



women's
health clinic

Metabolic Syndrome

What is Metabolic Syndrome?

Metabolic syndrome (also called insulin resistance syndrome or syndrome X) is a cluster of conditions – increased blood pressure, elevated insulin levels, the tendency to carry additional body fat around the waist or abnormal cholesterol levels. These may occur together and indicate an increased risk for heart disease, stroke and diabetes.

Eating healthy foods and being physically active may help to keep your blood sugar, cholesterol and triglyceride levels under control. These can help to decrease your risk of heart attack, stroke and diabetes.

Signs

Having metabolic syndrome means that you have three or more of the following related to your metabolism:

- A systolic (top number) blood pressure measurement over 130, or a diastolic (bottom number) blood pressure measurement over 85, or if you take medication for high blood pressure
- Higher than normal levels of the blood fat called triglycerides and a low level of high-density lipoprotein (HDL) cholesterol – the “good” cholesterol, or if you take medication for high triglycerides or low HDL cholesterol
- Higher than normal fasting blood sugar (blood glucose), or if you’re receiving treatment for high blood sugar
- Carrying extra body fat around your waist (having an “apple shape”), defined by some groups as having a waist measurement over 80 cm or 32 inches in women

Having one component of metabolic syndrome means you are more likely to have others. The more components you have, the greater the risks to your health.

Causes

Metabolic syndrome is linked to your body’s metabolism, possibly to a condition called insulin resistance. Insulin is a hormone that helps control the amount of sugar in your bloodstream.

Normally, your digestive system breaks down foods you eat into sugars (glucose). Your blood carries glucose to your body’s tissues, which use it for fuel. Glucose enters the cells with the help of insulin. In people with insulin resistance, cells don’t respond normally to insulin and glucose can’t enter the cells as easily. Your body responds by sending more and more insulin

to help glucose get into your cells. The result is higher than normal levels of insulin in your blood. This can eventually lead to diabetes when your body is unable to make enough insulin to control the blood glucose to the normal range.

Even if your levels aren't high enough to be considered diabetes, a high blood glucose level can still be harmful. Increased insulin raises your triglyceride level and other blood fat levels. It also interferes with how your kidneys work, leading to higher blood pressure. These combined effects of insulin resistance put you at risk for heart disease, stroke, diabetes and other conditions.

How is metabolic syndrome treated?

Lifestyle changes are the first plan of action. They can improve many of the symptoms of metabolic syndrome.

- **Physical activity:** Try for 30-60 minutes of moderate intensity exercise every day. Moderate activity raises your heart rate and is challenging enough that you can still carry on a conversation, but with effort.
- **Eat healthy:** emphasize fruits, vegetables, fish and whole grains. Consider making an appointment with a dietitian for tips and support on making changes. Foods with a lot of fibre can help to lower insulin levels.
- **Stop smoking:** smoking cigarettes increases insulin resistance and worsens the health consequences of metabolic syndrome. Talk to your health care provider if you need help to quit.
- Most literature recommends weight loss to deal with metabolic syndrome. At Women's Health Clinic, we know that a focus on weight control can lead to unhealthy behaviours like disordered eating. We focus instead on other behaviours in our control - like healthy eating and physical activity - that have important benefits for insulin and glucose metabolism in the body (regardless of weight).

If lifestyle changes aren't making enough of a difference, your health care provider may prescribe medication.

Things to think about:

Increased risk for heart disease, stroke and diabetes does not mean that you will develop one or more of these conditions. Healthy behaviours - eating well, physical activity, learning how to deal with stress, and taking care of other health issues - help you reduce these risks and to be healthy in the meantime.

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