

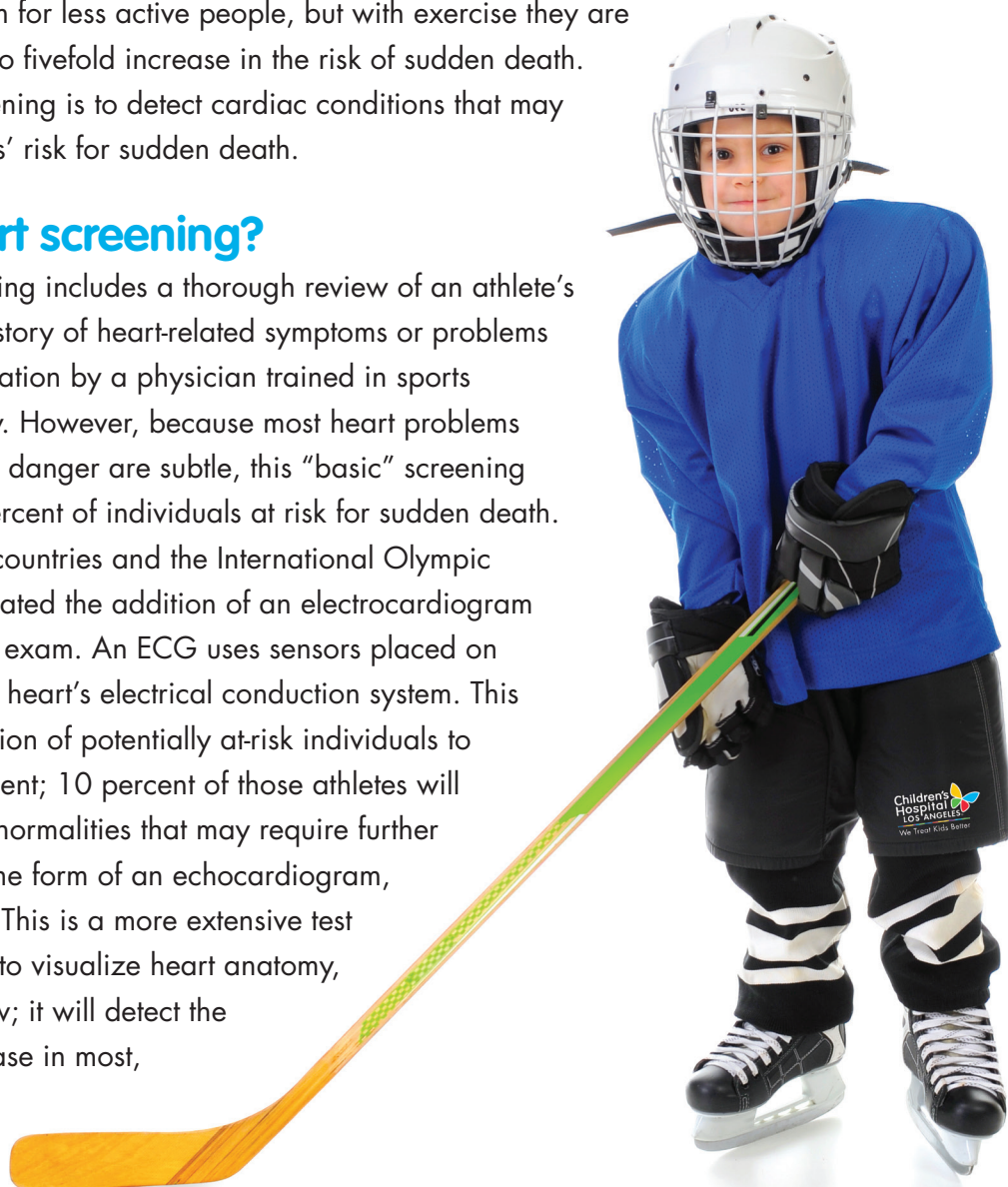
Heart Screening Before Participation in Sports

Why is heart screening important before sports participation?

Catastrophic heart events during athletic participation are rare. However, an undiagnosed heart problem can cause sudden symptoms, including death, and evoke a community-wide response to prevent further tragedies. Deaths of young athletes are most often due to congenital or hereditary conditions of the heart structure or electrical system. These conditions are often not a problem for less active people, but with exercise they are associated with a two-to fivefold increase in the risk of sudden death. The goal of heart screening is to detect cardiac conditions that may increase young athletes' risk for sudden death.

What is a heart screening?

A "basic" heart screening includes a thorough review of an athlete's personal and family history of heart-related symptoms or problems and a physical examination by a physician trained in sports medicine or cardiology. However, because most heart problems that place an athlete in danger are subtle, this "basic" screening will identify only 10 percent of individuals at risk for sudden death. For this reason, many countries and the International Olympic Committee have advocated the addition of an electrocardiogram (ECG) to the screening exam. An ECG uses sensors placed on the skin to measure the heart's electrical conduction system. This will increase identification of potentially at-risk individuals to approximately 50 percent; 10 percent of those athletes will have possible ECG abnormalities that may require further evaluation, usually in the form of an echocardiogram, also called an "echo." This is a more extensive test that utilizes ultrasound to visualize heart anatomy, function and blood flow; it will detect the presence of heart disease in most, but not all, athletes.



Who needs a heart screening before participating in sports?

All athletes need a “basic” heart screening. However, because the screening is not very good at detecting athletes at risk for sudden death, most professional and collegiate athletes are screened by ECG, and sometimes an echocardiogram. More extensive screening of young athletes before participation remains a controversial issue because of the number of athletes who require further testing due to false positive results; there are operational and cost challenges to providing this care to a large population of athletes.

How can I get my young athlete screened?

If you are interested in a more extensive heart screening for your young athlete, the Children’s Hospital Los Angeles Sports Medicine and Cardiology programs have teamed up to provide basic and more extensive cardiac screenings for sports participation. Options include:

“Basic” screening: history and cardiac-focused physical exam (by a cardiac specialist)

\$30

“Basic” screening plus electrocardiogram

\$50

If there are concerning symptoms or a troubling family history, or an abnormal ECG, further testing may include:

- 1. Echocardiogram**
- 2. Exercise testing**
- 3. Holter monitoring**

If further testing is recommended, an athlete’s individual insurance may cover it, but cash prices are also available, with **on-site echocardiography offered for an additional \$50.**

To schedule a heart screening appointment at Children’s Hospital Los Angeles, call 323-361-2142 or visit CHLA.org.