Irish Independent
Monday 10 September 2012

reallife

Just how definitive is heart screen process?

Sudden Adult Death Syndrome (SADS) tests carry with them their own dilemmas, writes **Áilín Quinlan**

WITHOUT warning, a young footballer collapses on a pitch and is rushed to hospital only to be pronounced dead shortly after arrival.

It's diagnosed as Sudden Adult Death Syndrome which, following a string of highly publicised cases in recent years, has left the families of victims traumatised – and sparked deep public concern.

Millions prayed for the survival of footballer Fabrice Muamba after watching his collapse on the pitch at White Hart Lane last March.

Later it emerged that Muamba was effectively dead for more than an hour and that it had taken 15 defibrillator shocks to start his heart beating again.

Such cases have led to a heightened awareness of the condition and now some organisations operating in the areas of sports and heart health are taking action.

The death of Tyrone player Cormac McAnallen in 2004 prompted research by the GAA's Medical and Scientific Committee into the condition and last year free cardiac screening was made available to all inter-county footballers and hurlers by the Gaelic Player's Association.

So far more than 60 county squads and more than 1,900 players have been screened.

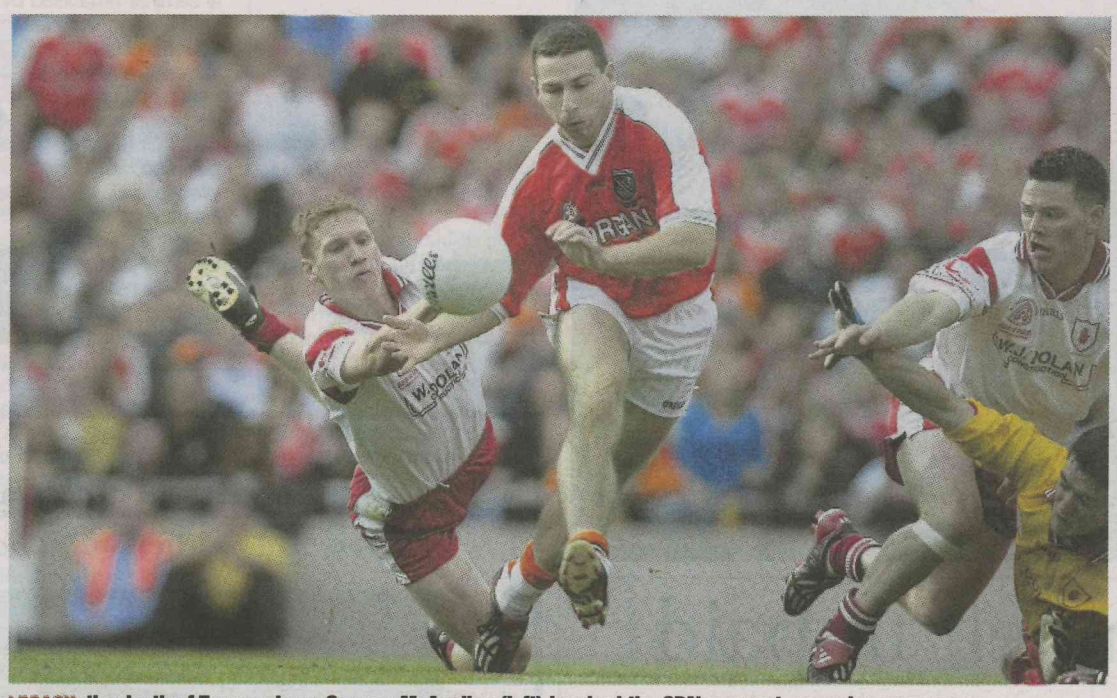
Working in co-operation with Heartaid, a mobile cardiac screening unit, the service is aimed at detecting any cardiac abnormality among players and reducing the risk of Sudden Adult Death Syndrome (SADS).

This month Croi, a charity in the west of Ireland which campaigns against heart disease and stroke, also plans to introduce specialised cardiac screening for sportspeople at its new €3.7m centre in Galway.

But just how definitive is the cardiac screening process?

"We know a multitude of things that cause sudden adult death. There is, for example, an abnormality of the electrical currents within the heart," says consultant cardiologist Kieran Daly.

"We know of a whole raft of congenital conditions that lead to it, but at the same time there is no guarantee that screening will pick up all of these."



LEGACY: the death of Tyrone player Cormac McAnallen (left) inspired the GPA's current screening programme

On some occasions in the past, abnormalities were not detected despite detailed investigation, he says. "There are situations where despite detailed investigation we cannot identify an abnormality that is present.

"People should understand that the screening programme will say it has detected no abnormality, but that is not an absolute guarantee that there may not be an underlying abnormality in a small percentage of cases that may present later."

However, he points out, despite the blanket media coverage of cases, Sudden Adult Death Syndrome is very rare.

"On average the statistics look at between one or two deaths per 100,000 school or college athletes.

"The actual incidence is very low but because of the huge impact, it gets widespread attention and there is a tremendous impact on fellow competitors or athletes," says Professor Daly, who is also chairman of Croi.

At what age should you be screened?

"There is no gold standard for what age people should be screened. In Italy they say age 12 if you are going to get involved in active sports," he says.

"In the USA they recommend screening in early to late adolescence," he observes, adding that while the age of deaths is varied, Sudden Adult Death can present even in pre-teens.

WHEN TO CONSIDER SCREENING

SOME reasons to consider screening a young sports-person:

- **If he or she has a relative who died suddenly under the age of 45.**
- **If he or she has experienced sudden blackouts or lack of consciousness, or experience chest tightening to such an extent during exercise that it stops them from exercising.**
- **If he or she is aware of any very rapid heartbeat on occasions for no obvious reasons.**

"But the majority of deaths at present are in the mid-to-late teens and the early twenties," he says.

The attention surrounding such cases has left many parents scared, says Orlagh Harrington, chief cardiac technician with Croi.

"People are extremely anxious about Sudden Death. In recent times I've had many people coming to see me with children and teenagers who have been experiencing chest pains.

"The parents are always very worried, because of the enormous media attention given to sportspeople who died as a result of Sudden Death."

There's a huge concern, particularly amongst the parents of sports-mad teenagers and college students that "something is going on", says Harrington who gets a regular stream of referrals from local GPs.

Currently, she says, she carries out an ECG and an ultrasound on the heart but this will change within the next few months when Croi launches its special heart screening programme.

This new system will carry out detailed tests to check for the conditions which can potentially cause sudden cardiac death.

"The protocol we are putting together includes a comprehensive questionnaire, on family history, symptoms and activity, a physical examination carried out by our in-house doctor and a battery of diagnostic tests," explains Harrington.

The GPA screening programme also involves the completion of a medical questionnaire, a physical examination and a cardiac ECG, all of which are overseen by Heartaid's on-site doctor.

Each test is then analysed by a cardiologist and results are returned to the team doctor or GP of the player the following week. To date, just over five per cent of players have required further examination or testing which has been funded by the GPA.

"The GPA remains committed to providing screening to any member of a senior inter-county squad who hasn't yet been screened and plans are in place to continue visiting counties and regions in 2013 to ensure the service is available to all players and teams," the organisation said.

The Croi screening programme came about after they noticed what Chief Executive Neil Johnson terms "an increased concern around the issue of Sudden Adult Death".

However, he too cautions that you cannot completely exclude the possibility of Sudden Adult Death.

"There have been cases of people who have been given the tests and received the all clear on the known and quantifiable causes but who have subsequently suffered sudden cardiac arrest and in some cases death.

"Even at post mortem it can be difficult to determine the cause of death," says Johnson.

However, Johnson predicts, Croi's new screening programme will throw up its own issues.

"If, for example, you have a young person who is involved in sport and you discover an abnormality which may not be a risk for sudden death.

"By identifying it you could be creating more of a worry and possibly impact on the future career of that young sports person."