

MAGNESIUM

What is it?



Magnesium, is an abundant mineral in the body and is naturally present in many foods. It is important for many systems in the body. Without magnesium we could not produce energy, our muscles would be in a permanent state of contraction, and we would not be able to adjust the levels of cholesterol produced and released into the blood stream. Magnesium also plays a role in the active transport of calcium and potassium ions across cell membranes, a process that is important to nerve impulse conduction, muscle contraction, and normal heart rhythm.

Magnesium ions regulate over 300 biochemical reactions in the body through their role as enzyme co-factors. They play a vital role in the reactions that generate the fundamental unit of energy within the body's cells (known as ATP). The regulation of diverse biochemical reactions in the body, including protein synthesis, muscle and nerve function, blood glucose control, and blood pressure regulation means that magnesium is required for energy production, oxidative phosphorylation, and glycolysis. It also contributes to the structural development of bone and is required for the synthesis of DNA, RNA, and the antioxidant glutathione.



Magnesium is widely distributed in plant, animal foods and in beverages. Some of the best sources of magnesium come from green leafy vegetables, such as spinach and kale. Additional sources of magnesium include legumes, nuts, seeds, and whole grains. In general, foods containing dietary fibre (discussed in last fortnight's newsletter) provide magnesium. The recommended intake of magnesium is 320mg for women, and 420mg for men. However, for those that are physically active, it is recommended that this is increased to 400-500mg per day. Approximately 30% to 40% of the dietary magnesium consumed is typically absorbed by the body.



Our top sources of food to help improve levels of magnesium include:

- Almonds
- Avocado
- Black beans
- Bran cereal – like all bran, special k and shredded wheat
- Brown rice
- Cashews
- Cereal (shredded wheat)
- Edamame beans
- Kidney beans
- Oatmeal
- Peanut butter
- Peanuts
- Potato with skin
- Pumpkin
- Raisins
- Soymilk
- Spinach
- Whole grain or pumpernickel bread