ALIVE!

METABOLIC SYNDROME

NEARLY 35% OF ADULTS in America and 50% of those 60 years of age or older are estimated to have metabolic syndrome, also called syndrome X and insulin resistance syndrome. These are staggering statistics. Potentially 3 of 10 adults in America are living with a syndrome that they may not even realize they have.

Metabolic syndrome is not a disease itself. Rather it is a cluster of several risk factors that have been found to be a major contributor to the development of cardiovascular disease, stroke, kidney disease, and type 2 diabetes. These risk factors include:

- abdominal obesity
- high fasting blood sugar levels
- elevated triglycerides
- low HDL cholesterol
- elevated blood pressure

Having three or more of these risk factors indicates metabolic syndrome.

Apparently not all fat is alike. The fat that packs itself around the abdomen poses the greatest danger. Abdominal obesity is defined by a waist circumference measurement of > 40 inches in men, > 35 inches in women.

A fasting blood sugar level >110 is another early sign of imbalance, indicating that the body cannot use its insulin properly and is experiencing insulin resistance to some degree. Consistently high levels of insulin are associated with many harmful changes in the body including chronic inflammation, damage to arterial walls, impaired kidney function, and endocrine disorders in women.

Triglyceride levels > 150 mg/dL are another risk factor. Triglycerides are a type of fat found in the blood. The two main sources of triglycerides are from the diet and from the liver.

Low HDL cholesterol is considered a risk factor for cardiovascular disease. This form of cholesterol typically provides protection from atherosclerosis, removing cholesterol from your arteries. HDL also has antioxidant, anti-inflammatory, and antithrombotic properties, meaning that it fights for our health in multiple ways. Levels of HDL cholesterol < 40 mg/dL in men < 50 mg/dL in women are considered low.

An elevated blood pressure > 130/85 mmHg is an indicator of cardiovascular health. Damage to blood vessels can lead to hypertension. Hypertension can cause further damage to blood vessels.

Unfortunately, metabolic syndrome does not disappear by itself. However, the good news is that making significant lifestyle changes does reduce or eliminate the risk factors. Being aware that you are one of the 35% of Americans with metabolic syndrome can be a blessing in disguise. By understanding the serious nature of the risk factors that you may have, by embracing the guidance of your health care provider, by taking action before the disease process has advanced, you can proactively make positive choices that can potentially ward off heart disease and diabetes.

Nutrition is a powerful clinical tool in preventing and treating disease. A shift from a highly-processed refined diet to a whole-foods plant-based diet directly influences and reverses the hormonal disturbances that are central to metabolic syndrome. A therapeutic, plant-based diet is one in which refined sugars and carbohydrates have been minimized, trans-fat and processed foods eliminated, and fruits, vegetables, beans, and whole grains are emphasized. The Adventist Health Study 2 has observed that vegetarian dietary patterns are associated with a lower risk of metabolic syndrome.[1] Risk factors have been found to be greatest in non-vegetarians and lowest in vegetarians. People who eat the most legumes (beans, peas, and lentils) are the least likely to develop metabolic syndrome.[2]

Reducing belly fat is one of the best ways to treat metabolic syndrome. As abdominal fat increases, insulin sensitivity decreases. Researchers have found that high amounts of exercise combined with the consumption of whole grains sheds more belly fat than just reducing calories. They also found that mice exposed to a high amount of stress, combined with a high-fat, sugar-rich diet, had twice as much belly fat as mice who only experienced one of these variables. Most weight-loss strategies typically focus on restricting calories by reducing portion sizes and eating less. Unfortunately evidence suggests that the majority of those who lose weight in this way regain the weight. A study was done in which clients either lost weight by caloric restriction or by including beans in the diet. The bean group was asked to eat five cups of lentils, chickpeas, split peas, or navy beans a week, and the caloric restriction group was asked to reduce energy intake. Regular bean consumption not only slimmed waistlines and resulted in better blood sugar control, but the bean diet led to additional benefits beyond just calorie reduction. The researchers concluded that eating five cups of beans a week is an effective way of reducing the risk factors of metabolic syndrome.[3]

In a 15-year study, frequent consumption of fast foods (> twice a week) as compared with infrequent consumption (< once a week) was associated with greater weight gain and two-fold greater increase in insulin resistance, which leads to elevated fasting blood sugar levels.[4]

Increasing fiber intake is a powerful tool in improving insulin sensitivity, lowering blood pressure, and lowering blood lipids such as total cholesterol and triglycerides. High-fat foods have been found to promote a state of insulin resistance. Excess iron stores in the body have also been closely linked to insulin resistance. Consuming less red meat could help address this issue.

Living with a syndrome we don't even realize we have is applicable to mankind in relation to the syndrome of sin as well. If we realized the horrific impact and devastation of sin and our complete inability to combat it on our own, we might desire the remedy. This is why the message, "Repent," preceded Christ's public ministry. "We must understand our danger, or we shall not flee to the refuge. We must feel the pain of our wounds, or we should not desire healing."[5] If we understood the original dominion and glorious state we were created for, we would reach for the restoration of all things promised.

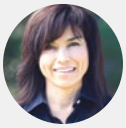
1. Nico Rizzo, Joan Sabaté, Karen Jaceldo-Siegl, Gary Fraser, "Vegetarian Dietary Patterns Are Associated With a Lower Risk of Metabolic Syndrome," *Diabetes Care*, 3/16/11, http://care.diabetesjournals.org/content/early/2011/03/13/dc10-1221.full.pdf+html.

2. S. Hosseinpour-Niazi, P. Mirmiran, Z. Amiri, F. Hosseini-Esfahani, N. Shakeri, F. Azizi, "Legume intake inversely assoc with risk of having metabolic syndrome," *Archives of Int med*, Vol. 1,5 Number 9, Sept 2012.

3. Michael Greger, "Which works better: Adding Beans or Portion Control?" 12/24/15, *Nutritionfacts.org*, http://nutritionfacts.org/2015/12/24/which-works-better-adding-beans-or-portion-control/.

4. Mark A Pereira, Alex I Kartashov, Cara B Ebbeling, Linda Van Horn, Martha L Slattery, David R Jacobs Jr, David S Ludwig, "Fast-food habits, weight gain and insulin resistance (the CARDIA study): 15 year prospective analysis," *The Lancet*, Volume 365, No. 9453, p36–42, 1 January 2005, http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2804%2917663-0/abstract.

5. Ellen White, *Christ's Object Lessons*, p. 158.



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