

Exercise-linked ventricular tachycardia is not a risk to healthy older adults

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Healthy, older adults free of heart disease need not fear that bouts of rapid, irregular heartbeats brought on by vigorous exercise might increase short- or long-term risk of dying or having a heart attack, according to a report by heart experts at Johns Hopkins and the U.S. National Institute on Aging (NIA).

Researchers say such fears surfaced after previous studies found that episodes of errant heart rhythms, more formally known as non-sustained ventricular tachycardia, more than double the chance of sudden death in people who have already suffered a [heart attack](#).

In a study to be presented Nov. 16 at the American Heart Association's (AHA) annual Scientific Sessions in Orlando, the research team monitored for on average 12 years the medical records of 2,234 initially healthy men and women, ages 21 to 96, and participating in the NIA's Baltimore [Longitudinal Study](#) of Aging. In adults with no earlier signs of [heart disease](#), researchers found no adverse effects resulting from brief episodes of exercise-induced ventricular tachycardia.

In the study, each volunteer participant had a least one exercise stress test performed before 2001. The test assesses the heart's pumping ability, requiring participants, whose average age at testing was 52, to walk or jog on a treadmill at increasing speeds and inclines until they felt exhausted, about 10 minutes for most.

Eighty-one (roughly 4 percent, 65 men and 16 women, mostly older

participants) experienced short periods of rapid, irregular heartbeats during exercise, typically lasting from three to six heartbeats, and at a rate hovering around 175 beats per minute.

Researchers say overall death rates were higher in the tachycardia group than in the nontachycardia group (at 29 percent and 16 percent, respectively). But when they adjusted their analysis to account for differences in age, gender, and those who developed known risk factors for heart disease early on, they found no measureable increased risk of overall death, death from heart disease, or suffering a heart attack between the tachycardia and nontachycardia groups.

Lead study investigator and cardiologist Joseph Marine, M.D., says the study results should "provide reassurance" among apparently healthy middle-age and older people that such short episodes of ventricular tachycardia provoked on exercise testing do not have long-term consequences to health.

"So long as a medical examination shows no underlying heart disease or other serious health condition, then people should continue to live a normal lifestyle, including a return to exercise after clearance from their physician," says Marine, an associate professor at the Johns Hopkins University School of Medicine and its Heart and Vascular Institute. "Our results suggest that brief, non-sustained ventricular arrhythmia during exercise testing should, generally, not cause undue alarm in patients or physicians."

When suspicious about heart disease, Marine says, care providers should investigate further for any signs of ischemia, arterial blockages, heart muscle disease or inherited risk of arrhythmia. But if everything checks out negative for heart disease, then restrictions on exercise are not needed. Indeed, he says, regular exercise has long been known to cut down on the risk of developing heart disease.

Study co-investigator and Hopkins cardiologist Gary Gerstenblith, M.D., adds that the latest study results should help physicians better triage which patients to treat after incidents of exercise-induced tachycardia.

"Most people who experience erratic [heart rhythms](#) during exercise and who have no underlying heart condition can be left alone, they do not need to be treated, and they can continue to exercise," says Gerstenblith, a professor at Johns Hopkins School of Medicine. "However, patients with erratic heartbeats who are later found to have underlying coronary heart disease should refrain from arduous exercise until consulting with their physician about treatment with drugs and/or an implantable device to improve their heart function and to decrease the risk of dying from a potentially fatal heart rhythm."

Marine says the next steps in their research are to determine whether other arrhythmias brought on by [exercise](#), such as atrial tachycardia, have any impact on future death or heart-attack rates or lead to other arrhythmias.

Source: Johns Hopkins Medical Institutions

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