

## Hypoglycemia and Type II Diabetes

As a patient, I have been dealing with hypoglycemia most of my life, although early on, no one knew what it was. As a nutritional biochemist, I have been working with clients having various blood sugar disorders for the past 36 years.

My symptoms growing up included: headaches and migraines, concentration difficulties, short term memory loss, cloudy thinking, afternoon slump in energy, sleepiness after meals, sleep problems and probably, social anxiety. My school grades suffered and I tended to withdraw socially to an extent. My refined sugar intake consisted of: donuts, coffee cake, iced cinnamon rolls or angel food cake and hot cocoa with marshmallows at breakfast, chocolate milk or coke and cookies with lunch, afternoon snack of Hawaiian Punch and cookies before dinner and an ice cream sundae at night. No kidding.

When I met a doctor who was doing the type of nutritional work I am today, he did tests and said that I was hypoglycemic, needed to avoid refined sugar, have protein at breakfast and before bed and recommended nutrients based upon the test results. I followed his recommendations and within about 6 weeks, it was as if I had received a brain transplant! The fog lifted and I could concentrate and retain information I was reading and my memory returned to normal. The migraines going away was worth everything. That is how I got into the field of human nutritional biochemistry and applied clinical nutrition, 36 years ago.

Now, how does hypoglycemia contribute to all of those symptoms and more, and how can it eventually go into Type II diabetes? Initially, when refined sugar is taken in, or meals are missed during the day (reactive vs fasting hypoglycemia), the blood sugar drops too low. When it does, it robs the brain and body of energy and the following symptoms are possible: tiredness, weakness, headaches, ADD, migraines, concentration difficulties, short term memory loss, depression, mood swings, afternoon slump, sleepiness after meals, sweet cravings and more.

If nothing stops the drop in blood sugar, it goes to zero and you pass out and die. To stop that from happening, the brain declares an emergency and activates the "flight or fight" system by causing a release of adrenaline, also known as epinephrine. The adrenaline is released for one reason only, to save your life by bringing the blood sugar back up to normal. If too much adrenaline is released or not broken down fast enough, the other half of blood sugar related symptoms kick in, due to the excess adrenaline. This includes: anxiety, irritability, hyperactivity, nervousness, insomnia, heart palpitations, and hot sweats or hot flashes at night.

As refined sugar intake increases and we are getting less and less trace elements in our food supply, we begin to develop mineral deficiencies, including low levels of magnesium, chromium, zinc and manganese. As these minerals, especially chromium, get lower and lower, at first the body thinks it needs to secrete more insulin to get the blood sugar under control, which can lead to hypoglycemia and unstable blood sugar. As the chromium goes very low, the insulin secretion remains high, but it doesn't work well, or it isn't sensitive without the chromium. The fasting glucose begins to rise and eventually, this can lead to Type II Diabetes.

So, there is no real mystery where Type II Diabetes comes from and the dietary and nutritional treatment is the same for severe hypoglycemics. Avoid refined sugar, severely reduce the starchy carbs, have fatty protein for breakfast and before bed, like eggs, seafood, fowl or meats, take a good multivitamin/multimineral and if that's not enough, consider getting a biochemical workup done like I did, some 36 years ago. It's made all the difference in my career and my life.

-Jay D.Foster, BS, NC, CCN  
Nutritional Biochemist  
[www.1800chemist.com](http://www.1800chemist.com)  
Hypoglycemia and Type II Diabetes

As a patient, I have been dealing with hypoglycemia most of my life, although early on, no one knew what it was. As a nutritional biochemist, I have been working with clients having various blood sugar disorders for the past 36 years.

My symptoms growing up included: headaches and migraines, concentration difficulties, short term memory loss, cloudy thinking, afternoon slump in energy, sleepiness after meals, sleep problems and probably, social anxiety. My school grades suffered and I tended to withdraw socially to an extent. My refined sugar intake consisted of: donuts, coffee cake, iced cinnamon rolls or angel food cake and hot cocoa with marshmallows at breakfast, chocolate milk or coke and cookies with lunch, afternoon snack of Hawaiian Punch and cookies before dinner and an ice cream sundae at night. No kidding.

When I met a doctor who was doing the type of nutritional work I am today, he did tests and said that I was hypoglycemic, needed to avoid refined sugar, have protein at breakfast and before bed and recommended nutrients based upon the test results. I followed his recommendations and within about 6 weeks, it was as if I had received a brain transplant! The fog lifted and I could concentrate and retain information I was reading and my memory returned to normal. The migraines going away was worth everything. That is how I got into the field of human nutritional biochemistry and applied clinical nutrition, 36 years ago.

Now, how does hypoglycemia contribute to all of those symptoms and more, and how can it eventually go into Type II diabetes? Initially, when refined sugar is taken in, or meals are missed during the day (reactive vs fasting hypoglycemia), the blood sugar drops too low. When it does, it robs the brain and body of energy and the following symptoms are possible: tiredness, weakness, headaches, ADD, migraines, concentration difficulties, short term memory loss, depression, mood swings, afternoon slump, sleepiness after meals, sweet cravings and more.

If nothing stops the drop in blood sugar, it goes to zero and you pass out and die. To stop that from happening, the brain declares an emergency and activates the "flight or fight" system by causing a release of adrenaline, also known as epinephrine. The adrenaline is released for one reason only, to save your life by bringing the blood sugar back up to normal. If too much adrenaline is released or not broken down fast enough, the other half of blood sugar related symptoms kick in, due to the excess adrenaline. This includes: anxiety, irritability, hyperactivity, nervousness, insomnia, heart palpitations, and hot sweats or hot flashes at night.

As refined sugar intake increases and we are getting less and less trace elements in our food supply, we begin to develop mineral deficiencies, including low levels of magnesium, chromium, zinc and manganese. As these minerals, especially chromium, get lower and lower, at first the body thinks it needs to secrete more insulin to get the blood sugar under control, which can lead to hypoglycemia and unstable blood sugar. As the chromium goes very low, the insulin secretion remains high, but it doesn't work well, or it isn't sensitive without the chromium. The fasting glucose begins to rise and eventually, this can lead to Type II Diabetes.

So, there is no real mystery where Type II Diabetes comes from and the dietary and nutritional treatment is the same for severe hypoglycemics. Avoid refined sugar, severely reduce the starchy carbs, have fatty protein for breakfast and before bed, like eggs, seafood, fowl or meats, take a good multivitamin/multimineral and if that's not enough, consider getting a biochemical workup done like I did, some 36 years ago. It's made all the difference in my career and my life.

-Jay D.Foster, BS, NC, CCN  
Nutritional Biochemist  
[www.1800chemist.com](http://www.1800chemist.com)