Hypertrophic Cardiomyopathy

How is it diagnosed?

Your healthcare provider will ask about your symptoms, examine you, and listen to your heart. You may have:

- chest X-rays
- electrocardiogram (ECG), which is a recording of your heart's electrical activity
- echocardiogram (an ultrasound scan of the heart), which can show areas of heart muscle that are thick.

You may also need to wear a Holter monitor. A Holter monitor is used to record your heart rhythm for at least 24 hours.

Because the disease may run in families, your healthcare provider may suggest testing other members of your family.

What is hypertrophic cardiomyopathy?

Hypertrophic cardiomyopathy (HCM) is a disease in which the walls of the heart become thick and stiff. The thickening may make it harder for the heart to pump blood well.

How does it occur?

HCM is usually caused by a defect in the genes that control the growth of the heart muscle. The defect causes the cells to become tangled and jumbled up instead of having their normal pattern. These changes may occur throughout the heart or in just a small part of it. Because it is caused by a defect in genes, HCM often runs in families. People of all ages may have HCM, but younger people are likely to have a more severe form of the disease.

Sometimes HCM occurs because of high blood pressure. Having very high blood pressure for a long time can make the walls of the heart thicken. The thickening may get severe enough to cause HCM.

What are the symptoms?

HCM varies widely in how it affects people. Many people have no symptoms at all. Others may be nearly disabled.

The most common symptoms are chest pain and shortness of breath with exertion. You may get dizzy, particularly when you stand suddenly. You may faint. Young athletes who die during heavy exercise are often found to have HCM.

How is it treated?

If tests show no blockage to blood flow and no potentially dangerous heart rhythm problems, regular checkups by your healthcare provider may be all that is needed. If you are having symptoms, you may need treatment.

The treatment depends on your risk. There is no treatment for the gene defect causing HCM. Your healthcare provider must treat the effects of the genetic problem. If your heart's ability to pump keeps getting worse, you could develop heart failure. Most heart failure in people with HCM is the result of blocked blood flow or abnormal heart muscle contraction. Medicines such as beta blockers and calcium channel blockers may be used to relax the heart muscle and reduce the amount of blockage.

Procedures that may be used to treat HCM include:

- removal of a piece of heart muscle (myectomy)
- insertion of an artificial pacemaker or an implantable cardioverter-defibrillator (ICD) to treat abnormal heart rhythms
- surgery to repair a valve damaged by HCM.

How long do the effects last?

Most people with mild forms of HCM have very few problems and a normal life expectancy. Some people with HCM may develop heart failure. Very rarely, people with HCM die suddenly.

The main risk for people with HCM is that they may develop abnormal heart rhythms. In some cases this abnormal heart rhythm may be something called ventricular fibrillation. Ventricular fibrillation prevents coordinated beating of the heart muscle. As a result, blood circulation can come to a sudden stop. Emergency treatment with an electrical shock is then necessary to prevent death.

How can I help take care of myself?

Follow your healthcare provider's advice about exercise and have regular checkups.

If you have severe HCM, you may wish to wear a medical alert bracelet in case of an emergency.

Call your provider right away if:

- You become lightheaded or faint.
- You have any new signs of shortness of breath with physical activity.

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