



The metabolic health of New Zealand vegans

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The popularity of a vegan diet is growing worldwide. Data analysed from the 2018 NZ Attitudes and Values study showed that 1.1% of New Zealanders followed a vegan diet⁽¹⁾. Though there are potential nutrient deficiencies in a vegan diet, it is generally accepted that a vegan diet, with its emphasis on a variety of vegetables, fruit, grains, legumes, and pulses, has greater metabolic benefits than a Western-style diet high in red meat and processed foods and lower in plants⁽²⁾. This observational cross-sectional study aimed to explore the dietary intake (4-day food diary) and metabolic health status (including anthropometry, blood pressure, lipids, body fat percentage, omega-3 index and glycaemic control) of adults who had been consuming a vegan diet for 2+ years. Participants (N = 212) were predominantly female (N = 155) with a mean (SD) age of 39.5 (12.4) years. Mean cardiometabolic markers of systolic and diastolic blood pressure, BMI, waist circumference, HbA1c, total cholesterol, LDL-cholesterol, HDL-cholesterol, Chol:HDL ratio and triglycerides were all below the thresholds for disease risk. Omega-3 index results <4% placed most participants (86.3%) in the high-risk category for heart disease. Many female participants (71%) had >30% body fat, compared to 5.3% of males. With reference to the AMDR (total fat 20-35%, carbohydrate 45-65% and protein 15-25%), the intake of total fat was at the upper end (males 34.4%, females 35.9%), carbohydrate was at the lower end (males 46.2%, females 44.7%), and protein was below the lower end (males 14.9%, females 14.2%). Saturated fat intakes ranged from 4.0-65.9 g/d, with a mean (SD) of 24.9 (10.5) g/d for males and 20.2 (9.9) g/d for females. The mean (SD) dietary fibre intake was much higher than the AI set by the Ministry of Health of 25g/d for females and 30g/d for males, at 55.0 (17.8) g/d for males and 43.4 (12.8) g/d for females, ranging from 10.9-133.9g/d. This is the first New Zealand study to examine the metabolic health and dietary intake of adult vegans. The results of cardiometabolic health markers indicate that the vegan diet confers cardioprotective benefits. However, the low Omega-3 index of most participants is concerning, which warrants longitudinal research to assess the level of risk conferred by a low Omega-3 index result in a population with no other cardiometabolic risk factors. The findings of the present study may help guide the growing New Zealand vegan community towards a nutritionally optimal vegan diet.

Keywords: vegan; metabolic health

Ethics Declaration

Yes

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References

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