Am I Deficient In Magnesium?

Over cultivation of the land has depleted the soil of its reserves of Magnesium and other minerals. Nature had a perfect system to prevent this through periodic rains which caused the rivers to redeposit silt and improve the quality of the top soil for agriculture. Periodic flooding the land once every few years also resulted in removal of depleted top soil. These natural processes of periodic silt deposition and topsoil removal have been "tampered with" by the building of dams. The biggest ecological disaster is the construction of the Aswan Dam on the Nile river in Egypt by the Russians. This has damaged the fertility of the Nile valley and river beds beyond imagination.

This soil depletion is further compounded by the rampant use of Synthetic Fertilizers to ensure that the land produces more crops. Synthetic Fertilizers only contain Nitrogen, Phosphorous and Potassium (NPK) or Di-amonium Phosphate (DAP). So Magnesium levels steadily go down with each crop cycle. In addition, Potassium is an antagonist to Magnesium. So the large amounts of Potassium in our Fertilizers only results in food with lower levels of Magnesium than ever before.

Magnesium deficiency is common all over the world today due to our food growing techniques and is further compounded by our food processing techniques and our choice of diet. Our grains are polished to remove the outer fibrous coating which contains magnesium, zinc and other minerals besides vitamins. Consumption of refined sugar and alcohol increase urinary excretion of Magnesium, leading to Magnesium Deficiency. Stress is another contributing factor which leads to excretion of Magnesium from the body. Diet with excessive dairy foods, which are rich in Calcium, also result in poor levels of Magnesium in the body; since Calcium is an antagonist to Magnesium and reduces the absorption of Magnesium from our diet.

In view of the above, it is now absolutely necessary to take Dietary Supplements containing an Organic form of Magnesium, especially if you suffer from Hypertension; Cardiac problems; Diabetes; Allergies; Muscle Aches, Pains and Cramps; and a host of other chronic aliments.

Osteoporosis

Today, one of the main causes of uncontrolled osteoporosis, in spite of regular calcium supplementation of Calcium, is actually absence of adequate levels of Magnesium in the body. When Magnesium supplementation is taken in adequate quantity daily, calcium levels automatically rise, even without calcium supplementation. The body cannot utilize dietary Calcium in the absence of adequate Magnesium levels in the body.

Test for Magnesium Deficiency

To test for magnesium deficiency, a procedure called an intracellular (mononuclear cell) magnesium screen should be performed. This is a more sensitive test than the typical serum magnesium screen, and can detect a deficiency inside the cell (where it is really required) with much more accuracy.
The Reference Range for Serum Magnesium used by Allopathic Medicine to detect a state of disease is 1.8 to 3.0 mg/dL. **Optimum value of Serum Magnesium in healthy individuals desiring perfect health is typically 2.4 to 2.8 mg/dL.**

Symptoms of Magnesium Deficiency

Diagnosing Magnesium deficiency is extremely difficult. Here are some of the symptoms of Magnesium deficiency:

1. Muscle weakness, tremor or spasm, decreased reflexes, twitches, convulsion
2. Heart arrhythmia, irregular contraction or increased heart rate – tachycardia
3. Heart Valve Calcification
4. Calcification of Arteries
5. Mitral Valve Prolapse
6. Softening and weakening of bone
7. Imbalanced blood sugar levels
8. Headaches - Migraines
9. Elevated blood pressure - hypertension
10. Elevated fats in the bloodstream – hyperlipidemia
11. Depression
12. Seizures
13. Nausea
14. Vomiting
15. Lack of appetite
16. Fatigue
17. Irritability
18. Insomnia
19. Poor memory
20. Allergies, Chemical sensitivities
21. Anxiety and Psychiatric Disorders
22. Attention Deficit Disorders
23. Painful periods
24. Asthmatic attacks
25. Fibromyalgia
26. Hearing Loss
27. Confusion
28. Incontinence in elderly people
29. Bedwetting in children and elderly people
30. Constipation
31. Heel Spurs and Bone spurs in the neck area
32. Osteophytes
33. Stiffness in the shoulder and neck area
34. Bradycardia and / or falling heart rate on exercising
35. Trigeminal Neuralgia / Facial paralysis

Calcium causes contraction and Magnesium brings about relaxation of muscles. Poor Magnesium to Calcium ratio in the human body can also result in inability to walk which is quite often seen in elderly people. Magnesium helps to relax nerves and muscles.

Poor memory and confusion can often be misdiagnosed in the elderly as Alzheimer's Disease. Muscle weakness, tremors and poor reflexes are often diagnosed as Parkinson's Disease. It would be worthwhile to try Intracellular Magnesium therapy before arriving at these diagnoses.

Magnesium taken together with vitamin B_{12}, may help prevent calcium oxalate kidney stones. It helps prevent dizziness. Magnesium can help prevent and reverse the calcification of soft tissue and help prevent and reverse calcification of arteries and reduce cholesterol levels.

Magnesium can be used to tone the heart muscle, improve its Ejection Fraction (LVEF), reduce Left Ventricle Hypertrophy (heart enlargement) and for controlling blood pressure. Magnesium is needed for cellular metabolism and the production of energy through its help with enzyme activity. This can once again explain poor energy levels in the elderly.

Organic Magnesium – What The Experts Say !

Recommended Daily Allowance (RDA) = 350mg; Optimum Daily Allowance (ODA) = 600mg; Therapeutic Dose: 1000 to 1440 mg per day in 4 equal divided doses for few months at a time. Therapeutic Doses of Magnesium may be administered for a few months while regularly monitoring Serum or preferably Intracellular Magnesium levels.

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Magnesium is critical to many cellular functions, including energy production, protein formation, and cellular replication. Magnesium participates in more than 300 enzymatic reactions in the body, in particular those processes involved in energy production (i.e. production of ATP). Magnesium is also required for the activation of the sodium and potassium pump that pumps sodium out of, and potassium into, the cells. Therefore, magnesium deficiency results in decreased intracellular potassium. As a result of lower magnesium and potassium within the cells, cell function is greatly disrupted.

Magnesium has been referred to as "nature's calcium channel-blocker" because of its ability to block the entry of calcium into vascular smooth-muscle cells and heart muscle cells. As a result, **Magnesium supplementation can help reduce vascular resistance, lower blood pressure, and lead to more efficient heart function.** Magnesium also helps regulate proper calcium metabolism through its actions on several hormones including parathyroid hormone and calcitonin.

Phyllis A. Balch, CNC, has been a leading nutritional consultant for more than two decades. She continues to study nutrition-based therapies, procedures, and treatments in the United States and abroad. Her other publications include Prescription for Nutritional Healing A-to-Z Guide to Supplements and Prescription for Dietary Wellness.

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Prescription for Nutritional Healing:
Research has shown that **Magnesium may help prevent Cardiovascular Disease.**

Magnesium deficiencies are at the root cause of many Cardiovascular problems. Magnesium deficiency may be a major cause of fatal cardiac arrhythmia, hypertension, and sudden cardiac arrest.

Magnesium plays a central role in the secretion and action of insulin. Without adequate magnesium levels within the body's cells, control over blood sugar levels is impossible. Magnesium supplementation is helpful in cases of glucose intolerance and insulin insensitivity. Magnesium helps regulate Blood Sugar by improving Pancreatic function.