

## The Stress & Diet Connection-

### How Sugar Affects the Stress Hormone Cortisol

Food is not just nutrients. It also contains information to help regulate systems in the body. How much, how often and what types of food you eat will determine how your body will respond. Constant fluctuations in blood glucose create one of the body's most stressful conditions. Low blood sugar triggers the adrenal glands to produce cortisol, which stimulates cells to begin producing more glucose.

When you eat foods high in carbohydrates (sweets, unrefined sugars, high glycemic index/load foods), you trigger high amounts of insulin production from your pancreas. The overproduction of insulin helps drive glucose levels down quickly and results in a lower than optimal blood sugar level for a short period of time. This often occurs a short time after lunch, making you feel sleepy. Cortisol, a hormone produced within the HPA axis will help stabilize low blood sugar levels within 30 to 40 minutes. However, some people may self-medicate with chocolate or coffee, triggering another round of high insulin. When this cycle of glycemic stress is repeated over and over again, it places a constant burden on the HPA axis.

Keeping a food diary for 7 days may be helpful to objectively assess your food intake to determine the burden you may be placing on your body. **Controlling glycemic response by choosing foods that promote glycemic stability is a critical lifestyle change to relieve chronic stress.** Foods with a low glycemic index that also contain high soluble fiber will help ease insulin spikes that drive blood glucose below normal.

- Breakfast is especially important. Eating a breakfast with proper glycemic balance, which includes good sources of both protein and fat, starts the day off right. *Plan to eat breakfast every morning.*
- Eating more fruits and vegetables will help reduce inflammation, a common burden to the stress response system and will help increase dietary fiber, which helps balance blood sugar.
- Eat protein with each meal (especially breakfast).
- Avoid trans-fats and omega-6 fatty acids.
- Increase omega-3 fatty acids (fish, fish oil, green leafy vegetables, flaxseeds).
- Reduce intake of high glycemic index carbohydrates and sugars. A good online resource can be found at <http://www.fags.org/nutrition/Foo-Hea/Glycemic-Index.html>
- Schedule “comfort foods” so you won’t splurge because you feel deprived.
- Limit caffeine, alcohol, fried foods and sweets.