

Addis Ababa, December 9, 2011 (WIC) - Doing extreme endurance exercise, like training for a marathon, can damage the heart, research reveals.

MRI scans on 40 athletes training for challenging sporting events like triathlons or alpine cycle races showed most had stretched heart muscles.

Although many went on to make a complete recovery after a week, five showed more permanent injuries.

The researchers told the European Heart Journal how these changes might cause heart problems like arrhythmia.

They stress that their findings should not be taken to mean that endurance exercise is unhealthy.

In most athletes, a combination of sensible training and adequate recovery should cause an improvement in heart muscle function, they say.

But they believe more investigations are now needed, since their small study in Australia did not look at any associated health risks.

Extreme training

The medical director of the London Marathon, Professor Sanjay Sharma, agreed that more research was needed and said the results provided "food for thought".

"My personal feeling is that extreme endurance exercise probably does cause damage to the heart in some athletes. I don't believe that the human body is designed to exercise for as long as 11 hours a day, so damage to the heart is not implausible."

But he said it was too early to say that taking part in endurance sports causes long-term damage.

And Doireann Maddock of the British Heart Foundation said the findings should not put people off doing exercise.

"It is important to remember that the health benefits of physical activity are well established. The highly trained athletes involved in this study were competing in long distance events and trained for more than 10 hours a week.

"Further long-term research will be necessary in order to determine if extreme endurance exercise can cause damage to the right ventricle of the heart in some athletes. Any endurance athletes who are concerned should discuss the matter with their GP."

In the study, the scientists studied the athletes a fortnight before their races, immediately after their races and then about a week later.

Immediately after the race, the athletes' hearts had changed shape. The right ventricle - one of the four chambers in the heart involved in pumping blood around the body - appeared dilated and didn't work as well as it had been in the weeks leading up to the race.