



---

## **HYPOGLYCEMIA & INSULIN RESISTANCE**

The most common blood sugar problems encountered are the blood sugar instability conditions of Hypoglycemia and Insulin Resistance.

### **HYPOGLYCEMIA**

This is more a process than a condition. The blood sugar levels do not remain steady, but dip downward too low at times.

Causes include:

- ✓ Eating a lot of refined carbs
- ✓ Eating too infrequently
- ✓ Early stages of adrenal stress or fatigue affecting cortisol and epinephrine output
- ✓ Stress, which also affects adrenal function
- ✓ Overuse of stimulants like colas and coffee
- ✓ Deficiency of B complex vitamins and the minerals required for the Energy Pathway to function properly
- ✓ Hypothyroid function
- ✓ Other

Symptoms of Hypoglycemia include shakiness, irritability, headache, inability to concentrate – relieved by eating.

### **INSULIN RESISTANCE**

This is also more of a process than a condition. In this case cells become desensitized and resist the entry of insulin. Insulin also becomes less potent.

- ✓ Overeating carbs, especially refined carbs
- ✓ Zinc deficiency, making insulin less potent
- ✓ Chromium and manganese deficiency needed for insulin's transport across cell membranes
- ✓ Ingestion of trans fats, making "stupid" cell membranes that do not function properly
- ✓ EFA deficiency contributing to cell membrane resistance
- ✓ Other deficiencies or toxicities that interfere with insulin or cell membrane functions

Signs and Symptoms Include:

1. Increasing levels of insulin in the blood, which is less and less effective at removing sugars and blood fats out of the blood stream.
2. Unstable blood sugar levels – ups and downs.
3. Sweet cravings, carb cravings and frequent hunger because glycogen and fat stores are not being released between meals due to excess insulin.
4. Weight gain, as fat cannot be released from storage.
5. Increasing hyperglycemia.



- 
6. Increasing levels of triglycerides and cholesterol
  7. Cardiovascular stress from high insulin and high blood sugar, leading to blood vessel damage and atherosclerosis.
  8. Blood thickening from high triglycerides.

As insulin resistance increases, it leads to Diabetes Type 2 and/or Syndrome X

Copyright © 2003, by Dr. Janet R. Lang DC