



WELLBETX® PGX® ULTRA MATRIX SOFTGELS PLUS MULBERRY™

Blood Sugar Regulator

ESSENTIAL DIETARY FIBRE

A diet high in dietary fibre provides numerous health benefits. The average American diet is grossly deficient in fibre; most individuals consume less than half the recommended daily amount. The health risks of low dietary fibre include bowel disturbances, increased risk of heart disease, diabetes and cancer, and increased weight and obesity. Diets high in fibre are associated with less disease and better health. The many benefits of increasing your dietary fibre include better blood sugar control, lower blood cholesterol levels, lower risk of heart disease, increased satiation (sense of fullness) and weight reduction, fewer digestive complaints, less intestinal toxicity, and reduced rates of colon cancer.

WellBetX PGX Ultra Matrix Softgels Plus Mulberry contains 25 mg of mulberry extract and 800 mg of a completely unique proprietary blend of naturally-occurring highly-purified water-soluble polysaccharides (fibres), known as PolyGlycopleX® or PGX®, developed using advanced EnviroSimplex™ technology. PGX is the result of many years of intensive clinical and laboratory research at a leading Canadian university in collaboration with the Canadian Center for Functional Medicine. The proprietary PGX formula combines, in a very specific ratio, polysaccharides derived from konjac root, sodium alginate and xanthan gum, which act synergistically to normalize blood glucose levels and restore insulin sensitivity – better than any natural health product, drug, or dietary program ever developed.

AN ADVANCED DELIVERY SYSTEM

WellBetX PGX Plus uses a superior delivery system – the Ultra Matrix softgel. The Ultra Matrix technology involves suspending PGX in a MCT-rich oil matrix derived from purified coconut oil. In the stomach, the matrix disperses better than any other tested delivery system for soluble or insoluble fibre. Rapid dispersal substantially increases the volumetric potential of PGX because the polysaccharides quickly hydrate and form strong bonds for a level of viscosity greater than that of any known polysaccharide. This effect is referred to as “acid-induced viscosity” and it begins within minutes of ingesting PGX. MCTs are more water soluble than other fats and are able to enter the bloodstream quickly. They are an immediate source of energy and are not converted into body fat. MCTs have unique properties to boost metabolism and aid in weight loss.

SUPPORTS HEALTHY BLOOD SUGAR LEVELS

Research shows that many health risks are associated with a condition called insulin resistance (sometimes referred to as Syndrome X or Metabolic Syndrome), a state in which insulin, the hormone that facilitates the uptake of glucose into the cells, works less efficiently in delivering glucose to the cells. As the body's cells become less sensitive (less responsive) to insulin, the body tries to compensate by producing higher than normal amounts of insulin. Insulin resistance can eventually lead to the development of diabetes and related conditions, including cardiovascular disease, obesity, and mental health disorders. PGX restores the body's ability to control blood glucose levels. By slowing digestion and the absorption of carbohydrates, the conversion of carbohydrates into glucose is also slowed down. In this way PGX can lower the glycemic index of meals dramatically, by up to 50%. Continued use of PGX has been shown to lower insulin secretion by approximately 40%, producing a whole body sensitivity index improvement of nearly 55% (Vuksan, *et al.*).

The mulberry extract in WellBetX PGX Plus is rich in 1-doxynojirimycin (DNJ), a compound that inhibits the digestion of carbohydrates. Specifically, DNJ blocks the action of the glucosidase enzymes. The glucosidase enzymes are essential for the breakdown of starches, complex carbohydrates, maltose, and sucrose into absorbable glucose molecules. By inhibiting these enzymes, mulberry extract decrease post-prandial (after-meal) increases in glucose and insulin levels (Kimura, *et al.*). The action of mulberry extract is impressive, and clinical activity is comparable to the anti-diabetic drug glyburide (Andallu, *et al.*). In a clinical trial, patients were given dried mulberry leaves (3 g/day) or one tablet of glyburide (5 mg/day) for 4 weeks. Mulberry therapy significantly improved diabetic control in type 2 diabetic patients. The fasting blood glucose concentrations of diabetic patients were significantly reduced by the mulberry therapy and diabetic control in type 2 diabetic patients were significantly improved.

In addition to hypoglycemic (blood glucose lowering) effects, mulberry is also known to improve lipid profiles. Together PGX and mulberry extract act to normalize insulin release, prevent insulin resistance, and protect against the development of both diabetes and obesity.

REDUCES RISK OF CHRONIC AND DEGENERATIVE DISEASE

WellBetX PGX Plus may be an important part of a daily dietary regime to provide protection against the diseases of aging. Diabetes, heart disease, and constipation are among the most common conditions reported by aging populations. Regular supplementation with WellBetX PGX Plus can help lower LDL (bad) cholesterol, improve glucose levels, prevent insulin resistance, improve bowel function and protect against the development of heart disease, colon cancer and diabetes. Mulberry extract contains a rich variety of nutrients, including antioxidants, to enhance health and stave off disease. Mulberry extract also acts as a diuretic and improves lipid profiles by increasing HDL (good) cholesterol and lowering LDL (bad) cholesterol. The combined effect of the fibre in PGX, the antioxidant qualities of mulberry, and the thermogenic action of the MCTs helps detoxify and remove wastes from the body. This helps reduce the risk of developing colon cancer and other diseases, and improves the body's ability to heal.

SUPPORTS HEALTHY WEIGHT LOSS

WellBetX PGX Plus is designed to be an extremely effective and convenient nutritional weight loss supplement. A high intake of dietary fibre is associated with lower incidences of both overall and abdominal obesity. PGX has a very high water-absorbing capacity, and is able to bind several hundred times its weight in water and stomach fluids. This is far more than any other highly-soluble fibre, including psyllium or oat beta glucan. PGX expands in the stomach, creating a highly viscous (thick) gelatinous material that provides a feeling of fullness (satiety), even when your food portions are smaller. It also stabilizes blood sugar and appetite hormones.

MCTs have been shown to increase thermogenesis (when the body generates energy, or heat, by increasing its metabolism). Sustained increases in metabolic rate help the body burn more fat. MCTs also increase satiety, reducing food intake. Because MCTs

aid in weight loss, they are potential agents for the treatment of obesity (Takeuchi, *et al*).

Mulberry extract enhances the effects of MCTs by reducing the absorption of carbohydrates, and has been reported to reduce sugar cravings and increase weight loss.

DOSAGE

Start with 1-2 softgels per meal and slowly build up to the recommended dose of 3-6 softgels per meal. For best results take WellBetX PGX softgels before meals with a glass of water (250 mL) or as directed by a health care practitioner.

PGX is a highly concentrated and effective form of fibre. In fact, gram for gram, PGX is several times more effective than any other dietary fibre. It can take time for your body to adjust to increased amounts of dietary fibre and PGX is no exception to this rule. To help ease fibre digestion, it is best to start with small amounts of PGX and then gradually increase your intake as your body adjusts. If you take PGX consistently and increase the dose gradually, it is almost certain that you will be able to consume a highly effective dose within 3-14 days.

SAFETY

PGX has an excellent safety profile, and is suitable for long-term use.

Pregnancy and lactation: Pregnant or lactating women should discuss WellBetX PGX Plus with their health care practitioner.

Children: Half the adult dose is recommended, following the same dosage recommendations as above.

Drug Interactions: If taking medication, take one hour prior to, or two hours after taking WellBetX PGX Plus. WellBetX PGX Plus can be used along with insulin or diabetes drugs. People with diabetes must monitor their blood glucose and adjust their medication accordingly, as PGX helps control blood glucose and may lessen the need for insulin or other diabetes medications over time. Persons with type 1 and type 2 diabetes should work closely with their health care practitioner.

Contraindications: Anyone on a large number of medications that need to be taken with food should discuss WellBetX PGX Plus with their health care practitioner. If you are under 18 years of age or have health concerns, consult your health care practitioner before starting any weight loss or glucose management program.

WellBetX PGX Plus provides a solid foundation for blood sugar control, diabetes management, weight loss, and the prevention of degenerative and chronic disease.

KEY REFERENCES

- Andallu B., Suryakantham V., Lakshmi Srikanthi B., Reddy G.K., "Effect of mulberry (*Morus indica L.*) therapy on plasma and erythrocyte membrane lipids in patients with type II diabetes", *Clin Chim Acta*, Dec 2001; 314: 47-53
- Kimura T., Nakagawa K., Kubota H., Kojima Y., Goto Y., Yamagishi K., Oita S., Oikawa S., Miyazawa T., "Food-Grade Mulberry Powder Enriched with 1-Deoxynojirimycin Suppresses the Elevation of Postprandial Blood Glucose in Humans", *J of Agric Food Chemistry* 11; 55(14): 5869-5874 (2007)
- Takeuchi H., Sekine S., Kojima K., Aoyama T., "The application of medium-chain fatty acids: edible oil with a suppressing effect on body fat accumulation", *Asia Pac J Clin Nutr* 17: 320-323 (2008)
- Vuksan V., Sievenpiper J.L., Owen R., Swilley J.A., Spadafora P., Jenkins D.J., Vidgen E., Brighenti F., Josse R.G., Leiter L.A., Xu Z., Novokmet R., "Beneficial effects of viscous dietary fibre from konjac-mannan in subjects with insulin resistance syndrome", Results of a controlled metabolic trial, *Diabetes Care*, June 1999; 23: 6, 913-9