

Understanding Coronary Microvascular Disease



If your healthcare provider says you have coronary microvascular disease (CMD), your first thought might be, "What is that?" Don't feel bad if you've never heard the term before.

When we think of heart disease, we often think of coronary artery disease (CAD). CAD is the most common type of heart disease. It affects the large arteries on either side of the heart. The arteries become blocked and harden, usually from a buildup of cholesterol on their inner walls.

Up to 50% of people with a heart condition do not have a blockage, but they still have symptoms of heart disease. That is CMD, which affects the heart's smaller blood vessels and arteries.

While there is no cure for CMD, it can be treated. Learning more about this type of heart disease can help you feel more in control of your care.

What is CMD?

CMD is also sometimes called small artery or small vessel disease. It occurs when the walls and inner lining of tiny coronary artery blood vessels of the heart become damaged. In some cases, the small arteries of the heart don't function properly.

CMD can decrease blood flow to the rest of the heart muscle. It can also cause spasms in the heart. Both of these can lead to chest pain, heart attack, or even heart failure. CMD can also increase the risk of stroke and even death.

What are the symptoms of CMD?

The signs of CMD and a heart attack are similar. Chest pain is the main symptom. Anyone experiencing chest pain should seek medical care right away.

People who have CMD may start to have trouble doing regular activities. They may also feel symptoms during times of stress.

Along with chest pain, these are common symptoms of CMD:

- Shortness of breath
- Fatigue and low energy
- Sleep problems
- Dizziness
- Pain in the arm, jaw, left shoulder, back, or abdomen

Because it's similar to other types of heart disease, it can be difficult to diagnose CMD.

CMD is usually diagnosed through various tests. Some examples include a stress test, blood test, coronary angiography, and heart scans.

Your provider may also ask you to answer questions about how hard or easy it is to do common tasks.

Who is most at risk for CMD?

Those who are at risk for heart disease are also at risk for CMD. This includes people who have diabetes, high blood pressure, and high cholesterol. Older age is also a risk factor. In addition, a family history of heart disease can make people more likely to have CMD.

Having other health conditions may increase the risk of developing CMD. These include:

- Autoimmune disease
- Lupus, arthritis, and other inflammatory diseases
- Chronic kidney disease
- Metabolic syndrome

Women are more likely to have CMD than men. About 60 to 75% of people with CMD are women. Having low levels of estrogen or high blood pressure before menopause can increase a woman's risk for CMD. Many women who have chest pain caused by heart disease have CMD, not CAD.

Smoking, obesity, lack of physical activity, an unhealthy diet, and other lifestyle factors may also increase the risk of CMD.

Preventing CMD

Heart disease is the leading cause of death in the U.S. and around the world. Thankfully, there are ways to reduce your risk of CMD and other heart diseases.

Following these healthy lifestyle habits can help:

- Avoid smoking.
- Get regular physical activity.
- Maintain a healthy body weight.
- Manage blood pressure and cholesterol.
- Lower blood sugar levels.
- Get plenty of sleep. Seven or more hours a night is recommended.
- Decrease or manage stress.

In addition, eating healthy foods is a good way to lower the risk of CMD and other health conditions. Include lots of fruits, vegetables, whole grains, low-fat dairy, and lean proteins.

Limit sodium, alcohol, added sugars, and saturated fats, which come from meat, dairy, and some cooking oils. Saturated fats can raise "bad" cholesterol, which can contribute to heart disease.

Treatment for CMD

CMD can be managed through lifestyle changes and medicine. The same healthy lifestyle habits that can lower your risk of CMD are also effective ways to manage the symptoms.

Medicines may include those that lower cholesterol and blood pressure or ones that prevent blood clots or chest pain. Other medicines may relax the blood vessels to make blood flow easier.

Cardiac rehab that's tailored for heart patients may also help with CMD symptoms. Managing other health conditions that can contribute to CMD, like diabetes, can help, too. CMD is not typically treated with surgery.

Finding out you have CMD can be stressful. But remember, you're not alone. Your healthcare provider is there to help you create a treatment plan that works for you.

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