole, slivered, chopped, blanched or ground nuts. Choose unsalted varieties rather than salted, preferably not roasted and as fresh as possible. For best quality, select clean nuts free from cracks and holes. Nuts in the shell should be heavy for their size, indicating a fresh, meaty kernel. Crisp, plump and meaty kernels indicate high quality. Also, clean, bright shells are more likely to contain good kernels. In their shells, nuts hold their quality longer. Nuts can become rancid quite quickly if not protected from heat, air, light and excessive moisture, so they are best stored in an airtight container in a cool, dry place. Remove the nuts from plastic bags and store them in an airtight container in the refrigerator (up to four months) or the freezer (up to six months).

IN A NUTSHELL

Almond - Just a handful of almonds (30g, about 20 nuts) provide 85% of the RDI for vitamin E, a fat-soluble antioxidant vitamin. Bitter almonds contain prussic acid (also known as hydrogen cyanide). Extract of bitter almond was once used medicinally, but the almonds we eat are considered 'sweet'.

Brazil - Brazil nuts are particularly rich in selenium, a vital antioxidant mineral which works with vitamin E in helping to prevent heart disease. Just two nuts per day will provide most of your selenium needs. They are called Brazil nuts because they are the seeds of a very large tree from the Amazon rainforest. Brazil nuts for international trade come entirely from wild collection rather than from cultivation. Most provide some vitamin E and B vitamins.

Cashew - The cashew is particularly a source of magnesium, needed for strong bones. Count 15 cashews in a handful. Unshelled cashews are not sold because the nut is surrounded by a double shell that contains the caustic phenolic resin, urushiol, a potent skin irritant and toxin which is also found in poison ivy.

Chestnut - Mount Olympus, home of the gods, was said to have had an abundance of chestnut trees producing this sweet, edible nut. Chestnuts have about 50% water content, are high in complex carbohydrates and contain high quality protein. Once cooked, their creamy-white flesh is similar in texture to a roast potato with a delicate, sweet flavour.

Hazelnut - The hazelnut is referred to in a manuscript found in China dating from 2838 BC. At that time the hazelnut took its place among the five sacred nourishments God bestowed on humans. Hazelnuts contain significant amounts of B-group vitamins, including folic acid and vitamin B6, and are the highest in fibre of all the nuts. An average handful is 20 hazelnuts.

Macadamia - This native Australian nut contains a large amount of healthy monounsaturated fats. Fifteen macadamias make one handful. Warning! - do not feed macadamias to dogs as they cause muscle weakness.

Pecan - With a number of essential nutrients, the pecan is a great all-round snack for the health-conscious. A handful of pecans is about 15. The pecan tree is a species of hickory native to south-eastern North America. The word 'pecan' is apparently from the native North American Algonquin word which literally means 'a tough nut to crack'. Best to use a nutcracker!

Pine nut - Pine nuts are the edible seeds of the pine tree and are removed from pine cones. They contain useful amounts of zinc, niacin (vit. B3), manganese and arginine. The Ancient Greeks and Romans believed that the pine nut was an aphrodisiac, and it is a standard ingredient in traditional Italian cuisine. An average serve is two tablespoons.

Pistachio - With that recognisable green colour, the pistachio is the only edible nut that does not need to be shelled before roasting. Related to the almond, peach and nectarine family - or drupes - pistachios are split down the middle. They are rich in protein and contain good levels of vitamin E. About 60 pistachios make an average serve of 30g.

Walnut - The walnut is believed to have been first cultivated more than 4,000 years ago, but fossilised shells have been found in South-West France dating back 8,000 years. The modern name 'walnut' comes from the German walnuss, meaning 'foreign nut'. Walnuts contain the most alpha-linolenic acid (a short-chain omega-3 fat) among the nuts, vitamin E, potassium, iron and manganese. Eating walnuts is like wearing a seat belt for your heart. Enjoy 10 whole walnuts in an average serve.

SEEDS

Flax - Its high content of alpha-linolenic acid gives the seed many benefits including lowering total cholesterol, blood triglyceride and blood pressure. The seed is rich in lignan, one of the major classes of antioxidant phytoestrogens. Research suggests that lignan may play a role in cancer prevention, especially breast cancer. It is thought that lignan metabolites can bind to oestrogen receptors, hence inhibiting the onset of oestrogen-stimulated breast cancer. Recent studies also showed positive benefits of flax seed oil in irritable bowel disease (Crohn's disease and colitis). Flax seed oil seems to be able to heal the inner lining of the inflamed intestines.

Pumpkin - Pumpkin seeds are a good source of iron, zinc, essential fatty acids, potassium and magnesium. Pumpkin seeds may also promote prostate health because components in the oil appear to interrupt the triggering of prostate-cell multiplication by testosterone and dihydrotestosterone (DHT), a metabolite of testosterone.

Sesame - Sesame seeds are very good sources of manganese, copper, calcium, magnesium, iron, phosphorous, vitamin B1, zinc and fibre. They also contain the lignans, sesamin and sesamolin. Sesamin has been found to protect the liver from oxidative damage.

Sunflower - Sunflower seeds are an excellent source of vitamin E and are rich in linoleic acid (an omega-6 fat).