

Lifestyle & Culture

The nutritional powerhouse of pumpkin seeds



PROF. RENALD BLUNDELL



ANDREA WERONIKA GIELETA

A pumpkin is a typical term used for a cultivated orange as well as round mature winter squash species and varieties belonging to *Cucurbita* genus, which has plenty of cultural and culinary importance. The term pumpkin is interchangeably used with squash or winter squash and is very often used for various cultivars such as *Cucurbita argyrosperma*, *Cucurbita ficifolia*, *Cucurbita maxima*, *Cucurbita moschata* and *Cucurbita pepo*.

C. pepo pumpkins are native to North America (north-eastern Mexico and the south of the United States) and are one of the most ancient, domesticated plants. Their story goes back to as early as 7,000 to 5,500 BC. Nowadays, various kinds of species and cultivars are widely grown for food together with decorative and cultural purposes.

Pumpkin seeds, often overlooked, harbour a treasure of nutrients and health-promoting properties. These small, flat and oval seeds, extracted from pumpkins (*C. pepo*), have been consumed for centuries and are renowned for their diverse array of health benefits. Rich in essential nutrients and bioactive compounds, pumpkin seeds offer a compelling case for their inclusion in a balanced diet.

Nutritional profile

Pumpkin seeds are packed with essential nutrients vital for overall health. They are an excellent source of protein, healthy fats, fibre and a boost of vitamins and minerals, involving magnesium, zinc, iron and potassium. They are abundant in antioxidants, such as carotenoids and vitamin E, further contributing to their health-enhancing properties.

Heart health

The significant amount of magnesium and omega-3 fatty acids in pumpkin seeds makes them a heart-healthy option. Magnesium helps with blood pressure regulation and support of the cardiovascular function, while the omega-3 fatty acids aid in reduction of inflammatory processes and maintenance of a healthy lipid profile, thereby reducing the risk of heart disease.

A 12-week study which included 35 postmenopausal women showed that pumpkin seed oil supplements decreased diastolic blood pressure by 7%



and lead to an increase of HDL (good) cholesterol levels by 16%.

Improved immunity

Zinc, abundantly found in pumpkin seeds, plays a crucial role in immune function. It is supportive during the development and functioning of immune cells, helping the body fight off infections and maintain a robust immune system.

Enhanced mood and sleep

Pumpkin seeds are a natural source of tryptophan, an amino acid which serves as a precursor to serotonin, a neurotransmitter known for its role in mood regulation and sleep quality. Incorporating pumpkin seeds in your daily diet can have a positive influence on mood and improve quality of sleep.

Additionally, pumpkin seeds are a rich source of magnesium. Adequate magnesium levels have been associated with better quality sleep.

It has been shown that taking magnesium supplements can greatly improve sleep quality and decrease the amount of time needed to fall asleep among older adults suffering with insomnia.

Digestive health and weight

management

Pumpkin seeds are a great source of dietary fibre, encouraging digestive health and aiding in weight management by promoting a feeling of fullness.

Moreover, high fibre diets have been associated with a lower risk of heart diseases, type 2 diabetes, as well as obesity.

Maintenance of blood sugar levels

An addition of pumpkin seeds into your diet can have a positive impact on blood sugar levels control. A study conducted by Nutrition Research reported that individuals with type 2 diabetes, who introduced pumpkin seeds into their diet, noted a reduction in blood sugar levels.

One study, conducted among healthy adults, showed that individuals who consumed meals composed of 65g of pumpkin seeds had lower blood sugar levels after consuming a high carb meal.

Interestingly, the significant magnesium content of pumpkin seeds may have a positive impact on diabetes.

One observational study presented that individuals who consumed the greatest amount of magnesium had a 15% lower

risk of developing type 2 diabetes with comparison to those who consumed the lowest amount throughout a 28-year period.

Prostate and bladder health

Certain studies suggest that the significant zinc amount in pumpkin seeds can have a beneficial impact on prostate health. Prostate cancer is a prevalent cancer among men and maintenance of adequate zinc levels can potentially play a role in the risk reduction related to prostate issues.

Moreover, pumpkin seeds may aid relieve symptoms of benign prostatic hyperplasia (BPH), a condition in which the prostate gland enlarges, leading to problems associated with urination.

Various studies in humans discovered that consumption of pumpkin seeds reduced symptoms associated with BPH.

A 2021 study showed that ingestion of pumpkin seed oil decreased symptoms and improved the quality of life of 73 individuals suffering from BPH. Furthermore, even though pumpkin seed oil was not as effective as a prescription medication, it was associated with fewer negative side effects.

Further research suggests that pumpkin seeds or related products such as supplements had a positive impact on symptomatic treatment of an overactive bladder.

Integrating pumpkin seeds into a diet

Snack options – Roasted snack: Roast pumpkin seeds together with your favourite seasoning for a flavourful, nutritious snack. Carry them with you for a quick, on-the-go healthy bite.

Trail mix: Combine pumpkin seeds with nuts, dried fruits and dark chocolate for a balanced, energy-boosting mix.

Simple additions to meals – Salads: Sprinkle a handful of raw or roasted pumpkin seeds over your salad for added crunch and nutty flavour. They complement both leafy green and fruit-based salads.

Yoghurt or oatmeal topping: Stir pumpkin seeds into yoghurt or sprinkle them over oatmeal to add texture and a nutrient boost to your breakfast.

Soups and stews: Use pumpkin seeds as a garnish on soups or stews. They not only add a pleasant crunch but also introduce a dose of nutrition to your warm meals.

Blending into beverages:
Smoothies: Incorporate a spoonful of pumpkin seeds into your smoothies for an extra nutrient boost.

Baked Goods: Ground pumpkin seeds can be added to bread, muffin or cookie recipes, offering a unique taste and boosting the nutritional content of your baked goods.

Conclusion

The remarkable nutrient profile of pumpkin seeds makes them a highly beneficial addition to a healthy diet. Their diverse health benefits, ranging from heart health and immune support to mood enhancement and digestive wellness, make them a perfect option for individuals searching for a natural and versatile source of nutrition. Embracing the consumption of pumpkin seeds may be a simple yet impactful step towards enhancing overall health and well-being.

Prof. Renald Blundell is a biochemist and biotechnologist with a special interest in Natural and Alternative Medicine. He is a professor at the Faculty of Medicine and Surgery, University of Malta

Andrea Weronika Gieleta is a registered nurse and is currently a medical student at the University of Malta