

## **Hypoglycemia Is Controllable**

*By Hesh Goldstein, NaturalNews.com*

Hypoglycemia is probably one of the most widespread disorders in America and the civilized nations today.

It is not a disease as such, but rather a symptom that arises from a wide range of hormonal abnormalities and imbalances reflecting the irregular function of many glands and organs.

Unfortunately, it often goes undiagnosed and its multitude of symptoms are frequently labeled as emotional or psychological in origin. The symptoms are usually episodic, being related to the time and content of the previous meal and are usually improved by eating.

Symptoms include nervousness, irritability, emotional problems, fatigue, depression, craving sweets, inability to concentrate, cold sweats, shakes, palpitations, tingling of the skin and scalp, dizziness, trembling, fainting, blurred vision, cold extremities, nausea, midmorning and mid-to-late afternoon tiredness, anxiety, indecisiveness, crying spells, allergies, convulsions, and hyperactivity, for openers.

To understand hypoglycemia a bit better a little psychological background is essential.

The body needs a steady supply of readily available energy to function. This energy is derived from food primarily in the form of complex carbohydrates, which are converted into their simplest common denominator, glucose, in the process of digestion.

Glucose is essential for all bodily activity and is especially necessary for the function of the nervous system and brain, which responds drastically to abnormal variations of the blood glucose level (BGL).

Normally, the BGL is kept within a very narrow range variation by various hormones, which respond rapidly to slightest of changes. Insulin from the pancreas is released when glucose enters the blood from digested food, lowering the BGL to its normal range. The sugar is then stored in the liver and muscles in the form of glycogen, or converted to fat for later use. Cortisol and growth hormone counterbalance the insulin action. If any of these hormones are secreted too rapidly or too slowly an imbalance of the BGL can occur.

If the blood glucose level rises above normal, or if glucose is delivered to the blood too rapidly, as it is following a meal of refined carbohydrates and/or excess sweets, the body deals with the excess in two ways.

One, it initiates a sudden burst of insulin to counteract what the body perceives as a very dangerous imbalance, and two, it also begins to convert the excess glucose in certain "glucose-insensitive cells" that are found in the eye, kidney, myelinated nerves, and red blood cells, first into fructose and then sorbitol.

Why this is important is since both fructose and sorbitol are relatively insoluble within the cell and tend to crystallize out, leading to cataract formation in the eye, bottom membrane thickening in the kidney, damage to nerves, and altered oxygen-carrying capacity in red blood cells. This sorbitol pathway is initiated each time the blood glucose levels rise rapidly on the glucose rollercoaster ride that hypoglycemics ride every day.

In some cases of hypoglycemia insulin is often secreted in excess, lowering the BGL too far and too fast. This is often called hyperinsulinism. The most commonly involved glands are the adrenals, pancreas, and liver. In some cases of hyperinsulinism, normal levels of insulin will appear but a reduced sensitivity to insulin will manifest. The result will be a pre-diabetes type of glucose metabolism where sugar levels remain elevated for a prolonged period and then fall below normal quickly.

The two most significant factors of hypoglycemia in the Western world are diet and stress. The SAD (Standard American Diet) is literally a prescription for hypoglycemia, with its common foods like white bread, refined grains, sugar, soda, and coffee.

Sugar and refined carbs are absorbed very quickly into the bloodstream, as they require little digestion due to the stripping of their protein and fiber in the refining process. This rapid increase in the BGL causes the pancreas to become hypersensitive to sugar.

In time the pancreas learns to secrete very large amounts of insulin in response to the rise of the BGL, causing a rapid lowering of insulin in response to the rise in BGL. This then causes a speedy lowering, below normal, of the BGL. During this low period the symptoms of hypoglycemia manifest due to the deficiency of glucose supply to the brain and the resulting adrenal shock response.

The adrenals recognize the low sugar level as an acute danger and effect an immediate and appropriate response. In time the adrenals become overstressed by these up-down emergencies and lose their ability to adequately cope with the situation.

One problem is that most people are clueless about excess white sugar, not only being a refined carbohydrate that can cause disinsulinism leading to hypoglycemia, but excess honey, maple syrup, fruit, fruit juice, dried fruit, and even vegetable juice will create such a quick rise in BGL, that pancreatic hypersensitivity will manifest.

Stress also plays a major role via the adrenals since stress is also recognized by the adrenals as an emergency situation triggering similar responses, once again overburdening the adrenals.

To further aggravate the situation, stress depletes vitamin B complex, which is essential for metabolism of carbohydrates, and vitamin C, both of which are necessary for proper adrenal function. With the carbs being stripped of vitamin B complex, now we need a vitamin b complex for utilization.

So, now we go from the rollercoaster to the merry-go-round because coffee stimulates the adrenals, mobilizing the body's energy reserves in the liver and muscles removing the body's fail-safe mechanism to keep the BGI in balance by further abusing the adrenals.

To get out of the amusement park the importance of proper diagnosis and treatment of hypoglycemia should never be underestimated.

Way back when, hypoglycemia was always considered a non-disease. Some MDs said that the label "hypoglycemia" was too often used for any emotional problems that walked into their office. As times changed and brains began to work, hypoglycemia has clearly been associated with physical, mental, and emotional disorders, including hyperactivity, schizophrenia, anti-social behavior, criminal personalities, drug addiction, impotency, alcoholism, epilepsy, asthma, allergies, ulcers, and arthritis.

In fact, there should be as much attention placed on preventing and treating hypoglycemia as has been placed on diabetes because the two disorders are often manifestations of a similar endocrine imbalance, due to the same causes.

Back in the 60s, the seriousness of hypoglycemia was pooh-poohed. Often an MD would recommend a candy bar when someone complained of weakness. Welcome to the rollercoaster. The short-term solution for the cause of the problem in the first place.

Basically, the solution is to remove the initial causes and reestablish the normal hormonal controlling mechanisms. Problem: once the pancreas has been hypersensitive to sugar over a long period of time, complete recovery is not always possible. But, it can be kept under control with a change in diet and lifestyle keeping the symptoms under control and repressed. But, go back and back come the aggravating symptoms.

What is needed is a diet of high-fiber complex carbohydrates - whole wheat bread free of sugar and high-fructose-corn-syrup, quinoa (a complete protein grain), brown rice, buckwheat, millet, etc., adding legumes or organic soy products for protein. With this, digestion will be slower.

Dried fruit, fruit, fruit juices, and fresh vegetable juices are all rapidly absorbable but should be consumed in moderation. When eating fruit it's best to be taken with some protein in the form of nuts or organic cottage cheese.

Other great foods are oatmeal, unsweetened granola, brewer's yeast (B complex), rice milk, spirulina, avocado, fresh, raw salads, baked potatoes, baked sweet potatoes, steamed cruciferous vegetables, or lightly sauteed, bran, chia seeds, onions, organic coconut oil, extra virgin olive oil, and apple cider

vinegar.

Recommended fruits are papaya, apples, grapefruit, oranges, bananas in moderation and fresh berries. Stay away from alcohol, coffee, cigarettes, and dates, figs, plums, and grapes. They are just too sweet.

Aloha!