

## Food Cravings, Mood & Insulin Resistance

Food cravings are typically not just psychological. These cravings frequently have a physiological component that is often overlooked and needs to be addressed to effectively deal with the problem. Food cravings are a struggle for people with binge-eating disorders or who are compulsive eaters, and may also be a struggle for persons experiencing depression and/or anxiety, abusing alcohol, experiencing excessive stress, or taking certain medications that are notorious for causing weight gain (eg. antipsychotic medications). These persons tend to crave carbohydrates, especially the refined carbs, and tend to put on weight in their midsection when they eat those excessive refined carbs. This creates what medical researchers refer to as the apple-shaped body that has been found to be associated with the development of heart disease, diabetes, cancers and other disorders. So what is behind these cravings?

Eating complex carbs in the short term give a sense of calm and well-being. That is the reason people eat comfort foods in an attempt to cope when emotionally down, anxious or stressed – they consume candy, alcohol, cookies, pasta, and other refined carbs that result in feeling better in the moment. They often need to continue eating the carbs to maintain the sense of wellbeing, or they find their mood dives. Often this pattern is not so much because of a conscious decision to make themselves feel better, but rather it's just what they do.

Too much carbs, especially the refined carbs like highly processed foods, sugars and white flour, result in a rapid rise in blood sugar. This can also result in a negative impact on mood and energy. Refined carbs are quickly converted into glucose and create high blood sugars. High blood sugar results in the pancreas being called on to produce large amounts of insulin to carry the glucose into the cells to be used for energy. If the pattern of excessive amounts of insulin occurs repeatedly, the cells can then become resistant to the insulin, creating the condition called insulin resistance.

When insulin resistance occurs and a person continues to eat the refined carbs, the body sustains high blood insulin levels. The blood sugar, however, may stay normal because the body starts storing the excess blood glucose in adipose tissue creating more midsection body fat. Other symptoms of insulin resistance evolve over time. These symptoms occur because insulin has many additional jobs other than just transporting the glucose into the cells. Insulin communicates many messages to our genes such as “store fat”, “make more cholesterol”, “increase blood pressure”, “increase atherosclerosis”, “increase blood clotting”, “increase inflammation”, and many others. This is the reason we see the cluster of symptoms that we now use to identify insulin resistance is occurring: midline obesity, high cholesterol, high blood pressure, cardiovascular disease, hormonal changes causing polycystic ovary disease and excessive testosterone causing excess body hair, and other inflammatory diseases. Each of these in turn can cause additional symptoms and disease states. Depression can be one of the consequences of insulin resistance as hormones and neurotransmitters are affected. Also important to note, even persons who are normal weight or thin who eat this way can be insulin resistant/ develop metabolic syndrome.

So what can a person do to prevent and/or treat insulin resistance? Key to answering this is looking back at those foods that cause a high, rapid rise in blood sugar. These foods are referred to as having a high GI – Glycemic Index. Those carbohydrates that are not highly processed typically have a lower GI. Low GI foods are slower to be digested and so make the blood glucose rise more slowly and often not so high, thus the insulin is available and effective to carry the glucose into the cells to be used for energy. Thus, the following guidelines are helpful:

1. Eat a diet rich in protein at each meal and low GI foods such as the complex carbohydrates found in fruits and vegetables. Limit refined carbs such as candy, most pastries, pop, pasta, refined flour breads, and other high glycemic index foods like potatoes and white rice.
2. Eat 5 – 7 small meals/day with adequate calories to cover energy expended. Don't skip meals.
3. Do aerobic exercise to increase the effectiveness of insulin – preferably at least 30 minutes, 5 – 7 times each week.
4. Consider a variety of supplements that increase the effectiveness of insulin:
  - Chromium
  - Vanadium
  - Zinc
  - Magnesium
  - Alpha-Lipoic Acid
  - Vitamins A, E and C
  - Biotin
  - Taurine
  - Omega-3 fatty acids from fish oil

Making the food mood connection is essential so people can be thoughtful about their choices and understand what is happening to them. Many times when people present with psychological problems such as eating disorders, depression, alcoholism, problems with anger or a variety of physical problems such as sleep apnea, low energy, infertility, obesity, diabetes, or heart disease – a contributing factor may be a problem with how they are eating. Food cravings for carbs in particular can be a red flag. To fully resolve the issues or manage the condition, dietary and lifestyle considerations need to be addressed.

This information has been adapted primarily from these sources, solely for the education of my clients.

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1. Michael Kaplan, DC, Kaplan Health and Wellness, Golden Valley, MN.
2. The South Beach Diet, Arthur Agatston, MD
3. The Inflammation Cure, William Joel Meggs, MD
4. The Diet Cure, Julia Ross, MA