

# Nuts and Seeds

## INTRODUCTION

Nuts are seeds that are covered with a hard shell. Most are the seeds of trees, but the seeds of a few other plants that are not strictly nuts will also be considered here as they can be conveniently classified with nuts for culinary purposes. Nuts can be used in many ways. Whole, flaked and ground nuts and nut butters are widely available. A classic vegetarian savoury is nut roast and many vegetarian cook books give a recipe for one, which can be endlessly varied with different herbs and flavourings and different combinations of nuts and cereals. Nuts can be added to sweet dishes, cakes and biscuits, and nut butters can be added to soups and stews to thicken them.

## NUTRITION

Nuts in general are very nutritious, providing protein and many essential vitamins, such as A and E, minerals, such as phosphorous and potassium, and fibre. Nuts are also high in carbohydrate and oils, so shouldn't be eaten in excess. Whereas pulses all belong to the legume group of plants, nuts come from a variety of different plant groups, so the nutritional content is more varied too. A brief description of individual varieties is given below, together with the main nutrients they contain.

## STORAGE

Nuts should be stored in cool, dry conditions in airtight containers away from the light. Because of their high fat content, many of them benefit from storage in the fridge or freezer to deter rancidity.

Nuts

**Almonds :-** Probably originated in the Near East but now grows in Southern Europe, Western Asia, California, South Australia and South Africa. Almond oil is used for flavouring and for skin care preparations and is extracted from the kernel of the Bitter Almond. The Sweet Almond is grown for nuts for eating and have the largest share of the nut trade world-wide. Almond flour is available and it is possible to make a nutritious nut milk from almonds. Almonds are particularly nutritious, 100g contain 16.9g protein, 4.2mg iron, 250mg calcium, 20mg vitamin E, 3.1mg zinc and 0.92mg vitamin B2.

**Brazils :-** A native of South America. The nuts grow inside a hard, woody fruit rather like a coconut shell which has to be broken open to expose the 12-24 nuts inside. Brazils are high in fat, which causes them to go rancid very quickly, and protein. 100g of brazils contain 12g protein, 61g fat, 2.8mg iron, 180mg calcium, 4.2mg zinc.

**Cashews :-** Native to America but now grown extensively in India and East Africa. It will withstand rather drier conditions than most other nuts. The nut grows in a curious way on the tree, hanging below a fleshy, apple-like fruit. It is related to the mango, pistachio and poison ivy. High in protein and carbohydrate, 100g cashews contain 17.2g protein, 60 micrograms vitamin A, 3.8mg iron.

**Chestnuts :-** The sweet chestnut is a native of South Europe but is planted elsewhere extensively for both nuts and timber. The nuts can be used in soups, fritters, porridges, stuffings and stews, as well as being roasted or boiled whole. Available fresh (in autumn), dried, canned - whole or pureed, or ground into flour. Dried chestnuts need soaking for at least 1-2 hours and boiling for 45-60 minutes, fresh need boiling for 40 minutes before being peeled. Preserved in syrup they become the famous delicacy, Marron-glace. High in starch, but low in protein and fat, 100g chestnuts contain 36.6g carbohydrate, only 2g protein (the lowest of all nuts) and 2.7g fat.

**Coconuts :-** The coconut palm is common in tropical regions all over the world. The nut is covered in a fibrous outer coating on the tree and all parts of the tree are useful, the trunks for timber, the leaves for thatch, the fibrous husk produces coir - the starting material for ropes and coconut matting - and the nuts are used for food. Unripe nuts

contain coconut milk. The nutmeat can be eaten fresh or dried (desiccated or flaked coconut) and is also available in blocks of creamed coconut. A valuable oil is also extracted from the nut meat and used for cooking (although it is very high in saturated fat), margarines, soaps and detergents. 100g fresh coconut contain 3.2g protein and 36g fat, dessicated contain 5.6g protein and 62g fat.

**Hazels :-** Hazel, also called Cob, is a common wild tree in Europe and Asia and its nuts have been eaten by humans since earliest times. The cultivated varieties are bigger and the filbert is a similar but bigger species from SE Europe. Used in sweet and savoury dishes, they are available whole, ground and flaked, or made into oil and nut butter. 100g hazel nuts contain 7.6g protein, and they are lower in fat than most other nuts.

**Macadamia Nuts :-** A native of NE Australia now also grown commercially in Hawaii. Notoriously difficult to extract from their shells, they are expensive but have a delicious creamy flavour and crunchy texture. Low in carbohydrate, but quite high in fat, 100g Macadamia nuts contain 7g protein and 40mg calcium.

**Peanuts :-** Also known as groundnuts or monkey nuts, peanuts are actually legumes. Of South American origin, it's now an important crop all over the tropics and southern USA. It gets its name groundnut because as the pods ripen, they are actually forced underground. Peanuts are high in protein and contain 40-50% oil. The oil is used in cooking, as salad oil, in margarines and the residue is fed to animals. Whole peanuts can be eaten raw or roasted or made into peanut butter (look out for brands which do not contain hydrogenated oils, which are highly saturated). As they are usually inexpensive, they can be mixed with other kinds of nuts to bring down the cost, while still maintaining flavour and good nutrition. 100g peanuts contain 24.3g protein, 2mg iron and 3mg zinc.

**Pecans :-** A native of N America where it is used extensively in ice cream, cakes, nut bread and confectionery. The flavour is rather like a mild, sweet walnut. 100g pecans contain 9.2g protein, a very high fat content of 71.2g, 130 micrograms vitamin A (also very high), 2.4mg iron and 73mg calcium.

**Pine Nuts :-** These are the seeds of the Stone Pine, a native of the Mediterranean region, but the seeds of various other pines are eaten in various parts of the world including the seeds of the Korean Pine or North American pinon tree. They are very difficult to harvest, hence their cost. They are vital for pesto sauce, and are delicious lightly toasted. They become rancid very easily and should be stored in the fridge or freezer. 100g pine nuts contain 31g protein, the highest of the nuts and seeds.

**Pistachios :-** Native to the Near East and Central Asia but has long been cultivated in the Mediterranean region and more recently in the Southern US. The kernels are green and are prized as much for their ornamental colour as for their flavour. Also sold roasted and salted in their shells. They are more expensive than most other nuts. 100g pistachios contain 19.3g protein, 14mg iron, 140mg calcium.

**Walnuts :-** The walnut is native to SE Europe and West & Central Asia but is now grown in the UK, California and China as well. It is grown for timber as well as its nuts. Walnut oil has been used for centuries in the preparation of artists paints. The black walnut is a native of North America, introduced into Britain in the 17th century. The butternut is also from North America. These two have much thicker shells than European walnuts. High in fat, they go rancid very quickly and should be stored in the fridge or freezer. 100g walnuts contain 10.6g protein and 2.4mg iron.

## SEEDS

**Pumpkin :** Can be eaten raw or cooked in both sweet or savoury dishes. Delicious toasted and sprinkled, while hot, with soya sauce and served on salads. They are rich in protein, iron, zinc and phosphorous. 100g pumpkin seeds contain 29g protein, 11.2mg iron and 1144mg phosphorous.

**Sesame :-** Of African origin but now common in tropical and sub-tropical Asia. An oil is extracted from the seed and used for cooking, salad oil and margarines. It is also available as toasted sesame oil for oriental cooking. The whole seeds can also be eaten and are most often seen as a decoration on cakes, confectionery etc. Sesame seed paste, tahini, is used in many dishes e.g. hummus. Halva, a sweet made from sesame seeds is often found in health food shops. A good source of protein and calcium, 100g sesame seeds contain 26.4g protein, 12.6mg vitamin B3, 7.8mg iron, 131mg calcium and 10.3mg zinc.

**Sunflower :-** An annual plant belonging to the daisy family, it probably originated in North America or Mexico. North American Indians cultivated sunflowers as long as 2,000 years ago. The oil extracted from its seeds is used in margarine, varnishes and soaps but the seeds can be eaten whole, raw or cooked. They can be added to breads and cakes or sprinkled over salad or breakfast cereals. A good source of potassium and phosphorous, 100g sunflower seeds also contain 24g protein and 7.1mg iron and 120mg calcium.