

Risk of developing diabetes higher in neighborhoods that aren't walk-friendly

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Whether your neighbourhood is conducive to walking could determine your risk for developing diabetes, according to a new study by researchers at St. Michael's Hospital and the Institute for Clinical Evaluative Sciences.

Researchers found this risk was particularly high for new immigrants living in low-income neighbourhoods. A new immigrant living in a less walkable neighbourhood – fewer destinations within a 10-minute walk, lower residential density, poorly connected streets – was about 50 per cent more likely to develop diabetes when compared to long-term residents living in the most walkable areas, regardless of neighbourhood income.

"Although diabetes can be prevented through [physical activity](#), [healthy eating](#) and weight loss, we found the environment in which one lives is also an important indicator for determining risk," said Dr. Gillian Booth, an [endocrinologist](#) and researcher at St. Michael's and lead author of the study published online in the journal [Diabetes Care](#) today.

For new immigrants, environment is an especially important factor as past research has shown an accelerated risk of obesity-related conditions including diabetes within the first 10 years of arrival to Canada, said Dr. Booth, who is also an adjunct scientist at ICES.

While diabetes is on the rise in Canada, the same trends are occurring globally, even in less [industrialized countries](#). This is due in part to the

move from rural to urban living in [developing countries](#) – often associated with increased exposure to [unhealthy foods](#), fewer opportunities for physical activity and a heightened risk of becoming obese and developing diabetes.

The study looked at data from the entire population of Toronto aged 30-64 – more than 1 million people – and identified those who didn't have diabetes. It then followed them for five years to see if their risk of developing diabetes increased based on where they live.

To determine which neighbourhoods were more conducive to walking, researchers developed an index looking at factors such as population density, street connectivity and the availability of walkable destinations such as retail stores and service within a 10-minute walk.

Dr. Booth said neighbourhoods that were the least walkable were often newly developed areas – characterized by urban sprawl – in part because of the reliance on cars caused by suburban design.

"Previous studies have looked at how walkable neighbourhoods affect health behaviour, but this is the first to look at the risk of developing a disease," said Dr. Booth.

Dr. Booth said the results emphasize the importance of neighbourhood design in influencing the health of urban populations.

Provided by St. Michael's Hospital

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