



HYPERTROPHIC CARDIOMYOPATHY (HCM)

Patient Information

What is Hypertrophic Cardiomyopathy (HCM)

Hypertrophic Cardiomyopathy (HCM), formerly known as Idiopathic Hypertrophic Subaortic Stenosis (IHSS) is a condition which results from abnormal changes in the proteins that form heart muscle. Although present from birth, it may not be detected until adolescence, when the heart finishes growing.

Because heart muscle proteins in HCM are abnormal, they do not contract or pump the heart muscle properly. To compensate, the heart muscle thickens. The thickness is usually not even, but instead is more concentrated in the heart's septum, near the channel where blood leaves the heart.

Diagnosis

HCM is diagnosed by a variety of testing that is currently available. These include:

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| 1. Chest x-ray | 4. Echocardiogram |
| 2. Electrocardiogram | 5. Cardiac catheterization |
| 3. Stress testing | 6. Electrophysiology testing |

Causes

HCM is an inherited disorder. On average, 50% of the offspring of an affected individual are expected to inherit the condition.

Symptoms

1. **Shortness of breath especially with exercise or stress.**
Cause: There is increased demand on the heart to supply blood to body systems. Exercising the abnormally thickened heart muscle and inability to contract and relax properly prevents adequate filling of the heart. This reduces blood flow out of the heart causing fluid to back up into the lungs causing shortness of breath.
2. **Dizziness or feeling like you will pass out.**
Cause: Increased demand on the heart will decrease its ability to adequately fill as described above. When there is a sudden decrease in blood flow out to the body systems, the first affected is the brain. In response to low blood flow to the brain, you will experience dizziness or fainting. These symptoms can be aggravated with sudden changes in position especially lying to standing or sitting to standing. Abnormal heart rhythms can also cause these feelings.

3. **Chest pain / angina**

Cause: Increased demand on the heart muscle causes the enlarged heart muscle to contract and sustain contraction which compresses the coronary arteries which lie within and upon the heart muscle. Decreased blood supply to the heart muscle itself causes chest pain and can lead to heart muscle damage.

4. **Abnormal heart rhythms**

Cause: With the abnormal development of heart muscle tissue, the heart is not able to conduct electrical impulses normally. As a result the disorganized muscle fibers are at increased risk for abnormal or irregular fast rhythms. Sometimes, with medications used to control the potential for fast rhythms, the heart can go too slow which is also undesirable.

Treatment

Treatment of HCM focuses on controlling the symptoms.

Lifestyle changes include:

1. Avoiding strenuous activity
2. Avoiding sudden position changes
3. Management of stress / anxiety
4. Learning to take your pulse
5. Consistently taking prescribed medications
6. If symptoms reoccur or become more frequent, such as chest pain, dizziness, or shortness of breath:
 - a. Stop what you are doing.
 - b. Lie down.
 - c. Prop feet up.
 - d. Notify your physician.

Regular office visits and follow-ups to evaluate your response to medications and any changes in symptoms is essential to your well-being.

Other physicians and dentists not directly involved in your care need to be aware of your medical condition and current medications. Prophylactic antibiotic therapy may be necessary before any invasive procedures due to the potential for infection of the heart valves. This includes dental invasive procedures.

Other family members should have an echocardiogram to determine if they may also be affected by HCM. Another suggestion would be to wear a medic alert bracelet.