

Fruit and vegetable eating from 10 to 14 years old children

Günter Polt¹, Stefan Pilz² and Klemens Fuchs³



¹Medical University of Graz;

²Medical University of Graz - the Division of Endocrinology;

³Austrian Agency for Health and Food Safety

Introduction:

Referring to the Austrian Nutrition Report, Austrian school children are deficient in consumption of vegetables, whereas fruit intake seems to be adequate (1).

Purpose:

To get information about the quality and frequency of fruit and vegetable consumption in healthy urban school children and to evaluate a four year intervention program on nutrition and exercise habits.

Methods:

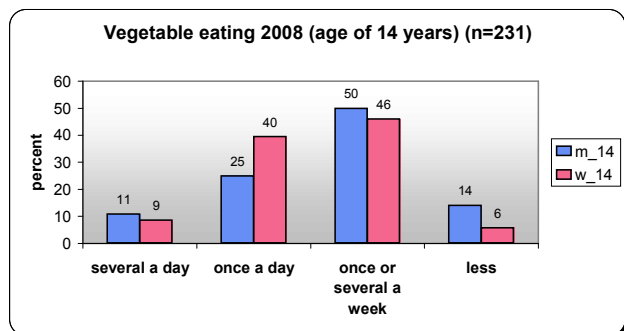
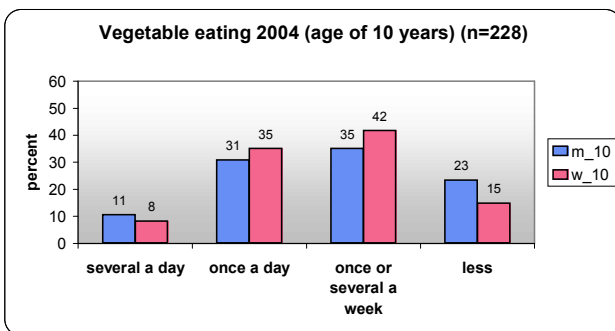
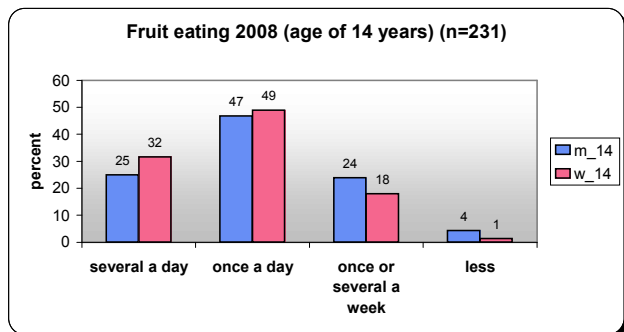
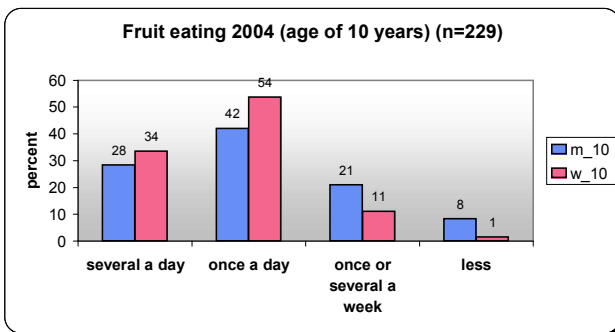
234 children of two secondary-schools, 139 female, 95 male, aged 10 – 14 years, were observed for 4 years. One school/cohort was randomized to the intervention program involving e.g. nutrition courses, additional physical exercise training in leisure time, outdoor workshops, and information call to the parents of overweight children. A second school served as control cohort. At the beginning and after 4 years of the intervention program and control period questionnaires were conducted to evaluate nutrition habits, specifically the consumption of fruit and vegetables.

Results:

- 1) Around 30% of all children reached the recommendations for fruit consumption.
- 2) Around 10% of all children reached the recommendations for vegetable consumption.
- 3) There were no relevant changes in fruit and vegetable eating habits after 4 years intervention program.
- 4) There were no relevant differences observed between intervention and control school children.
- 5) Within the girl group we observed in the once a day segment a shift in frequency to increased vegetable consumption and to less fruit consumption over 4 years.
- 6) Within the boy group we observed in the once or several a week segment a shift in frequency to increased vegetable consumption.

Conclusions:

Most of the children did not reach the recommendations of the Austria, German and Swiss Nutrition Societies for fruit and vegetable consumption (2). As long as no efficient nutrition intervention program for school children is established to close this gap in healthy nutrition, supplementation with high quality fruit and vegetable products should be discussed.



References:

1. Elmadfa I, Freisling H, König J, et al. Österreichischer Ernährungsbericht 2003, 1. Auflage, Wien, 2003.
2. Deutsche Gesellschaft für Ernährung, Österreichische Gesellschaft für Ernährung, Schweizerische Gesellschaft für Ernährungsforschung, Schweizerische Vereinigung für Ernährung. Referenzwerte für die Nährstoffzufuhr, 1. Auflage, Umschau/Braus, Frankfurt, 2000.