

Weight, Hunger and the Metabolic Syndrome

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The U.S. is the heaviest country in the world. As we super-size our food and watch our weight soar we might ask ourselves two questions: Why do Americans eat so much and what is so unhealthy about it anyway?

Today's American diet is full of high calories, most of which come from carbohydrates, including, sugar, flour and starch. The body breaks down the carbohydrates we eat into simple sugars called glucose. Glucose is used by our muscles and brain for energy. Excess glucose is converted and stored as body fat. Dietary fats and proteins, presently consumed in less quantity, can also be used for energy and energy storage.

THE METABOLIC SYNDROME

- * The Metabolic Syndrome typically starts in the late 30s or sometimes younger.
- * The more weight you gain, the more your body will resist insulin.
- * The Metabolic Syndrome increases the risk for heart attack, stroke and type II diabetes.

Insulin, produced by the pancreas, maintains energy balance and is extremely sensitive to dietary sugar and carbohydrate consumption. When we have not eaten, low blood sugar and low insulin levels stimulate hunger. As we eat, insulin levels rise signaling the body that energy in the form of glucose is available. The body's cells absorb glucose from the blood stream. Excess glucose is converted to fat and stored as body fat. When insulin levels are high, dietary fat and cholesterol are also stored.

Years of uncontrolled carbohydrate consumption results in chronic insulin excess and resistance. Over time the body's cells become resistant to the insulin message and the pancreas has to produce

more insulin for those cells to absorb glucose. The pancreas becomes hypersensitive to glucose and will overproduce insulin after a carbohydrate-rich meal. The result is the unhealthy production of body fat and weight gain. Reactive low blood sugar, hypoglycemia, will occur several hours after eating, stimulating hunger. The more weight gain, the more resistant the body becomes to insulin. This metabolic condition, known as insulin resistance, continues to drive hunger and weight gain.

If your diet changes to include more protein and fat than carbohydrates, over time less insulin is produced and insulin levels stabilize. Blood sugar and hunger are controlled and most importantly, fat and cholesterol are NOT stored. In fact, the body begins to burn body fat leading to healthy weight loss while insulin levels remain stable.

Our second question deals with the adverse health implications. Insulin resistance has been linked to a condition known as the Metabolic Syndrome. The Metabolic Syndrome, which typically starts in the late 30s but sometimes younger, includes these four medical conditions: obesity, cholesterol and lipid abnormalities, hypertension and pre-diabetes. Despite doctors treating these conditions for years only recently have these conditions been connected to the carbohydrate-rich American diet and insulin resistance. Having the Metabolic Syndrome significantly increases the risk for heart attack, stroke and type II diabetes.

After more than 40 years the traditional food pyramid, the basis for the carbohydrate-rich American diet, is being revised. Changes include eating whole grain fiber containing foods, which have less of an impact on blood glucose levels, and excluding or minimizing the amount of unhealthy carbohydrates. The revision recommends eating more fruits and vegetables and less flour, starch, sweets and candies; and eating more foods rich in healthy protein and fat such as fresh beef, chicken, fish, pork, eggs, nuts, cheese and beans.

These dietary modifications combined with daily supplements and exercise will improve your health and the health of our country. Visit your primary care doctor if you believe you may be at risk for the Metabolic Syndrome.



Dr. Jeffrey Gerber is board certified with over 14 years of clinical experience. His focus is prevention and wellness. He provides screening and treatment for the Metabolic Syndrome and weight loss.

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