

# Nuts in a vegetarian diet

A vegetarian is someone who consumes a diet consisting mostly of plant based foods including fruit, vegetables, mushrooms, legumes, nuts, seeds and grains. Some vegetarians also consume eggs and dairy foods. There are many reasons why someone might choose to follow a vegetarian diet, including religious beliefs, animal rights, environmental concerns and for health benefits.



## The four main types of vegetarian diets

- **Lacto-ovo-vegetarians** – eat dairy foods and eggs, but no meat, poultry or seafood. This is the most common form of vegetarianism.
- **Lacto-vegetarians** – eat dairy foods, but no eggs, meat, poultry or seafood.
- **Ovo-vegetarians** – eat eggs, but no dairy foods, meat, poultry or seafood.
- **Vegans** – eat only plant foods; no animal products at all, no meat, poultry, seafood, eggs and dairy foods.

## Health benefits of vegetarian diets

Numerous studies demonstrate the health benefits of a vegetarian diet which include less heart disease and diabetes, normal blood cholesterol and blood pressure,

and healthier body weight.<sup>1-3</sup> There are many reasons why this may be the case. In general, vegetarian diets<sup>4</sup>

- Are low in fat, particularly saturated and trans fats.
- Contain a high proportion of healthy monounsaturated and polyunsaturated fats.
- Are high in dietary fibre.
- Contain more fruits, vegetables, mushrooms, nuts, seeds, legumes and wholegrains.
- Are high in antioxidants and phytochemicals.

It's likely a combination of factors, including these, give vegetarians a health advantage.

## Meeting nutritional needs

Despite the benefits, there are some nutrients that need special attention in a vegetarian diet and these include: protein, iron, zinc, calcium, omega-3 fats and vitamin B<sub>12</sub>.<sup>4</sup> Eating nuts regularly can help vegetarians to meet requirements for all of these important nutrients – apart from vitamin B<sub>12</sub>. Vitamin B<sub>12</sub> is only found in animal products. If you don't eat any animal foods (such as dairy products and eggs) regularly then it's important that you have a reliable source of vitamin B<sub>12</sub> in your diet, either from B<sub>12</sub>-fortified foods or a vitamin supplement.

## Protein

Protein is an essential nutrient that is required for many vital roles in the body including growth and repair of cells, formation of enzymes and hormones, normal functioning of muscles and bones, transmission of nerve impulses and to protect the immune system. Proteins are made up of simple compounds called amino acids – some of these can be made by the

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## 10 ways to include nuts in a vegetarian diet

- Team nuts with dried fruit and seeds for the perfect nutrient-dense snack.
- Almond and dried figs are a great source of calcium.
- Cashews and dried apricots with a glass of juice can boost iron intake.
- Cashews, pine nuts and pumpkin seeds make a tasty zinc-rich snack.
- Add chopped walnuts and crushed linseeds to cereal to provide essential plant omega-3 fats.
- Combine rolled oats and barley with mixed nuts and dried fruit for a nutritious breakfast meal to start the day.
- Use nut spreads on toast and cracker biscuits.
- Add freshly roasted cashews or peanuts to a tofu and vegetable stir-fry.
- Try nut spreads in place of butter in baking biscuits and cookies.
- Top pasta with pine nuts or combine pistachios with basil, garlic and olive oil to make your own pesto.
- Try roasted chestnuts in place of potato with your meals.
- Process Brazil nuts with grated vegetables to make your own nutritious meat-free burgers.
- Nuts are a great addition to salads – try pine nuts or pistachios with a pumpkin and chickpea salad, or crushed macadamias sprinkled on a roasted vegetable salad.

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

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body while others must be supplied by the diet – these are known as ‘essential’ amino acids.<sup>5</sup>

Different foods contain varying amounts of the essential amino acids, but it’s easy to obtain enough of all the essential amino acids by having a variety of the different types of plant foods such as legumes, grains, nuts and seeds, soy products (including soy milk, soy yoghurt, tofu and tempeh), avocado and vegetables in your diet. It was once thought that certain combinations of plant foods had to be eaten at the same meal (known as protein combining) to ensure sufficient essential amino acids. It is now known this isn’t necessary – it’s enough to have a variety of protein foods over the day.

Nuts contain plant protein, providing approximately 10–20g of protein per 100g, with almonds and pistachios providing the highest levels of protein among tree nuts.<sup>6</sup> Peanuts, being a legume, also contain protein with around 25g per 100g.

## Iron

Iron is an essential mineral and plays a vital role in forming haemoglobin, which transports oxygen around the body. Iron also assists in energy-producing chemical reactions and helps maintain a healthy immune system. Low iron levels lead to anaemia.<sup>7</sup>

There are two types of iron in food – haem iron, found in animal foods such as meat, poultry and fish; and non-haem iron, found in eggs and plant foods such as legumes, cereal grains, nuts, seeds, dark green leafy vegetables, dried fruit and iron fortified products. Although non-haem iron is absorbed less well by the body its absorption can be increased in the presence of vitamin C. However tannins in tea and coffee and phytates in wholegrains, nuts and legumes can inhibit the absorption of iron<sup>6</sup>.

Nuts have a non-haem iron content ranging from 2.2mg (in Brazil nuts) to 5.0mg (in cashews) per 100g.<sup>6</sup> Eating nuts with vitamin C rich foods, such as citrus fruits and juices and tomato, capsicum and avocado, helps to maximise iron absorption.

## Zinc

Zinc is needed for reproduction, growth, wound healing, sexual maturation and for maintaining a healthy immune system. It’s found widely in plant foods but like iron, its absorption is reduced by phytates found in wheat bran, wholegrains and legumes. Processing a plant food by soaking, fermenting or sprouting can reduce the phytate level and make zinc more readily available.<sup>8</sup>

Nuts contain zinc, providing between 1.3mg (macadamias) and 5.5mg (cashews) per 100g.<sup>6</sup> Other sources of zinc in a vegetarian diet include legumes, tofu, tempeh, seeds, brown rice and wholegrain breads and cereals.

## Calcium

Calcium is important for healthy bones and teeth and also plays a role in muscle contraction and relaxation, blood clotting, nerve function and regulation of blood pressure. For lacto-ovo vegetarians, dairy products provide plenty of calcium. Vegans and ovo-vegetarians can obtain their calcium from calcium fortified dairy alternatives such as soy, oat, rice, almond and macadamia milks and yoghurts and tofu precipitated with calcium. Calcium absorption is improved in the presence of vitamin D but is reduced by sodium, caffeine and excess animal protein.<sup>9</sup>

Nuts can provide useful amounts of calcium in a vegetarian diet, particularly almonds which have the highest calcium content at 235mg per 100g. The calcium content of other nuts ranges from 11mg (in pine nuts) to 150mg (in Brazil nuts).<sup>6</sup> Other good sources of calcium in a vegetarian diet include

unhulled tahini, dried figs, dark green leafy vegetables (for example, broccoli, Asian greens such as bok choy, kale, collard greens and Chinese cabbage).

## Omega-3 fats

There are two essential fatty acids that we need in our diet – the omega-6 fatty acid linoleic acid (LA) and the omega-3 fatty acid alpha-linolenic acid (ALA). Plant omega-3s include Alpha Linolenic Acid (ALA) or marine omega-3s DHA and EPA. After digestion, LA and ALA are acted on by enzymes and converted to important fats that are used to regulate metabolism by acting as signals and altering cell membranes. Omega-3s from marine sources DHA and EPA and are needed for brain and eye development, and can help in reducing inflammation and protecting against heart disease.<sup>10</sup> Plant omega-3s ALA also play a role in heart health.<sup>10</sup>

Walnuts are one of the few plant sources of omega-3 fats, providing more than 6000mg of ALA per 100g. Smaller amounts of omega-3 fats are found in pecans (620mg/100g), hazelnuts (120mg/100g) and macadamias (99mg/100g).<sup>6</sup> Other sources of plant omega-3 fats in a vegetarian diet include linseeds, flaxseed oil, chia seeds, soy products and seaweed.

## References

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