Hypertrophic Cardiomyopathy (HCM)

Inherited Heart Disease Clinic
What is HCM?
The heart is a hollow organ that is mostly made up of muscle. It is divided into 4 chambers: the atria (2 chambers in the top of the heart) and the ventricles (2 chambers in the bottom). The heart is divided into left and right sides by muscle tissue called a septum. Normally, blood is gathered from the body in the atria, sent into the ventricles and then pumped back out into the body by a powerful contraction of the heart muscle.

In hypertrophic cardiomyopathy (HCM), there is a severe thickening of the heart muscle, mainly in the septum. When this area becomes thickened, it gets stiff and does not let the ventricles contract (get smaller) and expand (get bigger) properly. When this happens, the heart can’t hold as much blood and the ventricles aren’t able to pump out as much blood to the rest of the body.

What causes HCM?
For most people, HCM is hereditary (genes passed from one generation to the next). If members of your family are affected with this disease, you have a 50% chance of inheriting the genetic defect. An affected person may show signs of the disease or be a carrier (has the gene but not the disease). Most symptoms appear over time and a diagnosis is usually made in the teens or early twenties.
You may become aware of this disease as a result of symptoms (listed below) or having a family member who died suddenly at a young age.

**Symptoms:** There is no one symptom or complaint that is unique to HCM. Symptoms can vary and their severity may also change over time. You should always talk about any symptoms with your doctor.

**Symptoms include:**
**Shortness of breath or feeling tired:** You may notice this when you are doing something active.

**Chest pain:** This is a common symptom that is usually brought on by exercise and helped by resting, but it may happen at any time.

**Palpitations:** When the heart muscle is weak, it has to work extra hard to supply the body with enough blood. You may feel your heart racing or have a feeling of a ‘butterfly’ fluttering in your chest.

**Blackouts or light-headedness:** You may feel lightheaded or even pass out at any time. The reason for this is not clear. It may be from an abnormal heartbeat or a drop in blood pressure.
Diagnosis
Genetic testing may be available. Your doctor will talk about this with you. There is no one test to diagnose HCM, but rather a number of tests to make sure that an accurate diagnosis is made. Your doctor may arrange for you to have some of these tests:

**Electrocardiogram (ECG):** An ECG is an electrical tracing of your heartbeat.

**Holter Monitor:** The monitor continuously records your heart’s rhythm for about 24 hours.

**Echocardiogram (ECHO):** Ultrasound pictures of your heart show the thickness of the heart muscle and how well it is pumping.

**MRI:** An MRI gives a clearer, more detailed picture of the layers of heart muscle than an ECHO.

**Exercise Stress Test (EST):** Your blood pressure, heart rate and heartbeat are recorded while you are walking on a treadmill.

Other tests may also be needed or suggested by your cardiologist (heart doctor). Your cardiologist will talk about this with you.
Treatment
Although there is no cure for HCM, there are treatments that may help you feel better. The treatment you receive will depend on how you are feeling and the overall functioning of your heart. Your doctor will review all of your test reports and together you will decide which treatment may work best.

Treatments include: medications, a pacemaker (for slow heart rates), and sometimes an internal defibrillator (ICD - to detect and treat dangerous heart rhythms).

What are your questions?
Please ask. We are here to help you.
More information:
› www.cardiomyopathy.org
› www.sads.ca
› www.heartsinrhythm.ca

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The information in this pamphlet is to be updated every 3 years or as needed.