

WHY MAINTAIN LOW INSULIN:

- What if chronic diseases were just the symptoms of insulin resistance, or the body's inability to efficiently use glucose for energy at the cellular level?
- What exactly is Insulin Resistance (IR)?
- And, if one is IR, how does one restore the body's proper use of insulin to minimize or eliminate serious chronic and communicable diseases?

Most diet programs incorrectly assume you have a healthy body, but that you are just simply overweight. This excess energy storage is called being "overweight," "fat" or "obese." Actually, at the core of this energy overload, is IR and estimates are 50 to 70 percent of Americans cannot process sugars, carbohydrates and grains.

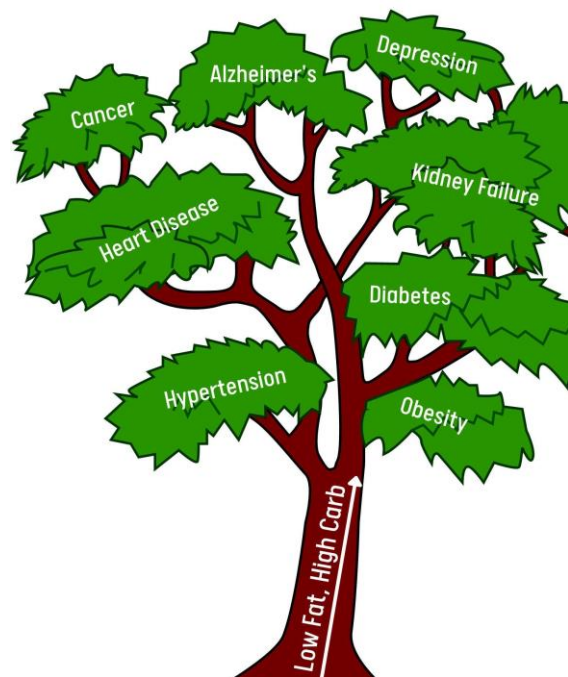
Estimates of IR vary, but are quite high, more than 84 million people ages 18 and older have "prediabetes" in the United States. That's about 1 out of every 3 adults [NIH] and 40 percent of young adults aged 18 to 44 are insulin resistant.¹

Chiropractor Dr. Eric Berg claims in a number of YouTube teaching recordings that 50 to 70 percent of Americans are IR. What does that mean? IR individuals, both children and adults are not able to absorb nutrients from foods into the body's cells and then metabolize these nutrients for energy. IR people are not just overweight, but quite possibly struggling with malnutrition.

Insulin resistance (IR) results in "metabolic syndrome (MetS)." Metabolic syndrome (MetS), also variously known as syndrome X, Insulin resistance, etc., in the literature, is really not a single disease but a constellation of disease risk factors and is defined slightly differently by various health organizations.

For example, the three most popular cardiovascular disease definitions and measures used for surveys and health care plans are the presence of insulin resistance or glucose, high HDL cholesterol and triglycerides, waist/hip ratio, and high blood pressure.

What Is Insulin and IR? Insulin is a hormone. Insulin is a vital messenger hormone that tells your body to store fat as fat is essential for transporting vitamins and minerals to cells across the body. Today, after years of excessive insulin response to a diet of sugars, grains and even lean proteins (the fat-free diet fad taught us to avoid fats starting in the 1960s), IR causes cells to shut out circulating glucose from the



¹ <https://academic.oup.com/jcem/advance-article/doi/10.1210/clinem/dgab645/6362635?guestAccessKey=5b7c3daf-2030-47db-92ef-6e6388e691ba>

blood intended for energy. Where does the glucose go? Excess glucose circulates in the blood, triggering the pancreas to release more insulin. Over time blood becomes overloaded with glucose and excess insulin causing insulin resistance or IR. Metabolic Syndrome and IR are signaled by obesity, high blood pressure, high triglycerides, and chronic conditions like type 2 diabetes, coronary artery disease, and Alzheimer's.

How Should Insulin Work? A healthy body should produce a first phase of insulin in response to a carbohydrate in a meal, and a second phase to mop up broken down sugars which occur later in one or two hours. Healthy people can handle a complex carb and it is indeed a "good carb," because the body responds appropriately to utilize the sugars from the breakdown of carbohydrates over time.

However, the problem arises when the body does not release a second phase of insulin, or the body's cells are unresponsive to the release of insulin, leaving the sugars to circulate in the blood. It is not too much to say, that in this case, there are NO GOOD CARBS! Why? Because even if the sugars and grains are broken down more slowly, they still trigger high blood glucose and a high insulin response that is ineffective to maintain a healthy blood sugar. The general population today still holds and operates, after decades of the government's food pyramid guidance, that fats are to be avoided and grains and sugars are either "healthy" or are part of the standard American diet.

You can be eating "good carbs," but the delayed blood sugar will still be stored as fat. If you are overweight or obese, your body will produce even more insulin to maintain your current fat storage. Ignoring insulin resistance is concerning as every day the body stores more and more fat stores, abnormal HDL develops, as high blood pressure, heart disease, and risk for breast cancer and endometrial cancer increases and more.

Is There a Way Back? How does restoration or insulin normalization occur for the massive numbers of us who are insulin resistant? Give the pancreas a rest! Yes. Sure the first thing is to eliminate foods that stimulate insulin response like the obvious sugar laden processed foods and baked goods made from grains, but there are other foods to watch as well like PROTEINS! There is a burgeoning worldwide movement advocating for another energy source which suggests that maintaining low insulin levels by limiting intake to 20 -30 carbs daily, and (here's a new one!) consuming proteins in the right relationship to fat. Yes. Who knew! Fat mitigates the effect of lean protein on insulin release in the body. There is an emerging INSULIN INDEX not just a Glycemic Index.

Glycemic and Insulin Indexes

All proteins are not equal—some stimulate insulin production more than others. In addition to knowing the glycemic index of foods, and maintaining a very low GI, we must also know the Insulin Index of a food. Remember there are NO essential carbohydrates, but the body does need to replace essential amino acids found in proteins and essential fatty acids in oils and fats.

In addition to the GLYCEMIC INDEX (sugar index) measuring the speed at which a food becomes sugar in the body and causes an insulin response, there is also an INSULIN INDEX measuring the insulin response of other non-glycemic foods. For example, whey protein and lean beef are high on the insulin index and can cause the body to release as much insulin as a complex carbohydrate like an oatmeal breakfast! Again, high insulin stops weight loss and stores fat.

Good News! Nephrologist Dr. Jason Fung has become known for treating patients in kidney failure with diet and fasting. Fung says,

animal protein increases insulin. If you eat animal protein, aim for 0.8 grams (or less) of protein per kilogram of lean body mass. So, if you weigh 150 pounds, you would be getting 50 to 55 grams of protein per day.

Avoiding fats like the fad of eating egg whites is, for many, wrongheaded. We are back to eating eggs as the fat of the yolk is dense with essential fatty acids and it does not stimulate insulin secretion. Calorie dense fats consumed as the majority of your calories are essential to weight loss and, according to Dr. Fung and Berg, to walking back insulin resistance.

Pea Protein Powder v. Whey

What about protein powder supplements? If using a protein supplement it is important to choose the right one, Whey protein spikes insulin faster than white bread,² but pea protein has a smaller insulin response than whey protein, largely because its breakdown and utilization by the body is slower. The gradual absorption rate can satisfy longer and put less stress on the body to balance blood sugar.

Consider, again, that all proteins can stimulate insulin release. Fats do not and will actually mitigate a high insulin response to protein. With pea protein, consider two scoops of vanilla protein powder with 4 tablespoons of coconut oil in a protein ball recipe. Protein powder can help in the transition away from SUGARS and GRAINS and can nourish” the body and keep you moving away from the sugar that has controlled eating for so long.

Regaining balance from insulin resistance can be a long-term project—months or even a year or two, or a season. It is possible to lower your insulin with intermittent fasting (no food, no insulin release!), moderate protein, high fat, and very low carb intake. The ratio of daily macros (not counting calories) is 70% fat, 25% protein and 5% carbs. This ratio works to keep insulin release low allowing the body to restore and without carbs and sugars to trigger insulin to move more easily into intermittent fasting.

<https://vimeo.com/623735433>

Intermittent Fasting

Intermittent fasting can take the form of stretching the time between eating from a 4-to-6-hour window of eating for three meals in the beginning to 12 hours (not eating after dinner at 6 until breakfast the next morning) to not eating after dinner and “fasting” until lunch the next day (18 hours). This decreases the window to two meals a day giving the body a rest for restoration instead of digestion.

For a season, use the right ratio of protein to healthy fats—avocado, coconut oil, olive oil, and butter—to an abundance of low glycemic (green) vegetables, but no fruit, to satisfy hunger and also reduce insulin levels.

This mode of eating and supplying nutrition to our bodies can be surprisingly manageable even to eating one meal a day. Every couple of months, Dr. Berg and Fung suggest a 24 to 48 to 72-hour fast as a

² <https://pescience.com/blogs/blog/lesson-9-avoid-massive-insulin-spikes-from-your-whey>

wonderful cell detoxifier and immunity building exercise (look up autophagy in a fasting period). And in the end, Dr. Berg explains, “get healthy to lose weight; don’t lose weight to get healthy.”

Dr. Jason Fung: Five Stages of Fasting

Stage 1: Feeding Stage. 0-4 hours after a meal. Body is burning sugars from food consumed and storing excess as glycogen in the liver

Stage 2: Post Absorptive State. 4-16 hours after eating. Uses glucose stored in the liver. Cortisol, noradrenalin, and human growth hormone all rise.

Stage 3: Gluconeogenesis. Greater than 24 hours fasting. Production of glucose from proteins. Autophagy. Detoxes cells, cells are repaired and rejuvenated.

Stage 4: Ketosis. 48 hours. Liver breaks fat into ketones.

Stage 5: Protein conservation. Greater than 1 week fasting. Most of energy from fat burning. Low hunger.

Carbs v Calories

Keep in mind, the FAT to PROTEIN to CARB ratio is critical to manage nutrition and hunger for those with IR. There are many NO SUGAR-NO GRAIN recipes and some KETO recipes to help gauge how to proceed. Again, there is a significant shift required in eating NO SUGAR-NO GRAINS. Instead of counting energy in the food – calories, NO SUGAR-NO GRAINS manages internal chemistry to sidestep the growing number of IR people, who cannot manage the SUGAR-GRAINS-LEAN PROTEIN food pyramid recommendations.

If you need to lose 50 pounds or more, you may say why even try when 90 percent of dieters fail? The paradigm shift occurs when you decide that a healthy body will right itself. You can produce the right amount of insulin, maintain healthy organs and muscles, and clear your brain to work efficiently into your elder years. A healthy body will settle on a healthy weight. Getting and keeping a healthy body can be achieved in stages. Settling on a daily diet which includes proper nutritional values and the right ratio of FATS-PROTEINS-CARBS to balance insulin levels is the foundation, then a plan can be made to balance sex hormones and other factors in good health practices.

The first step is to eliminate processed sugars and high glycemic foods that turn quickly to glucose. Sugar, whether the granulated white stuff or grains like wheat, rice, etc., can powerfully addict, but helpfully the combination of protein and fat will eliminate cravings and hunger while burning fat.

Low insulin must be maintained consistently and without a break so the body is not storing more fat. The body burns fat in the state of low insulin. Eat a ratio of 70% fat, 25% protein and 5% carbs. Use ground chuck instead of ground round. When eating a steak Dr. Tandra Cooks says she smothers it in butter, but a delicious bearnaise sauce works too! Add as much green vegetables to the day’s fare as you like and find or make a great sugar-free salad dressing with delicious oils – no more fat free. Cook with coconut or avocado oil to add flavor and satiety. Be generous with tasty herbs and spices. Garlic, turmeric, rosemary, thyme, basil, and be sure to use a mineral rich Celtic or pink salt to flavor your food. Nothing out of a bag, a box, or a drive through window!

Fat Burner or Glucose Burner – The Choice is Yours! After a few weeks, you may be delighted to find far less aches and pains, better sleep, and fewer cravings. You are ready to ramp up to the next level. A fat burning diet should consist of 15 to 30% protein (around 50 grams for a 150 lb. lean mass person), 5 to 10% complex carbs, and 60 to 75 % healthy fat. Fats carry nutrients to your cells, slow the breakdown of protein, and provide fuel without any insulin response. No fear of fat!! The goal in this initial stage is to maintain low blood insulin levels so you are burning fat every day without being hungry. Your body will burn stored fat, consumed fat and produce ketones instead of glucose to feed your brain and give you energy.

After a few months, you are well on your way to developing eating habits and patterns that move you from a sugar burner/fat storer to a fat burner. Now you can be successful with intermittent fasting. Many like to push their eating window to 5-6 hours, say noon to five; then there is 18+ hours to restore, reboot and regenerate healthy metabolism every day. SUGARS and GRAINS and snacking will sabotage this eating pattern.

Again, do not rush the process. A sugar-addicted SAD-consuming overweight person will likely find it difficult to quickly jump into a low insulin fat burning state, which would make intermittent daily fasting a short-lived misery for them. Without the sugar cravings and seesawing blood sugar, you will find intermittent fasting manageable, energy enhancing, and freeing. It took a long time to develop insulin resistance. The way back is clear. The research over the last decade details the health imperative of leaving the SUGAR, GRAINS, LEAN PROTEINS and NO FAT diet to avoid IR and Metabolic Syndrome. Let's eat of the good fats and oils of the land and return to the old path of farm-to-table goodness delivered to us from God's hand.

<https://www.youtube.com/watch?v=vhmtoAYVRSo&t=86s>

<https://www.youtube.com/watch?v=UtxWAZkKAt8>

<https://www.youtube.com/watch?v=qXtdp4BNyOg>

<https://www.drnorthrup.com/insulin-resistance-symptoms-mid-life/>