Lecture Outline
ACSM Health and Fitness Summit 2014

“How does sitting time affect appetite and weight?”

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Summary

The purpose of this talk is to help participants better understand the relationships between energy intake and expenditure and to clarify the role for hunger and satiety hormones in regulating appetite and energy intake. I will present the state of research on short- and long-term effects of changing physical activity with particular emphasis on how too much sedentary behavior (sitting) impacts regulation of appetite and weight management.

Three Take-aways

1. Appetite and energy intake are inhibited during and immediately after exercise in rough correspondence with exercise intensity

2. Too much sitting may have detrimental effects on BOTH the expenditure and intake sides of the energy balance equation and contribute to obesity

3. Reducing sitting may increase expenditure without a compensatory rise in energy intake and therefore could be beneficial for weight loss and maintenance of lost weight.

Outline of Learning Objectives

1. To better understand the broad relationships between energy intake and expenditure

2. To clarify the role for hunger and satiety-regulating hormones in regulating appetite and energy intake

3. To present the state of research on short- and long-term effects of exercise on the regulation of appetite and energy intake

4. To introduce the research on prolonged inactivity/sedentary behavior on the regulation of appetite and energy intake.

5. To suggest ways in which reduced sitting time can be used as a strategy to help foster appropriate weight loss and facilitate maintenance of lost weight.
Resources:


Suzuki K, Simpson KA, Minnion JS, Shillito JC, Bloom SR. The role of gut hormones and the hypothalamus in appetite regulation. Endocr J. 57:359-72, 2010


