Metabolic Syndrome – Adult

"Metabolic syndrome" is a term that refers to a group of risk factors for heart disease and diabetes. This syndrome has other names including Insulin Resistance Syndrome. The more risk factors you have, the higher your risk of having a heart attack, stroke, or developing diabetes. These risk factors include:

- High blood sugar.
- High blood triglyceride (a fat found in the blood) level.
- High blood pressure.
- Abdominal obesity (your extra weight is around your waist instead of your hips).
- Low levels of HDL ("good" blood cholesterol).

If you have any three of these risk factors, you have "metabolic syndrome." If you have even one of these factors, you should make lifestyle changes to improve your health in order to prevent serious health diseases.

In people with "metabolic syndrome or insulin resistance," the cells do not respond properly to insulin. This can lead to high levels of glucose in the blood, which can interfere with normal body processes. Eventually, this can cause high blood pressure and higher fat levels in the blood, and inflammation of your blood vessels. The result can be heart disease and stroke.

CAUSES

- Eating a diet rich in calories and saturated fat.
- Too little physical activity.
- Being overweight.

Other underlying causes are:

- Family history (*genetics*).
- Ethnicity (South Asians are at a higher risk).
- Older age (your chances of developing metabolic syndrome are higher as you grow older).
- Insulin resistance (see above).

SYMPTOMS

By itself, metabolic syndrome has no symptoms. However, you might have symptoms of diabetes (high blood sugar) or high blood pressure, such as:

- Increased thirst, urination, and tiredness.
- Dizzy spells.
- Dull headaches that are unusual for you.
- Blurred vision.
- Nosebleeds.

DIAGNOSIS

Your caregiver may make a diagnosis of metabolic syndrome if you have at least three of these factors:

- If you are overweight mostly around the waist. This means a waistline greater than 40" in men and more than 35" in women. The waistline limits are 31-35 inches for women and 37-39 inches for men. In those who have certain genetic risk factors, such as having a family history of diabetes or being of Asian descent.
- If you have a blood pressure of 130/85 mm Hg or more, or if you are being treated for high blood pressure.
- If your blood triglyceride level is 150 mg/dL or more, or you are being treated for high levels of triglyceride.
- If the level of HDL (high-density lipoprotein – "good" cholesterol) in your blood is below 40 mg/dL in men, less than 50 mg/dL in women, or you are receiving treatment for low levels of high-density lipoprotein.
- If the level of sugar in your blood is high with fasting blood sugar level of 110 mg/dL or more, or you are under treatment for diabetes.

TREATMENT

Your caregiver may advise lifestyle changes along with medications. Being more physically active, losing weight, changes in everyday diet, eating less food and not smoking are the key changes needed to reduce your risk for heart disease and stroke. Medicines may also be prescribed by your caregiver to help your body respond to insulin better and to reduce your blood pressure and blood fat levels. Aspirin may be recommended to reduce risks of heart disease or stroke.

- **Exercise**: 30 minutes of brisk walking daily is recommended. An exercise program can be designed around physical limitations and/or medical problems.
- **Losing weight**: This can help to reduce sugar levels in your blood, lower your blood pressure, and decrease your risk of diabetes.
- **Healthy eating**: Eating the right type of food and reducing the amount of food that is eaten everyday is important. The goal is to reduce unhealthy fats and increasing the amount of fruits, vegetables, fish, and whole grains in your diet. This helps to reduce your risks.
- **Stop smoking**: Your caregiver will likely advise you to stop smoking. Smoking increases your body's resistance to insulin and has other adverse health consequences.

HOME CARE INSTRUCTIONS

- Permanent changes in what you eat and how much you eat everyday will likely lead to weight loss. Regular exercise as noted above.
- Measure your waist at regular intervals just above the hipbones after you have breathed out.
- Eat fruits, such as apples, oranges, and pears.
- Eat vegetables.
- Eat legumes, such as kidney beans, peas, and lentils.
- Eat food rich in soluble fiber, such as whole grain cereal, oatmeal, and oat bran.
- Use olive or safflower oils and avoid saturated fats.
- Eat nuts.
- Limit the amount of salt you eat or add to food.
- Limit the amount of alcohol.
- Include fish in your diet, if possible.
- Stop smoking if you are a smoker.
- Follow your caregiver's advice.
- Maintain regular follow-up appointments.

SEEK MEDICAL CARE IF:

- You feel very tired or fatigued.
- You develop excessive thirst.
- You pass large quantities of urine.
- You are putting on weight around your waist rather than losing weight.
- You develop headaches over and over again.
- You have off-and-on dizzy spells.

SEEK IMMEDIATE MEDICAL CARE IF:

- You develop nosebleeds.
- You develop sudden blurred vision.
- You develop sudden dizzy spells.
- You develop chest pains, trouble breathing, or feel an abnormal or irregular heart beat.
- You have a fainting episode.
- You develop any sudden trouble speaking and/or swallowing.
- You develop sudden weakness in one arm and/or one leg.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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