

» Heart Disease in Student-Athletes

Athletes are seen as one of the healthiest segments of our society. Sudden cardiac death in a young athlete is always shocking and profoundly impacts the family, team, school and community in which it occurs. Hypertrophic cardiomyopathy (HCM) in the general population may occur in as many as one in every 500 individuals and is the leading cause of sudden cardiac death in student-athletes. HCM is a disease that affects the heart muscle, causing the muscle to enlarge. Adding other heart conditions known to cause sudden cardiac death, the prevalence of serious underlying heart disorders may approach three in every 1,000 student-athletes.

» Sudden Cardiac Death

Sudden death from a heart condition is the leading medical cause of death in NCAA athletes, and represents 75 percent of all sudden death that occurs during exercise, training or competition. The incidence of sudden cardiac death in the NCAA is roughly one in 40,000 student-athletes per year. The first sign of a heart problem may be a life-threatening collapse during exercise, though athletes may have ignored some warning symptoms. The average EMS response time is 8-10 minutes, while the chance of survival decreases 10 percent every minute after collapse.

» Report your Warning Signs and Symptoms of a Heart Condition

PUT PRIDE ASIDE: DON'T DIAGNOSE YOURSELF

Consult a physician promptly if you or someone you know has one or more of these signs and/or symptoms



- Fainting (syncope) or seizure during or after exercise.
- Fainting (syncope) or seizure resulting from emotional excitement, emotional distress or being startled (e.g. diving into a pool).
- Chest pain during exercise.
- Unexplained fainting or seizures.
- Unusual shortness of breath during exercise.
- Unusual fatigue/tiredness during exercise.
- A racing heartbeat.
- Dizziness/lightheadedness during or after exercise.







Use these questions and the chart below to help answer questions on the history portion of your sports preparticipation medical examination. Consult with a physician if you answer yes to any of the following questions.

» Heart Health Questions

- 1. Have you ever experienced chest pain or chest discomfort while exercising?
- **2.** Have you ever fainted, been unconscious, or felt like you were going to pass out during or after exercising?
- **3.** Have you ever felt it was difficult to breathe; experienced heavy, labored breathing; or had unusual shortness of breath while exercising?
- **4.** Have you ever felt unusually light-headed during a strenuous workout?
- 5. Have you ever felt your heart race, beat rapidly, or skip beats when it shouldn't?
- **6.** Has anyone ever told you that you have high blood pressure, high cholesterol, a heart murmur or a heart infection?
- 7. Has any family member died suddenly from a heart/cardiac issue before the age of 50?
- **8.** Does any family member or a close relative have a current heart/cardiac condition? Is he or she younger than 50?
- **9.** Does any family member have hypertrophic cardiomyopathy (HCM), Long QT syndrome, Marfan's syndrome, rapid heartbeat, arrhythmia, ion channelopathy, cardiomyopathy or chest pains?
- **10.** Has a doctor ever ordered a test for your heart (ECG/EKG, Echo/echocardiogram, stress test)?

ICD Sports Safety Registry

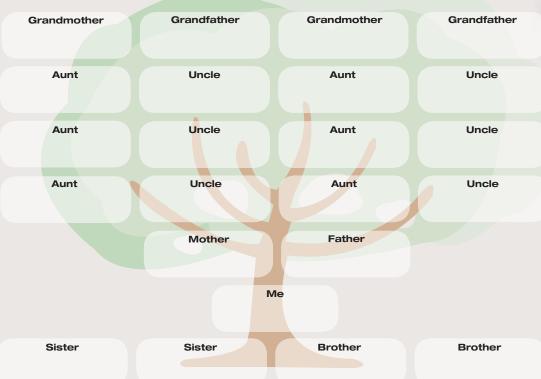
Some athletes elect to continue participating in sport activities with internal cardiac defibrillators (ICD) despite current guidelines that recommend against competitive sports for patients with ICDs.

Athletes with ICDs can enroll in a study at icdsports.org to examine the outcomes of their daily lives.



- 1. Recognize Sudden Cardiac Arrest
 - Collapsed and unresponsive
 - Gasping, gurgling, snorting, moaning or labored breathing
 - Seizure-like activity
- 2. If you are alone, call 9-1-1 and get an AED (if one is available) before you begin CPR.
- **3.** Immediately begin CPR chest compressions 100 per minute in the center of the chest (push hard, push fast).
- **4.** Use an AED as soon as possible to shock the heart back into a normal rhythm.
- **5.** Continue CPR and AED use until EMS arrives.

» My Family Health Tree



Use this tree to discover health conditions, such as heart disease or any heart condition, sudden death before age 50, high cholesterol, diabetes (high blood sugar), Marfan's syndrome, sickle cell disease, sickle cell trait, or asthma, that may be in your family. With the help of a family member, fill in the boxes with the health conditions of your blood relatives. Be sure to complete both sides of the family. By knowing which health conditions and diseases are in your family, you can make the correct healthy choices to promote life-long wellness and safe sports participation.