



Raylene A Reimer, PhD, RD

Dr. Reimer is *Professor, Faculty of Kinesiology and Department of Biochemistry & Molecular Biology, Cumming School of Medicine (University of Calgary)*. She is a Professor in the Faculty of Kinesiology and Cumming School of Medicine at the University of Calgary. She is also a Registered Dietitian. She completed her PhD in Nutrition & Metabolism at the University of Alberta and a two year postdoctoral fellowship at the Nestle Research Centre in Switzerland. Dr. Reimer's research focuses on the role of diet in regulating energy intake and gut microbiota in the context of obesity and type 2 diabetes. Dr. Reimer has developed animal models to study how diet during pregnancy and early postnatal life influences obesity risk. Her studies have identified unique dietary fibre sources as potentially valuable nutritional components in managing body weight.

Translating findings from animal models to human clinical studies is a key way in which Dr. Reimer spans bench to bedside discovery and application. Her ongoing clinical trials help take evidence-based findings into application. She was honored in 2012 with the Centrum New Scientist Award for Outstanding Research by the Canadian Nutrition Society.

Metabolic benefits of prebiotic fibre intake

Prebiotics are non-digestible food ingredients that selectively stimulate the growth and/or activity of microbiota and thereby confer health benefits to the host. While the ability of prebiotics to enhance satiety has been shown in numerous studies, evidence for the metabolic benefits of prebiotics beyond appetite regulation is starting to emerge. This presentation will briefly review the effects of prebiotics on satiety and energy intake and then present evidence for additional metabolic effects, including glucose and insulin response and inflammatory markers. In addition, the effects of prebiotics on the gut microbiota will be reviewed and implications of prebiotic-induced modulation of the microbiota on obesity and type 2 diabetes discussed. Insights into the mechanisms of action of prebiotics will be gleaned from both animal and human studies.

Learning objectives:

1. Define prebiotics and describe their role in satiety and regulation of energy intake.
2. Understand the emerging evidence for metabolic benefits of prebiotics beyond appetite control.
3. Understand the potential mechanisms, including gut microbiota, through which prebiotics exert metabolic effects.