

THE HEALTH BENEFITS OF CINNAMON

Cinnamon has become increasingly popular for its positive effects on blood sugar levels. Cinnamon contains a phytonutrient called methylhydroxychalcone polymer (MHCP), which has been shown to aid in maintaining healthy blood sugar levels already within the normal range.¹ Different species of cinnamon exist, and some studies have shown that the *Cinnamomum cassia* species is most effective in promoting healthy blood sugar levels.²

In a recent clinical study, 65 people with diabetes were given either a placebo or 3 grams of ground cinnamon bark for four months. Results showed that fasting glucose levels decreased by 10% in the individuals that were given cinnamon bark and did not change in those given the placebo.³ Another study, published in the *Journal of the American College of Nutrition*, focused on the mechanism of action of the MHCP component of cinnamon. Results of this in-depth study demonstrated that MHCP increased glucose uptake, stimulated insulin receptors, increased the synthesis of glycogen (the storage form of glucose) by up-regulating the activity of glycogen synthase (the enzyme responsible for the formation of glycogen), decreased activity of GSK-3B (an enzyme that inhibits glycogen synthase), and that there was a synergistic effect when MHCP and insulin were combined in both the glucose uptake and glycogen synthesis assays.⁴ Insulin and MHCP showed similar effects in all of the tests except the glucose uptake assay, in which MHCP was even more effective than insulin. A lower dose of MHCP was needed compared to insulin to achieve the same amount of glucose uptake by cells.⁴ It was also observed that MHCP more effectively inhibited GSK-3B enzyme compared to insulin. To explain the synergism seen when MHCP and insulin were combined, the researchers suggested that MHCP and insulin may stimulate insulin receptors through different mechanisms, and when combined, there is a greater response. MHCP may have multiple effects within the cell. It may cause an insulin-like response via the insulin receptor and affect enzymes involved in blood sugar regulation.⁴ The results of this study show that MHCP exerts its beneficial effects on blood glucose levels by mimicking the effects of insulin.

The *oil* of cinnamon has been linked to side effects, including vomiting, dizziness and diarrhea.⁵ However cinnamon oil is much more concentrated than the powdered bark or cinnamon bark extract, and no health hazards or side effects are known to be associated with the proper administration of designated therapeutic dosages of cinnamon bark.⁶ Cinnamon bark has GRAS (generally recognized as safe) status in the U.S. and is likely safe when used orally in medicinal amounts.⁵ As a general precaution, it is recommended to avoid taking large amounts of cinnamon when pregnant or

breastfeeding due to insufficient information available on the use of cinnamon bark during pregnancy and lactation in amounts greater than those found commonly in foods.⁵

Healthy blood sugar levels are essential to maintaining optimum health. In addition to seven ingredients that have a history of successful use in promoting healthy blood sugar levels already within a normal range, the new and improved SugarReg includes safe, yet effective amounts of cinnamon bark (*Cinnamomum cassia*) to provide enhanced blood sugar support.

References:

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