



Supplemental and dietary calcium intakes in postmenopausal women: a series of studies on vascular and bone health

Oral Defence by PhD Candidate Angel Ong

School of Human Nutrition

April 23rd, 2020 @ 13:15 — Macdonald-Stewart Building, Room MS2-022

Abstract

Adequate calcium intake is essential for optimal bone health throughout the lifespan. Major sources of dietary calcium in the North American diet consist of milk and milk products. Supplemental calcium is often recommended in view of inadequate intakes from the diet to meet the Recommended Dietary Allowance (RDA). However, it remains uncertain whether supplemental calcium intake or greater intakes of calcium from foods associate with increased risk of cardiovascular events and mortality, especially in postmenopausal women. The relationship between supplemental and dietary calcium intakes and markers of vascular and bone health was examined in postmenopausal women. Calcium intake at the level of the RDA, from either dietary sources alone or predominantly from supplemental sources, does not promote systemic inflammation in healthy postmenopausal women. Both sources of calcium have similar beneficial skeletal actions in vitamin D sufficient postmenopausal women, as demonstrated by significant decreases in bone turnover markers following 12-month interventions. Major contributors to dietary calcium, (i.e. milk, yogurt, and cheese) intake did associate with selected markers of inflammation. This body of work significantly contributes to the growing evidence supporting the safety of both supplemental and dietary sources of calcium in healthy postmenopausal women to meet dietary targets.



About the Candidate

Angel is a registered dietitian and completed her BSc and MSc degrees in Nutritional Sciences at McGill University. In 2014, she began her doctoral studies under the supervision of Dr. Suzanne Morin and Dr. Hope Weiler. During her PhD training, she led studies of various designs and published 3 first-author manuscripts in peer-reviewed nutrition research journals. Driven by her passion for clinical research, she aims to help patients affected by the burden of diseases by bridging the gap between nutrition research and clinical practice.