

Abstract

Comparison of Vegan and Omnivorous Diets in Pregnant Women: First Results of the PREGGIE Study [†]

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Abstract: Objective: The interest in vegan nutrition and the number of vegans in Germany are increasing. Especially, young women decide to choose a vegan diet. However, there are concerns whether a vegan diet can ensure nutrient adequacy during pregnancy. Methods: The study investigated the energy and nutrient intake as well as food consumption of vegan (VN; n = 34) and omnivorous (OM; n = 16) pregnant women via a 3-day weighed dietary record at the beginning (week 9–16) and at the end (week 35–38) of pregnancy. Results: Significant differences between VN and OM were found in the intake of vitamin B12, niacin, vitamin K, vitamin C, potassium, magnesium, dietary fibre, salt, cholesterol, saturated, monounsaturated and polyunsaturated fatty acids (PUFA), α -linolenic acid, and linoleic acid at the beginning and end of pregnancy. For all nutrients assessed, the VN participants' median intake met the harmonised average requirements. However, the VN median intakes (including supplements) did not reach the D-A-CH reference values for pantothenic acid, potassium, iron, and iodine at least at one time point. The OM participants' median intake (including supplements) did not reach the D-A-CH reference values for vitamin D, potassium, calcium, iron, PUFA, eicosapentaenoic acid (EPA), as well as docosahexaenoic acid (DHA) at least at one time point. Excluding supplementation, both groups failed to reach the reference intakes for the following nutrients for both time periods: vitamin D, folate, iron, iodine, EPA, and DHA. In terms of mean intake (including supplementation), the VN group achieved the D-A-CH reference values for all critical nutrients in a VN pregnancy, except for iodine, while OM did not reach the reference intakes for calcium, iron, EPA, and DHA at one or both time points. Conclusion: Including appropriate supplementation, an adequate intake of critical nutrients appears to be possible in a VN diet during pregnancy.

Keywords: vegan diet; pregnancy; critical nutrients; energy intake; vitamins; minerals; fatty acids; supplements



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