

Script – Print – Treating the heart of an athlete

Bronny James was gearing up last summer for his freshman year of basketball at the University of Southern California, when he received the scare of his life.

In July 2023, James, the son of NBA great LeBron James, suffered cardiac arrest and collapsed during a team workout. The younger James was hospitalized for three days and underwent a procedure to treat a congenital heart defect. James' family and medical team praised the USC medical staff for their quick and effective response, which helped in preventing any brain or organ damage from a lack of oxygen.

James eventually returned to basketball activities. He saw his first action for USC in December and has played anywhere between 14 and 30 minutes a game without any issues.

February is American Heart Month – a time to bring to light conditions such as the one James experienced that may help other people going through similar circumstances.

Natasha Noel, MD, a pediatric cardiologist with OSF HealthCare Cardiovascular Institute, says congenital heart defects, such as the one James had treated, are structural heart issues that typically develop during pregnancy and go undetected. She adds that 1% (40,000) of all babies are born with a heart defect every year in the U.S.

"We do see that if there is a family history of congenital heart disease, either parent or sibling, the next child could be more at risk for congenital heart defects," Dr. Noel says. "And then other conditions, for example, smoking during pregnancy, maternal diabetes or use of other medications during pregnancy can lead to congenital heart defects."

While James has recovered from his heart scare, there have been other athletes who weren't so fortunate. In 1990, Hank Gathers, a college player for Loyola Marymount University, collapsed on the court and died from sudden cardiac arrest. Three years later, the same happened to Reggie Lewis of the Boston Celtics, who died during a game when his heart went into cardiac arrest.

James isn't even the first player to have experienced cardiac arrest at USC. Teammate Vince Iwuchukwu collapsed during a team practice in 2022 and survived.

"During periods of intense activity, the body has a physiological response," Dr. Noel explains. "This can include dehydration, a surge of adrenaline, electrolyte imbalance, and this may not be well tolerated in athletes, who have some underlying electrical or structural abnormality."

Treatment depends on the patient and the heart defect. According to the American Heart Association, many young adults who have a minor cardiac defect, and have had a good result after surgery, can participate in most activities. Some participants could have restrictions including those with pacemakers or implantable cardioverter defibrillators (ICDs) or those who are taking anticoagulants to decrease blood clotting. Dr. Noel says to always check with your physician before taking on any physical activity or sports participation.

"The athlete should go through a pre-participation physical, this would include medical history, physical exam, and the American Heart Association says it's important to focus on personal and family history," she says. "If there is something suspicious in any of these things, the pediatrician can refer to a pediatric cardiologist or they could start the work themselves, which would include ordering an EKG or echocardiogram for an example." Genetic testing might be necessary, especially if there is a family history.

Dr. Noel says that thanks to advances, medical experts have a better understanding of congenital heart defects. Not every athlete needs to give up participation – even if they have experienced a previous issue. She also stresses the importance of learning CPR and working with schools and coaches to always have an automated external defibrillator (AED) available.

“I want to encourage kids to continue going out and having fun – sports is healthy and it's exercise,” she emphasizes. “It doesn't mean that it's the end of the world if you are diagnosed with something that needs to be treated from a cardiac standpoint.”

For more information about pediatric cardiology issues, visit [OSF HealthCare](#).