

SUMMIT

Naturopathic News

Diabetes & Natural Blood Sugar Control

As we get well on our way into the twenty-first century, diabetes II and metabolic syndrome are two chronic diseases of epic proportions that are only expected to increase in the near future. Currently, 90-95% of people with diabetes in the United States are type II diabetic, and an estimated one-in-four U.S. citizens are suffering from Metabolic Syndrome.¹

Diabetes II is characterized by elevated blood sugar levels, but that does not make it a disease of blood sugar alone. Unlike type I diabetes where insulin replacement can effectively treat the cause of the problem, the type II diabetic suffers a more complex problem of insulin resistance. Often in the early stages of the disease, the pancreas produces many times more insulin than in the normal person, yet overstuffed cells will stop responding to the hormone insulin. Insulin takes blood sugar out of circulation, and stores it in muscle and liver cells, and fat tissue, earning it the name “the hormone of storage”.

Metabolic syndrome has been described as syndrome X, obesity syndrome, DROP syndrome, insulin resistance syndrome, and others. Most of the time, the definition includes elevated uric acid levels – uric acid is what causes the painful symptoms of gout. The definition for metabolic syndrome is:

- Insulin resistance (elevated blood sugar).
- High blood pressure.
- Abdominal obesity.
- Low HDL “good cholesterol” and elevated blood lipids.

Metabolic syndrome is dangerous because it increases a person’s risk of developing atherosclerosis (hardening of the arteries) and a whole host of cardiovascular diseases, which continue to be the leading cause of preventable death in the U.S. If a person hasn’t already developed diabetes II, then they are at greatly increased risk, along with increased risk for chronic kidney disease, sleep-disordered breathing and fatty liver. In 2005, a study was published showing how an inflamed or fatty liver plays a primary role in the factors that lead to the development of insulin resistance.

Screening for both diabetes and metabolic syndrome (or any other problem with blood sugar regulation, for example hypoglycemia) can be tested for at your doctor’s office, or you can walk-in at the Summit Medical Center laboratory and request a “Health Profile”, which checks fasting blood sugar levels, TSH, CBC, chem-screen & lipids (cholesterol) for \$67. Each April at every community’s High School, the 9-Health Fair allows you to have a General health profile (without the CBC) for \$35. It is important to get regular screenings done, even when risk factors have been low in the past.

Standard therapy for diabetes...

- Regular exercise. *30+ minutes of aerobic exercise 4+ days/week. Weight loss. Stop smoking. Smoking doubles risk for cardiovascular disease.*

As Naturopathic Doctors, we use a more specific approach to diabetes and other problems of blood sugar regulation, much like outlined by Dr. Bernstein in “the Diabetes Solution”. It is critical that people with diabetes get proper care and check-ups. The

Diet

- Increase protein, essential fatty acids, complex carbohydrate - low on the glycemic index (see chart), “eat your vegetables.” *These natural foods are full of FIBER, which lowers blood lipids.*
- Decrease sugar, artificial sweeteners, alcohol, processed or simple carbohydrate foods (high on the glycemic index). *Sugar is the “heart of the problem” -USDA statistics showed 10lbs/person sugar intake in 1821, increasing to 170lbs/person in 1997.*
- Use stevia as a sweetener. *300x sweeter tasting than sucrose, yet with NO calories. Completely natural.*

Nutrients

- Chromium picolinate *Part of glucose tolerance factor, helps insulin usage at the cellular level, increases HDL, lowers other blood lipids.*
- Biotin *Helps maintain regular blood levels through aiding gluconeogenesis.*
- Coenzyme Q10 *Protects against heart disease.*
- Choline and Methionine *Protect against fatty liver.*
- Inositol (hexaNiacinate) *Lower blood lipids, protect liver and pancreatic cells.*
- (L-)Carnitine *Increases HDL, lowers other blood lipids.*
- Alpha Lipoic Acid *Protects against heart disease and neuropathy.*
- Omega-3 Essential Fatty Acids and other Vegetable Source Fatty Acids *Improve uptake of glucose, lower weight, decrease systemic inflammation.*
- Vanadium *Helps insulin usage at the cellular level.*

Botanicals

- Red Yeast Rice *Decreases synthesis of blood lipids by the liver.*
- Commiphora mukul (guggul) *Decreases blood lipids, protects against LDL oxidation.*
- Gymnema sylvestre (sugar destroyer) *Blocks taste of sweet, intestinal glucose absorption, and helps insulin production.*
- Momordica charantia (bitter melon) *Enhances glucose metabolism like insulin.*
- Trigonella fraecom (fenugreek) *Helps lower blood sugar by helping digestion.*
- Syzgium cumini (jambul) *Ayurvedic use in lowering blood sugar.*
- Cinnamon *Lowers blood sugar and lipids (cholesterol).*
- Cloves *Lowers blood sugar and improves glucose metabolism.*
- Vaccinium Myrtillus (blueberry) and other bioflavinoid-rich foods *Protect against damage to blood vessels, eyes, kidneys by strengthening connective tissue.*
- Allium sativum (garlic) and onions *Decrease blood lipids.*
- Ginkgo *Increases circulation, glucose uptake, and decreases clotting.*
- Crataegus (hawthorne) *Increases circulation*
- Green tea *Improves beta-cell function for insulin.*

¹Isganaitis E, Lustig RH. “Fast Food, central nervous system insulin resistance, and obesity.” *Arterioscler Thromb Vasc Biol.* Dec 2005;25(12):2451-2462.