

## **Exercise-Induced Troponin Increases Risk of Cardiovascular Events**



Exercise is known to be a factor for good cardiovascular health, however, a recent study has shown that intensive or prolonged exercise can increase levels of cardiac biomarkers, such as troponin. Troponin is present in every heart muscle cell and can be used to identify the incidence of a heart attack. If the heart is damaged, this protein leaks into the bloodstream making it an easy way to identify cardiovascular disease. However, the links of this protein and exercise have not been previously investigated.

Physiologists at Liverpool John Moores University and Radboud University Medical Center collected blood samples from 725 walkers before and after a long walk. Researchers were then able to measure the difference in troponin concentration after exercise. The walkers were also contacted annually for their cardiovascular health to be measured over 10 years.

Thijs Eijsvogels, a researcher on the study, reported that 27% of walkers that had increased troponin levels after exercise had gone on to develop severe cardiovascular disease or had died. Whereas there was only 7% of participants recorded to have the same outcomes with lower troponin concentration levels after exercise. The study confirms the clinical relevance of exercise impacting troponin levels.

PhD student, Vincent Aengevaeren, noted that the results are not all bad for those who exercise frequently. He suggested that exercise can act as a stress test and those identified with high troponin levels after exercise could have underlying cardiovascular issues that have not yet been diagnosed. The research from the study could help with the early identification of individuals at risk. Eijsvogels also agrees that the results from the study should not be misinterpreted, and reiterated that regular exercise can extend life by three to six years.

Source: Radboud UMC Image Credit: iStock

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