



What Is Metabolic Syndrome?

Metabolic syndrome is a group of five risk factors that can lead to heart disease, diabetes, stroke and other health problems. It is diagnosed when someone has three or more of these conditions:

- High blood glucose (sugar)
- Low levels of HDL (“good”) cholesterol in the blood
- High levels of triglycerides, a type of fat found in the blood
- Large waist circumference or “apple-shaped” body
- High blood pressure

Although each of these is a risk factor for cardiovascular disease, when a person has three or more and is diagnosed with metabolic syndrome, it increases the chance of developing a serious cardiovascular condition.



Abdominal obesity and high blood pressure are two conditions that contribute to metabolic syndrome.

Who's at risk for metabolic syndrome?

In 2016, the prevalence of metabolic syndrome in the United States was about 35%. It's also increasing globally.

Although some people are naturally prone to developing metabolic syndrome, others get it as a result of their lifestyle or other factors. Some things that increase your risk of metabolic syndrome are:

- **Obesity/overweight.** Excessive fat in and around the stomach is most strongly associated with metabolic syndrome.
- **Insulin resistance.** This is when the body can't use insulin well. Some people are naturally prone to insulin resistance.
- **Race/ethnicity.** In the U.S., Hispanic people have the highest prevalence of metabolic syndrome.
- **Age.** Risk of developing metabolic syndrome increases with age.

How is it diagnosed?

Most conditions that make up metabolic syndrome have no signs or symptoms. But a large waistline is a visible sign of

being overweight or obese.

You are diagnosed with metabolic syndrome if you have three or more of these conditions:

- **Central or abdominal obesity.** This is measured by waist circumference:
 - Men: greater than 40 inches
 - Women: greater than 35 inches
- **High triglycerides:** 150 mg/dL or more, or you're taking medication for high triglycerides
- **Low HDL cholesterol,** or you're taking medication for low HDL cholesterol:
 - Men: Less than 40 mg/dL
 - Women: Less than 50 mg/dL
- **High blood pressure:** High blood pressure is 130/80 mm Hg or greater. You may be taking medications or could be diagnosed by your health care professional. Normal blood pressure for most people is less than 120/80 mm Hg.
- **High fasting glucose (blood sugar):** 100 mg/dL or more, or you're taking medicine for high blood sugar

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How is metabolic syndrome treated?

Most of the conditions that contribute to metabolic syndrome can be addressed through lifestyle changes such as diet, physical activity and weight loss.

These steps can help you manage metabolic syndrome and improve your overall heart health:

- Eat better. Adopt a diet rich in fruits, vegetables, whole grains, skinless poultry, fish, nuts, lean meats and vegetable protein. Limit processed foods, saturated and trans fats, red meat, sodium and added sugars.
- Get active. Aim for at least 150 minutes of moderate-intensity physical activity a week. Walking is the easiest place to start.
- Lose weight. Balance healthy eating with exercise to reach and maintain a healthy weight.
- Work with your health care team to monitor and manage your blood sugar, cholesterol and blood pressure.
- Take your medications as prescribed.



HOW CAN I LEARN MORE?

- 1 Call 1-800-AHA-USA1 (1-800-242-8721) or visit heart.org to learn more about heart disease and stroke.
- 2 Sign up for our monthly *Heart Insight* e-news for heart patients and their families, at HeartInsight.org.
- 3 Connect with others sharing similar journeys with heart disease and stroke by joining our Support Network at heart.org/SupportNetwork.

Do you have questions for the doctor or nurse?

Take a few minutes to write down questions for the next time you see your health care professional.

For example:

How can I reduce my weight?

Can physical activity improve my HDL cholesterol?

MY QUESTIONS:

We have many other fact sheets to help you make healthier choices to reduce your risk of heart disease, manage your condition or care for a loved one. Visit heart.org/AnswersByHeart to learn more.