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DAMIAN RASCH, D.O.

ENCINITAS · LA JOLLA, CALIFORNIA



Hypertrophic Cardiomyopathy

In HCM, the most common inherited heart condition, the heart muscle grows too thick. For most it is very manageable.

~1 in 500

adults by the standard definition, about 1 in 200 on a broader count

15 mm+

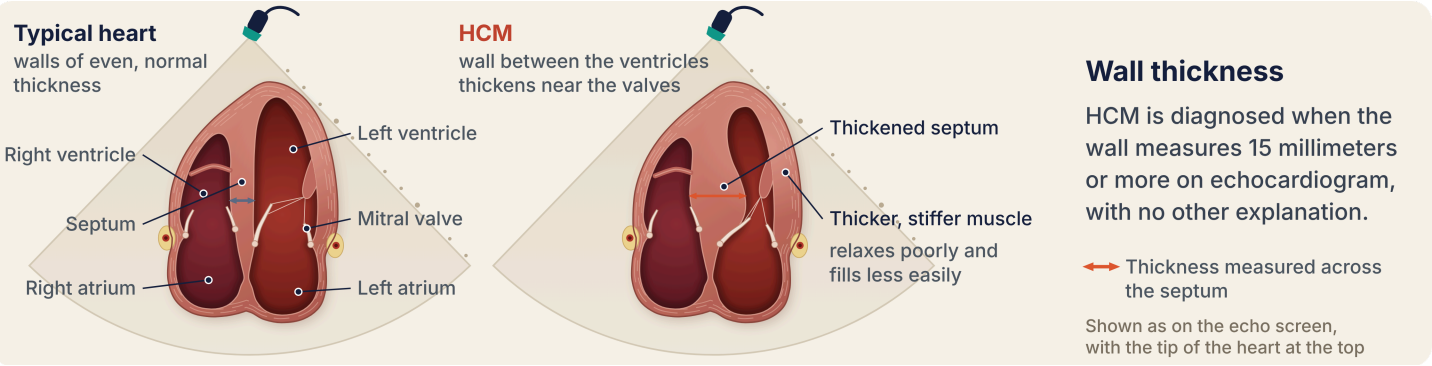
wall thickness on echocardiogram, with no other explanation, makes the diagnosis

50%

chance that each child of a parent with HCM inherits the gene

WHAT HCM IS

Heart muscle that grows too thick



In HCM the wall of the left ventricle, the main pumping chamber, grows abnormally thick with no obvious cause like high blood pressure or an aortic valve problem. A wall of 13 or 14 millimeters can also count if a relative has HCM or you carry a known HCM gene. An echocardiogram and a cardiac MRI confirm it. The stiff muscle relaxes poorly, which over years contributes to atrial fibrillation.

OBSTRUCTION

Does the thick wall block the exit?

At rest, about a third

The thick upper septum, just below the aortic valve, narrows the exit path. This is called obstructive HCM.

With effort, about a third

The blockage appears only when you stand up suddenly, strain or exercise.

None, about a third

Non-obstructive HCM, with different treatment options and outlook.

Many people have no symptoms at all. When symptoms do appear, they include shortness of breath with exertion, chest pain, palpitations, lightheadedness, fainting or signs of heart failure. For most people the long-term course is benign.

Very manageable

New medicines, better imaging, refined risk tools and updated guidelines have made HCM very manageable for most patients. Sudden death risk sits in a small minority with identifiable risk factors, who get the closest monitoring.

TREATMENT, SUDDEN DEATH RISK AND FAMILY SCREENING ARE ON THE BACK

TREATING IT AND PROTECTING YOUR FAMILY

Medicines, procedures and who should be screened

WHEN TO GET HELP

for 911, don't drive yourself

Call 911	Fainting (especially during exercise), chest pain that doesn't settle with rest, or palpitations with lightheadedness or near-fainting.
Same-day call	Worsening shortness of breath or tiredness, or a brief, mild flutter that settles. On Camzyos, new heart failure symptoms can mean pumping strength has dropped.

MEDICINES FOR SYMPTOMS FROM OBSTRUCTION

Beta-blockers	Usually first. They slow the heart rate, give the ventricle more time to fill and reduce the blockage.
Verapamil, then disopyramide	Verapamil is usually next if beta-blockers don't work or aren't tolerated, and disopyramide gets added when symptoms persist.
Mavacamten (Camzyos)	A cardiac myosin inhibitor, FDA-approved in 2022. It comes through a REMS safety program because in some patients it pulls the ejection fraction (pumping strength) below 50 percent, so you need echocardiograms on a fixed schedule.
Aficamten (Myqorzo)	The next medicine in the same class, FDA-approved in December 2025, easier to adjust. It has its own heart failure boxed warning, REMS, drug-interaction warning and echo schedule.

WHEN MEDICINES AREN'T ENOUGH

Surgical myectomy	Open-heart surgery to remove part of the thick wall. At experienced, high-volume centers the operative death rate is well under one percent, and relief lasts for decades.
Alcohol septal ablation	Through a catheter, alcohol scars down the thick muscle. It can damage the heart's wiring and lead to a pacemaker. Neither procedure cures HCM, so you stay in cardiology care for life.

SUDDEN DEATH RISK AND ICDS

What raises risk	Short bursts of fast rhythm on a heart monitor, unexplained fainting, a family history of sudden cardiac death, a wall 30 millimeters or thicker, MRI scar in 15 percent or more of the left ventricle, an aneurysm at the tip or weaker pumping.
The ICD decision	Offered when the calculated risk crosses guideline thresholds.

SCREENING YOUR FAMILY

parents, siblings and children

Tests and timing	An echocardiogram and an ECG for every first-degree relative, with pediatric cardiology leading for children. Every 1 to 3 years for relatives of someone diagnosed in childhood, every 3 to 5 years if diagnosed as an adult.
Genetic testing	If your family has a known disease-causing mutation, relatives who test negative can stop the repeated imaging. Relatives who test positive without signs on imaging stay in surveillance.

SHOULD I STOP EXERCISING?

Almost certainly not. Tailored exercise improves fitness and quality of life, and most everyday activity is safe and recommended. High-intensity competitive sport is a case-by-case talk. An exercise stress test is usually part of the evaluation.

READ THE FULL ARTICLE

damianrasch.com/hcm

For education only, and not a substitute for advice from your own physician. Sources include the 2024 AHA/ACC HCM guideline, Braunwald (NEJM 2025), the EXPLORER-HCM, VALOR-HCM, SEQUOIA-HCM and MAPLE-HCM trials, and the Camzyos and Myqorzo prescribing information.

DR. DAMIAN RASCH, D.O. · BOARD-CERTIFIED INVASIVE CARDIOLOGIST · ENCINITAS AND LA JOLLA, CA

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