Key Triggers of an Increased Appetite and a Natural Solution

by Michael T. Murray, N.D.

Introduction
Obesity is truly a modern epidemic as it affects roughly two out of three adults in the United States and is now regarded as the top cause of avoidable death. Obesity increases the risk for heart disease, type II diabetes, strokes and cancer. As a result, obesity directly contributes to over 500,000 avoidable deaths each year.

There are many factors that contribute to the growing obesity problem, but clinically one of the key factors appears that many people seem to have faulty appetite control. The urge to eat reflects a very complex system that has evolved to help humans deal with food shortages. As a result it is extremely biased towards weight gain. The solution to combat the tendency to eat more than we require is to accentuate the normal physiological processes that curb the appetite. A very elaborate feedback system exists that is supposed to tell the brain when the body requires more food as well as when enough food has been consumed. Fortunately, we can use this system to our advantage in the battle against the bulge.

Where do appetite signals come from?
Most of the stronger triggers of appetite actually originate from hormones secreted by fat cells as well as in the gastrointestinal tract. Because of newly discovered hormones secreted by fat cells and the gastrointestinal tract, many experts now consider the adipose tissue and gut lining members of the endocrine system. For example, adiponectin is a good hormone secreted by fat cells that improves insulin sensitivity, exerts anti-inflammatory activity, lowers triglycerides and blocks the development of atherosclerosis (hardening of the arteries) while the substance resistan, secreted by the fat cells, has the polar opposite effect. Obviously, if we want to improve insulin sensitivity (a key goal in reducing appetite and improving metabo-

ism as well as type II diabetes), then we would want to promote an increase in the ratio of adiponectin to resistan.

In addition to signals feeding the brain from fat cells, there is a growing list of gut-derived hormones and peptides such as neuropeptide Y and analogs, ghrelin and cholecystokinin that play a huge role in appetite control. There is promising research on these compounds. For example, last September the New England Journal of Medicine reported peptide YY 3-36 (or PYY for short) dramatically reduced appetite in both obese and normal weight individuals. The subjects consumed about 30 percent less at an all you can eat buffet after the infused hormone, compared with when they were given only saline solution. The subjects also ate significantly less over the next 24 hours.

Unlike PYY, the stomach-derived hormone ghrelin increases appetite. Ghrelin levels are highest when the stomach is empty and during calorie restriction. Obese individ-

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uals tend to have elevated ghrelin levels; when they try to lose weight, ghrelin levels increase even higher. Part of the success of gastroplasty (stomach stapling) in producing permanent weight loss is thought to be the result of significantly reduced ghrelin levels.

Utilizing highly viscous soluble fibers to improve insulin sensitivity and control appetite

The evaluation of highly viscous soluble fibers as a solution to obesity, diabetes and heart disease has been spearheaded by intense scientific research at the University of Toronto. Led by Vladimir Vuksan, Ph.D., what these researchers have discovered is that by combining various soluble fibers in specific ratios, the viscosity of the fiber is amplified greatly. The revolutionary fiber blend PGX™ (PolyglucopleX) is the result of this research. Hundreds of different fiber combinations were tested in laboratory, animal and human studies before the formulation was initially established.

Clinical studies conducted by Dr. Vuksan and his colleagues have repeatedly shown that after-meal blood sugar levels decrease as soluble fiber viscosity increases. This relationship with viscosity has also been shown to hold true for the other physiological benefits produced by soluble fibers, including increased insulin sensitivity, diminished appetite, significant weight control, improved bowel movements and decreased serum cholesterol. The unique highly viscous soluble fiber now known as PGX was shown to lower after-meal blood sugar levels by approximately 20 to 40 percent and also lowered insulin secretion by approximately 40 percent, producing a whole body insulin sensitivity index improvement of nearly 50 percent—a phenomenal accomplishment that is unequaled by any drug or natural health product. In addition, in a recent study in the same type of subjects in only three weeks, PGX reduced body fat percentage by 2.8 percent.

Clinically proven effects of PGX
• Reduces postprandial blood glucose levels
• Reduces appetite and promotes effective weight loss
• Increases insulin sensitivity
• Improves diabetes control
• Lowers blood cholesterol

PGX is included in the SlimStyles™ and WellBetX™ line of products from Natural Factors. The SlimStyles family of products is designed to promote effective weight loss while WellBetX products improve blood sugar management. PGX is available in capsule and powdered form as well as the key ingredient in the SlimStyles and WellBetX meal replacement drink mixes. These sophisticated, low carbohydrate, low glycemic index meal replacement drinks also contain undenatured whey protein, natural flavors and sweeteners along with vitamins and minerals.

Final comment
With a greater understanding of human physiology and appetite regulation it appears a real solution is the use of a selected, highly viscous soluble fiber known as PGX. In addition to its effects on blood sugar levels and improving insulin sensitivity, preliminary evidence indicates that one of the key reasons why people lose weight almost effortlessly with the ingestion of a highly viscous soluble fiber is that they exert powerful effects in reducing appetite stimulators like ghrelin while increasing the level of appetite suppressors like PYY and adiponectin. 

References available upon request, send a SASE to totalhealth magazine.

Michael T. Murray, N.D., is director of product development for Natural Factors and is regarded as one of the leading experts on natural medicine. His latest book is How to Prevent and Treat Diabetes with Natural Medicine.