

# New blood test reveals risk of coronary artery disease

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Two blood tests have been found to reveal more information about the prognosis for coronary artery disease than any other factor studied. Credit: Uppsala University

A study led by researchers at Uppsala University, which included more than 13,000 patients, has resulted in a new tool that will facilitate the treatment of patients with stable coronary artery disease.

"This tool could make it possible to give patients with [coronary artery disease](#) a more precise and tailor-made treatment. The tool makes it possible to identify those who have the highest risk, and thereby probably the most benefit of newer, intensive preventive treatments," says Daniel Lindholm at the Department of Medical Sciences and Uppsala Clinical Research Center at Uppsala University, one of the leaders of the study.

Coronary artery [disease](#) is common. Arteriosclerosis causes constrictions in the heart's own blood vessels (coronary arteries), which in turn gives rise to an oxygen deficit in the heart, mainly during exertion. This often results in strain-triggered chest pains (angina pectoris). Even if [coronary artery](#) disease is one of the most common causes of death, the risk of dying from the disease varies in different individuals. But to-date, the treatment has been the same regardless of the risk.

In the study, 13,164 patients with stable coronary artery disease were studied. The study shows that two blood tests, NT-proBNP and high-sensitivity cardiac Troponin T, contained more information on the prognosis than any other factor.

Troponin T is a protein that is essentially only found in [cardiac muscle cells](#). This is often used when making the diagnosis of cardiac infarction, but now with highly sensitive methods, much lower levels can be measured, which provides prognostic information even in a [stable phase](#). NTproBNP is secreted by the heart when it is stressed, such as in [heart failure](#), but also during stable coronary artery disease.

By combining the specific blood tests with some clinical factors, the researchers were able to construct a model that can predict the risk of dying from cardiovascular disease with a high level of precision. The model also proved useful for predicting the onset of heart failure in patients with stable coronary artery disease.

Provided by Uppsala University

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