

CARDIOMYOPATHY

Definition

Cardiomyopathy (kahr-dee-o-my-OP-uh-thee) is a disease of abnormal heart muscle. There are three main types of cardiomyopathy — dilated, hypertrophic and restrictive.

Cardiomyopathy makes it harder for your heart to pump and deliver blood to the rest of your body. Cardiomyopathy can lead to heart failure.

Cardiomyopathy can be treated. The type of treatment you'll receive depends on which type of cardiomyopathy you have and how serious it is. Your treatment may include medications, surgically implanted devices or, in severe cases, a heart transplant.

Symptoms

In the early stages, people with cardiomyopathy may not have any signs and symptoms. But as the condition advances, signs and symptoms usually appear. Cardiomyopathy signs and symptoms may include:

- Breathlessness with exertion or even at rest
- Fatigue
- Swelling of the legs, ankles and feet
- Irregular heartbeats that feel rapid, pounding or fluttering
- Bloating of the abdomen due to fluid buildup
- Dizziness, lightheadedness and fainting
- Cough

No matter what type of cardiomyopathy you have, signs and symptoms tend to get worse unless treated. In certain people, this worsening happens quickly, while in others, cardiomyopathy may not worsen for a long time.

When to see a doctor

See your doctor if you have one or more of the signs and symptoms associated with cardiomyopathy. Call 10111 or your local emergency number if you experience severe difficulty breathing, fainting or chest pain that lasts for more than a few minutes. Because the condition is sometimes hereditary, your doctor may advise that your family members be examined for cardiomyopathy.

Causes

Often, the cause of the cardiomyopathy is unknown. In some people, however, doctors are able to identify some contributing factors. Possible causes of cardiomyopathy include:

- Long-term high blood pressure
- Heart valve problems
- Heart tissue damage from a previous heart attack
- Chronic rapid heart rate
- Metabolic disorders, such as obesity, thyroid disease or diabetes
- Nutritional deficiencies of essential vitamins or minerals, such as thiamin (vitamin B-1)

- Pregnancy
- Drinking too much alcohol over many years
- Use of cocaine, amphetamines or anabolic steroids
- Use of some chemotherapy drugs to treat cancer
- Certain viral infections which may injure the heart and trigger cardiomyopathy
- Iron buildup in your heart muscle (hemochromatosis)
- Genetic conditions

The three types of cardiomyopathy are:

- **Dilated cardiomyopathy:** This is the most common type of cardiomyopathy. In this disorder, the pumping ability of your heart's main pumping chamber- the left ventricle- becomes less forceful. The left ventricle becomes enlarged (dilated) and can't effectively pump blood out of the heart. Although this type can affect people of all ages, it occurs most often in middle-aged people and is more likely to affect men. Some people with dilated cardiomyopathy have a family history of the condition or alcohol use. The cause may also be unknown (idiopathic).
- **Hypertrophic cardiomyopathy:** This type involves around abnormal growth or thickening of your heart muscle, particularly affecting the muscle of your heart's main pumping chamber. As thickening occurs, the heart tends to stiffen and the size of the pumping chamber may shrink, interfering with your heart's ability to deliver blood to your body. Hypertrophic cardiomyopathy can develop at any age, but the condition tends to be more severe if it becomes apparent during childhood. Most affected people have a family history of the disease, and some genetic mutations have been linked to hypertrophic cardiomyopathy.
- **Restrictive cardiomyopathy:** The heart muscle in people with restrictive cardiomyopathy becomes rigid and less elastic, meaning the heart can't properly expand and fill with blood between heartbeats. While restrictive cardiomyopathy can occur at any age, it most often tends to affect older people. It's the least common type of cardiomyopathy and can occur for no reason (idiopathic). The condition may also be caused by diseases elsewhere in the body that affect the heart, such as a disorder that causes the buildup of abnormal proteins (amyloidosis) or a disorder that causes abnormal blood cells to damage the heart (eosinophilic disease).

Risk factors

There are a number of risk factors that can increase your risk of cardiomyopathy, including:

- **Family history:** People with a family history of cardiomyopathy, heart failure and sudden cardiac arrest are more likely to develop cardiomyopathy than are those without a family history of heart problems.

- **Obesity:** Excess weight makes the heart work harder, which increases the risk of cardiomyopathy and heart failure.
- **Alcoholism:** People who abuse alcohol can damage their hearts, and cardiomyopathy can be a consequence. The risk increases significantly after more than five years of drinking seven to eight drinks daily.
- **Illicit drug use:** Drugs, such as cocaine, amphetamines and anabolic steroids, may increase the risk of cardiomyopathy.
- **Cancer treatments:** While necessary to treat cancer, many cancer treatments can damage some healthy cells too. Certain chemotherapy drugs and radiation therapy can increase the risk of cardiomyopathy.
- **Diabetes:** Having diabetes ups the risk of cardiomyopathy, heart failure and other heart problems.
- **Thyroid disorders:** Having an under- or overactive thyroid gland can increase your risk of cardiomyopathy.
- **Hemochromatosis:** This disorder causes the body to store excess iron, and it has been linked to an increased risk of dilated cardiomyopathy.

Complications

Having cardiomyopathy may lead to other heart conditions, including:

- **Heart failure:** Heart failure means your heart can't pump enough blood to meet your body's needs. The thickened, stiffened or weakened heart muscle due to cardiomyopathy can become unable to pump or can stop blood from flowing out of the heart. Left untreated, heart failure can be life-threatening.
- **Blood clots:** Because your heart can't pump effectively, you're more likely to have blood clots form in your heart if you have cardiomyopathy. If clots are pumped out of the heart and enter your bloodstream, they can block the blood flow to other organs, including your heart and brain. If clots develop on the right side of your heart, they may travel to your lungs (pulmonary embolism). To reduce your risk, your doctor may prescribe a blood thinner (anticoagulant medication), such as aspirin, clopidogrel (Plavix), apixaban (Eliquis), dabigatran (Pradaxa), rivaroxaban (Xarelto) or warfarin (Coumadin, Jantoven).
- **Valve problems:** Because people with dilated cardiomyopathy have an enlarged heart, the mitral and tricuspid valves — two of the heart's four valves — may not close properly, leading to a backward flow of blood. This flow creates sounds called heart murmurs.
- **Cardiac arrest and sudden death:** All forms of cardiomyopathy can lead to abnormal heart rhythms. Some of these heart rhythms are too slow to keep blood flowing through your heart effectively, and some are too fast to allow the heart to beat properly. In either case, these abnormal heart rhythms can result in fainting or, in some cases, sudden death if your heart stops beating effectively.

Lifestyle and home remedies

Your doctor may recommend adopting the following lifestyle changes to help you manage cardiomyopathy:

- Quit smoking
- Lose excess weight
- Eat low-salt diet. For most people, this means less than 1,500 milligrams of sodium daily.
- Get modest exercise after discussing with your doctor the most appropriate program of physical activity.
- Eliminate or minimize the amount of alcohol you drink. Specific recommendations will depend on the type of cardiomyopathy you have.

Alternative medicine

Coenzyme Q10 is a nutrient found in the body, and in some meats and seafood. Taking coenzyme Q10 supplements may reduce shortness of breath and the collection of excess fluid. However, the supplement hasn't been well studied in cardiomyopathy. Discuss the use of coenzyme Q10 or any supplement you're considering taking with your doctor to ensure that it won't interact with any medications you're currently taking.

Prevention

In many cases, you can't prevent cardiomyopathy. Let your doctor know if you have a family history of the condition.

You can help reduce your chance of heart failure by avoiding some of the conditions that can contribute to a weak heart, including the abuse of alcohol or cocaine or not getting enough vitamins and minerals. Controlling high blood pressure with diet and exercise also prevents many people from developing heart failure later in life.

Source: The Mayo Clinic

Contact us

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