



Summary

Sedentary behaviour and physical inactivity are two separate public health issues. Practitioners should speak with their clients about both negative health behaviours.

This article includes strategies for facilitating conversations with clients and decision-makers.

Standing up to sedentary behaviour

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If you can, consider reading this article without being sedentary. Can you stand (or move in some way) while reading this? Give it a go!

High rates of sedentary behaviour are an emerging public health issue in Canada. Increased coverage of sedentary behaviour in the media has been fuelled by an explosion of research over the past two years, and you may have heard these witty warnings: "*Beware of the chair*" and "*Sitting is the new smoking*."

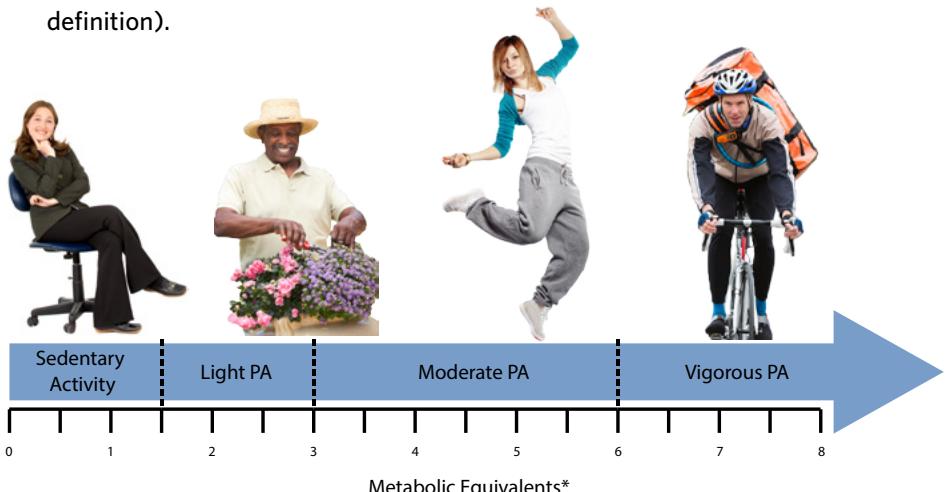
In Alberta, adults spend approximately 8 to 10 hours per day being sedentary, and children and youth spend approximately 5 to 9 hours per day being sedentary.¹ Sedentary behaviour is associated with an increased risk of type 2 diabetes², obesity³, poor mental health and quality of life⁴, and other negative health outcomes.

Excessive sedentary behaviour (and the accompanying chronic disease) also impacts our health care system. If 10% of Canadians were less physically inactive and sedentary, rates of high blood pressure, diabetes, and heart disease could decrease by approximately 2 to 4% by 2040.⁵ For these reasons, it is essential that practitioners make sedentary behaviour part of the healthy lifestyle discussions with clients, patients, families, and decision-makers.

Understanding the Difference between Being Sedentary, Physically Inactive, and Physically Active

Researchers define sedentary behaviour⁶ as occurring when individuals are:

- awake,
- seated or lying down, and
- expending less than 1.5 metabolic equivalents (METs — see page 3 for a definition).



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A simpler way to explain sedentary behaviour might be “*long periods of time spent sitting or lying down while awake*” including driving to work or sitting on the bus, working at a desk, or watching TV. Sleeping is not considered sedentary because it is a vital activity for maintaining health.

Being physically active⁷ means doing the recommended 150 minutes of moderate-to-vigorous intensity aerobic activity per week. Being physically inactive⁶ means doing less than the recommended 150 minutes of moderate-to-vigorous intensity aerobic activity per week. Therefore, clients can be a physically inactive person while still engaging in some physical activity.

Why is Sedentary Behaviour Unique?

Being sedentary—long periods of time spent sitting or lying down while awake—is a unique activity with its own impact on health which is separate from physical activity and physical inactivity.⁸

Discussing sedentary behaviour separately from physical activity is a new approach for practitioners and decision-makers. Common sense might suggest that the benefits of physical activity would undo the risks of sedentary behaviour, but this may not be case as sedentary behaviour and physical activity affect our body independently.⁸

What does that mean? Even if your clients are doing regular physical activity, sedentary behaviour still needs to be discussed as part of a balanced lifestyle plan.



How Much Sedentary Behaviour is Too Much?

The Canadian Society for Exercise Physiology (CSEP) has published evidence-informed Canadian Sedentary Behaviour Guidelines⁹ for children and youth that suggest limitations for screen time, sitting during motorized transport, extended periods of low activity, and recreational time spent indoors.

CSEP has not developed Canadian Sedentary Behaviour Guidelines for adults because available evidence does not yet support a specific prescription with a timed recommendation for maximum hours of sedentary behaviour per day. Given the negative health outcomes associated with sedentary behaviour, and that Albertans spend approximately 50% of their waking day being sedentary, the current recommendation for adults is to reduce or interrupt long periods of sedentary behaviour. A timed recommendation for maximum hours of sedentary behaviour per day may be developed in the future as more research becomes available testing various prescriptions.

Despite these concerns, remember that enjoying some sedentary behaviour, such as reading a book, socializing with friends in a local park, or curling up in front of a fire can be part of a balanced lifestyle.

Myth:

Physically active people don't have to worry about how much time they spend being sedentary.

Reality:

While any amount of physical activity could benefit your health, it might not remove the risks associated with being sedentary.

Key Message:

To obtain the benefits of physical activity, one needs to be physically active; and to reduce the risks of being sedentary, one needs to get up and move more. Both behaviours require attention.

Strategies to Reduce Sedentary Behaviour

Many practitioners are likely already speaking to clients and decision-makers about the importance of physical activity. Leveraging this conversation to discuss strategies to reduce sedentary behaviour is important to improve the health status of Albertans. Below are a few strategies to help facilitate conversations with clients and decision-makers.



Key Term

METs: METs or metabolic equivalents are population standardized measures for different types of activities. METs allow different activities to be compared in terms of calories burned during an activity to calories burned when at rest. Brisk walking is considered a moderate-intensity physical activity at between 3 to 6 METs. Running is considered a vigorous-intensity physical activity at more than 6 METs. Sitting is considered a sedentary behaviour at less than 1.5 METs.

1) Educate, educate, educate...then motivate!

Have discussions with clients and decision-makers about what sedentary behaviour is, and how being physically active may not cancel the negative effects of sedentary behaviour. Pay special attention to reducing sedentary behaviour separately from increasing physical activity. Challenge the idea that our sedentary society is normal. Albertans spend up to 10 hours per day being sedentary. The human body was meant to be active. Frame sedentary behaviour as a concern and explore solutions.

2) Create a plan and begin with small changes

Work with clients to develop a plan to reduce the amount of time per day spent being sedentary, e.g., use active transportation to get to work or run an errand; stand on the bus; hold a standing meeting; or schedule free time outdoors.

Start with a small change, e.g., try a new behaviour once per week; or set an alarm or use an app to give reminders to move every hour.

3) Recruit friends, families, colleagues and strangers

Encourage clients to recruit friends, family members, and colleagues (and, yes, even strangers) to reduce their sedentary behaviour together, as reducing sedentary behaviour requires both individual and societal challenge. Look to the future where health apps will track sedentary behaviour and allow clients to share their results with others if they find that motivating. Apps of this nature already exist for physical activity, e.g., Strava.

4) Advocate for policies that support less sedentary behaviour

Provide decision-makers with evidence to implement policies in schools and workplaces (or parents to implement “policies” in homes) that support environments to reduce sedentary behaviour (see the Alberta Centre for Active Living’s new Workplace resources: <https://www.centre4activeliving.ca/our-work/centre-projects/increase-PA-and-decrease-sedentary-in-workplace/>.)

Conclusion

Sedentary behaviour is a “hot topic”, so now is the time to discuss it with clients and decision-makers. As a practitioner, take the time to educate people about what sedentary behaviour is, why it matters, and strategies for doing less.

Finally, lead by example and avoid being sedentary while discussing sedentary behaviour. Are you still standing and moving?

References

1. Loitz C, Johnston N. [2015 Alberta Survey on Physical Activity](#) [Internet]. Edmonton: Alberta Centre for Active Living; 2015 [cited 2015 Oct 22]. Available from: https://www.centre4activeliving.ca/media/filer_public/14/7e/147e03f9-1799-43a1-ac3b-39c7697e161d/2015-ab-survey-physical-activity-report.pdf
2. Hamburg NM, McMackin CJ, Huang AL, Shenouda SM, Widlansky ME, Schulz E, Gokce N, Ruderman NB, Keaney JF, Vita JA. [Physical inactivity rapidly induces insulin resistance and microvascular dysfunction in healthy volunteers](#). Arterioscler Thromb Vasc Biol. 2007; 27: 2650-6. doi:10.1161/ATVBAHA.107.153288.
3. Thorp AA, Owen N, Neuhaus M, Dunstan DW. [Sedentary behaviors and subsequent health outcomes in adult: A systematic review of longitudinal studies, 1996-2011](#). Am J Prev Med. 2011; 41(2): 207-15. doi:10.1016/j.amepre.2011.05.004
4. Rhodes RE, Mark RS, Temmel CP. [Adult sedentary behavior: A systematic review](#). Am J Prev Med. 2012;42(3): e3- 28. doi:10.1016/j.amepre.2011.10.020
5. Bounajim F, Dinh T, Thériault L. Moving ahead: The economic impact of reducing physical inactivity and sedentary behaviour. Ottawa: The Conference Board of Canada; 2014. 38 p. Publication 6436.
6. Sedentary Behaviour Research Network. [Letter to the Editor: Standardized use of the terms “sedentary” and “sedentary behaviours”](#). Appl Physiol Nutr Metab [Internet]. 2012 Apr 2 [cited 2015 Oct 23]; 37(3): 540-2. doi: 10.1139/h2012-024
7. Canadian Society for Exercise Physiology. [Canadian physical activity guidelines for adults 18 to 64 years](#) [Internet]. 2011 [cited 2015 Oct 23]. Available from: http://www.csep.ca/CMFiles/Guidelines/CSEP_PAGuidelines_adults_en.pdf
8. Katzmarzyk PT, Church TS, Craig CL, Bouchard C. [Sitting time and mortality from all causes, cardiovascular disease, and cancer](#). Med Sci Sports Exerc. 2009; 41(5): 998-1005. doi: 10.1249/MSS.0b013e3181930355
9. Canadian Society for Exercise Physiology. [Canadian sedentary behaviour guidelines for the early years - 0-4 years; for children 5-11 years; for youth 12-17 years](#) [Internet]. 2011 [cited 2015 Oct 23]. Available from: http://www.csep.ca/CMFiles/Guidelines/CSEP_SBGuidelines_0-17_en.pdf
10. World Health Organization. [What is moderate-intensity and vigorous-intensity physical activity?](#) [Internet]. 2015 [cited 2015 Oct 22]. Available from: http://www.who.int/dietphysicalactivity/physical_activity_intensity/en/

About the Author

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