

Keeping Blood Sugar in Check

Your best strategy for balancing blood sugar is with FOOD – the right balance of macronutrients (carbohydrates, fat, and protein). Too much or too little of any macronutrient can thwart your efforts to keep blood sugar stable. Aim for a roughly 40/30/30 ratio with your macronutrient balance – carbs, protein, and fat respectively. But this doesn't mean you have to carry a gram counter in your pocket – it's all about smart eyeballing.

Carbohydrates

Carbs come in two forms – simple and complex. Foods made with sugar and refined flour, like pastries, bagels, cookies, and cakes, and many of today's processed, prepackaged foods, are comprised of simple carbs that break down rapidly and go straight to the bloodstream, causing blood sugar to spike and then plummet due to a surge in insulin from the pancreas.

With this blood sugar crash comes what I call "the pit," severe hypoglycemia and a dip in energy and crazy hunger that make you reach for another donut before lunch. Because the body is constantly in search of homeostasis, it wants the equivalent high to the low you subjected it to, thus the craving for the spike-inducing donut. Your stress-sensitive thyroid and adrenals hate this roller coaster, because it's a true emergency state for the body. A bucking bronco.

Complex carbs, on the other hand, don't rush to the bloodstream and save you from the blood sugar roller coaster. *True* whole grains (where you can see the grain), legumes, vegetables, and low-sugar/low glycemic fruits like berries take longer to digest and dole our their energy-giving over a period of time. Maintaining steady blood sugar and getting off the blood sugar bungee cord is critical for maintaining vital energy, for keeping our metabolism burning, and for warding off diabetes.

Keep in mind that fruits and vegetables are carbs too. Non-starchy vegetables can be eaten with to your heart's desire and your best choices for fruit are low-sugar, low-glycemic fruits, not high-sugar, tropical fruits like bananas, pineapple, mango, etc.

Fat and protein slow the release of sugar – any form of sugar, including the glucose from carbs – into the bloodstream...

Fat

I'm not talking about those nasty trans fats that you find in a lot of cheap, processed foods. Quality sources of fat include olives and olive oil, avocados, flax seeds, fish, nuts and nut butters, hormone- and antibiotic-free full fat dairy (yes, full fat, not skim), ghee (butter oil), coconut oil, and coconut milk products.

Jill Grunewald

Holistic Nutrition Coach www.healthfulelements.com jill@healthfulelements.com 612.840.2034

ı



Please read food labels carefully and avoid those trans fats that are often found in fast foods, French fries, fried desserts, donuts, margarine, muffins, crackers, cookies, cakes, and microwave popcorn, to name a few. Food manufacturers are required by law to put the trans fat content on food labels and the this is the first place your eyes should go on a label. Trans fat is man-made fat that comes from dubious preparation processes and has been strongly linked to degenerative disease.

Omega-3s, found in fish, grassfed animal products, flaxseeds, and walnuts, are the building blocks for hormones that control immune function and cell growth, and are critical to thyroid function because they're required for the integrity of cellular membrane structure and improve your ability to respond to thyroid hormones efficiently. I recommend taking supplemental Omega-3s daily in the form of high quality, mercury-free, molecularly-distilled, third-party tested fish oil.

Protein

Protein is required to transport thyroid hormone through the bloodstream to all your tissues and eating it at each meal will help improve and normalize metabolism. Protein sources include meat and fish, eggs, dairy, nuts and nut butters, legumes (such as lentils and beans), soy products (which I'm not crazy about), quinoa (a seed, but often referred to as a grain), and powdered protein supplements.

About vegetarianism. I am not a vegetarian and I encourage my clients to incorporate animal protein into their diet. I get vegetarianism. If I could be a vegetarian and feel the way I want to feel, I would do it in a nanosecond. Animal protein helps keep us sharp, energized, centered, satiated, keeps metabolism burning, and keeps blood sugar stable.

I am conscious and intentional about where my meat and dairy come from and if you eat meat and dairy, I ask that you do the same. Remember, you are what you eat, and you are what you eat eats, so it's important that the animals we consume were fed their natural diet. Most animals from small to mid-sized local farms are raised naturally and not force-fed grains and other feed that they have difficulty digesting and which can lead to acidosis.

The antibiotics and synthetic hormones that conventionally-raised animals are injected with have no place in their bodies or ours. These unnatural hormones can disrupt your own delicate endocrine balance, including your thyroid hormones, and should be avoided.

Sources for sustainably-raised meats (and other whole foods):

Eat Well Guide - www.eatwellguide.org Local Harvest - www.localharvest.org Eat Wild - www.eatwild.com

Jill Grunewald

Holistic Nutrition Coach www.healthfulelements.com jill@healthfulelements.com 612.840.2034



These simple strategies can also help stabilize your blood sugar and keep you off the blood sugar bungee cord:

Lemon

The citric acid in lemon slows the release of blood sugar. The antioxidants and minerals in lemon improve insulin signaling, boost liver function, and stabilize blood sugar. Use lemon in as many foods as possible and squeeze it into your water. Warm lemon water upon waking is a great habit to get into – very detoxifying.

Fermented Foods

These foods slow the release of blood sugar and provide enzymes, probiotics, and bioactive nutrients that enhance blood sugar signaling. Fermented foods include kefir (including coconut kefir), kombucha, yogurt, raw cheese, sauerkraut, pickles, natto, and kimchi. Try to eat fermented foods daily.

Cinnamon

Cinnamon has been shown to improve insulin receptor sensitivity and to slow the enzymes that make insulin receptors inactive. Cinnamon is also a very powerful antioxidant that reduces systemic inflammation. Cinnamon tea is a great blood sugar stabilizer and will knock a sweet tooth right out.

Apple Cider Vinegar

Vinegar is high in acetic acid, which has been shown to reduce the glycemic response of a typical carbohydrate based meal by 31%. Another study reduced a carbohydrate meal from a typical glycemic index of 100 to 64 (www.naturalnews.com). Apple cider vinegar (ACV) also provides enzymes, probiotics and trace minerals that enhance blood sugar signaling. Use ACV on as many foods as possible. One tablespoon of ACV in a glass of water is a great substitute for wine.

Chromium

Chromium helps maintain normal blood sugar and insulin levels to a great degree. The primary function of chromium is to increase the action of insulin. Concentrated foods sources of chromium include oysters, whole grains, potatoes, onions, tomatoes, brewer's yeast, and bran cereals. It can also be taken as a supplement.

Alpha lipoic acid

Alpha lipoic acid has been shown to prevent insulin resistance and can decrease the stress and anxiety associated with low blood sugar. A study published in the May 2010 issue of the "American Journal of Physiology. Regulatory, Integrative and Comparative Physiology," showed that alpha-lipoic acid prevented diabetes in a study of laboratory animals fed a high-fructose diet. Organ meat, red meat, and brewer's yeast are the best sources of alpha lipoic acid. It can also be taken as a supplement.

Jill Grunewald



Additional Tips:

- Consume NO high-fructose corn syrup or hydrogenated fats.
- Don't drink your calories in the form of juice and soda.
- Slow the rate of sugar uptake by balancing your meals with adequate amounts of clean protein and healthful fats.
- Eat plenty of soluble fiber (30 to 50 grams a day).
- Give your cells an oil change with omega-3 fats, which help cell membranes receive messages from insulin.
- Move your body in any way that feels good to you. Exercise improves your cells' ability to perform, respond to insulin, and burn sugar.
- Relax. Stress reduction helps balance blood sugar levels.

NOTE: Despite mainstream advice, smaller, more frequent meals (grazing) is NOT a blood sugar (or weight loss) strategy. When we eat mini meals throughout the day, the body says, "Fine, I'm going to burn what you feed me vs. burning stored fat."

JJ Virgin, nutrition and fitness expert, states, "I don't recommend eating every 2-3 hours. This keeps blood sugar and insulin elevated above fasting levels, which blocks fat burning and makes your body better at burning sugar rather than fat."

From Dr. John Douillard:

"Eat three – not six – meals, which gives the intestinal tract time in between meals to rest and heal. If you have erratic eating habits, such as "grazing all day," the digestive fire is always on and soon the incessant digestive process begins to irritate the intestinal wall.

"In the old days, a farmer could spend hours in the fields with no problem. Imagine if they had to come into the house every 2-3 hours for a snack. This kind of blood sugar instability is a modern day imbalance.

"Six meals a day is a medicinal diet for treating the symptoms of severe hypoglycemia. It was never intended to be a way of life. Nowhere else in the world have humans eaten constantly until this vain American experiment. We are told that eating six meals a day will help us lose weight by keeping the metabolism high and revved up and that it won't let the body store fat.

"We are not meant to have our metabolism revved up all day. **It depletes and exhausts the adrenals** (which ultimately causes fat storage) and never gives digestion a rest. While we won't store fat eating every 2-3 hours, we also will never burn any stored fat. Cancer causing toxins are stored in our fat cells and the fat needs a reason to burn.

"With blood sugars artificially propped up from constant feeding, the ability to make energy last is replaced with fragile energy, constant hunger, mood instability and extreme cravings if a meal or snack is missed."

Jill Grunewald

Holistic Nutrition Coach www.healthfulelements.com jill@healthfulelements.com 612.840.2034