

New cardiovascular risk calculator also tells heart age



A new online health calculator developed by a Canadian research team can help people determine their risk of heart disease. The calculator takes into account sociodemographic factors (i.e., age, ethnicity, education), as well as health status and lifestyle behaviours. In addition to personal use, policy-makers can use the tool to calculate risk profiles for different populations, according to the researchers.

The process to build and validate the tool is described in a report published in CMAJ (Canadian Medical Association Journal).

Risks of death from heart disease are modifiable with lifestyle changes. However, most people are unaware of their cardiovascular risk until they experience a cardiac event, which may be fatal.

"What sets this cardiovascular risk calculator apart is that it looks at healthy living, and it is better calibrated to the Canadian population," says lead author Dr. Doug Manuel, senior scientist at The Ottawa Hospital and a senior core scientist at the Institute for Clinical Evaluative Sciences (ICES).

Using a "big data" approach, the researchers used routinely collected data on 104,219 Ontario residents from the Canadian Community Health Surveys (2001 to 2007) linked to ICES data on hospitalisations and deaths to develop and validate the Cardiovascular Disease Population Risk Tool (CVDPoRT).

This new calculator, the researchers explain, allows individuals to accurately predict their risk of hospitalisation or death from cardiovascular disease within the next five years. For example, if their risk is five percent, it means that five in 100 people like them will experience a serious cardiovascular event in the next five years. The calculator also provides heart age, an easy-to-understand measure of heart health.

Unlike other risk prediction tools, the CVDPoRT considers many factors, such as sociodemographic status, environmental influences like air pollution, health behaviours ranging from smoking status to alcohol intake to physical activity, stress, health conditions (i.e., diabetes, hypertension) and more.

"A lot of people are interested in healthy living, but often we don't have that discussion in the doctor's office," notes Dr. Manuel, who is also a professor at the University of Ottawa. "Doctors will check your blood pressure and cholesterol levels, but they don't necessarily ask about lifestyle factors that could put you at risk of a heart attack and stroke. We hope this tool can help people – and their care team – with better information about healthy living and options for reducing their risk of heart attack and stroke."

Source: Canadian Medical Association Journal

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