

Reactive Hypoglycemia (RHG), Insulin Resistance: FMS & CMP Perpetuating Factor by Devin J. Starlanyl

Adapted From "Fibromyalgia and Myofascial Pain: A Survival Manual,
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Far too many care providers refuse to believe that these conditions exist, in spite of all the research to the contrary. Reactive hypoglycemia is not the same as fasting hypoglycemia, which is low blood sugar that occurs when you don't eat. Reactive hypoglycemia is not always picked up on routine medical tests. It usually occurs two to three hours after a high carbohydrate meal, overstimulating the release of insulin, which triggers a compensatory adrenalin response. Hypoglycemia appears to induce abnormalities in decision-making processes (Blackman, Towle, Lewis et al. 1990) and can contribute to our fibrofog.

Some symptoms of hypoglycemia (tremor, palpitations, anxiety, sweating, hunger, paresthesias) are due to changes caused by the response of the autonomic nervous system. Other symptoms (confusion, sensation of warmth, weakness or fatigue, severe cognitive failure, seizure, coma) are the results of brain glucose deprivation itself (Cryer, 1999). Coexisting RHG makes treatment of FMS and CMP extremely difficult. Myofascial TrP activity is so aggravated by it that it doesn't make sense to treat TrPs unless the hypoglycemia is treated also (Simons 1989).

When your body no longer responds appropriately to the insulin that you produce, you have developed IR. Insulin resistance can be serious. Activation of the HPA axis and the central sympathetic nervous system can cause endocrine abnormalities, insulin resistance, and other symptoms leading to disease states, including Type 2 diabetes (Bjorntorp, Holm and Rosamund, 1999). Normal blood sugar levels with coexisting high insulin, associated with obesity or problems in fat metabolism, could be considered as "normoglycemic diabetes", which will develop in time toward hyperglycemia (Ionescu-Tirgoviste, 1998). This would be a case of IR leading to RHG, instead of the other way around. Abdominal obesity, the fat pad over the belly, is a clinical marker of insulin resistance (Grundy, 1999) and is common in FMS. Abdominal obesity and neuroendocrine/HPA axis dysfunction are predictors for disease (Bjorntorp, P. and R. Rosmond, 2000). A lax, pendulous abdomen is associated with certain TrPs (Simons, Travell and Simons, 1999). Insulin-resistant individuals have difficulty in both using insulin to stimulate muscle glucose use and breaking down fat for use (Abbasi, McLaughlin, Lamendola et al. 2000).

One inexpensive over-the-counter supplement that may help normalize the sensitivity of your body to insulin is the amino acid taurine. Taurine is an amino acid

that cats can't make themselves, so cat food has taurine added. Taurine may help us avoid the fibrofat belly pad, linked to insulin resistance (Anuradha, and Balakrishnan. 1999). Inositol is a key supplement that may enable people with RHG and IR to appropriately use the insulin that they produce.

Dr. R. Paul St. Amand found that there is a subset of people with reactive hypoglycemia (St. Amand and Marek, 2000). The symptoms he lists include: headaches, dizziness, irritability, chronic fatigue, depression, nervousness, difficulty with memory and concentration, nasal congestion, heavy dreaming, palpitations or heart pounding, day or night sweats, anxiety in the pit of the stomach, leg cramps, numbness and tingling in the hands and/or feet, flushing, and craving for carbohydrates and sweets. Most of these symptoms diminish five or ten minutes after eating sugar. Symptoms often worsen before menstrual periods and become severe after childbirth. When patients with this combination are put on a limited carbohydrate diet, they often feel improvement after seven to ten days. They are seven to ten very uncomfortable days. The headache and fatigue can be extreme. If you are aware that sugar can ease the symptoms in the short term, you will be tempted to cheat. Caffeine must be avoided on this diet. Insulin effects are greatly enhanced by caffeine, because it blocks the enzyme phosphodiesterase.

I use whey protein or egg white powder to help keep a good balance in my diet. I add the unflavored whey to some foods. It makes a great thickener in some recipes; for example, in vegetable puree soups with a chicken broth base. I make a "milk shake" using vanilla protein powder, frozen wild blueberries, and 2% milk. A little vanilla-flavored powder in applesauce can balance a meal that otherwise would be too low in protein.

It helps me to check the Zone recipe book (see the Reading List). After I look at those recipes, it is easier for me to judge how much protein and carbohydrate to use. There is usually enough fat in with the protein and carbohydrate. I have been told that a serving of vegetables is about the size of a hockey puck, and a serving of protein is about the size of a bar of soap, but this depends on the food chosen. It is important to know the glycemic index of your food as well.

The glycemic index measures how fast a food raises your blood sugar levels and how quickly your body responds to it. High glycemic index foods raise blood sugar quickly. The glycemic index of the food depends on the type of sugar in the carbohydrate, the amount of fiber in the food, the amount of protein and fat in the food, and the method of cooking or processing of the food (Daoust and Daoust, 1996). Generally, the more fiber, protein, or fat in a food, the lower its glycemic index. Highly processed foods, or foods high in refined sugars or flours, are typically high-glycemic.

Dr. Sears, the author of the Zone books, found that the best ratio for food balancing is 3 grams of protein to 4 grams of carbohydrate. Protein should comprise 30

percent of the diet, fats 30 percent, and carbohydrates 40 percent. Each time you eat either a meal or a snack, your food intake should match the 30/30/40 ratio because there is a need for a balanced hormonal response every time you eat. You need to adjust caloric intake to meet the needs of your metabolism and exercise. Your food cravings will become less intense once you are eating the proper balance and amounts of food. Here are four things you can do that can help modify your carbohydrate cravings:

1. Eat moderate amounts of fat. Fat will decrease the flow of carbohydrates into the bloodstream, and decrease carbo craving.
2. Cut down on the amount of carbohydrates.
3. Eat protein as part of every meal and snack. It helps use up the fat stored in your body.
4. Exercise regularly, to decrease the amount of insulin in your blood.

One study found that short-term exercise is even more effective than diet in enhancing insulin action in individuals with abnormal glucose tolerance (Arciero, Vukovich, Holloszy et al. 1999), so don't neglect this important avenue for insulin control. The balancing benefits of exercise could be wiped out if you drink a high-carbohydrate sports "energy" beverage to "recover" afterwards.

There is a difference between wanting food and being hungry. That sentence would be a good topic for a meditation. Explore that difference. People often overeat to relieve stress. Eat when you are hungry, and eat just enough to stop the hunger. If you have a problem with traditional breakfast foods, try eating a balanced, nutritional nontraditional breakfast of things you like.

You may find that taking a walk before or after a meal aids your digestion and reduces stress.

Learn to eat like a gourmet. Eat slowly, chew thoughtfully, and enjoy each bite. Eat less, but eat mindfully, and you will be satisfied.