



## MAGNESIUM - Why Do I Need It?

Magnesium is an essential mineral with multiple uses in the body. Magnesium is the fourth most abundant mineral in the body - it can be found in human bones, teeth and red blood cells.

**More than 70 % of the population is deficient in magnesium!**

### Functions of magnesium

Many of magnesium's functions are due to its interactions with calcium. These functions include:

- Muscle relaxation - calcium is necessary for contraction of muscles but magnesium is essential for allowing muscles to relax.
- Regulation of sugar metabolism and blood glucose balance via regulation of insulin release.
- Energy production by activating B vitamins essential for carbohydrate and fat metabolism - insufficient magnesium means you use more energy and so tire more quickly.
- Cardiovascular health by reducing blood pressure and regulating heart rhythm.
- Nervous System - magnesium is necessary for a relaxed and calm emotional state as it regulates the rate of neuronal activity in the brain. Low levels induce an increased sensitivity to all stimuli and cause a sense of irritability and a sense of being on edge.
- Bone health - magnesium is essential for the proper use of calcium in the body so it improves bone formation and structure.
- Hormone balance - magnesium influences the production and efficacy of many hormones in our bodies especially important for those suffering PMS.
- Headaches caused by excessive muscle tension or hormone imbalance.
- Sleep - adequate magnesium levels are necessary for good sleep as magnesium reduces the release of cortisol (the stress hormone).
- Raises serotonin levels so is important for those who are agitated or depressed.

### High risk groups for a magnesium deficiency

- People who exercise and perspire a lot.
- People with gut dysfunction especially diarrhoea, IBS, Ulcerative Colitis or Crohn's.
- People who smoke, drink more than two standard drinks of alcohol a day or drink lots of coffee or tea.
- Older people as digestive powers decrease as you age.
- People taking certain medications:
  - Diuretics: Lasix, Bumex, Edecrin, and hydrochlorothiazide
  - Antibiotics: Gentamicin, and Amphotericin
  - Anti-neoplastic (Cancer) medication: Cisplatin



## Recommended daily magnesium requirement

### Children

- 1-3 years old: 80 milligrams
- 4-8 years old: 130 milligrams
- 9-13 years old: 240 milligrams
- 14-18 years old (boys): 410 milligrams
- 14-18 years old (girls): 360 milligrams

Adult females: 310 milligrams

Pregnancy: 360-400 milligrams

Breastfeeding women: 320-360 milligrams

Adult males: 400 milligram

## Deficiency signs or symptoms

Magnesium deficiency often goes unnoticed as the initial symptoms are subtle; you often assume it is just how your body is functioning as you age.

- Early symptoms are small spontaneous muscle twitches, often around your eyes, but the twitches could be in any muscle in your body, or it could include restless leg syndrome.
- Cramps of any muscle or muscle fatigue.
- Muscular tension causing headaches, back pain or TMJ dysfunction (jaw joint problems).
- Irregular heart beat, palpitations, angina or high blood pressure.
- Chest tightness or a feeling of not being able to breathe deeply.
- Menstrual cramps or premenstrual irritability or breast tenderness.
- Aversion to bright lights or loud noises.
- Constipation or loss of appetite.
- Anxiety, panic attacks or just feeling on edge.
- Insomnia or restlessness at night.
- Peripheral nervous system sensations such as tingling, numbness, or zaps or tremors.
- Salt or carbohydrate cravings.
- Depression.
- Asthma.
- Hyperactivity and an inability to be still.

## Sources of magnesium

Magnesium is available in some foods, though these tend to be foods we do not consume in large amounts. It is available in powder or capsule/tablet form from my clinic, each one containing a different type of Magnesium Chelate (the compound to which the magnesium is bound). Each of these has slightly different functions in the body so it is important to take the correct form.

**Susan can tell you which type of magnesium is best for you and how much to take.**



## Sources of magnesium

<b>Foods High in Magnesium</b>	<b>Serving Size</b>	<b>Magnesium (mg)</b>
<b>Vegetables</b>		
Beans, black	1 cup	120
Broccoli, raw	1 cup	22
Spinach, cooked	1 cup	157
Okra, frozen	1 cup	94
<b>Seeds, Legumes, Grains</b>		
Oat bran	100gm	225
Rice bran	100gm	781
Quinoa	100gm	64
Sesame seeds	1 tablespoon	32
Flax seeds	1 tablespoon	39
Sunflower seeds	100gm	325
Peanuts	100gm	200
Pumpkin seeds	100gm	535
Brazil nuts	100gm	410
Almonds	100gm	286
Pine nuts	100gm	251
Walnuts	100gm	158
<b>Drinks</b>		
Milo	10gm	210
Cocoa powder	5gm	520
Dark chocolate	100gm	327



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<i>Foods High in Magnesium</i>	<i>Serving Size</i>	<i>Magnesium (mg)</i>
<b>Fruit</b>		
Dried figs	100gm	90
Dried apricots	100gm	70
Prunes	100gm	70
Dates	100gm	60
Raisins	100gm	32
Bananas	1	32
<b>Condiments</b>		
Dried coriander	100gmg	694
Dried chives	100gm	638
Dried dill	100gm	445
Dried basil	100gm	421
<b>Seafood</b>		
Rockfish	1 fillet	51
Scallop	6 large	55
Oysters	100gm	49
<b>Soy</b>		
Soy milk	1 cup	47
Tofu	1/4 block	37