

## Metabolic Syndrome X

### GENERAL INFORMATION:

**What is metabolic syndrome?** Metabolic syndrome is a group of medical conditions that can increase your risk for heart disease, stroke, or type 2 diabetes. You may have metabolic syndrome if you have at least 3 of the following medical conditions:

- High triglycerides (a type of fat in your blood)
- Low HDL cholesterol (good cholesterol)
- High blood pressure
- High blood sugar levels
- Extra abdominal fat

**What increases my risk for metabolic syndrome?** The exact cause of metabolic syndrome is not known. Your risk for metabolic syndrome increases if you have insulin resistance. Insulin is a hormone that helps your body take sugar out of your blood and use it for energy. Insulin resistance means your pancreas keeps making insulin but your body cannot use it correctly. Your risk for metabolic syndrome also increases as you age, if you are overweight or obese, or you do not exercise.

**What are the signs and symptoms of metabolic syndrome?** Most people with metabolic syndrome do not have any signs or symptoms. You may have more thirst or hunger than usual, urinate more often, or have blurred vision or headaches.

**How is metabolic syndrome diagnosed?** Your caregiver will examine you and ask about other medical conditions you may have. He may ask if you have any family members with metabolic syndrome, diabetes, obesity, or heart disease.

- **Blood tests:** These are used to check your glucose and cholesterol levels.
- **Oral glucose tolerance test:** Your blood sugar level is tested after you fast for 8 hours, then again after you are given a glucose drink. The test measures how high

your blood sugar level rises from the glucose drink.

### **How is metabolic syndrome treated?**

- **Cholesterol medicine:** This type of medicine is given to help decrease (lower) the amount of cholesterol (fat) in your blood. Cholesterol medicine works best if you also exercise and eat a healthy diet that is low in certain kinds of fats. Some cholesterol medicines may cause liver problems. You may need to have blood taken for tests while using this medicine.
- **Blood pressure medicine:** This is given to lower your blood pressure. A controlled blood pressure helps protect your organs, such as your heart, lungs, brain, and kidneys. Take your blood pressure medicine exactly as directed.
- **Hypoglycemic medicine:** This medicine may be given to decrease the amount of sugar in your blood. Hypoglycemic medicine helps your body move the sugar to your cells, where it is needed for energy.

**What are the risks of metabolic syndrome?** If untreated, metabolic syndrome increases your risk of heart disease, stroke, and diabetes. These conditions lead to life-threatening illness.

### **How can I manage metabolic syndrome?**

- **Maintain a healthy weight:** Weight loss helps lower cholesterol, triglycerides, blood pressure, and blood glucose levels. It can also raise HDL (good cholesterol). Ask your caregiver how much you should weigh. Ask him to help you create a weight loss plan if you are overweight.
- **Eat a variety of healthy foods:** Healthy foods include fruits, vegetables, whole-grain breads, low-fat dairy products, beans, lean meats, and fish. Eat foods that are low in fat and sodium (salt). A dietitian can help you plan healthy meals.
- **Exercise:** Ask your caregiver to help you create an exercise plan. Exercise can help lower your blood pressure, cholesterol, and blood sugar levels. Exercise can also help raise your HDL level and help you to lose weight. Get at least 30 minutes of exercise, 5 days each week.
- **Check your blood pressure as directed:** You may be asked to keep a record of your blood pressure and bring it with you to follow-up visits. Ask your caregiver what your blood pressure should be and how to check it.
- **Limit alcohol:** Women should limit alcohol to 1 drink a day. Men should limit alcohol to 2 drinks a day. A drink of alcohol is 12 ounces of beer, 5 ounces of wine, or 1½ ounces of liquor.

- **Do not smoke:** If you smoke, it is never too late to quit. Smoking further increases your risk for heart disease and stroke. Ask your primary healthcare provider for information if you need help quitting.

**When should I contact my caregiver?** Contact your caregiver if:

- You have more thirst or hunger than usual.
- You urinate more frequently.
- You have blurred vision.
- You have questions or concerns about your condition or care.

**When should I seek immediate care?** Seek care immediately or call 911 if:

- Your blood pressure is higher than your caregiver told you it should be.
- You have chest pain or discomfort that spreads to your arms, jaw, or back.
- You have a severe headache or dizziness.
- You have trouble thinking, speaking, or understanding others.

**CARE AGREEMENT:**

You have the right to help plan your care. Learn about your health condition and how it may be treated. Discuss treatment options with your caregivers to decide what care you want to receive. You always have the right to refuse treatment.

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Metabolic syndrome is a complex medical condition that involves multiple related diseases including obesity, elevated blood sugars, high blood pressure (hypertension) and high cholesterol (hyperlipidemia, hypercholesterolemia, hypertriglyceridemia). People with metabolic syndrome are at increased risk for developing many serious medical complications including type 2 diabetes, heart attack (myocardial infarction), stroke (cerebrovascular disease), and if not addressed, even early death. Unfortunately, people living with mental illness are at increased risk for developing metabolic syndrome. Due to the severity of this condition, early detection and intervention are critically important.

### **Who is at risk for developing metabolic syndrome?**

People with mental illness are more likely than other individuals to develop this complex medical condition. Scientific research has shown that certain people are at an even greater risk of having metabolic syndrome. These include people with schizophrenia, bipolar disorder and depression; African Americans, Latinos, Native Americans and Asian Americans; smokers and chronic drug or alcohol abusers; people with a family history of diabetes and metabolic syndrome; and people who take second-generation (atypical) antipsychotic medications (SGAs).

### **How can metabolic syndrome and diabetes be prevented?**

As metabolic syndrome and diabetes are a complex combination of medical illnesses, there are multiple precautions that can be taken to prevent these severe conditions. In general, maintaining a healthy lifestyle is one of the best preventative measures against developing metabolic syndrome.

A healthy lifestyle includes regular checkups with one's primary care physician. People at high risk for developing metabolic syndrome or diabetes will likely have their weight measured at each visit, along with a measurement of their waist circumference. Certain blood tests (e.g., blood glucose, lipid panel) that evaluate the body's ability to process sugars and fats may also be checked regularly.

It is important to eat a healthy diet that is low in salt and fat, includes regular servings of fruits and vegetables, as well as vitamin supplementation when appropriate. Regular exercise, which can consist of daily walking, running or other form of aerobic exercise, is helpful in the prevention of metabolic syndrome. It is also critical to limit alcohol, drug and nicotine use, as these substances can change the way that the body digests (and metabolizes) food.

Choosing appropriate medications with one's physicians can be critical in preventing metabolic syndrome and diabetes. Given the complexities of these decisions—specifically,