Christel Larsson

**Young vegetarians and omnivores - dietary habits and other health-related aspects**

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**Abstract**

In the middle of the 1990s many adolescents became vegetarians. There was concern among adults about whether these new young vegetarians got enough energy and nutrients from their dietary intake. The aim of this thesis was to investigate the prevalence of young vegetarians, the food and lifestyle habits, dietary intake and nutritional status of vegetarian and omnivorous adolescents.

The prevalence of adolescents eating a vegetarian school lunch in 124 Swedish secondary schools was investigated by interviewing matrons. Information about prevalence of vegetarians, food and lifestyle habits, of 2041 15-year old students from Umeå, Stockholm and Bergen, was obtained by a questionnaire. The dietary intake and nutritional status of thirty 16-20 year-old vegans were compared with thirty age, sex and height matched omnivores.

Five percent of the adolescents (16-20 years) in Sweden were found to eat vegetarian food at school lunch. In Umeå there was a significantly higher prevalence (15.6%) of 15-year-old vegetarians compared with Stockholm (4.8%) and Bergen (3.8%). It was also found that more females than males (15 years old) chose a vegetarian dietary regime. Even though the female vegetarians consumed vegetables significantly more often than the omnivores, the intake (32 times/month) was not as often as might be expected of a vegetarian population. The male vegetarians reported eating vegetables not even once a day (25 times/month). No difference in the consumption frequency of fruits/berries, alcoholic beverages, sweets/chocolates and fast foods was seen between vegetarians and omnivores. However, female vegetarians more often than female omnivores consumed dietary supplements. Furthermore, lifestyle characteristics of vegetarians were similar those of omnivores regarding exercise, use of alcohol and smoking habits.

No significant difference in validity of reported energy expenditure or energy and protein intakes was found between vegans and omnivores. Young vegans (16-20 year-olds) were seen to have a higher calculated intake of vegetables, legumes, and dietary supplements and a lower intake of ice creams, cakes/cookies, and candies/chocolate than omnivores. The dietary intake was below the average requirements of riboflavin for 73% of the vegans, vitamin B12 for all vegans, vitamin D for 43% of the vegans, calcium for 77% of the vegans and selenium for all vegans and 43% of the omnivores. If intake of supplements was included the intake of e.g. calcium and selenium was still lower than the average requirements for 67% and 73% of the vegans respectively. Low iron stores were as prevalent among vegans as among omnivores (20% and 23% with low stores) and three vegans had low vitamin B12 concentrations in blood.

The findings imply that food and lifestyle habits of young vegetarians are different than what previous studies of vegetarians have shown. There is a need for future research of the long-term health effects of being vegetarian.