

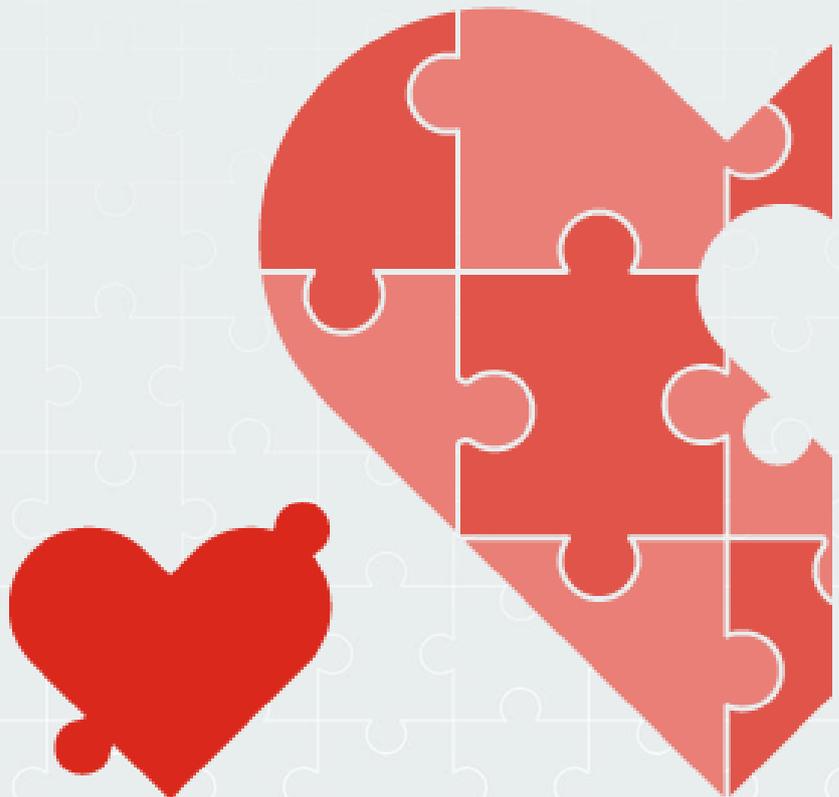


NHS
East Midlands
Congenital Heart Network

EAST MIDLANDS CONGENITAL HEART NETWORK
PATIENT INFORMATION

Cardiac Screening in Young Adults

JUNE 2022



What is a Sudden Cardiac Arrest?

Sudden cardiac arrest (SCA) is a condition in which the heart unexpectedly stops beating in a previously healthy person. It is rare. If 100,000 young adults played sport for a year then one or two cases might be anticipated. The most common cause is a genetic change in the muscle fibres or the electrical system of the heart.

The impact of a cardiac arrest in a young person is tragic and a major cause of distress and anxiety in the wider community. High profile cases such as the footballer Christian Eriksen further increase awareness and anxiety of these unexpected events.

What about a screening programme?

Screening is the process for looking for a condition before you have symptoms. An example might be a mammogram for breast cancer. Unfortunately, the tools used in screening for cardiac risk have a number of drawbacks.

Cardiac screening uses a questionnaire, a physical examination and an ECG (electrical tracing of the heart). This combination aims to identify people at risk of cardiac arrest who need further investigation. It does identify a number of cases but unfortunately still misses others. Here are some of the challenges with cardiac screening:

1. Annual screening can be entirely normal but sudden cardiac arrest may still happen.
2. An abnormal screen may lead to further lengthy tests with long waiting lists. Stopping sport during this time has significant physical, social, and psychological implications.
3. Further tests may not always be 100% conclusive, they may require long-term repeated investigations and further anxiety for the individual.
4. A normal test today does not mean a normal test forever as the most common causes of sudden cardiac death evolve over time.

What is the benefit of screening?

Sudden cardiac death happens in around 1 in 50,000 young people. This risk is higher in young people doing high level sport. Screening of athletic teenagers will identify a concern in about 1 in 15 people. Further tests are then required. Eventually about 1 in 1000 young athletes will be found to have a condition that *might* cause sudden cardiac death. Stopping competitive sport may reduce this risk. Unfortunately screening misses many cases, a large UK study found 8 young people who died, three quarters had normal screening.

Screening will detect a few rare cardiac conditions and in doing so should prevent the risk of death, but it will also inappropriately reassure others and create a long and anxious wait for tests in a large number of participants.



I'm still worried, can I get screening on the NHS?

In 2015, the UK National Screening Committee concluded that there was not enough benefit and too many negative impacts of screening for this to be offered on the NHS.

Are there other options?

In sudden cardiac arrest early life support and an on-site defibrillator can significantly improve survival and recovery. If you are a coach or parent, the most important step is to ensure you have first aid training and defibrillator access at all times.

What should I do?

Without any doubt, we can save the most lives by following these four steps:

1. **CPR Ready:** Your club should provide regular training in CPR (cardio-pulmonary resuscitation) and every team coach should know this.
2. **Defibrillator Ready:** Your club should have a serviced automated defibrillator. Know the location and get trained. This is the life-saving treatment needed by the player.
3. **Symptoms:** Feeling faint, losing consciousness or having palpitations during exercise is not normal. If you experience this see your GP and refrain from exercise until seen.
4. **Family History:** If you have a parent, brother or sister who, before the age of 45, died unexpectedly, collapsed and needed resuscitation, had an implantable defibrillator or has been diagnosed with a serious heart condition then you are strongly advised to discuss this with your GP to see whether you meet criteria for cardiology opinion.

If you would still like to arrange screening, what can you do?

We fully understand that some parents may still wish to undertake screening of their child. A number of charities can provide screening. These charities have both free events and for a fee may run an event at your sporting club.

If you do undertake screening then please consider carefully the need to repeat this at regular intervals and ensure you understand the risks of further testing and sporting exclusion. Above all do not forget the CPR training and a working accessible defibrillator.