

# Research shows blood protein levels may predict risk of a cardiovascular event

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Increased levels of a protein that helps regulate the body's blood pressure may also predict a major cardiovascular event in high-risk patients, according to a study led by St. Michael's Hospital's cardiovascular surgeon Subodh Verma. Measuring the amount of the protein, known as plasma renin activity (PRA), in the blood stream may give doctors another tool to assess a patient's risk and help prevent a heart attack or stroke.

"Conventional factors like genetics and environment do not always provide a complete patient story and an understanding of cardiovascular risk," says Dr. Subodh Verma, senior author, researcher and cardiovascular surgeon at St. Michael's Hospital. "The plasma renin activity blood marker allows us to identify people at a higher risk and that gives us the opportunity to introduce therapies that would work to lower a patient's PRA levels."

Published in March in the *European Heart Journal*, the paper was based on 2,913 Canadian HOPE (Heart Outcomes Prevention Evaluation) study patients. Patients in the study had stable chronic vascular disease and/or diabetes and one cardiovascular risk factor.

"This study makes a strong case for further study of PRA and its association with cardiovascular death," explains Dr. Verma. "The next step will be to move into larger trials with PRA therapies and study whether or not this impacts the cardiovascular death rate. This could be a big step forward in our battle against [heart disease](#)."

The Heart & Stroke Foundation estimates that heart disease and stroke costs the Canadian economy more than \$22.2 billion every year in physician services, hospital costs, lost wages and decreased productivity.

Provided by St. Michael's Hospital

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