

# The Built Environment and Diabetes Position Statement

## Executive Summary

The built environment consists of features that are dictated by human design, including transportation systems, land development patterns, and microscale urban design (e.g., sidewalks, curbs, etc.). Specific components of the built environment include infrastructure to enable active transportation and neighborhood walkability, such as buildings, roads, and parks. It is the very foundation of how we plan, design, and build our communities.

The built environment influences the development of type 2 diabetes, and the management of type 1 and type 2 diabetes. Policies and programs that address urban design, transportation systems, and land-use planning can act as either facilitators or inhibitors to levels of overweight and obesity, physical activity, and healthy eating, which are major modifiable risk factors for the development of type 2 diabetes and its related complications.

### Characteristics of the Built Environment that Promote Health

- **Active transportation** promotes physical activity by increasing opportunities for incidental exercise. Individuals residing in cities with higher levels of active transport experience a reduced risk of all-cause mortality, cardiovascular disease, hypertension, and type 2 diabetes. Further, active transportation is an
- **Public transportation** that is affordable, reliable, and efficient can lead to increased physical activity, reducing the risk of developing type 2 diabetes. Approximately 29 percent of commuters using public transit achieve greater than 30 minutes of physical activity per day from walking to and from public transit stops. Additionally, within a five-day work or school week, these commuters are able to achieve the recommended 150 minutes per week of physical activity solely through commuting.
- **Walkable neighbourhoods** promote physical activity and are characterized by street connectivity, mixed land use, population and residential density, neighbourhood aesthetics, and green space. Those living in highly walkable neighbourhoods often have a lower body mass index, blood pressure, blood glucose measures, and triglycerides, compared to those in less walkable areas. These neighbourhoods are associated with a reduced risk of developing type 2 diabetes and support the management of type 1 and type 2 diabetes.
- **Food environments** that are health-promoting improve access to affordable and nutritious

effective strategy in the management of type 1 and type 2 diabetes. Having well-maintained paths, bike lanes, destinations of interest, and roads with lower-speed traffic increases the use of active transportation.

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food options and contribute to positive health outcomes including improved type 2 diabetes prevention and type 1 and type 2 diabetes management. Zoning laws which regulate the concentration of fast-food and convenience stores, while ensuring the accessibility of healthy food retailers, such as farmers markets and grocery stores, provide an opportunity for Canadians to choose healthy foods more easily.

## The Built Environment and Equity

- Diabetes disproportionately affects those living with low-income. Residents of low-income neighbourhoods have less disposable income, are more likely to work precarious jobs, and have less access to recreation facilities and gyms, leading to decreased rates of physical activity. Similarly, these neighbourhoods may have poorer access to nutritious foods, leading to a lower diet quality.
- Low-income neighbourhoods in rural, remote, and northern regions experience even more barriers to accessing physical activity, such as community infrastructure, limited revenue, short construction seasons, and high cost of living.
- Enhancing the built environment lowers rates of diabetes independent of income, as it creates a supportive environment in which people will naturally engage in more health-promoting behaviours.

## Recommendations

Diabetes Canada recommends that **municipalities**:

- Develop urban containment policies to manage urban sprawl and promote density, facilitating opportunities for active transportation.
- Implement infrastructure that supports active transportation, such as bike lanes, safe crossings and paths, well-maintained sidewalks, and adequate lighting.
- Ensure that affordable, efficient, and reliable public transportation is provided.
- Ensure mixed land use development so that employment, schools, and shops are

within close proximity of each other, and walking or biking can be the primary methods of transportation.

- Provide equitable access to recreation facilities, especially for those living in rural, remote, and northern regions. Recreational facilities need to take into consideration the cultural traditions of Indigenous communities and other cultural/ethnic groups.

Diabetes Canada recommends that **provincial and territorial** governments:

- Prioritize physical activity and health in the development and implementation of transportation and municipal affairs policy.
- Provide adequate support for municipal infrastructure and development, including retrofitting neighbourhoods where necessary, and public transportation.

Diabetes Canada recommends that the **federal** government continue to:

- Support and collaborate with provincial/territorial and municipal governments to develop an active transportation plan for Canada.
- Explore ways of ensuring sufficient funds are available for municipal infrastructure that promotes active transportation through investments in sidewalks, trails, and bike paths and lanes.
- Allocate funding to municipal and provincial/territorial governments for the development of recreation facilities.

Diabetes Canada recommends that **Canadians**:

- Acknowledge and value communities that encourage active transportation and physical activity. Citizens enjoy and value the presence of nearby shops and services, well-lit sidewalks, greenspace, safe street crossings, recreational facilities, and reasonable access to desirable destinations.
- By making their voices heard, Canadians should encourage municipal counsellors, mayors, and advisory councils to implement public policies that promote active living and better health outcomes.

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**For More Information:** Please visit [www.diabetes.ca](http://www.diabetes.ca)

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