

## Benefits of Pumpkin Seed Protein

Organic pumpkin seeds are one of the best and most versatile sources of plant-based protein available. They are packed with antioxidants, essential vitamins and minerals, as well as other nutrients, including dietary fiber, calcium, iron, potassium, zinc, magnesium, omega fatty acids and vitamins A, B6, C, E and K.

### High in Iron

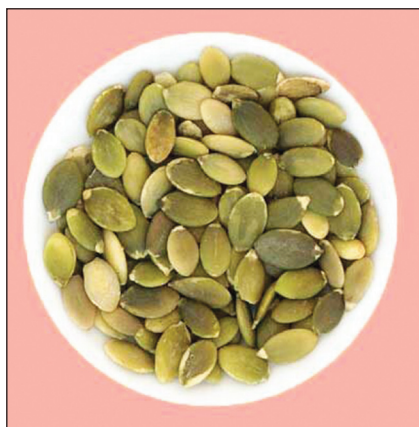
Pumpkin seed protein is abundant in iron. Hence, it helps to reduce the risk of anemia as it can meet up to 40% of your daily iron needs.

### Alkalinizing and Can Reduce Inflammation

Pumpkin seed protein is high in natural chlorophyll that can alkalinize and cleanse the body. It can also calm and reduce inflammation in the body.

### Non-Allergic

Many plant-based proteins in-



clude soy, which can become a problem for those who are allergic or sensitive to soy. Pumpkin seed protein is a perfect choice for those with soy allergies, still providing plenty of plant-based protein.

### High in Zinc

Pumpkin seed protein is a powerful source of zinc that is essential for hormone production, immune system, carbohydrate metabolism,

hair, skin and nails.

### High in Healthy Fats

Pumpkin seed protein is a rich source of protein with a variety of amino acids, but it is also an excellent source of healthy fats from omega 3 fatty acids. Omega 3s are excellent for your heart health, digestion and mood and can reduce inflammation.

### Rich in Magnesium

Pumpkin seed protein is a rich source of magnesium, an essential mineral for your body. Magnesium deficiency is on a rise today. It can cause constipation, insomnia, headaches, bad mood, low energy and low blood sugar. Pumpkin seeds are one of the richest sources of magnesium you can get your hands on and meet your magnesium needs.

## The Health Benefits of Alpha-Lipoic Acid

Alpha-lipoic acid is a compound found naturally inside every cell of the human body. Its primary role is to convert blood sugar (glucose) into energy using oxygen, a process referred to as aerobic metabolism. Alpha-lipoic acid is also considered an antioxidant, meaning that it can neutralize harmful compounds called free radicals that damage cells at the genetic level.

Alpha-lipoic acid can also recycle "used" antioxidants, including vitamin C, vitamin E, and a potent amino acid compound known as glutathione. Whenever these antioxidants neutralize a free radical, they destabilize and become free radicals themselves. Alpha-lipoic acid helps restore them by absorbing excess elec-

trons and converting them back to their stable form.

Much of the research involving alpha-lipoic acid has been centered on the prevention of diabetes and the management of diabetic nerve pain.



In addition, many alternative practitioners contend that alpha-lipoic acid can prevent or treat a multitude of health conditions, including alcoholic liver disease, HIV, Alzheimer's disease, bipolar disorder, cardiac arrhythmia, high blood pressure, rheumatoid arthritis, premature labor, schizophrenia, and erectile dysfunction, among others. To date, there is little evidence to support these claims.

## Mealworm Protein Proves as Beneficial as Milk Protein in New Research

Research by Maastricht University proves for the first time that insect protein is as beneficial as the “gold standard” milk protein; both have the same performance on digestion, absorption and on the ability to stimulate muscle production.

This outcome, published, in the prestigious international scientific publication *“The American Journal of Clinical Nutrition”*, confirms mealworm-derived protein as a premium and high-value ingredient. When combined with sustainability arguments, this makes insects an equally great protein source to use for food production.

Protifarm, a leading Dutch AgriTech company, part of the world-leading group in natural insect protein, *Ynsect*, provided its Buffalo mealworm (*Alphitobius diaperinus*) for this unique scientific research. Following the recent authorization by the European Commission’s Health Directorate General, of mealworms being safe for human consumption, this again is a significant step forward and represents a great victory for the growth of the entire insect industry.



Milk protein (80% casein and 20% whey) is often seen as the gold standard. This research led by Maastricht University shows that the mealworm matches it, as it also contains all nine essential amino acids, and is efficiently digested in the human body. In contrast, plant-based proteins often show an incomplete amino acid profile with low levels of essential amino acids. The researchers added stable isotope-labelled (“flagged”) amino acids to the food of the larvae of the Buffalo mealworm (*Alphitobius diaperinus*).

Mealworm protein is the only one in the world available on the market able to combine performance and health (digestion, absorption, muscle synthesis but also reduction of cholesterol in the liver and plasma) but also naturalness and sustainability. Compared to traditional livestock, *Ynsect* group, including its food branch Protifarm, uses 98% less land while significantly reducing the carbon and biodiversity footprints of protein production. The process is designed for a circular economy as it generates zero waste, meaning everything that is produced is used.

## Novel Treatment Options for Hypertension Using Gut Microbiome

Gut microbiome diversity and composition are associated with hypertension in women, according to new research published in the *Journal of Hypertension*, suggesting that microbiome modulation may be a novel way to prevent or treat the condition.

Animal studies support a role

for the gut microbiota in hypertension development, but large human studies are lacking. In the latest study researchers investigated the relationship between hypertension prevalence and gut microbial composition in two cohorts.

They found that measures of alpha diversity are significantly lower in hypertensive and a significant association between beta diversity and hypertension (FDR < 0.05). They identified and replicated two genera associated with hypertension. The genus, *Ruminiclostridium 6* was less abundant in hypertension cases. The uncultured mi-

crobe *Erysipelotrichacea-UCG003* was more abundant in hypertensive cases.

They genomically analyzed the 16 srRNA sequence and established a 100% identity match with the 16 s rRNA sequence of the genus *Faecalibacillus*. They functionally annotated *Ruminiclostridium*, identifying 83 metabolic pathways, including pathways previously linked to blood pressure regulation.

They concluded that that gut microbiome diversity and composition are associated with hypertension. Their results suggest that targeting the microbiome through nutraceuticals may be a novel means to prevent or treat hypertension.

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