

Don't be doomed with diabetes

What to do to reverse insulin resistance and prediabetes

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Diabetes is so common that every household may have a family member or at least knows someone outside their home who is diabetic or prediabetic. When I was beginning my practice as a registered nutritionist dietitian over two decades ago, diabetes was thought to be genetic. However, this is not the case in most individuals with diabetes. While you may possess genes that predispose you to diabetes, it is possible not to be doomed to this debilitating disease. You can do something to prevent yourself from being a diabetic.



It all begins when your body, specifically the muscles, liver, and fat cells struggle to utilize the hormone insulin. Think of insulin as a vehicle that carries sugar from the blood into the cells to be used up as energy. What happens when you have insulin resistance or prediabetes? Sugar or glucose remains in the blood after digestion because insulin cannot enter the cells of the muscle, liver, and fat. Thus, the term insulin resistance. The cells are resistant to insulin. The hormone now remains in the blood too. This condition stimulates the pancreas to produce more insulin which is very damaging to this organ. Excess unused insulin puts the body in a proinflammatory state that makes the body store up more fat. And what happens when our body fat is high, especially in the belly area? We get high triglycerides and high cholesterol. This will clog up arteries and impede blood circulation. Thereby, causing high blood pressure or hypertension. Elevated blood sugar level and blood pressure will not only damage your heart but also your kidneys, eyes, nerves, and more!

Here are important habits that will help keep your blood sugar at bay:

First, avoid consumption of saturated fat that is mostly found in animal meat, dairy, and egg. Do you think that it is only sugar that you need to avoid where diabetes is concerned? Wrong. Consumption of unhealthy fat causes lipotoxicity. Fat messes up with the cell's powerhouse called mitochondria. This phenomenon causes inflammation and insulin resistance.

On the other hand, healthy fats found in wholesome forms of nuts, seeds, olives, and avocados have protective properties against the damaging effects of saturated fat. Don't cook with oil. Try cooking methods that do not require oil such as steaming, boiling, roasting, baking, and stir frying using water instead of cooking oil.

Second, carefully choose your carbohydrate food sources. Avoiding carbs altogether when you have diabetes is not okay. After all, the primary source of energy preferred by the brain is glucose which mainly comes from carbohydrates. Learn to distinguish between healthy carbs that will not cause spikes in your glucose level and refined carbohydrates or sugars that gets readily digested and absorbed into the bloodstream

Don't be dictated by your genes. Take control of your blood sugar by consuming more wholesome plant food sources, avoiding unhealthy fats and refined sugar, and being physically active. causing elevated blood glucose level.

Consume carbohydrates from whole grains like oats, black, red, or brown rice, quinoa, and adlai. You can also eat starchy vegetables like potatoes (not French fries!), sweet potato, and yam. You must not forget to consume at least one and a half cups to three cups of cooked vegetables per day. You can have more. I don't count calories when I eat vegetables. I just eat as much as I can in a day. You can also safely eat at least two servings of fresh fruit a day. That is about two medium-sized bananas. Many are concerned about the natural sugar from fruit called fructose.

This is safe to consume with meals in the form of wholesome fruit. Fresh fruits contain fiber that delays the absorption of sugar. Soluble fiber helps prevent spikes in glucose and cholesterol. Some carb sources that have high soluble fiber are banana, apple, oats, avocado, and legumes that include beans and lentils.

Third, become a vegetarian on most days if you can't go 100 percent plant-based eater. A study conducted on male vegetarians by MJ Toth and ET Poehlman showed that plantbased eaters have an eleven percent higher resting metabolic rate. That simply means that vegetarians burn more fat compared to nonvegetarians. The possible explanation to this phenomenon is the higher gene expression of a fat-burning enzyme known as carnitine palmitoyltransferase. This enzyme is responsible for the effective utilization or burning of fat by the mitochondria, the body cell's powerhouse. Earlier, we established the link between fat and insulin resistance.

Fourth, be mindful of your movement. Exercise and being physically active will not only help you lose weight. It will make your cells become more sensitive to insulin which is the opposite of insulin resistance or impaired insulin sensitivity.

As for the type of exercise, a combination of aerobic and resistance or strength training must be done. This will ensure a decrease in body fat and an increase in muscle mass. Both of these will aid in making cells more welcoming to insulin carrying sugar from the blood into the cells to be burned as calories or energy.

Experts recommend at least 150 minutes of moderate intensity or 75 minutes of high intensity aerobic exercise per week. Examples are brisk walking, running, biking, and swimming. In addition, resistance or strength training must be done two times a week for muscle building. The more muscles you have the higher your resting metabolic rate and you burn more fat, sugar, and energy in general.

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