

A simple blood test could help identify people at risk of a heart attack, a study has found

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Research shows the troponin test – currently used to help diagnose a heart attack – could be used to assess future heart disease risk.

The findings suggest the test could also be used to identify people who will benefit from statins – medicines that are used to lower [heart disease risk](#) – and could help to monitor whether patients are responding to the treatment.

Experts say the test is expected to be more effective than measuring blood pressure or cholesterol for determining whether a person is likely to have a heart attack in the future.

The test detects a molecule called troponin, which leaks into the blood stream when heart muscle is damaged. Patients suspected of suffering a heart attack will often be given a troponin test to confirm the diagnosis, but until now it was not known whether the test could help to determine future [heart attack risk](#).

The study led by the Universities of Edinburgh and Glasgow involved more than 3,000 men with high cholesterol but no history of heart disease. Researchers found that changes in levels of troponin in a patient's blood sample accurately predicted the risk of that person suffering a heart attack or dying of [coronary heart disease](#).

People whose troponin levels decreased the most were five times less likely to suffer a [heart attack](#) – or die from coronary heart disease – than

those who experienced the greatest increase in troponin levels, the study showed.

Statins

The team also found that taking statins was associated with a drop in [troponin levels](#). Treatment doubled the number of men whose troponin fell more than a quarter, which identified them as having the lowest risk for future coronary events.

"Troponin testing will help doctors to identify apparently healthy individuals who have [silent heart disease](#) so we can target preventative treatments more effectively," says Professor Nicholas Mills, British Heart Foundation Senior Clinical Research Fellow at the University of Edinburgh.

Targeted treatment

Statins are widely used to prevent coronary [heart disease](#) in people who are considered high-risk.

The researchers say the test could offer a more accurate risk assessment and help doctors to target treatment to those who need it most.

They caution that larger studies involving a more diverse group of patients will need to take place to confirm the results before the test can be used as part of routine care.

"These experiments need to be repeated in a wider group of patients. If these prove successful, this [test](#) could easily be administered by GPs during standard check-ups, and could ultimately save lives," says Professor Sir Nilesh Samani, Medical Director, British Heart

Foundation.

More information: Ian Ford et al. High-Sensitivity Cardiac Troponin, Statin Therapy, and Risk of Coronary Heart Disease, *Journal of the American College of Cardiology* (2016). [DOI: 10.1016/j.jacc.2016.10.020](https://doi.org/10.1016/j.jacc.2016.10.020)

Provided by University of Edinburgh

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