

USANA Technical Bulletin

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Fibromyalgia

Description

- Fibromyalgia is a disorder that causes pain, tenderness, and stiffness in the muscles, tendon insertions and soft tissue structures. Criteria for diagnosis of Fibromyalgia are widespread pain in combination with tenderness in 11 or more of the 18 specific tender points.¹

Causes

- The etiology is not known. Fatigue, poor sleep, stress, anxiety or can trigger the problem.

Types

- There are no clear and distinct stages of the disease, though the symptoms may worsen at different times.

At Risk

- The condition occurs primarily in females. It may be induced or intensified by physical or mental stress. It is estimated to affect 3-5% of the population in the US².

Prevention and Management

- There is no known prevention strategy for fibromyalgia. However, people diagnosed with fibromyalgia may be advised to participate in non-impact aerobic exercise and gentle stretching. Cardiovascular training has shown to decrease pain and stiffness.
- It is also suggested that patients get plenty of sleep to help decrease fatigue².
- Nutritionally, it is recommended that Fibromyalgia patients increase their intake of fresh fruits and vegetables³.
- Low levels of magnesium have been found in patients with Fibromyalgia⁴ and supplementation with magnesium has been beneficial. In a double blind, placebo crossover study, 12 out of 15 patients benefited from supplementation with Mg⁵.

Sources of Additional Information

- Fibromyalgia Network/PO Box 31750/Tucson, AZ. 85751-1750 Info line: (520) 290-5508
- Internet Newsgroup: alt.med.fibromyalgia

Abstracts

Eisinger J, Plantamura A, Marie PA, et al. Selenium and Magnesium status in fibromyalgia.

Magnes Res 1994;7:285-8. Muscle pain has been associated with magnesium (Mg) and selenium (Se) deficiency: magnesium and selenium status were investigated in fibromyalgia (FM). Erythrocyte (E), leucocyte (L) and serum (S) magnesium, serum selenium and zinc, and vitamin B1, B2, A or E status were assessed in 22 patients with fibromyalgia and in 23 age-matched healthy controls. LMg is significantly increased ($P < 0.05$) and Emg slightly decreased in fibromyalgia. These magnesium abnormalities are associated with previously reported impairment of thiamin metabolism. Antioxidant status (as well as plasma malondialdehyde) is unchanged in fibromyalgia and serum selenium levels, slightly but not significantly correlated with serum magnesium, is normal.

Cox IM, Campbell MJ, Dowson D. Red blood cell magnesium and chronic fatigue syndrome.

Lancet 1991;30:757-60. The hypotheses that patients with chronic fatigue syndrome (CFS) have low red blood cell magnesium and that magnesium treatment would improve the wellbeing of such patients were tested in a case-control study and a randomised, double-blind, placebo-controlled trial, respectively. In the case-control study, 20 patients with CFS had lower red cell magnesium concentrations than did 20 healthy control subjects matched for age, sex, and social class (difference 0.1 mmol/l, 95% confidence interval [CI] 0.05 to 0.15). In the clinical trial, 32 patients with CFS were randomly allocated either to intramuscular magnesium sulphate every week for 6 weeks (15 patients) or to placebo (17). Patients treated with magnesium claimed to have improved energy levels, better emotional state, and less pain, as judged by changes in the Nottingham health profile. 12 of the 15 treated patients said that they had benefited from treatment, and in 7 patients energy score improved from the maximum to the minimum. By contrast, 3 of the 17 patients on placebo said that they felt better (difference 62%, 95% CI 35 to 90), and 1 patient had a better energy score. Red cell magnesium returned to normal in all patients on magnesium but in only 1 patient on placebo. The findings show that magnesium may have a role in CFS.

References

- ¹ Andreoli, TE, Bennett, JC, Carpenter, CCJ, Plum, F, editors. Decil Essentials of Medicine, 4th Ed. Philadelphia: WB Saunders; 1997. p 635
- ² Berkow R, editor. The Merck Manual. 7th Ed. Rathway (NJ): Merck Research Laboratories; 1992. p 1369.
- ³ Zeman FJ. Clinical Nutrition and Dietetics. 2nd Ed. New York:MacMillan Publ; 1991.
- ⁴ Eisinger J, Plantamura A, Marie PA et al. Selenium and magnesium status in fibromyalgia. *Magnes Res.* 1994;7:285-8.
- ⁵ Cox IM, Campbell MJ, Dowson D. Red blood cell magnesium and chronic fatigue syndrome. *Lancet* 1991;337:757-60.