

**PGX<sup>®</sup> (PolyGlycopleX<sup>®</sup>) is a unique high-viscosity functional fibre complex that lowers food and caloric intake in adolescents.**

Vuksan V, Panahi S, Lyon M, Rogovik AL, Jenkins AL, Leiter LA. Viscosity of fiber preloads affects food intake in adolescents. *Nutrition, Metabolism and Cardiovascular Diseases* 2009,19:498-503.

The inability to control food intake is a significant factor contributing to weight gain. This double-blind, randomized, crossover study, conducted in Canada, measured the effects of consuming 5g of three different fibres with different viscosities on food intake and appetite in healthy weight adolescents. The fibres tested were PGX<sup>®</sup> (PolyGlycopleX<sup>®</sup>), cellulose and glucomannan. PGX<sup>®</sup> is PolyGlycopleX<sup>®</sup> ( $\alpha$ -D-glucurono- $\alpha$ -D-manno- $\beta$ -D-manno- $\beta$ -D-gluco), ( $\alpha$ -L-gulurono- $\beta$ -D mannurono),  $\beta$ -D-gluco- $\beta$ -D-mannan; Inovobiologic Inc, Calgary, Canada), a novel functional fibre complex manufactured by a proprietary process (EnviroSimplex<sup>®</sup>) from three dietary fibres to form a highly viscous polysaccharide with high water-holding and gel-forming properties. The proprietary process causes strong interactions between these three fibres to produce a polysaccharide complex with a level of viscosity that is higher than any currently known individual polysaccharide. Glucomannan and cellulose are medium- and low-viscosity fibres, respectively. The fibres were mixed into meal replacements that were identical in taste, texture, appearance, calorie and nutritional content. The only difference among the meal replacements was the fibre viscosity. Thirty-one adolescent subjects completed the study. The subjects consumed each of the three fibre drinks on separate days following an overnight fast. After 90 minutes, they were provided with a pizza lunch, which they were instructed to eat until satisfied. The amount of pizza each subject ate provided a measure of food and caloric intake. The subjects completed a questionnaire on appetite and gastrointestinal symptoms after consuming the pizza meal. All three fibre drinks decreased average appetite scores at 15 minutes. No gastrointestinal symptoms were reported for any of the fibre drinks. Food intake was significantly lower after consumption of the high-viscosity PGX<sup>®</sup> drink compared to the low- and medium-viscosity drinks. This translated to a reduced caloric intake of 85 and 78 kcal calories in the meals the subjects ate and a 38 and 35 gram reduction in pizza intake. The authors conclude that viscous dietary fibre in the form of PGX<sup>®</sup> decreases food intake in both the amount and calories of food eaten in healthy weight adolescents.