

# Ischemic Cardiomyopathy

Ischemic cardiomyopathy is a condition that occurs when the heart muscle is weakened due to insufficient blood flow to the heart's muscle. This inhibits the heart's ability to pump blood and can lead to heart failure.





## What Is Ischemic Cardiomyopathy?

Ischemic cardiomyopathy (IC) is a condition that occurs when the heart muscle is weakened. In this condition, the left ventricle, which is the main heart muscle, is

usually enlarged and dilated. This condition can be a result of a heart attack or coronary artery disease, a narrowing of the arteries. These narrowed arteries keep blood from reaching portions of your heart. The weakened heart muscle inhibits your heart's ability to pump blood and can lead to heart failure.

Symptoms of IC include shortness of breath, chest pain, and extreme fatigue. If you have IC symptoms, you should seek medical care immediately.

Treatment depends on how much damage has been done to your heart. Medications and surgery are often required. You can improve your long-term outlook by making certain lifestyle changes, such as maintaining a healthy diet and avoiding high-risk behaviors, including smoking.

## Symptoms of Ischemic Cardiomyopathy

You can have early-stage heart disease with no symptoms. As the arteries narrow further and blood flow becomes impaired, you may experience a variety of symptoms, including:

- · shortness of breath
- extreme fatigue
- · dizziness, lightheadedness, or fainting
- chest pain and pressure (angina)
- heart palpitations
- · weight gain
- swelling in the legs and feet (edema) and abdomen
- difficulty sleeping
- cough or congestion caused by fluid in the lungs

If you have these symptoms, seek emergency medical care or call 9-1-1.

## Causes of Ischemic Cardiomyopathy

Ischemic cardiomyopathy is typically caused by coronary artery disease or a previous heart attack.

Risk factors for coronary artery disease include:

a family history of heart disease

- high blood pressure (hypertension)
- smoking
- high cholesterol
- obesity
- a sedentary lifestyle
- diabetes
- alcohol and drug abuse
- amyloidosis (a group of diseases in which there is a buildup of abnormal proteins in body tissues and organs)
- end-stage kidney disease

Men have a higher risk of developing coronary artery disease than women, but that gap closes after women reach menopause. Women over the age of 35 who take oral contraceptives and smoke are also at an increased risk.

## How Ischemic Cardiomyopathy Is Diagnosed

Your physician will probably refer you to a heart specialist (cardiologist). He or she will take your medical history and perform a physical examination. Tests to confirm the diagnosis of IC may include:

- blood tests to measure cholesterol, triglycerides, and other factors
- imaging tests, such as an X-ray, computed tomography (CT) scan, or magnetic resonance imaging (MRI)
- electrocardiogram (ECG or EKG) to record electrical activity in the heart
- echocardiogram, which uses sound waves to evaluate heart function
- stress test or treadmill test to monitor your heart's activity during exercise
- coronary angiography to look for narrowing of the arteries
- radionuclide studies to assess your heart's pumping function
- myocardial biopsy to study a small tissue sample from your heart muscle

# How Ischemic Cardiomyopathy Is Treated

To treat IC, the underlying coronary artery disease must be addressed.

## Lifestyle

Ask your doctor for dietary recommendations. Patients with coronary artery disease are advised to maintain a healthy diet that is low in fat, cholesterol, and sodium. You will also be advised about which exercises are healthy and safe for your condition. These are not intended as short-term fixes, but as long-term lifestyle changes.

#### Medications

Medications are used to ease your symptoms, prevent complications, and improve heart function. Depending on your circumstances, your doctor may prescribe:

- beta-blockers to reduce blood pressure and heart rate
- calcium channel blockers to help calm and widen the arteries, lowering blood pressure as well
- aldosterone inhibitors to rid the body of excess fluid, which reduces blood pressure and symptoms related to excess fluid, such as swelling and shortness of breath
- diuretics to rid the body of excess fluid, which reduces the amount of blood that needs to be pumped, leading to reduced blood pressure and less work for the heart muscle

- blood thinners
- medications to control heart rate and rhythm

### **Surgery and Other Procedures**

Surgical procedures for coronary artery disease may include:

- implanting of a pacemaker and/or defibrillator (to normalize heart rate)
- angioplasty (to open narrowed arteries)
- stents (tubes to hold arteries open)
- atherectomy (to remove plaque from arteries)
- radiation therapy (to keep arteries clear after angioplasty)

In very serious cases, coronary bypass surgery is used to improve blood flow to the heart. In this surgery, a healthy vein or artery is surgically removed and placed near the blocked one. This is done in such a way so that blood will bypass the blocked artery and flow through the new one.

If damage to the heart is too great, a heart transplant may be required.

# Prognosis for Ischemic Cardiomyopathy

Treating the underlying cause of IC (most often coronary artery disease) is key to preventing the serious complications that untreated IC can lead to. Untreated IC can eventually lead to heart failure, blood clots, or death.

Your prognosis depends on several factors, including:

- how much damage your heart has sustained
- the effectiveness of treatment
- lifestyle choices, which include maintaining a heart-healthy diet

Factors that may contribute to a poorer prognosis include:

- high-risk lifestyle choices, such as smoking or alcohol and drug abuse
- failure to take medications properly or to seek follow-up care
- infections
- other diseases or conditions

## Preventing Ischemic Cardiomyopathy

You can decrease your chances of developing heart disease in the first place by making smart lifestyle choices. Among these are:

- not smoking
- maintaining a healthy diet that is low in cholesterol and saturated fat
- exercising regularly, which means at least 30 minutes of aerobic exercise three times a week
- maintaining a healthy weight
- monitoring your blood pressure and cholesterol levels

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