



Glucose Metabolism, Leukemia and Diabetes Smart Sugars Lesson # 19

by JC Spencer

In this lesson, let us examine the relationship between the sugar load in the human body and Leukemia and Diabetes. Different sugars, both the good sugars and harmful sugars effect blood chemistry that can mobilize a cascade of problems or benefits in human health.

The sugars we eat and the nutrients we get help determine our health. Why are the highest incidences of cancer in western nations? The lowest recorded incidences of cancer according to WHO appears to be in the developing countries of Northern Africa, Southern and Eastern Asia.

Some people eat very poorly and then consume what may in reality be a type of antidote that keeps the bad stuff from doing as much harm. Studies provide data supporting the French Paradox which indicates that proanthocyanidins and other flavonoids in red wines prevents cardiovascular diseases and diabetes although they have high-fat diets.

How the glucose metabolism is effected is the key to serious health challenges. If we can correct sugar spikes and move toward an optimum glucose metabolism, it seems obvious that we could improve human health in a major way. When we started getting reports of diabetics having a lower sugar load in their blood while eating trehalose than when they stopped, we knew we were onto something significant.

An Australian paper about leukemia children entitled, *Altered glucose metabolism in childhood pre-B acute lymphoblastic leukaemia* reported that "the cells of solid tumours are known to have an altered metabolism, with high rates of glucose uptake and glycolysis, which results in the excessive production of lactate."

Connecting the dots of research, we learned that the phytochemicals in cinnamon are similar to those found in red wine. The United States Department of Agriculture (USDA) identified these phytochemicals as chalcone polymers, which increase glucose metabolism in the cells by 20 times or more. Cinnamon also contains flavonoids called anthocyanins which improve capillary function and also serve as powerful antioxidants.

Research suggests that cinnamon helps glucose metabolism and blood pressure regulation, actually lowering high blood pressure. Other studies published in *Diabetic Care* show cinnamon not only helps control blood sugar levels but also triglycerides, total cholesterol and the 'bad' LDL cholesterol in those with type II diabetes.

We have documented other university studies that indicate the same flavonoids found in cinnamon effects leukemia and lymphoma cells. According to some studies, these phytochemicals have the potential to be used in leukemia therapy with the advantages of being widely available and selective against tumors.

All cinnamon is not the same. European health agencies have warned against consuming high amounts of cassia bark, one of the four species of cinnamon, because of its coumarin content. Recent European studies have shown that cinnamon derived from the cassia plant contains this toxic compound, which in large concentrations, is known to cause liver and kidney damage. The powdered cinnamon found on most supermarket shelves is generally derived from the Cassia plant so it is wise to avoid using it in large amounts.

In our T/C+ Leukemia and Diabetic Pilot Survey we use a formulation of the sugar trehalose, Ceylon cinnamon, and bio-available ionic multi-trace minerals. This Pilot Survey should help us determine if there are any synergetic benefits that may include lowering blood sugar levels, helping arthritis sufferers and lowering the risk or even reversing diabetes.

Your assistance is encouraged on the Leukemia and Diabetic Pilot Survey. The same protocol will be used for both. We are not claiming any improvement in either Leukemia or Diabetes. We do not know if the combination of the three nutrients involved will benefit the health condition of participants in the Pilot Survey. Help us find these answers. Learn more at <http://www.endowmentmed.org/content/view/1164>

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