2020

Hypertrophic Cardiomyopathy (HCM)

Inherited Heart Disease (IHD) Clinic

nova scotia health authority

www.nshealth.ca

How does the heart work?

The heart is a hollow organ made up of muscle. It has 4 chambers: 2 at the top (atria) and 2 at the bottom (ventricles). Blood flows from outside the heart into the top chambers, is pumped to the bottom chambers, and is then pumped back out to the body.

The pumping of the heart chambers is controlled by electrical signals that pass through the heart muscle. This electrical activity is called the heart rhythm.

What is Hypertrophic Cardiomyopathy (HCM)?

In HCM, there is a thickening of the heart muscle, usually in the wall between the 2 lower chambers (the septum). When the muscle thickens, it gets stiff and makes it hard for the bottom chambers to relax and fill with blood before each heartbeat. Thickening can also make it harder for blood to leave the heart. This can lower the amount of blood the heart can pump out to the rest of the body.

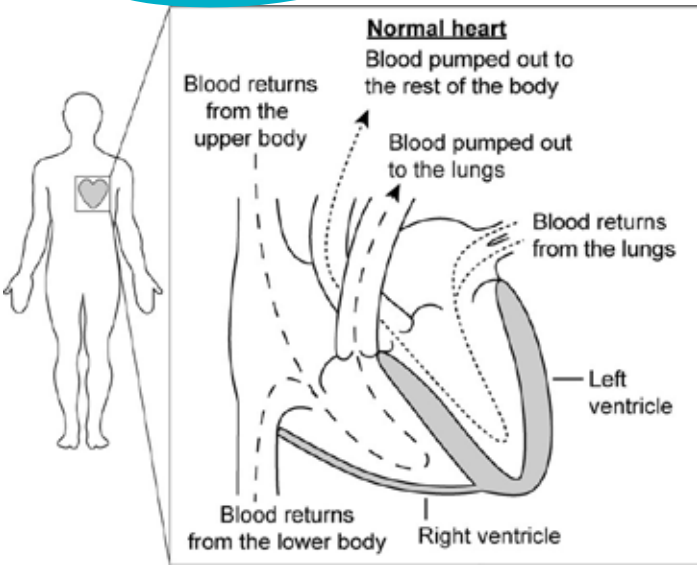
Thickening of the heart muscle can create scar tissue. This can make you more at risk of dangerous, fast heart rhythms.

What causes HCM?

HCM can be caused by:

- a change in your DNA (genes). HCM can be hereditary (be passed from parents to their children).
- a buildup of proteins in the heart

Sometimes the cause is not known.



What are the symptoms of HCM?

Symptoms may include:

- shortness of breath and chest pain.
- palpitations (feeling like your heart is jumping, racing, or fluttering). These can be caused by abnormal heart rhythms.
- dizziness, lightheadedness, or blackouts. This can be caused by abnormal heart rhythms or low blood pressure.

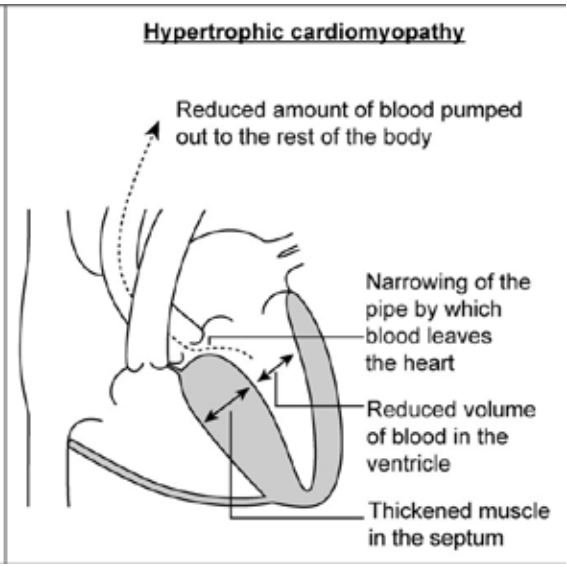
It is important to tell your health care provider if you had a relative who died suddenly at a young age. This could have been caused by HCM.

How is HCM diagnosed?

A number of tests are used to diagnose HCM. Your health care provider may arrange for you to have some of these:

Electrocardiogram (ECG): A recording of your heart rhythm for 10 to 20 seconds.

Holter monitor: A recording of your heart rhythm for 24 hours (1 day).



Exercise stress test: A recording of your heart rhythm and blood pressure while you exercise on a treadmill.

Echocardiogram (Echo): An ultrasound is used to measure the size of the heart chambers and how well the heart is pumping.

Cardiac MRI: A scan using magnets and radio waves. It can measure the size of the heart chambers and how well the heart is pumping.

Your cardiologist (heart doctor) may also suggest other tests. They will talk with you about this, if needed.

Genetic testing and family screening

If your cardiologist suspects that a change in your DNA could have caused your HCM, they may ask if you would like to talk with a genetic counsellor about genetic testing. Your cardiologist may also want to invite other members of your family to be tested for HCM. They may ask you to help by passing letters on to your family.

How is HCM treated?

There is no cure for HCM, but there are treatments available to control fast heart rhythms and to make you feel better.

Treatments may include:

- medications
- a special pacemaker called an internal cardioverter defibrillator (ICD) (to identify and treat fast heart rhythms)
- heart surgery to make it easier for the blood to leave the heart
- heart transplant – this is rare

For more info visit:

The Canadian Sudden Arrhythmia Death Syndromes (SADS) Foundation (includes booklet on HCM that you can download)

- www.sads.ca

Heart & Stroke Foundation of Canada

- www.heartandstroke.ca/heart/conditions/cardiomyopathy

HealthLink BC

- www.healthlinkbc.ca/health-topics/hw52662

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