

This common mineral helps lower insulin resistance in people with Type 2 diabetes

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Magnesium is one of the most abundant minerals in Nature. It can even be found inside the human body.

Magnesium is an essential mineral because the body needs it but can't produce it. It is involved in over 300 bodily processes, including the production of health-supporting antioxidants like glutathione and the metabolism of vitamin D.

In addition, magnesium is said to offer the following health benefits:

- Promotes a healthy cardiovascular system
- Encourages muscle relaxation
- Supports healthy muscle growth
- Promotes healthy bone growth
- Improves mood

Aside from these benefits, magnesium also helps prevent or manage Type 2 diabetes, especially insulin resistance .

What is insulin resistance?

Insulin resistance occurs when cells in the body, particularly muscle, fat and liver cells, do not respond well to insulin and their ability to take up glucose from the blood becomes impaired. These events force beta cells in the pancreas to make more insulin to help with glucose uptake.

Over time, the beta cells get worn out and can no longer keep pace with the demand for insulin. According to studies, this leads to prediabetes or Type 2 diabetes and liver issues like non-alcoholic fatty liver disease (NAFLD).

Insulin resistance has also been linked to the following:

- Increased risk of cardiovascular disease

- Increased risk of cancers of the bladder, breast, colon, cervix, pancreas, prostate and uterus
- Increased risk of Alzheimer's disease and other cognitive impairments

While genetics, aging and ethnicity influence insulin sensitivity, **the main forces that drive insulin resistance are excess body weight and belly fat, lack of exercise, smoking and lack of sleep.**

One way to avoid insulin resistance and related health issues to ensure adequate magnesium intake. Recent studies have found that magnesium deficiency is linked to an increased risk of insulin resistance and Type 2 diabetes .

How does magnesium help prevent insulin resistance?

As noted by researchers, the mechanism behind the positive effects of magnesium supplementation on insulin resistance is still unclear. However, plenty of research suggests that magnesium influences insulin sensitivity. For instance, a paper published in Diabetes, Obesity & Metabolism reported that magnesium supplementation helped reduce insulin resistance even in non-diabetics. Another study found that supplementing with 250 milligrams (mg) of magnesium per day for three months helped reduce insulin resistance in people with Type 2 diabetes. It also helped improve their blood sugar control.

Meanwhile, a study cited by the National Institutes of Health (NIH) noted that **people with poorly managed diabetes exhibited improvements in glycemic control after receiving 1,000 mg of magnesium oxide per day for 30 days.**

Despite the convenience offered by supplements, nutritionists and medical experts still consider organic whole foods to be the best sources of magnesium. According to the NIH, adult men must consume 400 mg of magnesium per day, while adult women must get about 310 mg of the mineral from their daily diet.

Here are some excellent food sources of magnesium:

- **Green leafy vegetables like spinach, collard greens, broccoli and kale**
- **Legumes, nuts and seeds**
- **Whole grains**
- **Avocados**
- **Free-range chicken breast**
- **Grass-fed ground beef**
- **Organic yogurt**

Magnesium is one of the most important minerals needed by the body and is considered to be particularly helpful in preventing insulin resistance. If you wish to prevent Type 2 diabetes, ensure adequate daily magnesium intake by incorporating the foods listed above into your daily diet.