

Abstract

Basis:

This master's thesis deals with the issue of foods affecting thyroid function. The thyroid gland is an important endocrine organ involved in many bodily processes, it is completely dependent on external iodine intake and at the same time it is susceptible to some naturally occurring antinutritive substances. The main subject of research were therefore the sources of iodine and strumigenic substances in the diet and their occurrence in the diet of adults. The main sources for this thesis include the monograph Thyroid Gland, organized by Zdeňka Límanová, websites of professional institutions of the Ministry of Health of the Czech Republic and the World Health Organization and of course current studies dealing with this issue available in world health databases. The topic was chosen by the author on the basis of finding current topics in the field of nutrition, that have not yet been reserched by other students in the Nutrition Specialist field of study in recent years.

Aims:

The primary goal of the master's thesis was to examine and process current issues of thyroid function, especially in connection with the consumption of foods that affect this function. For this purpose, a questionnaire was compiled to obtain sufficient base and data to determine the average consumption of iodine and strumigens from food in each group and then assess the potential risks for specific cases of people in whom other risk factors will be confirmed. It is therefore a matter of finding hypothetically endangered individuals, at the same time mapping eating habits in connection with the intake of iodine and strumigens and subsequent comparison of these results.

Methodology:

The questionnaire was distributed electronically via the website www.vyplnto.cz. The already closed questionnaire can be viewed at <https://potravin-yovlivnujici-funkci.vyplnto.cz>. It consists of 31 questions, 5 of which form sub-questions and are therefore not always displayed to all respondents. The questionnaire was filled in by 245 respondents, the return rate of the questionnaire was 84%. Given the circumstances of 2020 and 2021 caused by the Covid-19 pandemic, the questionnaire was designed to be answered by the widest possible sample of people without restrictions. The survey took the form of a quantitative survey, in which the data collected should be used to interpret and determine the potential risks associated with thyroid disease. Given the general focus of the respondents, the conclusions of the research cannot be interpreted as a direct causality between thyroid disease and life regime and diet, however, it is possible to find and identify people in whom the issue should be given increased attention.

Before starting the questionnaire, all respondents were acquainted with the anonymity of the questionnaire and the fact that the processed data will be used only for the purposes of this thesis.

Results:

The results of the questionnaire survey can be divided into 3 parts. The first evaluates the basic information concerning demographic data and health and social history, the second examines and evaluates the level of consumption of foods that are a source of iodine, and

the third deals with the occurrence of strumigenic foods in the diet of all respondents. With regard to the high return of the questionnaire and the scope of collected data, for the purposes of evaluating the results of the questionnaire, an original evaluation system was created based on assigning points to individual parts of the questionnaire and subsequent comparison and evaluation of all results and relationships between them.

Conclusion:

Based on the criteria set out in this work, a survey following the theoretical part of the work showed insufficient iodine intake in more than 50% of respondents. 20 respondents belonged to the category of persons with a high risk occurrence of strumigens in food, 1 person to the category with an extremely risk occurrence of strumigens in food. None of the respondents met the criteria of Part 1 of the questionnaire for classification as persons with high risk factors and only 11 respondents met the criteria for classification as persons with low risk factors. Undoubtedly, the most alarming output of the questionnaire survey is the number of persons with insufficient iodine intake, confirming the current agenda of the Interministerial Commission for Iodine Deficiency.

Keywords: thyroid gland, hypothyroidism, hyperthyroidism, goiter, iodine supply, iodine, strumigens, nutrition