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Potassium Intake in Austrian Adults

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Abstract

Introduction

Being the predominant osmotically active element inside cells, potassium is a central regulator of the osmotic balance and the electrochemical membrane potential. As such, it has an effect on blood pressure and therefore counteracts the effects of excess dietary sodium intake. Furthermore, potassium affects glucose homeostasis by influencing insulin secretion from the pancreatic β -cells. Due to the health-promoting effects of potassium, the German-speaking countries have recently updated the reference values for potassium. The revised estimates of adequate potassium intake are 4000 mg/d instead of previously recommended 2000 mg/d. However, a typical Western diet on average contains less potassium and more sodium.

Materials and methods

The presented data were collected within the *Austrian Study on Nutrition 2014/2016*, a regularly conducted representative cross-sectional survey to monitor food consumption in Austria. Altogether, data from 2129 adults aged between 18 and 64 years were included in the analysis. In the course of two years, and thus with the consideration of seasonal variations, the survey was conducted on the basis of two non-consecutive 24 hour recalls in accordance with the guidelines of the European Food Safety Authority (EFSA). The survey was approved by the Ethical Committee of the University of Vienna (reference number: 00284).

Results

After exclusion of misreporters the final sample consisted of 2018 individuals, of which 1282 (63.5%) were women. The mean age was 38.8 ± 11.9 years.

Median dietary potassium intake was 2783 mg/d (IQR: 1245). Men had a higher median intake than women (3018 mg/d (IQR: 1303) vs. 2546 mg/d (IQR: 1112), $p < 0.001$). Significant differences between sexes existed in all age groups ($p < 0.001$). However, there was no significant correlation between age and dietary potassium intake.

The estimates of adequate potassium intake of 4000 mg/d (DGE et al., 2017) were met by only 13.3% of the participants, 7.4% of women and 19.2% of men. Moreover, only 479 participants (23.8%, 16.7% of women and 30.9% of men) had intakes equal to or above 3500 mg/d, the adequate intake established by EFSA (2016).

Discussion

Our data show that potassium intake has to be improved in all gender and age groups by increasing the consumption of potassium-rich foods. However, since the estimates of adequate potassium intake have doubled recently, it seems even more difficult to achieve these recommendations in daily food routine.

Conflict of Interest

There is no conflict of interest.