

The Metabolic Syndrome

What is the Metabolic Syndrome?

People have the metabolic syndrome when they have several disorders of the body's metabolism at the same time -- such as obesity, high blood pressure, and high cholesterol. This syndrome affects at least one out of every five overweight people ... but by making some positive lifestyle changes, you can reduce or eliminate some of the components of the syndrome.

The metabolic syndrome (also referred to as "insulin resistance syndrome" and "syndrome X") is serious, because its components can lead to complications including hardening of the arteries and an increased risk for cardiovascular and kidney disease. If you have one component of the syndrome, you are at increased risk for having one or more of the others. And the more components you have, the greater the risks to your health.

Obesity/Abdominal Fat

Obesity is often confirmed by a determination of body mass index (BMI). You can find your BMI by using the chart below. An increase in abdominal fat in particular (having an "apple shaped" rather than "pear shaped" body) has been associated with an increased risk for heart disease.



Hypertension (High Blood Pressure)

Hypertension has long been associated with heart disease, stroke, and kidney disease.

Dyslipidemia

Lipids are fatty substances that are essential for the proper functioning of the body. Dyslipidemia occurs when the amounts of lipids in the blood are higher or lower than normal.

For years we heard of the dangers of "high cholesterol." This refers to an increase in low density lipoprotein, or LDL, cholesterol, the so-called "bad cholesterol." There is also the "good cholesterol", high-density lipoprotein, or HDL, cholesterol. In general, the lower a person's LDL, and the higher their HDL, the better. Other blood lipids called triglycerides can also be high in dyslipidemia. Dyslipidemia is present when LDL is high, HDL is low, triglycerides are high, or a combination of those factors. Dyslipidemia is associated with an increased risk for heart disease.

Insulin Resistance

Many scientists believe that insulin resistance is one of the major factors that either allows or causes the components of the metabolic syndrome to develop. The body manufactures insulin to transport sugar (glucose) into cells so they can use it for energy. Obesity worsens insulin resistance, making it increasingly difficult for cells to respond to insulin. The body reacts by releasing more insulin to "override" the insulin resistance. When the body can't produce enough insulin to overcome insulin resistance, blood sugar levels rise, ultimately leading to diabetes.

Although there is no complete agreement yet on the components of the metabolic syndrome or the individual risk levels for each component, we know the syndrome poses a significant health risk to individuals and is a growing health crisis for our country. But there are some steps you can take to reduce the risk posed by each element of the metabolic syndrome.

Reducing Risk Factors

- **Lose Weight.** Obesity is a major contributor to many of the components of the metabolic syndrome. By losing weight and keeping it off -- even 10 pounds can make a difference -- you can greatly improve your health. Work with your health care team to plan a diet that will help you lose weight and maintain a healthy weight, and still include the foods you enjoy.
- **Increase Physical Activity.** Physical activity burns excess fat and increases muscle mass, helping your body burn calories much more efficiently. Talk to your health care team about a physical activity plan that will be safe and effective for you. You don't have to join a gym or buy any special equipment to get more active. So, walk your dog. Take the stairs instead of the elevator. Take walking breaks at work. Activities you enjoy are the ones you will stick with for the long term.
- **Lower Blood Pressure.** Losing weight and increasing physical activity can lower your blood pressure. When more intervention is needed, medication can be prescribed to help lower blood pressure.
- **Lower Cholesterol.** Regular physical activity and a diet low in saturated fats and high in fiber, and medications, can help normalize blood lipid levels.
- **Stop Smoking.** Smoking is known to greatly worsen the health consequences of the metabolic syndrome. Many cessation plans are available to smokers, so talk to your health care team about ways to quit **and** prevent weight gain.