

Vigorous exercise not associated with increased risk of arrhythmic events in hypertrophic cardiomyopathy

March 7 2023



Credit: Unsplash/CC0 Public Domain

People with the inherited heart condition hypertrophic cardiomyopathy (HCM) who exercised vigorously did not have an increased incidence of

serious cardiac events during three years of follow-up compared with people who exercised moderately or were inactive, according to a study presented at the American College of Cardiology's [Annual Scientific Session](#) Together With the World Congress of Cardiology.

Traditionally, clinicians have advised people with HCM to avoid [vigorous exercise](#), with some patients being excluded from sports teams or advised to avoid [exercise](#) altogether. The new research, which represents the first large, prospective study to assess the potential risks associated with vigorous exercise in people of all ages with HCM, suggests it may be time to revisit traditional guidance on exercise.

"In a shared decision-making framework that involves being seen by an experienced HCM physician, our data do not support restriction of vigorous exercise for individuals with HCM," said Rachel Lampert, MD, professor of medicine at the Yale School of Medicine in New Haven, Connecticut, and the study's lead author. "We know that exercise is beneficial and an important part of life for many people. Evolving how we think about the exercise practices may allow individuals with HCM to garner the longer-term benefits of exercise as well."

HCM causes the [heart muscle](#) to be abnormally thick, which can make it harder to pump blood. It is the most common genetic heart muscle disease in the U.S., affecting an estimated 1 in 500 adults. Some people with HCM have no symptoms and many have a normal lifespan, but others experience symptoms such as chest pain, dizziness, fainting, heart palpitations and fatigue. HCM can cause sudden death, even at a young age.

For the study, researchers enrolled 1,534 people in five countries (United States, United Kingdom, Canada, Australia, New Zealand) with HCM between eight to 60 years of age. About 40% of the participants were female and 20% were younger than 25 years of age. The

researchers enrolled an additional 126 people with a genetic variant for HCM but no left ventricular hypertrophy. Participants were surveyed about their exercise habits and symptoms every six months for three years.

Overall, 42% of study participants were classified as exercising vigorously. These individuals exercised at six or more METs (a measure of exercise intensity) for over 60 hours per year. Activities such as running, swimming, basketball and soccer are examples of vigorous exercise under this metric. About 43% of participants were classified as exercising moderately (4-6 METs for over 60 hours per year), performing activities such as brisk walking or low-impact aerobics. Lastly, 16% were considered inactive, not meeting the criteria for either moderate or vigorous exercise.

In total, 77 study participants experienced the study's primary endpoint, a composite of total mortality, cardiac arrest, [ventricular arrhythmia](#) treated by an implanted cardio-defibrillator or fainting that was likely due to arrhythmia. All the events occurred in people who had overt HCM, and none occurred in people who carried a genetic variant but did not have left ventricular hypertrophy.

The analysis showed that individuals who exercised vigorously were not more likely to experience the composite primary endpoint than those who exercised moderately or not at all.

Researchers said that most study participants received care from physicians who were highly experienced with HCM at medical centers that serve high volumes of such patients. Since HCM can be associated with [cardiac arrest](#), researchers stressed the need for people with HCM to undergo careful evaluation with an experienced physician to determine what treatments are appropriate and decide what level of exercise to pursue.

"If you have HCM, it's really important to start with an evaluation by a cardiologist who has experience caring for patients with HCM to evaluate your overall risk of arrhythmia and to get up-to-date treatment recommendations," Lampert said. "Experienced HCM physicians are in the best position to advise patients about exercise, provide individualized recommendations and discuss warning signs and plans in case of an emergency."

In addition, Lampert said that it is always important for people with HCM to discuss their condition with family members since genetic variants that cause HCM are often inheritable.

Researchers plan to pursue further data analysis to assess whether arrhythmia risk varies among subgroups of patients, such as those of particular ages or sex or those who participate in varsity-level sports. Lampert said that longer-term studies could further evaluate potential benefits of moderate and vigorous exercise among people with HCM across the lifespan.

Provided by American College of Cardiology

Citation: Vigorous exercise not associated with increased risk of arrhythmic events in hypertrophic cardiomyopathy (2023, March 7) retrieved 6 May 2024 from <https://medicalxpress.com/news/2023-03-vigorous-arrhythmic-events-hypertrophic-cardiomyopathy.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--