

## **Adult high blood pressure risk identifiable in childhood**

Groups of people at risk of having high blood pressure and other related health issues by age 38 can be identified in childhood, new University of Otago research suggests.

High blood pressure is commonly treated in middle and old age. It has been described as a “silent killer” because most people are unaware of having the condition, which is one that puts them at greater risk of heart disease.

The findings are the latest to emerge from the internationally renowned Dunedin Study, which has tracked more than a 1000 people born in Dunedin in 1972-3 from birth to the present. The research is published in the international journal *Hypertension*.

Using blood pressure information collected between the ages of 7 to 38 years, researchers identified study members as belonging to one of four different blood pressure groups. They found that more than a third of them were at risk of developing clinically high blood pressure levels by early mid-life.

Lead author Dr Reremoana Theodore says she and her colleagues were also able to identify a number of factors in early life that increased the odds of being in a high risk blood pressure group.

“These included being male, having a family history of high blood pressure, being first born and being born lower birthweight. This new information is useful for screening purposes to help clinicians identify young people who may develop high blood pressure later in adulthood,” Dr Theodore says.

The study also showed that having a higher body mass index (a measure of overweight and obesity) and cigarette smoking over time were associated with increasing blood pressure levels over time, especially for individuals in the higher blood pressure groups.

Dunedin Study Director, Professor Richie Poulton, says “encouraging lifestyle changes beginning early in life that include the maintenance of a healthy body weight, weight reduction and stopping smoking may help to lower blood pressure levels over time, particularly among those individuals on a trajectory to developing hypertension”.

Those individuals in the higher blood pressure groups were also more likely to have other negative health related conditions by age 38 years including higher blood cholesterol levels.

“Our findings can be used to inform early detection, targeted prevention and/or intervention to help reduce the burden associated with this silent killer,” Dr Theodore says.

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**For more information, contact:**

Dr Reremoana Theodore  
Dunedin Multidisciplinary Health and Development Research Unit  
Department of Psychology  
University of Otago  
Tel 64 3 479 4171  
Mob 021 261 0023  
Email [moana.theodore@otago.ac.nz](mailto:moana.theodore@otago.ac.nz)

Professor Richie Poulton  
Director, Dunedin Multidisciplinary Health and Development Research Unit  
Department of Psychology  
University of Otago  
Tel 64 3 479 8507  
Email [richie.poulton@otago.ac.nz](mailto:richie.poulton@otago.ac.nz)