

Magnesium

What is magnesium?

Magnesium is a critical mineral for many reactions in the human body. It regulates muscle and nerve function, and is an important component of bone and tooth structure. Supplementation may augment many diseases and may be necessary to replace depletions caused by medications.

Sources of magnesium:

Magnesium is found in most foods, especially dairy products, meat, fish, and seafood. Other foods that are rich in magnesium are apples, apricots, bananas, grapefruit, lima beans, green leafy vegetables, nuts, whole grains, and several herbs, to name a few. Visit <http://www.hoptechno.com/bookfoodsourcemg.htm> for a list of 36 foods ranked by magnesium content.

OTC Products:

Magnesium glycinate 500mg (75mg elemental magnesium)

Reported uses:

Orally:

- Laxative
- Antacid
- Asthma
- Cardiovascular diseases
 - Angina
 - Atrial fibrillation
 - Cardiomyopathy
 - Congestive heart failure
 - Hypertension
 - Intermittent claudication
 - Low high-density lipoprotein (HDL) levels
 - Mitral valve prolapse
 - Myocardial infarction
 - Stroke
- Diabetes (hypoglycemia)
- Fatigue
- Fibromyalgia
- Glaucoma
- Hearing loss
- kidney stones
- migraine
- osteoporosis
- PMS
- By athletes for increased energy and endurance
- Stress/nervousness
- Attention deficit hyperactivity disorder
- Epilepsy
- Insomnia
- Multiple sclerosis
- Restless leg syndrome

Topically:

- Infected skin ulcers
- Boils
- Carbuncles
- Speed wound healing

Causes of hypomagnesaemia:

Low levels of magnesium may be caused from gastrointestinal or renal losses. This occurs when intestinal secretions are incompletely reabsorbed, as with most disorders of the small bowel, including acute or chronic diarrhea, malabsorption, steatorrhea, and small bowel bypass surgery. Also may be caused from excessive intake of alcohol, sugar, fiber, caffeine, and laxatives.

Drugs which can cause depletion of magnesium: Oral contraceptives, estrogens, loop diuretics, thiazide diuretics, digoxin, tetracycline antibiotics, aminoglycosides, pentamidine, amphotericin B, foscarnet and cyclosporine.

Symptoms of hypomagnesaemia:

- Muscle cramps
- Weakness
- Insomnia
- Anorexia
- Gastrointestinal disorders
- Kidney stones
- Osteoporosis
- Personality changes
- Nervousness
- Restlessness
- Irritability
- Fear
- Anxiety
- Confusion
- Depression
- Chest tightness

Symptoms of magnesium toxicity:

- Diarrhea
- Drowsiness
- Weakness
- Lethargy

Magnesium supplementation

- The recommended daily allowances (RDA) for magnesium are
 - 1-3 yrs: 80mg
 - 4-8 yrs: 130mg
 - 9-13 yrs: 240mg
 - Males 14-18 yrs: 410mg
 - Males 19-30 yrs: 400mg
 - Males 31+: 420mg
 - Females 14-18 yrs: 360mg
 - Females 19-30 yrs: 310mg
 - Females 31+: 320mg
 - Pregnant women: 350mg
- The recommended amount of elemental magnesium as a dietary supplement is 54-483mg daily in divided doses.

References:

1. <http://uptodateonline.com>. Magnesium supplements: natural drug information. Accessed on February 16, 2007.
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