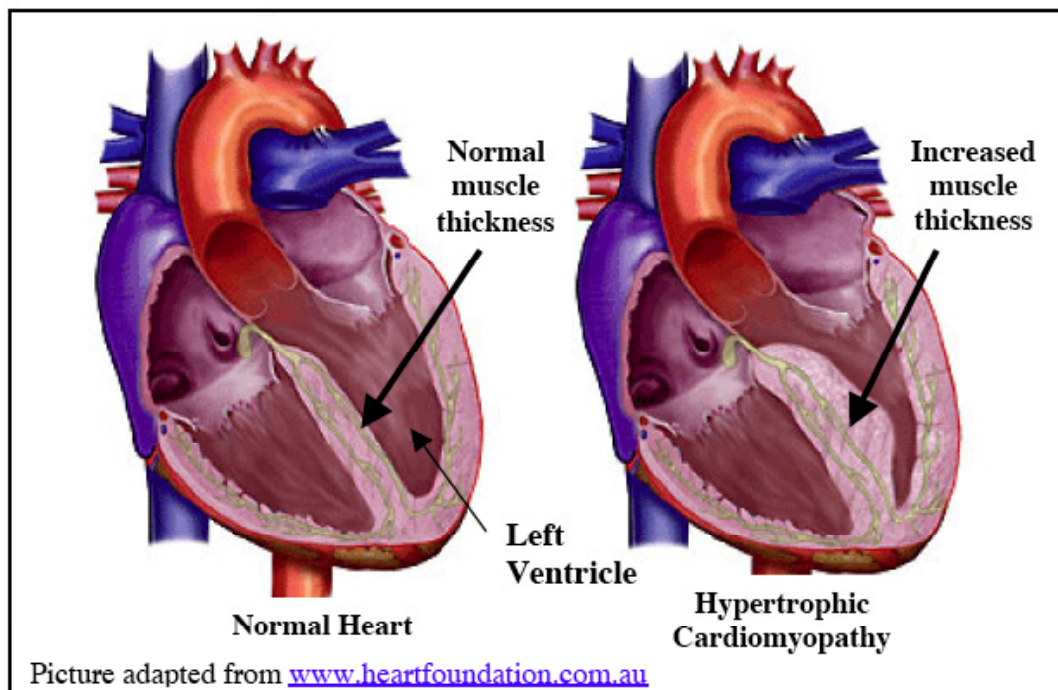


Hypertrophic Cardiomyopathy (HCM)

Hypertrophic cardiomyopathy (HCM) is an inherited condition. It leads to abnormal thickening of the heart muscle, most often of the left ventricle (the main pumping chamber of the heart). The thickened muscle creates problems because it causes the heart to work less efficiently. Therefore, some people may experience chest pain, shortness of breath, dizziness, fainting episodes or palpitations. Occasionally, the disease may cause sudden death.

In adults, the walls of the left ventricle are usually 7 to 10 mm thick (can be thicker at post mortem/autopsy). In hypertrophic cardiomyopathy the walls are more than 13 mm thick. The wall thickening is often unevenly distributed, unlike in people with high blood pressure. This is illustrated in the diagram below. In about 25% (1 in 4) of people with hypertrophic cardiomyopathy there is obstruction to the blood being pumped out of the heart because of the thickened muscle. This is known as the obstructive form of



hypertrophic cardiomyopathy (sometimes referred to as HOCM- hypertrophic obstructive cardiomyopathy).

It is thought that about 1 in 500 people have the potential to develop hypertrophic cardiomyopathy through carrying the at-risk gene, though many never have any symptoms. Tragically, in some cases the first sign of the disease is sudden death, especially in young athletes. Since such deaths are preventable, it is very important that everyone with a family history of hypertrophic cardiomyopathy be screened by a cardiologist.

How it is inherited

Hypertrophic cardiomyopathy is inherited as an autosomal dominant disease (see section on Genetic Inheritance for more information).

Genetic testing

Genetic testing for hypertrophic cardiomyopathy is commercially available. It involves looking at the 10 most common genes, and in about 50-60% of families the gene

alteration will be identified. In the remainder, a gene alteration likely exists but in a gene that has not yet been discovered. More research is required in this field.

Treatment

Most people carrying the at-risk gene will not require any specific treatment but should avoid competitive high-impact sports. A small proportion of patients who are at highest risk of an abnormal heart rhythm as assessed by your cardiologist, will benefit from a pacemaker-defibrillator ("ICD" or intracardiac defibrillator). This is a device that will detect an abnormal rhythm and deliver a "shock" to correct the rhythm. More information on ICD is available elsewhere on this website) [link](#)

Those with an obstruction to blood flow in the heart (HOCM) may require surgery or another procedure to reduce the obstruction called an alcohol septal ablation. These procedures are not necessary for all patients and you should discuss your need for them with your Cardiologist.

Your risk of developing complications may increase with age, so long-term cardiology follow-up is essential. Every person with HCM should see a Cardiologist as a minimum once a year. Further Information is available from the cardiomyopathy association of Australia (www.cmaa.org.au).