

Abstract

Micronutrient Intake of Vegans Living in Christchurch, New Zealand [†]

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Background: The two main motives for individuals to exclude all animal-derived products from their diet are health reasons and ethical belief. When well-planned and varied, a vegan diet has been shown to provide many health benefits; however, vegans who lack sufficient knowledge of nutrition may have poor intake of some nutrients, especially micronutrients. Previous studies showed that some micronutrients (e.g., vitamin B-12, vitamin D, calcium, omega-3 fatty acids, riboflavin, selenium, and in some cases, iron, zinc and retinol) may be of special concern for vegans. The aim of this cross-sectional study was to examine micronutrient intake of vegans living in Christchurch, New Zealand, compare it to current recommendations, and compare intake by motive for adopting a vegan diet.

Methods: Vegan participants ($n = 12$) completed a three-day diet record (two weekdays and one weekend day) within a one-week period. Dietary intake was entered in Cronometer, analysed to determine micronutrient intake, and compared with the recommended intakes for New Zealand individuals. Mann-Whitney test was used to compare intake between the health motivated and ethical vegans.

Results: Participant age ranged from 27 to 33 years and they have been vegan for 3.7 years on average. While they had a great variability in intakes, participants met their RDI's for the majority of micronutrients even when excluding supplements. Areas of concern include low intake of calcium ($M = 677$ mg) with only one participant meeting the RDI; half of the participants not meeting the RDI for vitamin B₁₂; and a high intake of sodium amongst ethically motivated vegans ($M = 4082$ mg).

Conclusions: Results suggest that in general, young vegans are meeting RDI's for the majority of micronutrients. Educational initiatives may be required on the vegan sources of calcium and the need for B12 supplementation. Further research is needed on the reasons for high intake of sodium in some vegans.



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