

April 21, 2017

## THE SPECTATOR

### **Marathons and Heart Risk: Why More Runners Should Take an Aspirin on Race Day**

By **Mary Cooke**

Marathons are more popular than ever around the world. This weekend 53,000 runners are registered to compete in the London Marathon. Yet recent headlines about short-term kidney damage remind us that running over 26 miles may not be as healthy as we might think.

Competing in a marathon puts enormous demands on our respiratory, cardiovascular and musculoskeletal systems. On rare occasions it can precipitate a coronary thrombosis, or heart attack. A report in Sports Medicine estimated that heart attacks occurred for one person in 80,000 who finished the London Marathon. What is slightly more worrying is that, of the eight who died during the study period, only one was aware they had a heart problem.

It appears there is a paradox at work. Regular running improves the health of your heart and training for a marathon will lower your risk of cardiac arrest over a lifetime. But, during the race itself, your risk of such an event goes up.

Researchers in the US have studied the blood of marathon runners taking part in the Boston Marathon, before and after the race. They found that levels of inflammatory biomarkers shot up during the race. This is associated with muscle injury, when the runner hits “the wall” and the muscles run out of glycogen. Unfortunately, the body can’t tell the difference between marathon muscle injury and any other trauma. As a result, the blood gets very pro-coagulant, which makes it ready to clot. In people who suffer from coronary heart diseases, this clotting can lead to a heart attack.

So who is at risk? According to [Dr. Arthur J. Siegel](#), director of internal medicine at **McLean Hospital** and associate professor of medicine at Harvard Medical School, Massachusetts, the vast majority of these cases are in men over the age of 40.

Dr. Siegel, a marathon researcher and veteran runner of 20 marathons himself, points out that while the risk is low, the consequences can be fatal. He is keen to make the sport safer by urging the widespread use of low-dose pre-race aspirin in those who are not allergic and medically safe to take it.

He said: “There is a tremendous predominance of older men doing the marathon—partly because, paradoxically, they believe it’s going to be protective. But running the race is a risk and aspirin can offset that risk.”

There are over 16,000 men aged over 40 years who are registered to take part in the London Marathon this weekend. Pre-race aspirin, for men over 40, was recommended to those taking part in the 2014 Rio marathon, and approved by the International Marathon Medical Directors Association. Yet this practice is not widely promoted at other large events.

There has been no large-scale clinical trial of aspirin in marathon runners, although Dr. Siegel explains that, as this is a

comparatively rare event, such a trial is not practically feasible. However, there is good evidence for the use of low-dose aspirin for the prevention of heart attacks in the prospective randomised controlled Physicians Health Study.

Dr. Siegel is keen to get the practice more widely adopted. “Unfortunately,” he said, “it takes tragedies for people to appreciate how serious this problem is.”

Even regular marathon runners may be at risk. A small study investigating 50 long-term marathon runners, showed an increased coronary artery plaque volume in runners when compared to the sedentary control group.

“What I would advise a middle-aged man who wants to run a marathon is that he should have a coronary CT scan and find out where he stands,” Dr. Siegel said. “If the scan is clear, it’s likely to be safe. If he’s got any calcium he should take aspirin, if he has a high calcium score he probably should do the training but forego the race, because it’s maybe a risk that’s not worth taking.”

There are other, less dramatic health risks.

In 2006, Austrian researchers reported that a group of 210 marathon runners had more atypical moles and other skin lesions suggestive of a risk for skin cancer than a matched control group.

The researchers suggested that, until more work is done to investigate a potential link between exercise-induced suppression of the immune system and malignant melanoma, runners should be made aware of the risks and take steps to reduce their exposure to ultraviolet light.

Marathons push the body to its limit. Most people run in them because they enjoy the challenge. But if you’re taking part in one in the hope of living a longer life, then it might better to stick to the training and sit the race out.