

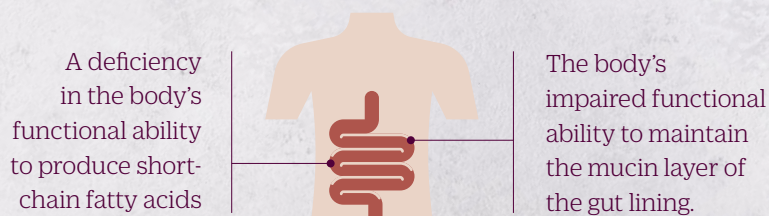
Pendulum®

Pendulum Glucose Control is a proprietary, first-of-its-kind synbiotic (a blend of probiotics and a prebiotic). It is specifically designed and formulated to meet the unique dietary needs of people with type 2 diabetes.

WHAT RESEARCH SAYS ABOUT THE MICROBIOME AND TYPE 2 DIABETES MANAGEMENT

Research shows that two imbalances in the gut microbiome are linked to the development of type 2 diabetes.^{1,3}

- A deficiency in the functional ability to produce short-chain fatty acids (SCFA), such as butyrate, that are produced when specific dietary fibers are metabolized by the gut microbiome.
- An impaired functional ability to maintain the mucin layer of the gut lining, resulting in intestinal permeability (referred to as “leaky gut”) and triggering an inflammatory response throughout the body.



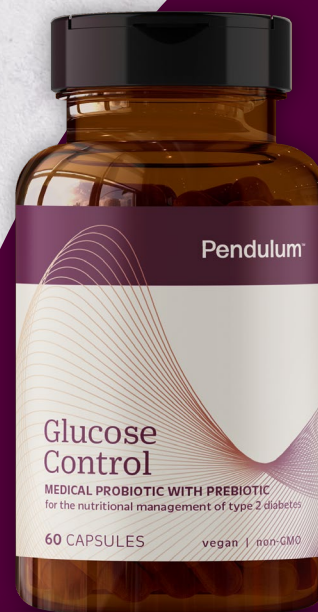
These two imbalances contribute to the abnormalities in glucose metabolism observed in people with type 2 diabetes and other subsets of metabolic syndrome.⁴ The ability to address the disturbances in these pathways provides new approaches that augment the dietary management of impaired glucose metabolism.

What is butyrate?

Butyrate is the primary energy source for colon cells. It binds to specific receptors within the gut mucosa and stimulates the release of the incretin hormone, glucagon-like peptide-1 (GLP-1). Among healthy people, GLP-1 promotes satiety and reduces appetite, enhances glucose-dependent insulin secretion by the beta cells, inhibits post-meal glucagon secretion, reduces glucose output from the liver, and helps regulate gastric emptying. GLP-1 is deficient in people with impaired glucose tolerance and type 2 diabetes, which contributes to hyperglycemia.

What is the mucin layer of the gut?

The gut's mucin layer forms a barrier between the intestinal epithelium and the luminal contents to protect the intestine from pathogenic invasion. It also protects against the passage of partially digested food.



WHY PENDULUM GLUCOSE CONTROL WORKS

Pendulum Glucose Control is a patented formulation of five anaerobic probiotic strains and the prebiotic inulin, which provides the initial food source for the probiotics. This unique synbiotic helps restore the body's natural capabilities to produce butyrate, which helps meet the unique dietary needs of people with type 2 diabetes.

Revives the body's ability to produce short-chain fatty acids including butyrate



Restoration of the mucin lining of the gut

pendulumlife.com



EVIDENCE THAT PENDULUM GLUCOSE CONTROL WORKS

Pendulum Glucose Control has been clinically shown to improve glycemic management in people with early onset type 2 diabetes.⁵ In a 12-week double-blind, randomized placebo-controlled study among people with type 2 diabetes on metformin, Pendulum Glucose Control reduced A1c levels by 0.6% compared to placebo and generated a 33% reduction in postprandial glucose spikes (Area Under the Curve or AUC). These results were recently published in the peer-reviewed *British Medical Journal Open Diabetes Research and Care*.⁵ These effects are further supported by evidence (in-press) from preclinical studies and other small pilot clinical studies.

A1C REDUCTION:

↓ 0.6%

POST-PRANDIAL GLUCOSE SPIKE REDUCTION:

↓ 32.5%

GOOD TO KNOW!



Pendulum Glucose Control should be taken **twice daily** with food.



Pendulum Glucose Control **can be taken with metformin** (as demonstrated in a clinical study). It should be used only under supervision of a healthcare professional as part of a person's total diabetes management plan.



Pendulum Glucose Control bottles should be **stored in the refrigerator** to maximize the freshness and potency of the strains.



No allergic reactions were observed within the clinical trial and Pendulum Glucose Control is free from common allergens such as nuts, dairy, and gluten.



As with any probiotic, **minor adverse effects** such as gas, change in bowel patterns, bloating, and GI disturbance may occur. These side effects are typical, and the body usually acclimates after a few days up to 1 week of probiotic use.

Pendulum®

Learn more about the science behind Pendulum Glucose Control and Pendulum Therapeutics at: **pendulumlife.com**.

If you have questions or want further information, please email hcpinfo@pendulumlife.com.

References:

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