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Adequacy of the iodine supply in The Netherlands.

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OBJECTIVE:

To assess the adequacy of the iodine supply in the Netherlands and to study possible ways of increasing the iodine intake.

DESIGN, SETTINGS AND SUBJECTS:

Goitre and nutrition surveillance studies (intake and urinary excretion of iodine) among population groups (age: 12-85 y, n=57-1704) in the Netherlands in the period 1981-1993. Simulation studies, based on the Dutch Nutrition Food Consumption Surveys (n=6000), calculating iodine intake among population groups after fictively iodizing different food groups. RESULTS:

Mean intake of iodine, measured with different food consumption methods in the period 1984-1993, met the recommended amount of 150-300 microg per day in males, but not in females. Median urinary iodine excretion levels were in the range for mild Iodine Deficiency Disorders in both sexes. According to dietary methods reflecting habitual intake and urinary iodine excretion per kg body weight or per mmol creatinin the prevalence of low iodine supply among adults is between 4 and 20% for women and between 5 and 15% for men. Iodization of different products would increase mean iodine intakes by up to 45% and would give a reduction of roughly 65% in the prevalence of low iodine intakes.

CONCLUSION:

The present goitre prophylaxis in the Netherlands is not optimally effective. The iodine supply is below cut-off points in 4-20% of the adult population. It is possible to decrease the prevalence of low iodine intakes without a clear risk of exceeding the maximum acceptable daily iodine intake by increasing the iodine content of baker's salt and/or by adding iodine to other foods.

Publication Types:

Review

Review, Tutorial

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