

Abstract

The topic of my master thesis is monitoring of carbohydrate intake in sportsmen's diet. In the thesis, intake of carbohydrates as well as other macronutrients is monitored in order to evaluate, if athletes prefer other energy sources to carbohydrates and if their total energy intake is sufficient. If athletes prefer easily digestible carbohydrates or if they follow recommendation for healthy diet and increase their intake of whole foods, legumes, fruits and vegetables can be evaluated by monitoring fiber and sugar intake. All the monitored data are compared with non-athletes in order to see, in which field their diets vary.

In the theoretical part, principles of sports nutrition are defined, basics of population recommendations are mentioned and methods of nutritional assessment and energy expenditure estimation are explained. In the practical part, five-day food-diaries of athletes and non-athletes are evaluated by NutriPro Expert software. Five-day physical activity diaries recorded during the same days are evaluated by using the Compendium of Physical Activities.

All the studied values (energy intake, energy expenditure, carbohydrate, fat, protein, sugar, fiber and alcohol intake) were compared to recommended values for athletes and non-athletes and further compared among these two groups. The goal was to find out how athletes fulfill nutrient intake recommendations as well as how their diet differs from non-athletes.

The results of the quantitative research show that there are differences between athletes' and non-athletes' diet. Even though athletes consume more carbohydrates as well as simple sugars than non-athletes, their carbohydrate intake is low. In the same time, the intake of other nutrients contributing to the total energy intake is sufficient, which could be a good reason to increase the intake of carbohydrates itself in sportsmen's diet and possibly further support the sport performance.