Abstract Title: Based on current evidence-based practice, can Dietitians recommend soy beverages as an acceptable alternative to cow's milk for healthy term infants at weaning? – A review of the literature

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Background: Current PEN Pathways suggest that fortified soy beverages [FSB] be introduced in weaning, under limited circumstances. Growing interest in plant-based diets requires a review of the material to determine whether there is sufficient evidence to support Dietitians in recommending the use of FSB in complementary feeding.
Objectives: A literature review was conducted to provide Dietitians with adequate knowledge to develop nutrition clinical care guidelines regarding the use of FSB in healthy term infants.
Methods: Infant Nutrition PEN Pathways *Infant Formula* and *Complementary Feeding* [2013-2016] were reviewed. SUMMON searches took place in February/March 2017 using key words: *Complementary feeding, Cow milk protein allergy, Galactosemia, Genistein, Infant feeding, Isoflavones, Manganese, Nutrition, Phytoestrogens, Plant-based milk alternatives, Protein, Soy beverages, and Vegetarian.* Original research and review articles from peer-reviewed journals published in English between 2000-2017 were included. Fifty-four human and animal full-text articles were obtained and PEN-graded.
Results: Eighteen original research studies show limited adverse effects of hormonal shifts from consumption of soy; thirteen show inconsistent results; and two show adverse effects. FSBs are comparable in nutritional adequacy to cow's milk, and do not appear to have a negative effect on growth and development, or endocrine functions. Other plant-based beverages including oat and rice milk should not be used in complementary feeding due to low protein concentration, and risk of mineral toxicity.
Conclusion: There remains a scarcity of human data available that examines long-term effects of genistein, the primary phytoestrogen in FSBs. Evidence is insufficient to conclusively support the use of FSBs as an acceptable alternative to cow's milk for healthy term infants at weaning.
Significance to the field of Dietetics: The results reinforce the need to conduct clinical research that examines the long-term effects of using FSBs in complementary feeding practices of healthy term infants to enhance dietetic evidence-based practice.