

A new study shows that magnesium supplementation in pregnant women with gestational diabetes improves measures of glucose control and insulin sensitivity, and has benefits related to improved cardiovascular health and pregnancy outcomes.

Magnesium supplementation improves metabolic status and pregnancy outcomes in gestational diabetes

Gestational diabetes mellitus (GDM) affects as many as 10% of pregnant women and is associated with an increased risk of developing diabetes, metabolic syndrome and heart disease. Magnesium is an essential mineral that is involved with glucose regulation and cardiovascular health. Previous studies have shown an inverse relation between dietary magnesium intake and glucose regulation in patients with GDM.

In a recent study published in the *American Journal of Clinical Nutrition*, researchers analyzed the effects of magnesium supplementation on metabolic health and pregnancy outcomes of magnesium-deficient pregnant women with GDM.

The randomized double-blind placebo-controlled study included 70 women with GDM, who were given either a supplement with 250 mg of magnesium oxide or a placebo for six weeks. Fasting blood samples were taken at the beginning and at the end of the six week intervention. The patients were followed through pregnancy and delivery.

Compared to the women in the placebo group, the supplemented group had significant changes in fasting glucose, insulin concentration, and improved measures of insulin sensitivity. The supplemented group also had improvements in measures of inflammation assessed by high sensitivity C-reactive protein and plasma malondialdehyde concentrations. Magnesium supplementation also lowered the incidence of newborn hyperbilirubinemia (8.8% vs 29.4%) and hospitalization of the newborns (5.9% vs 26.5%).

The results of this study show that among women with gestational diabetes who are magnesium deficient, supplementation with magnesium can improve several measures of metabolic status and pregnancy outcomes.

Zatollah Asemi et al. Magnesium supplementation affects metabolic status and pregnancy outcomes in gestational diabetes: a randomized, double-blind, placebo-controlled trial. First published May 27, 2015, doi: 10.3945/ajcn.114.098616