

HEART TROUBLES

*Shortly after 9/11, Americans were asked, “What is your greatest fear?” Pollsters expected terrorism to rank high, but to their amazement, **uncontrolled weight gain was #1!***

Confucius once said, *“We fear most that which we little understand.”*

Obviously, Americans don't understand the biology behind fat storage & its close partner, heart disease.

In fact, a recently published study, by childhood obesity experts, recommended routine cholesterol testing in infants as young as two. The same study advocated the use of statin medications to lower lipids in children beginning at age eight!

Wow! What's Next??

This month's newsletter is devoted to exposing the “Oz behind the curtain” in the causative relationship between obesity & heart disease.

Syndrome X

In the early 90's the term “Syndrome X” (now known as insulin resistance) was coined by Dr. Reaven, a cardiac physician. In his practice, he discovered four reoccurring problems presenting in his patients. These four conditions later became the diagnosis of Syndrome X. The four conditions included: high cholesterol (heart disease), high blood pressure, obesity, and blood sugar instability (type II diabetes). He stressed that these four conditions were actually independent from each other, but caused by the same thing... **High Insulin.**

This was revolutionary; a doctor had the courage to admit that obesity was not to blame. But rather, obesity, like the other 3, is a symptom of high insulin. Insulin is a metabolic hormone, released by the pancreas, which is responsible for energy delivery & fat storage.

Without insulin is death, but insulin in excess is deadly!

The Iceberg

Dr. Reaven described high insulin as a huge, submerged iceberg with four visible peaks. These peaks represent the four critical dangers of excess insulin... **heart disease, high blood pressure, diabetes (blood sugar irregularities) & obesity.** Reaven postulates that a person with high insulin may present with all four symptoms or only one. The critical factor for each peak is the high insulin.

Why is excess insulin so dangerous?

Actually, insulin is one of the master metabolic hormones of the body. It is the “blood sugar police.” Insulin's job is to usher glucose (sugar) out of the blood & into the cells for energy.

The problem is when there is too much sugar & too much insulin, the muscle cells begin to shut down (become resistant) & insulin is forced to store the sugar as fat instead of using it for energy!

This is the plight of nearly 80% of people who struggle with a weight problem!

This is being “stuck” in fat storage mode!

Bristlecone Med-fitness

"Damaging truth, I prefer it to advantageous error. Truth heals the pain which perhaps it evokes." -Goethe

Out of the Woods

Aside from irregular fat storage, elevated insulin also does the following destruction... **too much insulin hardens arteries & thickens vascular walls. It creates insulin resistance in the muscle cells which makes blood sugar unstable (highs & lows). It elevates triglycerides. High insulin causes salt & fluid retention & raises blood pressure. Elevated insulin levels will eventually lead to diabetes (type II) or a pre-diabetic condition (blood sugar above 115.)**

In 1976 Stephen Woods, director of the Obesity Research Center at the University of Cincinnati, reported the following... *"Insulin regulates the equilibrium between the forces of fat deposition & the forces of fat mobilization in the fat tissue. **What has been clear for almost 40 years is that the level of circulating insulin in animals & humans will be proportional to body fat. The leaner an individual, the lower his basal insulin & vice versa.**"*

When it is understood that insulin is primarily released through eating carbs, this quote becomes absolutely fundamental to the fight against fat! Ironically, Woods penned this truth four years before our nation plunged into the fat free, "carb feast" of the 80's!

Where was Woods??

Who's Driving?

Even as early as the 1960's researchers like Ethan Sims were reporting, *"carbs are uniquely capable of prolonging fat trapping by keeping fat cells sensitive to insulin."* Again, the fat cells seem to have an open door policy as it relates to sugar, insulin & fat storage!

In short, carb is driving insulin is driving fat!

While obesity is the #1 fear of Americans, heart disease lags not far behind. Millions of people are instructed to cut fat from their diets & prescribed statin drugs with a goal of getting lipid numbers into a set range. **Rarely will an individual understand the metabolic pathway behind the high cholesterol.** The body needs cholesterol...it is a life giving waxy, fatty substance which is the precursor to life at the cell level. Every cell has the capacity to make its own cholesterol.

The problem is to keep a delicate balance between the cell making cholesterol & the cell using the circulating cholesterol. The process looks like this...when a meal is eaten, carbs are converted to glucose (sugar) & insulin is secreted to deliver this sugar to the cells for energy. But, with excess sugar, the liver takes action to grab the excess from the blood and convert it into a waxy, substance called triglyceride. **Thus, triglyceride levels are uniquely connected to carb ingestion and insulin levels.**

Slow the Production

Triglycerides are not soluble in the blood, so they must be packaged by a lipid carrier, **LDL & HDL** (much like an envelope carries a letter.) These carriers circulate in the blood carrying the cholesterol for either deposit (LDL) or disposal (HDL). Obviously, disposal of fat is the first choice, so HDL is considered the "good" cholesterol (HDL is a lot like draino; it scrapes, collects fat & cleans it out). LDL is stored, so it is labeled as the "bad." However, when the cells produce too much cholesterol & don't use the LDL in the blood, it creates a pileup of the bad stuff!

What causes the cells to produce too much of their own cholesterol? You guessed it... **excess insulin!**

Statin drugs synthetically slow down the cellular cholesterol production, so the body is forced to use more of the circulating LDL. **When the body uses the circulating cholesterol, lipid levels will fall!**

You can do this naturally (no side effects) by lowering your basal insulin levels through a modified carb diet & proper strength/cardio training. Over & over, we've seen testimony of triglycerides, LDL & glucose falling significantly as dietary carbs are controlled! I encourage you to bring in a recent blood lipid profile; we can help you determine the best diet & exercise routine for your basal insulin control!

~~Kelly & Julie~~