What is Hypertrophic Cardiomyopathy?

Hypertrophic cardiomyopathy is a type of cardiomyopathy or thickening of the heart. It is a specific genetic condition that runs in families that causes the heart muscle to become too bulky. When this happens, the heart may have trouble pumping blood effectively.

What are the symptoms of Hypertrophic Cardiomyopathy?

Most people who have hypertrophic cardiomyopathy have no symptoms of this condition. Symptoms however, can occur as a child, in the teenage years or in adulthood. Symptoms can include:

- **Shortness of breath** [Especially with Activity]
- **Chest pain that may worsen with activity**
- **Swelling in legs, feet or ankles**
- **The feeling that the heart is beating very fast, or skipping beats** [palpitations]
- **Trouble breathing while lying flat with improvement when sitting or standing**
- **Fainting or the feeling that you may faint**

What are the tests for hypertrophic cardiomyopathy?

There are several tests that may be ordered to give a diagnosis of hypertrophic cardiomyopathy. Testing is generally indicated when a patient’s symptoms are suggestive of a cardiomyopathy. Tests can help the doctor determine the type of cardiomyopathy and the best course of treatment. This information is used to consider long term risks such as arrhythmias or irregular heartbeats. Tests can include but are not limited to:

- **An EKG to assess for normal electrical flow through the heart muscle.**
- **A holter monitor to monitor for any irregular heart beats or arrhythmias.**
- **An Echocardiogram or an “Echo” is an ultrasound of the heart. This test will measure the thickness of the heart muscle, the spaces inside the chambers of the heart and indicate how well the heart pumps. This test can be done at rest or while exercising to see what changes occur to the heart during activity.**
- **Stress testing to determine any possible cardiac symptoms and risks of cardiac life threatening events.**
- **A cardiac MRI to assess the location and extent of any scar tissue. This helps the doctor determine the risk for any irregular heartbeats.**
- **Genetic testing is generally suggested since hypertrophic cardiomyopathy runs in families.**

What problems connected to this condition should I be worried about?

Many patients with hypertrophic cardiomyopathy do not experience any problems. In this case, it will require periodic monitoring to be sure that the condition is not progressing. However, for the patients that do experience problems, hypertrophic cardiomyopathy can cause (see reverse side):
• Angina or chest pain
• Heart failure which is a condition where the heart does not pump or does not fill with blood in the manner that it should. This can cause many of the symptoms listed above. As a first line, this is typically treated with medications.
• Heart rhythm disorders that may require medication therapy. If a patient is at risk for a life threatening heart rhythm disorder [Ventricular tachycardia, or ventricular fibrillation], a device may be implanted in the chest wall to shock the patient out of the irregular rhythm.
• Death can be caused by a life threatening arrhythmia.
• A leaking or dysfunctional mitral valve.

How is hypertrophic cardiomyopathy treated?

Again, many patients who have this condition do not require treatment but do require periodic monitoring. The patients who do require treatment receive that treatment based on the severity of their condition and the symptoms that they have. Treatment can include:

• Medications to relieve trouble breathing, or chest pain. Medications are also given to control the heart’s rhythm.
• Surgery to implant a cardioverter-defibrillator, or “ICD” to keep the heart beating at a normal rate or to keep it beating in a normal rhythm so that blood flow to the brain and other organs will not be interrupted.
• An alcohol septal ablation to put a controlled scar in a specific area of the heart to help it pump better [This is done when medications are not working].
• Surgery [myomectomy] to remove parts of the heart muscle. [This is only done when medications are not working.]
• A mitral valve repair or replacement if it is very diseased or thought to be a significant contributor to symptoms.

What can I do to protect myself?

People who have hypertrophic cardiomyopathy have tendencies to be sensitive to fluid. For that reason, dehydration should be avoided. Always be sure to have enough water. Fainting may be a result of dehydration. Also be careful about the consumption of salt. Too much salt may cause swelling of the legs, ankles and feet. Also, be sure to speak with your doctor about how much physical activity is good for you. Some activities may need to be avoided with this condition.

What about family planning?

Speak to your doctor if you are a woman trying to become pregnant. In most cases, women with hypertrophic cardiomyopathy are able to have normal pregnancies. However, genetic testing should be considered. Medication changes may be required to ensure that they are safe for the baby.