



# A brief overview on the benefits of consuming nuts and dried fruits

## **FRUCOM Project**

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Nuts and fruit are nature's traditional snacks and dried fruits have, since Pharaonic times, been used to enable year-round consumption of their otherwise perishable counterpart. Nuts and dried fruits offer companionable savoury and sweet combinations, providing endless variety to snack mixes, as well as contributing to traditional events and cuisines e.g. pesto, tagines, Christmas cakes and for a nutritious energy boost when breaking the Ramadan fast.

Despite their grand history and tradition, with the evolution of nutrition science, nuts and dried fruits suffered from negative health connotations (nuts and fat; dried fruit and sugar). However, both are now rightly included within specific national healthy dietary recommendations (e.g. France, UK, USA) and are firmly included in the recommended Mediterranean Diet, because of their nutrient-dense nature and a rapidly growing body of research supporting their positive influence on health. As long ago as 2008 a modelling study demonstrated that swapping one healthy snack, which included unsalted nuts and dried fruit for one unhealthy snack (such as crisps, chocolate bars, cakes and pastries) could potentially save 6000 deaths annually from cardiovascular disease in the UK.

# Research on the contribution to health of nuts and dried fruit

Research on nuts is now plentiful and supports a beneficial, protective role for nuts in the diet. From high quality human studies conducted on different nuts (including **peanuts, almonds, walnuts, pistachios, cashews, hazelnuts, macadamias**), it is now well established that consuming 1-2 portions (30-60 grams) nuts daily as part of a healthy diet, reduces the risk of cardiovascular disease and lowers cholesterol (specifically total cholesterol and the harmful, low density lipoprotein LDL cholesterol) and triglycerides. The European PREDIMED (Prevención con Dieta Mediterránea) study has shown that a Mediterranean Diet supplemented with 30g mixed nuts daily (or 1 litre per week extra virgin olive oil) can reduce cardiovascular events by up to 30% in high risk subjects. More specific research has shown that eating nuts (**pistachios, walnuts** and **hazelnuts**) shows positive effects on endothelial function, which is associated with heart disease. In fact **walnuts** can carry an authorised EU health claim for 30g daily contributing to improvement of the elasticity of blood vessels.

Several studies have also shown improvements in blood glucose and insulin regulation, and gestational diabetes (**pistachios**). Despite their high fat/caloric content, increasing research supports a beneficial role for nuts in reducing obesity risk, through their nutrient dense and satiating nature. Replacing at least half a serving daily of less healthy foods (such as popular snacks: biscuits, pastries, savoury snacks and confectionary) with nuts is recommended as a simple and effective strategy for weight management. Given the above, it is not surprising that studies have concluded that daily nut consumption seems to be linked with reduced all-cause mortality and cancer.

Research on the health benefits of eating plenty of fruit and vegetables is universally accepted. Furthermore, global analyses for non-communicable diseases ranked diets low in fruits third highest as a contributor to disease burden and death (5million/year globally), following high blood pressure and smoking! Analyses of emerging research related to whole fruit, which includes dried fruits, is suggesting that low whole fruit intake is potentially a more serious health threat globally than previously considered, in part due to the unique blend of low to moderate energy density, micronutrients, phytochemicals and fruit fibre content, which combine to help reduce the risk of chronic diseases, including those affecting the colon (e.g. constipation, irritable bowel syndrome, inflammatory bowel disease, diverticular disease); reducing risk of cardiovascular disease, type 2 diabetes, lung disease, colorectal and lung cancers, and depression.

Research on specific dried fruits (**prunes** and **raisins**) indicates that they can help in weight management diets due to their satiety effects, like fresh fruits. There is good evidence that fibre contributes to satiety so other dried fruits such as **apricots** and **figs** may similarly help with weight management, although there are no studies to support this. As well as **prunes** being the only whole fruit to carry an EU authorised health claim for normal bowel function (100g/day), there is increasing research suggesting a protective role for **prunes** in bone health.

# Nutrition attributes of nuts and dried fruit

Research on the combined effects of nuts and dried fruit is virtually non-existent, nevertheless, considering their nutritional strengths alone, it is not difficult to conclude that they have the potential to exert a strong beneficial influence on health throughout life. All **tree nuts** and **peanuts** are a source of the good-for-you unsaturated fats, monounsaturated fats and fibre and likewise all dried fruits contain carbohydrate, are a source of fibre and are low in fat and salt. The nutrients in traditional dried fruits are similar to the equivalent fresh fruit (e.g. comparing one grape or plum to one **raisin** or **prune**), so they provide good sources of several micronutrients, except vitamin C. Traditional dried fruits, by definition have no added sugar. These generally include **dates, figs, prunes, raisins, apricots, peaches, apples, pears** and **currants**. **Peanuts** (groundnuts) are actually legumes, as opposed to tree nuts, so share many of the benefits of tree nuts and beans. Since most nuts also provide protein in varying amounts, dried fruit and nut mixes therefore provide a healthy balance of the macronutrients.

Each type of nut and dried fruit has individual nutrient strengths due to their unique mixes of different vitamins, minerals and health protective bioactive compounds, such that nut and dried fruit mixes provide between them a wide range of essential nutrients. Generally all nuts and dried fruit are sources of fibre, potassium and copper. Considering nuts alone, **pistachios, peanuts, walnuts, almonds, cashews, macadamias, hazelnuts** and **Brazil nuts** are sources of manganese, magnesium and phosphorus; most nuts are a source of vitamin E, thiamin, vitamin B6, folic acid, iron and selenium; and individual nuts excel in specific nutrients, notably: **pistachios** in vitamin B6, potassium and chromium; **peanuts** in niacin; **almonds** in calcium and vitamin E; **cashews** in vitamin K, zinc and iron; **Brazil nuts** in selenium; **macadamias** in monounsaturated fatty acids; and **walnuts** in omega 3 fatty acids. Also **hazelnuts, peanuts** and **cashews** provide pantothenic acid and cashews, **Brazils** and **almonds** provide biotin. Of the dried fruits, **prunes** excel in vitamins K, B6 and sorbitol; **figs** in manganese, magnesium, calcium and iron; **apricots** in vitamin A and E, niacin and iron; **dates** in chloride; and **raisins** for their phytochemical profile.

**Pistachios**  
**Peanuts**  
**Walnuts**  
**Almonds**  
**Cashews**  
**Macadamias**  
**Hazelnuts**  
**Brazil nuts**

are sources of manganese, magnesium and phosphorus



**Dried fruit and nut mixes provide a healthy balance of macronutrients**



**DRIED** Dates  
Figs  
Prunes  
Raisins  
Apricots  
Peaches  
Apples  
Pears  
Currants

by definition have no  
added sugar

**All nuts and  
dried fruit are  
sources of  
fibre,  
potassium  
and copper**



**Nuts and dried  
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Given this extensive nutrient list, it is not difficult to see that increasing daily intakes of nuts and traditional dried fruit can improve the nutritional quality of one's diet significantly. Similarly, these complimentary benefits of nuts and dried fruit match nature itself when considering the varied list of health-protective phytochemicals they also provide in plentiful quantities, which research is showing contribute to reducing risk of chronic diseases. Research on the importance of the gut microbiome to health is ever growing and there is no doubt that what we 'feed' our bodies will, initially via our gut, influence our metabolism and health. Whole fruits, including dried fruit, work as prebiotics due to their fibre and polyphenol content. Dietary fibre 'feeds' our gut, stimulating the growth of healthy bacteria, so including a daily mix of dried fruit and nuts in the diet adds fibre and nutrient dense variety which is key for a healthy gut microbiome.

Globally fibre intakes are below 20g/day, yet EU recommendations are for 25g/day, with higher levels needed for full health benefits. Since over 90% of the Western world consume insufficient whole fruits and fibre to meet well established recommendations, and currently dried fruits contribute minimally to total fruit intakes, so adding more dried fruits to the diet is a convenient and relatively low cost option to meeting recommended fruit intakes. Similarly nut intakes remain relatively low across the EU and yet, as regards their contribution to health, both nuts and dried fruit could be making a more significant health impact, were consumption to increase. In fact a simple dietary modelling exercise has shown that it is difficult to achieve recommended fibre and nutrient intakes on a western-style diet without including nuts and dried fruit, alongside other wholegrains.

With increasing industrialisation of our food supply, far from being outdated as nature's snacks, these plant foods are part of the solution to improving our dietary health. Both provide fibre and an array of phyto-protective compounds; dried fruits offer a natural sweet solution to replace some added/ free sugars in food manufacturing; and likewise nuts have potential to better balance dietary fatty acid intakes towards a healthier unsaturated: saturated fat ratio. Nutrition science is still evolving, and more research is needed to fully explore the wide ranging potential health benefits from daily inclusion of a variety of nuts and dried fruits in our diet. Meanwhile, their long history of traditional inclusion, as natural snacks, adds to current research, which together more than justifies enjoying a daily mix of nuts and dried fruit as part of a balanced and varied diet and healthy lifestyle!



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