

A new published review shows that magnesium intake is inversely related to markers of inflammation, which may partly explain magnesium's beneficial effect on several chronic degenerative diseases.

Higher magnesium intake is associated with lower levels of inflammation, a major risk factor in chronic diseases

Magnesium (Mg) is an essential mineral that has many important roles in the body and is required by over 300 enzymes. Inadequate dietary intake of Mg has been related to many chronic inflammatory or metabolic diseases such as hypertension, metabolic syndrome, type 2 diabetes, osteoporosis, cardiovascular diseases, and even some cancers. Magnesium is found most abundantly in healthy foods such as whole grains, green leafy vegetables, nuts and legumes. It is estimated that 75% of the U.S. population gets less than the minimum recommended level (RDA) in the diet.

In a new study published in the *European Journal of Clinical Nutrition*, researchers investigated the potential association between dietary Mg intake and serum C-reactive protein (CRP), a marker of inflammation. Nearly 33,000 adult participants from seven cross-sectional studies were included in the meta-analysis. Magnesium intake in the intervention studies varied from 50-450 mg/day and for relatively short durations up to 4 months.

Evidence from the intervention studies showed a potential beneficial effect of Mg intake on serum CRP levels. In the observational studies included in the review, having a CRP level greater than or equal to 3 mg/L (indicating the presence of inflammation) was 49% more likely in the group with the lowest Mg intake when compared to the group with the highest Mg intake.

This meta-analysis and review supports the connection between low Mg intake and increased markers of inflammation. The researchers suggest that the potential beneficial effect of Mg intake on chronic disease may be at least partly explained by reducing inflammation.

DT Dibaba, P Xun and K He. Dietary magnesium intake is inversely associated with serum C-reactive protein levels: meta-analysis and systematic review. *European Journal of Clinical Nutrition* (2014) 68, 510–516.