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# Magnesium Improves Quality of Life for Asthmatics

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Link - http://www.nowfoods.com/078517.htm

Asthma affects more than 20 million Americans, including 6.1 million children (1), and is "a major public health problem of increasing concern in the United States." It is the third-leading cause of hospitalization for those younger than 15 years of age, costing $3.2 billion and accounting for 14 million lost school days each year (2).

Environmental conditions, such as damp homes (3) and exposure to chemical-based cleaners (4) are significant contributors to exacerbating asthma.. Lifestyle factors such as consuming a western diet (5) and low antioxidant intake (6) also influence asthma risk. Now a new study (7) has found that magnesium may help improve quality of life for asthmatics.

The study consisted of 55 males and females aged 21 to 55 with mild to moderate asthma, as classified by the 2002 National Heart, Lung, and Blood Institute and Asthma Education and Prevention Program guidelines (8) and who were using up to two prescription medications for asthma (beta-agonists or inhaled corticosteroids). Each patient received either 340 mg magnesium (as elemental), given as 1 170-mg dose twice per day) or placebo for 6.5 months. During this time, the researchers measured blood and urine levels of magnesium and an inflammatory protein called c-reactive protein (9). Lung function was measured with a methacholine challenge test (10) and pulmonary function test (11). Finally, each patient provided feedback via questionnaires on asthma quality of life (12) and control (13).

The researchers found that lung function during the methacholine test significantly improved in the magnesium group compared to the placebo group. Specifically, the concentration of methacholine required to cause a 20% drop in lung function in 1 second (known as "FEV1" and calculated as a mathematical equation called a logarithm (14)) increased significantly in 6 months. In the magnesium group, peak oxygen flow rate on exhaling increased by 5.8%, while the placebo group had no change.

Regarding quality of life, there was significant improvement in the magnesium group versus the placebo group (8% vs. 4% improvement). The magnesium group also had a 21% increase in control of their asthma compared to a 9% decrease in the placebo group. No changes were seen in both groups regarding c-reactive protein levels.

For the researchers, "Adults who received oral Mg supplements showed improvement in objective measures of bronchial reactivity to methacholine and PEFR and in subjective measures of asthma control and quality of life."

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