



# WELLBETX<sup>®</sup> PGX WITH MULBERRY

Polysaccharide complex carb blocker and sugar regulator

The WellBetX line of natural supplements was developed by researchers at Natural Factors in conjunction with the Canadian Center for Functional Medicine, to stabilize blood sugar and promote weight loss, providing unprecedented benefits for three difficult health challenges: diabetes (both Types 1 and 2), hypoglycemia (low blood sugar) and weight loss. WellBetX carries the Natural Factors guarantee of quality.

Why can people who are unsuccessful dieters, insulin resistant or who suffer from diabetes benefit from WellBetX PGX with Mulberry? It is because PGX provides a whole new approach to using dietary polysaccharides, which are exceptionally effective at lessening hunger, reducing cholesterol levels, promoting regularity and healthy blood sugar balance. For the diabetic, the purpose of taking a few capsules of PGX before each meal is to regulate the blood sugar fluctuations that are so damaging, providing the foundation of a natural blood sugar management method that will put control back into their own hands.

PGX (short for PolyGlycopleX<sup>®</sup>) is the result of intense scientific development at a leading Canadian university by one of the most respected and recognized experts on the role of diet in the risk of diabetes, heart disease and obesity.

## SOLUBLE FIBRE: HOW IT WORKS

Many plants are rich in water-soluble fibre. Glucomannan (from konjac root), psyllium, guar gum, defatted fenugreek seed powder, and pectin all provide fibre. Familiar seaweeds provide fibre such as alginate and carrageenan. These sources of fibre are associated with reducing after-meal blood sugar levels, lowering cholesterol levels and promoting weight loss.

When taken with water before meals these fibre sources bind to the water in the stomach and small intestine to form a gelatinous, viscous mass that not only slows down the absorption of glucose, but also induces a sense of satiety (fullness) and reduces the absorption of calories. In some of the clinical studies demonstrating weight loss, fibre supplements were shown to reduce the number of calories absorbed by 30 to 180 calories per day. While modest, this reduction in calories would, over the course of a year, result in a 3- to 18-pound weight loss.

Dietary fibre supplements appear to exert a dose-dependent effect in lowering cholesterol and blood glucose levels as well as body weight. To achieve the greatest benefit, the dosage required (e.g. 20 grams or more) could be difficult to take. That problem has been overcome by the development of PGX, a unique blend of selected, highly-viscous soluble fibres that act

synergistically to develop a higher level of viscosity and expansion with water than with the same quantity of any fibre alone. The synergistic effect of this unique blend means that PGX exerts an effect equal to 3 to 5 times as much as other fibres alone.

## WHY PGX WORKS BETTER

PGX possesses the greatest viscosity (gelling property) of any single dietary fibre presently available because it uses a form of glucomannan that is highly refined and uniquely processed. It is three times as viscous as guar and approximately seven times as viscous as psyllium. By combining glucomannan with a proprietary blend of other soluble fibres, the viscosity of PGX is amplified further, making it 3-5 times higher than glucomannan alone, absorbing 500 times its volume in water!

Clinical studies have repeatedly shown that after-meal blood sugar levels decrease as soluble fibre viscosity increases. This relationship has also been shown to hold true for the other physiological benefits produced by soluble fibres including increased insulin sensitivity, diminished appetite, significant weight control, improved bowel movements and decreased serum cholesterol.

## CLINICAL EFFECTS OF PGX:

- Reduces postprandial blood glucose levels
- Reduces appetite and promotes effective weight loss
- Increases insulin sensitivity
- Improves diabetes control
- Lowers blood cholesterol
- Lowers blood pressure (an effect rarely seen with fibre)

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PGX lowers postprandial (after meal) blood glucose by approximately 20% and insulin secretion by approximately 40%, producing a whole body insulin sensitivity index improvement of nearly 50% – a phenomenal accomplishment that is unequalled by any drug or natural health product. Add to that its impressive effects on lowering blood cholesterol and

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triglyceride levels as well as its excellent safety profile. We consider PGX a real superstar in the stable of natural supplements for diabetes. On top of that, university researchers have found that higher doses of PGX can diminish appetite to such an extent that even the heaviest individuals have a dramatic and sustainable reduction in appetite.

**WHY MULBERRY**

PGX capsules also contain a special extract of mulberry leaves. The mulberry plant (*Morus indica*) is probably best known as the food for silkworms, but it is also highly regarded in traditional Chinese and Japanese medicine. Starches, complex carbohydrates, and even simple sugars like sucrose are broken down in the digestive tract into glucose by the action of certain enzymes. The most important enzymes are the alpha-glucosidases that line the intestines, essential for the breakdown of starches, complex carbohydrates, maltose, and sucrose into absorbable glucose molecules. Mulberry blocks the glucosidase enzymes. By inhibiting such enzymes, mulberry extract diminishes after-meal rises in both glucose and insulin levels.

Mulberry extract has been studied in Type 2 diabetes and the results are excellent. In one study, researchers decided to investigate its effect on blood and red blood cell lipids as well as compare its blood sugar-lowering actions to the oral antihyperglycemic drug glyburide. Patients were given either mulberry dried 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 results clearly show that the fasting blood glucose concentrations were significantly lowered with mulberry therapy, suggesting that mulberry therapy is effective in controlling diabetes. Compared to glyburide treatment, mulberry therapy reduced fasting blood glucose concentrations of diabetic patients by 27%. However, no significant differences were observed in blood glucose concentrations between pre- and post-treatments with glyburide. Mulberry extract was also superior to glyburide in its ability to decrease hemoglobin A1C (a test that sums up how much glucose has been sticking to part of the hemoglobin during the past 3-4 months), cholesterol, LDL, and triglycerides. It also results in an increase in HDL (good cholesterol). Although this

change was not statistically significant, overall there are strong suggestions that this natural supplement is clearly superior to an established pharmaceutical agent.

**PGX AND METABOLIC SYNDROME**

Metabolic Syndrome refers to a collection of metabolic abnormalities including impaired glucose tolerance, high blood cholesterol and triglyceride levels, high blood pressure and upper body (abdominal) obesity. The underlying metabolic factor in Metabolic Syndrome is elevated insulin levels and insulin resistance. A complex similar to PGX was shown to significantly improve all aspects of Metabolic Syndrome by increasing insulin sensitivity as evidenced by the reductions in total cholesterol (12.4%), LDL cholesterol (22.3%) the ratio of LDL to HDL (15%), and serum fructosamine (5%). In another study in similar patients, improvements were seen in postprandial blood glucose (27%), postprandial insulin levels (41%) and insulin resistance (48%).

**HOW WILL MY BODY ADJUST**

PGX results in fewer gastrointestinal side effects than other viscous dietary fibres. This is because water-soluble fibres are fermented by intestinal bacteria, often resulting in loose bowels and/or gas being produced, leading to increased flatulence and abdominal discomfort. Generally the digestive system adapts to fibre over a few days and intestinal gas will become negligible. PGX minimizes that concern because it can be given in much smaller quantities than other viscous dietary fibres to achieve comparable health benefits.

Be aware that minor dehydration and constipation may develop if insufficient water is consumed. Drink water when taking product and preferably another glass an hour later. If constipation is still a problem add probiotics.

**DOSAGE**

Each PGX softgel provides 500 mg of PGX along with 25 mg of mulberry extract. The typical dosage for PGX is 2 to 4 capsules before each of the three daily meals, along with a large glass of water.

**SAFETY**

Although there are no known health concerns or interactions with any diabetic or other prescription medications, always check with your health care practitioner first.

The FDA requires the following warning for softgels, capsules or tablets containing water-soluble fibre: "Drink at least 250 mL (4 oz) of water per softgel when taking this product. Taking the product without adequate fluid may cause it to swell and block your throat or esophagus and may cause choking. Do not take this product if you have difficulty in swallowing."

If you experience chest pain, vomiting or difficulty in swallowing or breathing after taking this product, seek immediate medical attention.

While PGX provides a foundation for blood sugar control, diabetics or anyone with a blood sugar control problem should investigate how using additional WellBetX supplements can build on that foundation.

**EASIER WEIGHT CONTROL WITH PGX**

As PGX absorbs hundreds of times its weight in water over 1 to 2 hours, it expands in the digestive tract creating a highly-viscous (thick) gelatinous material. Once hydrated, this complex creates a lasting sense of fullness that greatly stabilizes blood sugar and appetite hormones. Thus an adequate serving of PGX should make cutting calories much easier. For those who want to lose weight (using either a carbohydrate- or calorie-restricted diet), PGX provides effective weight management without suffering from hunger pangs.

**Note to diabetics:** We want to stress that when WellBetX supplements are used to improve blood sugar control, insulin and/or drug dosages will be altered. Work closely with your prescribing health care practitioner. A good source of information to share with your health care practitioner is the highly-acclaimed book: *How to Prevent and Treat Diabetes with Natural Medicine*, 2003, Riverhead Books by Michael Murray, ND and Michael Lyon, MD