

## PATIENT & CAREGIVER EDUCATION

# Managing Metabolic Syndrome After Allogeneic Stem Cell Transplant

This information explains what metabolic syndrome is. It also explains how to prevent and manage the problems that make up metabolic syndrome after your allogeneic stem cell transplant.

Metabolic syndrome is a combination of problems including:

- High blood sugar
- Abdominal obesity (too much weight around your waist)
- High or low cholesterol levels
- High blood pressure

Metabolic syndrome makes you more likely to get heart problems, such as a heart attack or stroke, and diabetes.

You can check if you have metabolic syndrome using the table below. If your health measurements match 3 or

more of the measurements in this table, you have metabolic syndrome.

Health Problem	Measurement
High waist circumference (distance around your waist)	<ul> <li>40 inches (102 centimeters) or more (if you're male)</li> <li>35 inches (88 centimeters) or more (if you're female)</li> </ul>
High triglycerides	<ul> <li>150 milligrams per deciliter (mg/dL) or higher or you're taking medication for high triglycerides</li> </ul>
Low HDL cholesterol	<ul> <li>Less than 40 mg/dL (if you're male)</li> <li>Less than 50 mg/dL (if you're female)</li> </ul>
High blood pressure	• 130/85 or higher <b>or</b> you're taking medication for high blood pressure
High fasting glucose	• 100 mg/dL or higher <b>or</b> you're taking medication for high blood glucose

### **Causes of Metabolic Syndrome**

Having an allogeneic stem cell transplant makes you more likely to have the problems that make up metabolic syndrome. As many as half of all people who have an allogeneic stem cell transplant develop these problems. This is because of the effects of radiation, chemotherapy, and medications to suppress your immune system. Low testosterone, an underactive thyroid gland, and graft versus host disease (GvHD) after transplant also add to the risk of developing metabolic syndrome.

# Preventing and Managing Metabolic Syndrome

The best way to prevent or manage the problems that make up metabolic syndrome is with lifestyle changes such as following a heart-healthy diet and exercising regularly.

### **Diet changes**

Sometimes people need to gain weight after transplant. Talk with your healthcare provider or dietitian about what kind of foods you should eat. It's best to eat highcalorie foods with lots of nutrients (such as avocado, nuts, seeds, olive oil, hummus, eggs, and salmon) instead of high-calorie foods without many nutrients (such as ice cream and cookies). This will help you gain weight while still following a heart-healthy diet.

If your healthcare provider wants you to follow a food safe diet, you can still eat lots of heart-healthy foods like whole grains (such as brown rice and whole-wheat bread), legumes (such as lentils and beans), and most well-washed fruits and vegetables. For more information, read the resource *Food Safety During*  *Cancer Treatment* (www.mskcc.org/pe/food\_safety) or ask to speak with a dietitian.

#### **Exercising regularly**

Exercising regularly can also help you manage the problems that cause metabolic syndrome. Talk with your healthcare provider about exercising after your transplant. This is especially important if you have numbness in your feet, osteoporosis, or if you bruise easily. A physical therapist can teach you exercises that are safe for you to do if you have any concerns about starting an exercise routine.

# **More Information**

For more information about how to prevent or manage the problems that make up metabolic syndrome, watch the videos below. If you have any questions or concerns, talk with your healthcare provider or dietitian.

The following video explains what you can do to manage abdominal obesity (belly fat) after your allogeneic stem cell transplant.

Please visit

•) www.mskcc.org/pe/metabolic\_syndrome to watch this video.

The following video explains what you can do to control your blood pressure after your allogeneic stem cell transplant.

Please visit **www.mskcc.org/pe/metabolic\_syndrome** to watch this video.

The following video explains what you can do to control your blood glucose (blood sugar) after your allogeneic stem cell transplant.

Please visit **www.mskcc.org/pe/metabolic\_syndrome** to watch this video.

The following video explains what you can do to control your cholesterol after your allogeneic stem cell transplant.

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Please visit **www.mskcc.org/pe/cholesterol\_allogeneic** to watch this video. If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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