Supplements to help manage Blood Sugar Health

Psyllium

COMMON NAME: Blond psyllium, ispaghula husk

SCIENTIFIC NAME: *Plantago ovata*

RECOMMENDED

LEVELS OF EVIDENCE

1

Recommended:
Several well-designed studies in humans have shown positive benefit. Our team is confident about its therapeutic potential.

2

Recommended with Caution:
Preliminary studies suggest some benefit. Future trials are needed before we can make a stronger recommendation.

3

Not Recommended - Evidence:
Our team does not recommend this product because clinical trials to date suggest little or no benefit.

4

Not Recommended – High Risk:
Our team recommends against using this product because clinical trials to date suggest substantial risk greater than the benefit.

Evaluated Benefits

- Improved fasting and postprandial blood sugar
- Improved HbA1c in patients with type 2 diabetes, prediabetes, and/or metabolic syndrome
- Effects appear proportional: Individuals with documented type 2 diabetes showed the most improvement in blood sugar. No effect was noted in patients with normal blood sugar, and a modest effect was noted in individuals carrying a diagnosis of prediabetes.

Cleveland Clinic Wellness

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Source

Psyllium is a form of fiber that comes from the seed husk of a plant called Plantago ovata (blond psyllium). Plantago, a broad, green flowering plant grown especially in China, India, and the Mediterranean, is known for the mucilaginous properties of its seed husks. While psyllium is soluble, meaning that it dissolves in water, it is not fermentable, so the risk of gastrointestinal symptoms (such as gassiness and bloating) is reduced in comparison with fermentable fibers.

Indications/Population

Lowering of fasting and postprandial blood sugar
Lowering of HbA1c
Patients with type 2 diabetes, prediabetes, and metabolic syndrome

Mechanism of Action

Psyllium works by mixing with water in the intestines to create a gel-like substance, which helps to propel feces through the intestinal tract. Psyllium forms a viscous gel in aqueous solutions to slow absorption of glucose across the small intestine's absorptive epithelium into the bloodstream. Sequestration of carbohydrates within the gel matrix may also retard access to digestive enzymes. Ingestion of soluble fiber may delay gastric emptying, contributing to a sense of fullness (satiety) and perhaps decreas-ing total calorie intake. In prior studies, fiber-enriched meals were shown to reduce ghrelin and pep-tide YY (PYY) levels, and to increase GLP-1, for an appetite-lowering effect.
Side Effects

- Gastrointestinal side effects, such as abdominal cramping, nausea, vomiting, and difficulty swallowing
- Itching (rare)
- Difficulty breathing (rare)

Dosing

- Doses of blond psyllium seed husk at 3.4 grams three times daily or 5.1 grams twice daily have been studied to lower blood glucose levels.
- Psyllium is thought most effective when consumed at each mealtime with food. Taking one-third of the prescribed daily dose at the start of each of the three main meals a day is recommended.

Drug Interactions/Cautions

- Patients with difficulty swallowing or unexplained abdominal pain, nausea, or vomiting should avoid psyllium.
- Taking psyllium with antidiabetic agents may increase the risk of hypoglycemia. Psyllium may delay the absorption of glucose from meals, thereby reducing the likelihood of postpran dial hyperglycemia, improving overall glycemic control, and possibly necessitating a dose adjustment for selected medications, especially in individuals whose blood sugars are already well controlled.
- The addition of psyllium to a regimen that includes chitosan may increase fecal excretion of dietary fat.
- Psyllium should be avoided in individuals with a documented or suspected allergy.
- It is recommended to take fiber supplements at least 2 hours before or 2 hours after oral pre scription medications.

Notes

Psyllium is recognized by the U.S. Food and Drug Administration (FDA) as having benefits for cholesterol lowering and cardiovascular health.

Psyllium has been shown to be safe for individuals of all ages.

Patients must take psyllium with an adequate volume of fluids. Inadequate fluid intake can lead to choking and/or esophageal or bowel obstruction. A minimum of 240 ml (8 ounces) is recommended per 5-gram dose of blond psyllium husk or 7-gram dose of blond psyllium seed.

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