I have a neighbor who was told by her physician that she has metabolic syndrome. She also tells me that she has diabetes. Are these conditions the same? I too am overweight, and am now worried. Am I at risk?

You ask a number of questions, all of which are important. Metabolic syndrome, or Syndrome X, is a condition that is relatively common in men and women over the age of 30. It is usually genetic, and is associated with obesity (overweight), high blood pressure, and increased blood sugar and elevated blood fats (specifically the fats called triglycerides). These patients have diabetes related to a resistance of their tissues to insulin. This means that although they make sufficient amounts of insulin, the cells do not respond to the insulin, and the blood sugar rises. The liver is also resistant to the action of insulin and continues to make sugar, further increasing the blood sugar.

In the recent past, a fasting blood sugar level of more than 109 mg./dl. was considered to be diagnostic of this condition and diabetes to be present. This has now been revised, and a fasting blood sugar greater than 100 mg./dl. is regarded as diabetic in the obese patient with high blood pressure and elevated blood fats. The metabolic syndrome is becoming more common at an alarming rate as more individuals in both developed and developing countries are obese. In many Western countries diabetes is epidemic, mostly related to this significant problem of obesity, especially around the belly.

As mentioned earlier, there is a genetic predisposition to the development of the disorder. Other associated risk factors include:

- Excessive dietary carbohydrates (especially refined);
- Excessive dietary fats;
- Lack of exercise.

This foregoing scenario is further complicated by the abnormality of the blood fats, especially the triglycerides. However, there are often additional unhealthy abnormalities in total blood fat profiles. These patients tend to have:

- Low HDL cholesterol (high-density lipoprotein), which should be high, as it is the healthy, protective component;
- High LDL cholesterol (low-density lipoprotein), which should be low, as it is lethal and contributes significantly to the process of disease in the arteries called atherosclerosis.

In addition, individuals have increased inflammation in the arteries. This is identified by the presence of a protein called C-reactive protein (CRP). This substance has been found to be associated with worse arterial disease and increased heart attacks and strokes.

In short, metabolic syndrome is similar to type 2 diabetes, only it is turbocharged into a more dangerous condition by high blood pressure, the process of inflammation, and abnormal blood fats.

Do you need to be worried about this condition? Obesity is related to many diseases such as high blood pressure, diabetes, osteoarthritis, and deep-vein thrombosis. Arterial disease is accelerated under these
conditions. Yes, you do need to be concerned—concerned enough to attempt to prevent/reverse the condition.

The mainstay of treatment of metabolic syndrome is lifestyle change. This includes:

- Daily exercise: 30 to 60 minutes per day (the latest U.S. government recommendations suggest up to 90 minutes per day, even in the absence of metabolic syndrome or diabetes);
- A diet rich in vegetables, fruits and nuts, whole grains;
- Poly- and mono-unsaturated fats (fats should constitute no more than 30 percent of the daily caloric intake). These fats should be derived from plant sources.

A percentage of patients may require medications to control the blood pressure, blood lipids, and blood sugar. The lifestyle measures suggested above often lead to improvement, and under the supervision of the treating physician, medications can be reduced and even stopped in many instances. It must be emphasized that blood pressure and blood sugar must be carefully controlled, and weight loss vigorously pursued.

Hopefully, this response will encourage you to see your physician, have the appropriate tests, and also resolve to make the needed lifestyle changes. We can take courage in that we can depend on our Lord to strengthen our resolve. We believe He will empower us to care for the temples He has entrusted to us.

Stop worrying, and start moving!

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