

New recommendations green-light some athletes with heart disease to compete

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For the first time, joint recommendations may permit participation in competitive sports for some athletes diagnosed with a specific type of irregular heartbeat and for others who have an implanted medical device that regulates the heart's rhythm.

The joint American Heart Association/American College of Cardiology scientific statement published in both the American Heart Association's journal *Circulation* and the *Journal of the American College of Cardiology*.

The new recommendations apply only to athletes with diagnosed [heart](#) disease who participate in competitive level sports directed by a coach (i.e. football, basketball, baseball and others). They do not apply to those who occasionally participate in sports for fun or exercise.

Previous recommendations noted that the risk of sudden [cardiac arrest](#) during competitive sports was too high for many athletes with Long QT syndrome, a condition that can result in delayed electrical recovery of the heartbeat, causing fast, chaotic heartbeats that can be life threatening. New medical research indicates, however, that the risk of sudden cardiac arrest is lower than previously thought for these patients.

Similarly, the new research shows a lower risk of sudden cardiac arrest among some competitive athletes with some types of heartbeat disorders treated by an implanted medical device. These devices include pacemakers, which regulate a slow heartbeat, and ICDs, (implantable cardioverter defibrillators), which shock the heart during fast heartbeats to restore a normal rhythm. Under the new recommendations, some of these athletes now may be able to compete—with their healthcare provider's approval, since every patient is different.

"These recommendations are intended to help healthcare providers and competitive athletes make individualized decisions based on the most

current scientific research, the patient's understanding of their risk and the healthcare provider's clinical judgment, but are not intended to establish absolute mandates or to make the general medical (and legal) standard of care applicable to all competitive athletes," said Barry Maron, M.D., co-chair of the writing committee and director of the Hypertrophic Cardiomyopathy Center at the Minneapolis Heart Institute Foundation.

"It should be noted that the guidance for patients with hypertrophic cardiomyopathy has not changed—we still recommend avoiding intense competitive sports for people who have this condition," Maron said.

Patients with [hypertrophic cardiomyopathy](#) have abnormally thick heart muscles, which can cause life-threatening irregular heartbeats, especially with intense physical activity.

When an apparently healthy athlete unexpectedly collapses and dies during an intense sports practice or competition, the cause often is sudden cardiac arrest. Unlike a heart attack, which results from blocked blood flow to the heart, sudden cardiac arrest occurs when the heart malfunctions and beats abnormally, often due to an underlying congenital, genetic or acquired cardiac condition.

"The ultimate incentive is to prevent sudden cardiac death in the young, although it is also important not to unfairly or unnecessarily remove individuals from a healthy athletic lifestyle," said Douglas P. Zipes, M.D., co-chair of the statement writing group and distinguished professor at Indiana University School of Medicine, Krannert Institute of Cardiology in Indianapolis, Indiana.

The scientific statement also provides recommendations for evaluating other congenital, genetic and acquired cardiac conditions that could increase the risk of sudden cardiac arrest among competitive athletes, as well as emphasizing the

importance of avoiding performance-enhancing drugs which also increase risk. The statement notes it is also critical for competitive athletes and their coaches to learn how to use an emergency [medical device](#), or AED (automated external defibrillator), which can restore a normal heartbeat in a person who has experienced a cardiac arrest.

"The panel recognizes and strongly supports the well-documented health benefits of exercise, with regular physical activities encouraged for those individuals who have been removed from organized competitive athletics," Zipes said.

To calculate the risk of [sudden cardiac arrest](#), an expert panel at the American Heart Association and the American College of Cardiology analyzed detailed medical reports on competitive athletes with different types of heart disease. In addition to [irregular heartbeat](#), these diseases include heart-valve damage, high blood pressure, and narrowing of the blood vessels, among many others. Some of these diseases are present at birth, while others develop later in life.

The organizations have not changed their screening recommendations, and continue to recommend that healthcare professionals use a checklist of 14 key elements for screening young people, including athletes, age 12-25, for congenital and genetic heart disease.

If any of the elements are positive, further testing may be needed, but initial screening using electrocardiograms (ECGs) to detect underlying genetic and congenital [heart disease](#) in this age group prior to the checklist has not been shown to save lives and is not recommended by either the American Heart Association or the American College of Cardiology.

Provided by American Heart Association

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