

SPACE SYNTAX

A MEASURE OF URBAN DESIGN AND WALKABILITY

the **SPACE SYNTAX** approach can model networks between open spaces and built features and may provide information on neighbourhood walking patterns ¹

Two main space syntax measures have been examined in relation to physical activity

STREET INTEGRATION

Measures the number of turns required to navigate within the street network ¹

SPACE SYNTAX WALKABILITY

Incorporates street integration and population density to estimate walkability¹

A recent study* estimated the association between space syntax metrics and neighbourhood walking among Canadian adults



STREET INTEGRATION + SPACE SYNTAX WALKABILITY

were **POSITIVELY ASSOCIATED** with weekly participation in



NEIGHBOURHOOD LEISURE WALKING

(e.g. taking a stroll or for exercise)

+

NEIGHBOURHOOD TRANSPORTATION WALKING

(e.g. walking to a shop or the bus stop)

a **1-unit** increase in space syntax walkability

was associated with



a **6-minute** increase in transportation walking per week



Street integration and space syntax walkability are associated with neighbourhood walking among Canadian adults.

*For more information:

McCormack, G.R., Koohsari, M. J., Turley, L., Nakaya, T., Shibata, A., Ishii, K., Yasunaga, A., & Oko, K. (2019). Evidence for urban design and public health policy and practice: Space syntax metrics and neighborhood walking. *Health & Place*. ISSN: 1353-8292

References:

1) Koohsari, M.J., Kaczynski, A.T., McCormack, G.R., & Sugiyama, T. Using space syntax to assess the built environment for physical activity: applications to research on parks and public open spaces. *Leis. Sci.*, 36 (2014), pp. 206-216



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