

Understand Diabetes Better

Smart Sugars Lesson #83

by JC Spencer

Most people hope to opt out of the rising diabetic statistics but don't know how. The number of diabetics, at current rate will grow from an estimation of 1 in 14 to 1 in 3 in the next 30 or so years. Another report estimates that 1/3 in the US are already Type 2 diabetics with many who do not yet know it. So, the question is not IF but WHEN we become diabetic, unless we take control of our sugar problem.

How your body metabolizes glucose is the tipping point for diabetes and health in general. Once your sugar load tips toward diabetes, you counter or aid diabetes with each bite of food, knowingly or subconsciously.

Let us look at why glucose is not properly metabolized in the human body. The amount of glucose in your blood and your cells is constantly changing by your pancreas production of insulin and by poor communication with the cells. Your blood sugar and your entire health depend on the ability of your mitochondria to make the final process for metabolizing glucose to ATP.

Someday scientists may declare the mitochondria to be a tiny but highly sophisticated nuclear power plant. They may discover that it is stoked by negative hydrogen, protons, and sugar. It is concluded that hundreds or even thousands of mitochondria live in some cells of your body. Each liver cell contains as many as 10,000 of these power generators. The average human body may contain 70 trillion cells. The number of mitochondria in the human body may be in the quadrillions or even quintillions.

The pathway for ATP optimization requires the proper amount of hydrogen and oxygen to burn the glucose fuel. A series of complex steps inside the cell just outside the mitochondria process glucose further so it can enter the mitochondria for conversion. Your mitochondrial power plants consume 95% plus or minus the oxygen you breathe plus the hydrogen and oxygen (H₂O) from the water you drink. Hydrogen, oxygen, and certain bio-active trace metals are used with glucose to produce electrochemical protons used for final conversion of high energy ATP fuel packets.

Within minutes after food is consumed, glucose enters the bloodstream. Signal instructions are sent immediately to your pancreas to secrete a carefully calculated amount of the hormone called insulin. An improper amount of glucose or faulty communication

signals, causes glucose accumulation in your bloodstream which can develop into Type 1 or Type 2 diabetes. Both diabetic types have the same result of excess blood glucose although the causes may be very different.

Type 1 (about 10% of all diabetes) is because of lack of ample insulin. This results in an autoimmune condition caused by the pancreas' inability to produce the needed insulin.

The pathway to Type 2 (about 90% of all diabetes) is caused by improper use of the insulin that is produced. This type of diabetes is more of a problem with communication. Cells do not respond properly or they completely reject the signals and do not absorb the glucose properly. This results in over production of insulin in the body's attempt to force the glucose into the cells. Additional glucose is demanded which stresses the pancreas.

The initial WHY for today's diabetes is the tsunami of poor food intake. Diabetic propensity can become genetic. Junk food lacks vital nutrients but is high in simple carbohydrates and toxins that quickly convert to glucose and poisons. Eatable food like substances are not effectively burned as energy and are stored as fat and poison which damage cells and organs.

Eating healthful meals for enough nutrition is nearly impossible. Supplementation is necessary! People perish for lack of good nutritional knowledge that can lower the risk of diabetes. Daily supplementation with the following technology has proven beneficial for better health: pure Omega-3, 100% first pressed cold pressed extra virgin olive oil, natural plant source vitamins, quality D3, increased alkaline food and drink for higher pH, switching out white flours for GM-free grains may greatly enhance proper blood-sugar; and, of course, make sure that a number of Smart Sugars are part of your daily regimen.

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Expand Your Mind - Improve Your Brain - Chapter 17 Your Energy Comes From Your Mitochondria
<http://www.endowmentmed.org/content/view/826/106/>
Change Your Sugar, Change Your Life <http://DiabeticHope.com>

Smart Sugars Lesson #83
<http://www.endowmentmed.org/pdf/SmartLesson83>

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