



Regenerlife™

BERBERINE

500 mg

NPN 80121912

RESEARCH INFORMATION

Feature summary

Regenerlife Berberine provides a clinically effective dose of berberine to support healthy glucose metabolism and cardiovascular health in adults. Berberine is a naturally occurring alkaloid found in barberry and other medicinal plants. It has been used for thousands of years in traditional Chinese medicine and Ayurveda. Research now shows that berberine contributes to longevity by supporting blood sugar, cholesterol, and cardiovascular health.

By targeting key metabolic pathways, berberine has been shown to activate adenosine monophosphate-activated protein kinase (AMPK), an enzyme often referred to as the “metabolic master switch.” AMPK regulates how energy is made and used in the body. Through this enzyme, berberine addresses metabolic concerns commonly faced by adults as they age, such as maintaining healthy glucose, triglyceride, total cholesterol, and LDL cholesterol levels.

Berberine is part of the Regenerlife healthy-aging line of supplements formulated for whole-body rejuvenation and longevity. It provides 500 mg of berberine in each easy-to-swallow softgel. Taking just two softgels per day provides the same concentration used successfully in clinical trials to support healthy blood sugar and lipid metabolism. This clinical-strength berberine supplement contains no preservatives, dairy, gluten, or GMOs.

How it works

Berberine improves glucose and lipid metabolism in multiple ways. It activates the enzyme AMPK responsible for regulating the body’s stored energy as adenosine triphosphate (ATP). Through AMPK, berberine reduces inflammatory mediators and triggers a cascade of metabolic pathways that improve glucose regulation by enhancing transport across cell membranes for conversion to ATP. In addition, it reduces fatty acid production by the liver, regulates the excretion of cholesterol, and stimulates the removal of LDL cholesterol from the blood (Utami et al., 2023; Och et al., 2022).

Berberine also modulates gastrointestinal microbiota that produce metabolites essential for maintaining normal body functions, including short-chain fatty acids (SCFAs), bile acids (BAs), branched-chain amino acids (BCAAs), and butyrate (Cheng et al., 2022; Zhang et al., 2021). Through the microbiota, berberine improves intestinal barrier function and increases blood butyrate levels. It stimulates glucagon-like peptide (GLP)-1 secretion in intestinal L cells to promote regulation of insulin and upregulates peptides involved in metabolism and appetite (Cheng et al., 2022; Zhang et al., 2021). Berberine-gut interactions reduce glucose absorption by inhibiting the breakdown of carbohydrates, such as starch (Feng et al., 2019), and reduce cholesterol absorption by interfering with its emulsification during digestion (Och et al., 2022).

Berberine increases its own bioavailability through regulation of the transporter protein P-glycoprotein via the gut microbiota (Cheng et al., 2022).

Research

As we age, the vital energy-producing organelles called mitochondria found inside our cells undergo changes, gradually adjusting their energy production. These adaptations influence the body's ability to use and store energy efficiently. Over time, mitochondrial dysfunction can hinder the body's ability to break down and use glucose, causing it to accumulate in the bloodstream and elevate blood glucose levels (Chia et al., 2018). An outcome of these age-related changes is an increased risk of uncontrolled blood sugar and related cardiovascular problems (Chia et al., 2018).

Berberine-containing herbs have been used in Chinese and Ayurvedic medicine since about 3000 BCE. More recently, berberine has gained recognition for its therapeutic effects on glucose and lipid metabolism. Berberine is now one of the few known compounds capable of activating AMPK, an enzyme that works as a metabolic switch to regulate energy use in the body (Wang et al., 2018).

Research studies show that berberine supports healthy glucose metabolism and can be used to manage blood sugar, cholesterol, and cardiovascular health (Ye et al., 2021). Clinical studies suggest that taking 500 mg of berberine twice a day provides significant metabolic benefits and causes fewer side effects than many conventional therapies (Guo et al., 2021). A meta-analysis of 27 randomized, controlled clinical trials emphasized the efficacy of berberine by showing that patients with irregular blood sugar control were able to lower their blood glucose levels much more effectively when they supplemented with berberine in addition to making healthy lifestyle changes rather than by making lifestyle changes alone (Lan et al., 2015). In a three-month study, patients with impaired glucose metabolism were found to reduce their fasting blood sugar levels by 17% from baseline after supplementing with three 300 mg doses of berberine per day (Yang et al., 2012). Other markers also decreased, including BMI, waist circumference, Hb1Ac, fasting insulin, and total cholesterol.

In a multicentre, parallel-controlled study of hyperglycemic patients, researchers found that patients who supplemented with two 500 mg doses of berberine per day for 16 weeks reduced their fasting blood glucose levels from 6.49 to 6.20 mmol/L. Furthermore, berberine was found to enrich the gut microbiota and subsequent carbohydrate and lipid metabolism pathways of patients when taken on its own and in addition to a probiotic supplement (Ming et al., 2021).

Supplementation with berberine supports cardiovascular parameters that are fundamental to overall health and longevity. A systematic review and meta-analysis of 18 randomized clinical trials concluded that supplementation with berberine can significantly reduce triglycerides, total cholesterol, and LDL cholesterol in people with metabolic conditions (Ye et al., 2021). Randomized clinical trials support berberine's metabolic benefits by consistently showing that it reduces LDL cholesterol levels by 0.5–1.3 mmol/L and reduces triglyceride levels by 0.28–0.57 mmol/L (Koppen et al., 2017). A double-blind, placebo-controlled study of 20–65-year-old men with hyperlipidemia found that two 500 mg doses of berberine per day lowered total cholesterol levels by 0.39 mmol/L after 12 weeks (Zhao et al., 2021).

Ingredients

Each softgel contains:

Berberine (hydrochloride) (*Berberis vulgaris*) (root bark)500 mg

Dosage

Recommended dose (adults 18 years and older): 1 softgel 2 times daily or as directed by a health care practitioner. May also be chewed. Consult a health care practitioner for use beyond 3 months.

Cautions

Consult a health care practitioner if you have leucopenia, a kidney disorder or blood pressure problems. Consult a health care practitioner prior to use if you have liver disease, hypotension, hypoglycemia, or diabetes. Do not use if you are pregnant or breastfeeding. May cause gastrointestinal discomfort such as constipation, vomiting, abdominal pain, or diarrhea, in which case discontinue use and consult a health care practitioner. Keep out of the reach of children.

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