

What is Metabolic Syndrome?

Metabolic syndrome is a group of risk factors that increases your chance of type 2 diabetes, heart attack, and stroke. Your doctor can tell if you have metabolic syndrome by testing to see if you have three (3) or more of the following health risk factors¹:

- Abdominal obesity: A waistline of 40 inches or more for men and 35 inches or more for women
- Abnormal cholesterol levels in your blood:
 - High-density lipoprotein (HDLs): 40 mg/dl or lower for men and 50 mg/dl or lower for women
 - Triglyceride levels (TG's): 150 mg/dl or higher
- High fasting blood glucose (sugar) levels: 110 mg/dl or higher
- High blood pressure: 130/85 mm Hg or higher
- Resistance to insulin, a hormone that helps regulate the amount of sugar in your body

What are the Causes of Metabolic Syndrome?

1. **Insulin resistance** happens when tissues block the action of insulin in your body. Insulin is a hormone that is critical to your health. When you have insulin resistance, this means your body needs more insulin to keep your blood glucose at a normal level. Too much insulin can put you at risk for health problems.
2. **Lifestyle choices**: Most researchers think metabolic syndrome happens because of your lifestyle – the way you live and what you eat – and your family health history. The two biggest lifestyle factors that put you at risk for developing metabolic syndrome are:
 - Physical inactivity: not enough exercise or movement
 - Overeating

¹ Based on criteria established by ATP III.

What are the Signs of Metabolic Syndrome?

People with metabolic syndrome will not feel any symptoms. Only your doctor can tell you if you have metabolic syndrome by running some tests. You can develop metabolic syndrome when you don't get enough exercise and you eat a diet with too many calories and too much saturated fat. The most visible sign is being overweight, particularly abdominal (stomach) obesity or an “apple” body shape.

Why do I Need to Know if I Have Metabolic Syndrome?

Having metabolic syndrome increases your risk of very serious health problems like heart disease, stroke, and type 2 diabetes. If you find out you have metabolic syndrome, you can prevent or delay serious health problems by making changes in the way you live and what you eat.

What are the Tests for Metabolic Syndrome?

Your doctor can tell if you have metabolic syndrome by doing some simple tests:

- Blood pressure (to check for high blood pressure)
- Weight and waist measurement (to check abdominal obesity, or extra weight in the stomach area)
- Body Mass Index (BMI): another way to check for obesity
- Fasting blood glucose test
- Cholesterol blood test

Who Should be Tested for Metabolic Syndrome?

Talk to your doctor about metabolic syndrome if any of these are true for you:

- Are over 45 years old
- Are overweight
- Have a family history of diabetes
- Have high blood pressure
- Have low levels of high-density lipoproteins (HDLs)
- Have high triglyceride levels (TGs)
- Have a personal history of gestational diabetes

By finding out about your risk early, you and your doctor can make a plan to keep you from getting serious diseases.

Can Metabolic Syndrome be Prevented or Treated?

The good news is that you can prevent and even reverse metabolic syndrome. Changing your lifestyle can help lower your risk or prevent problems of metabolic syndrome:

- ✓ Lose weight: Even weight loss of 5 – 10% of your body weight can help your body to use insulin.
- ✓ Diet: Eat fiber-rich foods, like whole grains, beans, fruits and vegetables. Fiber can help lower your insulin levels. Eat less sugar (like cookies and crackers) and red meat. Talk to your doctor about how to improve what you eat.
- ✓ Exercise: At least 30 minutes, 3 times per week.
- ✓ Schedule regular check-ups with your doctor to test for glucose, cholesterol, and blood pressure.
- ✓ Stop smoking: Smoking can increase insulin resistance and make you more likely to develop serious health risk factors. Call 1-800-NO-BUTTS (1-800-662-8887) for information on how to stop smoking.
- ✓ Limit alcohol: Try to limit alcoholic beverages to one drink a day for women and two for men.
- ✓ Ask your doctor about medications such as blood pressure and cholesterol-lowering medications. Treating these problems can help prevent metabolic syndrome.

More Ways to Learn About Metabolic Syndrome

Classes

- Sign up for a two-part class taught by Certified Diabetes Educators. Call the Center for Diabetes Services at (415) 600-0506.
- Join the Health & Healing Center's 10-week Therapeutic Lifestyle Change Program (TLC) led by a nutritionist and physician. Visit their Web site, www.myhealthandhealing.org, for more information.

Web Information

- Go to www.cpmc.org, click on [Learning About Your Health](#) and then click on [Patient Education](#).
- Visit the American Dietetic Association Web site at www.eatright.org.
- Visit the American Heart Association Web site at www.americanheart.org.
- Visit the American Diabetes Association Web site at www.diabetes.org.

Other

- Call 1-800-NO-BUTTS (1-800-662-8887) for information on how to stop smoking.

Notes & Questions to Ask My Doctor

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Note: This information is not meant to replace any information or personal medical advice which you get directly from your doctor(s). If you have any questions about this information, such as the risks or benefits of the treatment listed, please ask your doctor(s).