



For more information, visit <http://www.nhlbi.nih.gov/health/health-topics/topics/cm/>

## What Is Cardiomyopathy?

Cardiomyopathy (KAR-de-o-mi-OP-ah-thee) refers to diseases of the heart muscle. These diseases have many causes, signs and symptoms, and treatments.

In cardiomyopathy, the heart muscle becomes enlarged, thick, or rigid. In rare cases, the muscle tissue in the heart is replaced with scar tissue.

As cardiomyopathy worsens, the heart becomes weaker. It's less able to pump blood through the body and maintain a normal electrical rhythm. This can lead to [heart failure](#) or irregular heartbeats called [arrhythmias](#) (ah-RITH-me-ahs). In turn, heart failure can cause fluid to build up in the lungs, ankles, feet, legs, or abdomen.

The weakening of the heart also can cause other complications, such as [heart valve problems](#).

### Overview

The main types of cardiomyopathy are:

- Dilated cardiomyopathy
- Hypertrophic (hi-per-TROF-ik) cardiomyopathy
- Restrictive cardiomyopathy
- Arrhythmogenic (ah-rith-mo-JEN-ik) right ventricular dysplasia (dis-PLA-ze-ah)

Other types of cardiomyopathy sometimes are referred to as "unclassified cardiomyopathy."

Cardiomyopathy can be acquired or inherited. "Acquired" means you aren't born with the disease, but you develop it due to another disease, condition, or factor. "Inherited" means your parents passed the gene for the disease on to you. Many times, the cause of cardiomyopathy isn't known.

Cardiomyopathy can affect people of all ages. However, people in certain age groups are more likely to have certain types of cardiomyopathy. This article focuses on cardiomyopathy in adults.

### Outlook

Some people who have cardiomyopathy have no signs or symptoms and need no treatment. For other people, the disease develops quickly, symptoms are severe, and serious complications occur.

Treatments for cardiomyopathy include lifestyle changes, medicines, surgery, implanted devices to correct arrhythmias, and a nonsurgical procedure. These treatments can control symptoms, reduce complications, and stop the disease from getting worse.

## Types of Cardiomyopathy

### Dilated Cardiomyopathy

Dilated cardiomyopathy is the most common type of the disease. It mostly occurs in adults aged 20 to 60. Men are more likely than women to have this type of cardiomyopathy.

Dilated cardiomyopathy affects the heart's ventricles (VEN-trih-kuls) and atria (AY-tree-uh). These are the lower and upper chambers of the heart, respectively.

The disease often starts in the left ventricle, the heart's main pumping chamber. The heart muscle begins to dilate (stretch and become thinner). This causes the inside of the chamber to enlarge. The problem often spreads to the right ventricle and then to the atria as the disease gets worse.

When the heart chambers dilate, the heart muscle doesn't contract normally. Also, the heart can't pump blood very well. Over time, the heart becomes weaker and [heart failure](#) can occur.

Common symptoms of heart failure include shortness of breath, fatigue (tiredness), and swelling of the ankles, feet, legs, abdomen, and veins in the neck.

Dilated cardiomyopathy also can lead to [heart valve problems](#), [arrhythmias](#) (irregular heartbeats), and blood clots in the heart.

### Hypertrophic Cardiomyopathy

Hypertrophic cardiomyopathy (HCM) is very common and can affect people of any age. About 1 out of every 500 people has HCM. It affects men and women equally.

HCM is a common cause of [sudden cardiac arrest](#) (SCA) in young people, including young athletes.

HCM occurs if heart muscle cells enlarge and cause the walls of the ventricles (usually the left ventricle) to thicken. Despite this thickening, the ventricle size often remains normal. However, the thickening may block blood flow out of the ventricle. If this happens, the condition is called obstructive hypertrophic cardiomyopathy.

Sometimes, the septum thickens and bulges into the left ventricle. This also can block blood flow out of the left ventricle. (The septum is the wall that divides the left and right sides of the heart.)

If a blockage occurs, the ventricle must work hard to pump blood to the body. Symptoms can include chest pain, dizziness, shortness of breath, or fainting.

HCM also can affect the heart's mitral (MI-trul) valve, causing blood to leak backward through the valve.

Sometimes the thickened heart muscle doesn't block blood flow out of the left ventricle. This is called nonobstructive hypertrophic cardiomyopathy. The entire

ventricle may thicken, or the thickening may happen only at the bottom of the heart. The right ventricle also may be affected.

In both types of HCM (obstructive and nonobstructive), the thickened muscle makes the inside of the left ventricle smaller, so it holds less blood. The walls of the ventricle also may stiffen. As a result, the ventricle is less able to relax and fill with blood.

These changes can raise blood pressure in the ventricles and the blood vessels of the lungs. Changes also occur to the cells in the damaged heart muscle. This may disrupt the heart's electrical signals and lead to arrhythmias.

Some people who have HCM have no signs or symptoms. The disease doesn't affect their lives. Others have severe symptoms and complications. For example, they may have shortness of breath, serious arrhythmias, or an inability to exercise.

Rarely, people who have HCM can have SCA during very vigorous physical activity. The physical activity can trigger dangerous arrhythmias. If you have HCM, ask your doctor what types and amounts of physical activity are safe for you.

### **Restrictive Cardiomyopathy**

Restrictive cardiomyopathy tends to mostly affect older adults. With this disease, the ventricles become stiff and rigid. This happens because abnormal tissue, such as scar tissue, replaces the normal heart muscle.

As a result, the ventricles can't relax normally and fill with blood, and the atria become enlarged. Over time, blood flow in the heart is reduced. This can lead to problems such as heart failure or arrhythmias.

### **Arrhythmogenic Right Ventricular Dysplasia**

Arrhythmogenic right ventricular dysplasia (ARVD) is a rare type of cardiomyopathy. ARVD occurs if the muscle tissue in the right ventricle dies and is replaced with scar tissue.

This process disrupts the heart's electrical signals and causes arrhythmias. Symptoms include [palpitations](#) and fainting after physical activity. (Palpitations are feelings that your heart is skipping a beat, fluttering, or beating too hard or too fast.)

ARVD usually affects teens or young adults. It can cause SCA in young athletes.

## Other Names for Cardiomyopathy

### **Other Names for Dilated Cardiomyopathy**

- Alcoholic cardiomyopathy. This term is used when overuse of alcohol causes the disease.
- Congestive cardiomyopathy.
- Diabetic cardiomyopathy.
- Familial dilated cardiomyopathy.
- Idiopathic cardiomyopathy.
- Ischemic cardiomyopathy. This term is used when [coronary heart disease](#) (also called coronary artery disease) or [heart attack](#) causes the disease.
- Peripartum cardiomyopathy. This term is used when the disease develops in a woman shortly before or after she gives birth.
- Primary cardiomyopathy.

### **Other Names for Hypertrophic Cardiomyopathy**

- Asymmetric septal hypertrophy
- Familial hypertrophic cardiomyopathy
- Hypertrophic nonobstructive cardiomyopathy
- Hypertrophic obstructive cardiomyopathy
- Idiopathic hypertrophic subaortic stenosis

### **Other Names for Restrictive Cardiomyopathy**

- Idiopathic restrictive cardiomyopathy
- Infiltrative cardiomyopathy

### **Other Names for Arrhythmogenic Right Ventricular Dysplasia**

- Arrhythmogenic right ventricular cardiomyopathy
- Right ventricular cardiomyopathy
- Right ventricular dysplasia

## What Causes Cardiomyopathy?

Cardiomyopathy can be acquired or inherited. "Acquired" means you aren't born with the disease, but you develop it due to another disease, condition, or factor.

"Inherited" means your parents passed the gene for the disease on to you. Researchers continue to look for the genetic links to cardiomyopathy. They also

continue to explore how these links cause or contribute to the various types of the disease.

Many times, the cause of cardiomyopathy isn't known. This often is the case when the disease occurs in children.

### Dilated Cardiomyopathy

The cause of dilated cardiomyopathy often isn't known. As many as one-third of the people who have dilated cardiomyopathy inherit it from their parents.

Certain diseases, conditions, and substances also can cause the disease, such as:

- [Coronary heart disease](#), [heart attack](#), [high blood pressure](#), diabetes, thyroid disease, viral hepatitis, and HIV
- Infections, especially viral infections that inflame the heart muscle
- Alcohol, especially if you also have a poor diet
- Complications during the last month of pregnancy or within 5 months of birth
- Certain toxins, such as cobalt
- Certain drugs (such as cocaine and amphetamines) and two medicines used to treat cancer (doxorubicin and daunorubicin)

### Hypertrophic Cardiomyopathy

Hypertrophic cardiomyopathy (HCM) usually is inherited. It's caused by a mutation (change) in some of the genes in heart muscle proteins. HCM also can develop over time because of high blood pressure or aging.

Other diseases, such as diabetes or thyroid disease, also can cause HCM. Sometimes the cause of the disease isn't known.

### Restrictive Cardiomyopathy

Certain diseases, conditions, and factors can cause restrictive cardiomyopathy, including:

- [Hemochromatosis](#) (HE-mo-kro-mah-TOE-sis). This is a disease in which too much iron builds up in your body. The extra iron is toxic to the body and can damage the organs, including the heart.
- [Sarcoidosis](#) (sar-koy-DOE-sis). This disease causes inflammation and can affect various organs in the body. Researchers believe that an abnormal immune response may cause sarcoidosis. This abnormal response causes tiny lumps of cells to form in the body's organs, including the heart.
- Amyloidosis (AM-eh-loy-DOE-sis). This is a disease in which abnormal proteins build up in the body's organs, including the heart.
- Connective tissue disorders.
- Some cancer treatments, such as radiation and chemotherapy.

### Arrhythmogenic Right Ventricular Dysplasia

Researchers think that arrhythmogenic right ventricular dysplasia is an inherited disease.

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## Who Is at Risk for Cardiomyopathy?

People of all ages and races can have cardiomyopathy. However, certain types of the disease are more common in certain groups.

Dilated cardiomyopathy is more common in African Americans than Whites. This type of the disease also is more common in men than women.

Teens and young adults are more likely than older people to have arrhythmogenic right ventricular dysplasia, although it's rare in both groups.

### Major Risk Factors

Certain diseases, conditions, or factors can raise your risk for cardiomyopathy. Major risk factors include:

- A family history of cardiomyopathy, [heart failure](#), or [sudden cardiac arrest](#) (SCA)
- A disease or condition that can lead to cardiomyopathy, such as [coronary heart disease](#), [heart attack](#), or a viral infection that inflames the heart muscle
- Diabetes or other metabolic diseases, or severe [obesity](#)
- Diseases that can damage the heart, such as [hemochromatosis](#), [sarcoidosis](#), or amyloidosis
- Long-term alcoholism
- Long-term [high blood pressure](#)

Some people who have cardiomyopathy never have signs or symptoms. Thus, it's important to identify people who may be at high risk for the disease. This can help prevent future problems, such as serious [arrhythmias](#) (irregular heartbeats) or SCA.

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## What Are the Signs and Symptoms of Cardiomyopathy?

Some people who have cardiomyopathy never have signs or symptoms. Others don't have signs or symptoms in the early stages of the disease.

As cardiomyopathy worsens and the heart weakens, signs and symptoms of [heart failure](#) usually occur. These signs and symptoms include:

- Shortness of breath or trouble breathing, especially with physical exertion
- Fatigue (tiredness)
- Swelling in the ankles, feet, legs, abdomen, and veins in the neck

Other signs and symptoms may include dizziness; light-headedness; fainting during physical activity; [arrhythmias](#) (irregular heartbeats); chest pain, especially after physical exertion or heavy meals; and [heart murmurs](#). (Heart murmurs are extra or unusual sounds heard during a heartbeat.)

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## How Is Cardiomyopathy Diagnosed?

Your doctor will diagnose cardiomyopathy based on your medical and family histories, a physical exam, and the results from tests and procedures.

### Specialists Involved

Often, a cardiologist or pediatric cardiologist diagnoses and treats cardiomyopathy. A cardiologist specializes in diagnosing and treating heart diseases. A pediatric cardiologist is a cardiologist who treats children.

### Medical and Family Histories

Your doctor will want to learn about your medical history. He or she will want to know what signs and symptoms you have and how long you've had them.

Your doctor also will want to know whether anyone in your family has had cardiomyopathy, [heart failure](#), or [sudden cardiac arrest](#).

### Physical Exam

Your doctor will use a stethoscope to listen to your heart and lungs for sounds that may suggest cardiomyopathy. These sounds may even suggest a certain type of the disease.

For example, the loudness, timing, and location of a [heart murmur](#) may suggest obstructive hypertrophic cardiomyopathy. A "crackling" sound in the lungs may be a sign of heart failure. (Heart failure often develops in the later stages of cardiomyopathy.)

Physical signs also help your doctor diagnose cardiomyopathy. Swelling of the ankles, feet, legs, abdomen, or veins in your neck suggests fluid buildup, a sign of heart failure.

Your doctor may notice signs and symptoms of cardiomyopathy during a routine exam. For example, he or she may hear a heart murmur, or you may have abnormal test results.

### Diagnostic Tests

Your doctor may recommend one or more of the following tests to diagnose cardiomyopathy.

#### Blood Tests

During a [blood test](#), a small amount of blood is taken from your body. It's often drawn from a vein in your arm using a needle. The procedure usually is quick and easy, although it may cause some short-term discomfort.

Blood tests give your doctor information about your heart and help rule out other conditions.

#### Chest X Ray

A [chest x ray](#) takes pictures of the organs and structures inside your chest, such as your heart, lungs, and blood vessels. This test can show whether your heart is enlarged. A chest x ray also can show whether fluid is building up in your lungs.

#### EKG (Electrocardiogram)

An [EKG](#) is a simple test that records the heart's electrical activity. The test shows how fast the heart is beating and its rhythm (steady or irregular). An EKG also records the strength and timing of electrical signals as they pass through each part of the heart.

This test is used to detect and study many heart problems, such as [heart attacks](#), [arrhythmias](#) (irregular heartbeats), and heart failure. EKG results also can suggest other disorders that affect heart function.

A standard EKG only records the heartbeat for a few seconds. It won't detect problems that don't happen during the test.

To diagnose heart problems that come and go, your doctor may have you wear a portable EKG monitor. The two most common types of portable EKGs are Holter and event monitors.

#### Holter and Event Monitors

[Holter and event monitors](#) are small, portable devices. They record your heart's electrical activity while you do your normal daily activities. A Holter monitor records the heart's electrical activity for a full 24- or 48-hour period.

An event monitor records your heart's electrical activity only at certain times while you're wearing it. For many event monitors, you push a button to start the monitor when you feel symptoms. Other event monitors start automatically when they sense abnormal heart rhythms.

#### Echocardiography

[Echocardiography](#) (echo) is a test that uses sound waves to create a moving picture of your heart. The picture shows how well your heart is working and its size and shape.

There are several types of echo, including stress echo. This test is done as part of a stress test (see below). Stress echo can show whether you have decreased blood flow to your heart, a sign of [coronary heart disease](#).

Another type of echo is transesophageal (tranz-ih-sof-uh-JEE-ul) echo, or [TEE](#). TEE provides a view of the back of the heart.

For this test, a sound wave wand is put on the end of a special tube. The tube is gently passed down your throat and into your esophagus (the passage leading from your mouth to your stomach). Because this passage is right behind the heart, TEE can create detailed pictures of the heart's structures.

Before TEE, you're given medicine to help you relax, and your throat is sprayed with numbing medicine.

#### Stress Test

Some heart problems are easier to diagnose when your heart is working hard and beating fast. During [stress testing](#), you exercise (or are given medicine if

you're unable to exercise) to make your heart work hard and beat fast while heart tests are done.

These tests may include [nuclear heart scanning](#), echo, and positron emission tomography (PET) scanning of the heart.

### Diagnostic Procedures

You may have one or more medical procedures to confirm a diagnosis or to prepare for surgery (if surgery is planned). These procedures may include [cardiac catheterization](#) (KATH-e-ter-i-ZA-shun), [coronary angiography](#) (an-jee-OG-ra-fee), or myocardial (mi-o-KAR-de-al) biopsy.

#### Cardiac Catheterization

This procedure checks the pressure and blood flow in your heart's chambers. The procedure also allows your doctor to collect blood samples and look at your heart's arteries using x-ray imaging.

During cardiac catheterization, a long, thin, flexible tube called a catheter is put into a blood vessel in your arm, groin (upper thigh), or neck and threaded to your heart. This allows your doctor to study the inside of your arteries for blockages.

#### Coronary Angiography

This procedure often is done with cardiac catheterization. During the procedure, dye that can be seen on an x ray is injected into your coronary arteries. The dye lets your doctor study blood flow through your heart and blood vessels.

Dye also may be injected into your heart chambers. This allows your doctor to study the pumping function of your heart.

#### Myocardial Biopsy

For this procedure, your doctor removes a piece of your heart muscle. This can be done during cardiac catheterization. The heart muscle is studied under a microscope to see whether changes in cells have occurred. These changes may suggest cardiomyopathy.

Myocardial biopsy is useful for diagnosing some types of cardiomyopathy.

### Genetic Testing

Some types of cardiomyopathy run in families. Thus, your doctor may suggest genetic testing to look for the disease in your parents, brothers and sisters, or other family members.

Genetic testing can show how the disease runs in families. It also can find out the chances of parents passing the genes for the disease on to their children.

Genetic testing also may be useful if your doctor thinks you have cardiomyopathy, but you don't yet have signs or symptoms. If the test shows you have the disease, your doctor can start treatment early, when it may work best.

## How Is Cardiomyopathy Treated?

People who have cardiomyopathy but no signs or symptoms may not need treatment. Sometimes, dilated cardiomyopathy that comes on suddenly may even go away on its own.

For other people who have cardiomyopathy, treatment is needed. Treatment depends on the type of cardiomyopathy you have, the severity of your symptoms and complications, and your age and overall health.

The main goals of treating cardiomyopathy include:

- Managing any conditions that cause or contribute to the disease
- Controlling signs and symptoms so that you can live as normally as possible
- Stopping the disease from getting worse
- Reducing complications and the risk of [sudden cardiac arrest](#) (SCA)

Treatments may include lifestyle changes, medicines, surgery, implanted devices to correct [arrhythmias](#) (irregular heartbeats), and/or a nonsurgical procedure.

### Lifestyle Changes

Your doctor may suggest lifestyle changes to manage a condition that's causing your cardiomyopathy. These changes can help reduce symptoms.

#### Healthy Diet and Physical Activity

A healthy diet and physical activity are part of a healthy lifestyle. A healthy diet includes a variety of fruits, vegetables, and grains; half of your grains should come from whole-grain products.

Choose foods that are low in saturated fat, *trans* fat, and cholesterol. Healthy choices include lean meats, poultry without skin, fish, beans, and fat-free or low-fat milk and milk products.

Choose and prepare foods with little sodium (salt). Too much salt can raise your risk of [high blood pressure](#). Recent studies show that following the [Dietary Approaches to Stop Hypertension](#) (DASH) eating plan can lower blood pressure.

Choose foods and beverages that are low in added sugar. If you drink alcoholic beverages, do so in moderation.

Aim for a healthy weight by staying within your daily calorie needs. Balance the calories you take in with the calories you use during physical activity. Be as physically active as you can.

Some people should get medical advice before starting or increasing physical activity. For example, talk with your doctor if you have a chronic (ongoing) health problem, are on medicine, or have symptoms such as chest pain, shortness of breath, or dizziness. Your doctor can suggest types and amounts of physical activity that are safe for you.

For more information about following a healthy diet, go to the National Heart, Lung, and Blood Institute's (NHLBI's) [Aim for a Healthy Weight](#) Web site, "[Your Guide to a Healthy Heart](#)," and "[Your Guide to Lowering Your Blood Pressure With DASH](#)." All of these resources provide general information about healthy eating.

For more information about physical activity, go to Health Topics [Physical Activity and Your Heart](#) article and the NHLBI's "[Your Guide to Physical Activity and Your Heart](#)."

Your doctor can help you decide what kind of eating plan and physical activity are right for you.

### **Other Lifestyle Changes**

Your doctor also may recommend other lifestyle changes, such as:

- [Quitting smoking](#)
- Losing [excess weight](#)
- Avoiding the use of alcohol and illegal drugs
- Getting enough sleep and rest
- Reducing stress
- Treating underlying conditions, such as diabetes and high blood pressure

### **Medicines**

Many medicines are used to treat cardiomyopathy. Your doctor may prescribe medicines to:

- Lower your blood pressure. ACE inhibitors, angiotensin II receptor blockers, beta blockers, and calcium channel blockers are examples of medicines that lower blood pressure.
- Slow your heart rate. Beta blockers, calcium channel blockers, and digoxin are examples of medicines that slow the heart rate. Beta blockers and calcium channel blockers also are used to lower blood pressure.
- Keep your heart beating with a normal rhythm. These medicines, called antiarrhythmics, help prevent arrhythmias.
- Balance electrolytes in your body. Electrolytes are minerals that help maintain fluid levels and acid-base balance in the body. They also help muscle and nerve tissues work properly. Abnormal electrolyte levels may be a sign of dehydration (lack of fluid in your body), [heart failure](#), high blood pressure, or other disorders. Aldosterone blockers are an example of a medicine used to balance electrolytes.
- Remove excess fluid and sodium from your body. Diuretics, or "water pills," are an example of a medicine that helps remove excess fluid and sodium from the body.
- Prevent blood clots from forming. Anticoagulants, or "blood thinners," are an example of a medicine that prevents blood clots. Blood thinners often are used to prevent blood clots from forming in people who have dilated cardiomyopathy.
- Reduce inflammation. Corticosteroids are an example of a medicine used to reduce inflammation.

### **Surgery**

Doctors use several types of surgery to treat cardiomyopathy. They include septal myectomy (mi-EK-toe-me), implanted devices to help the heart work better, and [heart transplant](#).

#### **Septal Myectomy**

Septal myectomy is [open-heart surgery](#). It's used for people who have obstructive hypertrophic cardiomyopathy and severe symptoms. This surgery generally is used for younger patients and for people whose medicines aren't working well.

During the surgery, a surgeon removes part of the thickened septum that's bulging into the left ventricle. This improves blood flow through the heart and out to the body. The removed tissue doesn't grow back.

The surgeon also can repair or replace the mitral valve at the same time (if needed). Septal myectomy often is successful and allows you to return to a normal life with no symptoms.

#### **Surgically Implanted Devices**

Surgeons can place several types of devices in the heart to help it work better. One example is a [pacemaker](#). This is a small device that's placed under the skin of your chest or abdomen to help control arrhythmias. The device uses electrical pulses to prompt the heart to beat at a normal rate.

Sometimes doctors choose to use a cardiac resynchronization therapy (CRT) device. A CRT device coordinates contractions between the heart's left and right ventricles.

A [left ventricular assist device](#) (LVAD) helps the heart pump blood to the body. An LVAD can be used as a long-term therapy or as a short-term treatment for people who are waiting for a heart transplant.

An [implantable cardioverter defibrillator](#) (ICD) helps control life-threatening arrhythmias that may lead to SCA. This small device is implanted in the chest or abdomen and connected to the heart with wires.

If an ICD senses a dangerous change in heart rhythm, it will send an electric shock to the heart to restore a normal heartbeat.

#### **Heart Transplant**

For this surgery, a surgeon replaces a person's diseased heart with a healthy heart from a deceased donor. A heart transplant is a last resort treatment for people who have end-stage heart failure. "End-stage" means the condition has become so severe that all treatments, other than heart transplant, have failed.

For more information about this treatment, go to the Health Topics [Heart Transplant](#) article.

### **Nonsurgical Procedure**

Doctors may use a nonsurgical procedure called alcohol septal ablation to treat cardiomyopathy.

For this procedure, your doctor injects ethanol (a type of alcohol) through a tube into the small artery that supplies blood to the thickened area of heart muscle. The alcohol kills cells, and the thickened tissue shrinks to a more normal size.

This procedure allows blood to flow freely through the ventricle, which improves symptoms.

## How Can Cardiomyopathy Be Prevented?

You can't prevent inherited types of cardiomyopathy. However, you can take steps to lower your risk for diseases or conditions that may lead to or complicate cardiomyopathy. Examples include [coronary heart disease](#), [high blood pressure](#), and [heart attack](#).

Your doctor may advise you to make lifestyle changes, such as:

- Following a healthy diet and being physically active
- [Quitting smoking](#)
- Avoiding the use of alcohol and illegal drugs
- Getting enough sleep and rest
- Reducing stress

For more information about lifestyle changes, go to "[How Is Cardiomyopathy Treated?](#)"

Your cardiomyopathy may be due to an underlying disease or condition. If you treat that condition early enough, you may be able to prevent cardiomyopathy complications. For example, to control high blood pressure, [high blood cholesterol](#), and diabetes:

- Get regular checkups with your doctor.
- Follow your doctor's advice about lifestyle changes.
- Take all of your medicines as your doctor prescribes.

Doctors may be able to prevent [sudden cardiac arrest](#) (SCA) if they can identify people at high risk for the condition and treat them with an [implantable cardioverter defibrillator](#). (SCA is a complication of cardiomyopathy.)

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## Living With Cardiomyopathy

Some people who have cardiomyopathy—especially those who have hypertrophic cardiomyopathy (HCM)—may live a healthy life with few problems or symptoms. Others may have serious symptoms and complications.

If you have cardiomyopathy, you can take steps to take care of your heart. Lifestyle changes and ongoing care can help you manage the disease.

### Lifestyle Changes

A healthy diet and physical activity are part of a heart healthy lifestyle. Your doctor can help you decide what kind of eating plan is right for you. Talk with your doctor about the amounts and types of fluids that are safe and healthy for you. Too much fluid can worsen certain heart conditions.

Your doctor also may suggest a diet that's low in sodium (salt) and fat. (For more information about healthy eating, go to "[How Is Cardiomyopathy Treated?](#)")

Talk with your doctor about the amount and type of physical activity that's right for you. People who have HCM shouldn't do vigorous activity. However, moderate activity, such as walking, often is a good idea.

Your doctor also may suggest other lifestyle changes, such as:

- [Quitting smoking](#)
- Losing [excess weight](#)
- Avoiding the use of alcohol and illegal drugs
- Getting enough sleep and rest
- Reducing stress

### Ongoing Care

If you have cardiomyopathy, it's important to get ongoing care. Call your doctor if you notice new or worsening symptoms, such as swelling in your ankles, feet, legs, abdomen, or veins in the neck. These symptoms may be a sign that the disease is getting worse.

You also should:

- Take all of your medicines as your doctor prescribes.
- Make all of the lifestyle changes that your doctor suggests.
- Make sure you go to all of your medical checkups.
- Follow your treatment plan for any underlying conditions, such as diabetes and [high blood pressure](#).

Cardiomyopathy often runs in families. Your doctor may suggest that your parents, brothers and sisters, and children get checked to see whether they have the disease.

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## Clinical Trials

The National Heart, Lung, and Blood Institute (NHLBI) is strongly committed to supporting research aimed at preventing and treating heart, lung, and blood diseases and conditions and sleep disorders.

Researchers have learned a lot about heart diseases and conditions over the years. This has led to advances in medical knowledge and care. However, many questions remain about heart diseases and conditions, including cardiomyopathy.

The NHLBI continues to support research aimed at learning more about heart diseases and conditions. For example, NHLBI-supported research on

cardiomyopathy includes studies that explore:

- Whether certain medicines improve heart function in people who have cardiomyopathy
- How certain therapies can help treat cardiomyopathy and improve quality of life for people who have the disease

Much of this research depends on the willingness of volunteers to take part in [clinical trials](#). Clinical trials test new ways to prevent, diagnose, or treat various diseases and conditions.

For example, new treatments for a disease or condition (such as medicines, medical devices, surgeries, or procedures) are tested in volunteers who have the illness. Testing shows whether a treatment is safe and effective in humans before it is made available for widespread use.

By taking part in a clinical trial, you can gain access to new treatments before they're widely available. You also will have the support of a team of health care providers, who will likely monitor your health closely. Even if you don't directly benefit from the results of a clinical trial, the information gathered can help others and add to scientific knowledge.

If you volunteer for a clinical trial, the research will be explained to you in detail. You'll learn about treatments and tests you may receive, and the benefits and risks they may pose. You'll also be given a chance to ask questions about the research. This process is called informed consent.

If you agree to take part in the trial, you'll be asked to sign an informed consent form. This form is not a contract. You have the right to withdraw from a study at any time, for any reason. Also, you have the right to learn about new risks or findings that emerge during the trial.

For more information about clinical trials related to cardiomyopathy, talk with your doctor. You also can visit the following Web sites to learn more about clinical research and to search for clinical trials:

- <http://clinicalresearch.nih.gov>
- [www.clinicaltrials.gov](http://www.clinicaltrials.gov)
- [www.nhlbi.nih.gov/studies/index.htm](http://www.nhlbi.nih.gov/studies/index.htm)
- [www.researchmatch.org](http://www.researchmatch.org)

For more information about clinical trials for children, visit the NHLBI's [Children and Clinical Studies](#) Web page.

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## Links to Other Information About Cardiomyopathy

### NHLBI Resources

- [Arrhythmias](#) (Health Topics)
- [Heart Failure](#) (Health Topics)
- [NHLBI-Related Public Interest Organizations](#)
- [Sudden Cardiac Arrest](#) (Health Topics)

### Non-NHLBI Resources

- [Cardiomyopathy](#) (MedlinePlus)

### Clinical Trials

- [Children and Clinical Studies](#)
- [Clinical Trials](#) (Health Topics)
- [Current Research](#) (ClinicalTrials.gov)
- [NHLBI Clinical Trials](#)
- [NIH Clinical Research Trials and You](#) (National Institutes of Health)
- [ResearchMatch](#) (funded by the National Institutes of Health)