

Abstract

This bachelor thesis is focused on nutrition indicators for competitive and professional cross-country skiers. The main aim of the thesis is to describe the importance of the sports nutrition for endurance athletes and to compare different diets for two differently capable groups of cross-country skiers. The thesis is divided into two parts. The theoretical part comprises information about the physiology of cross-country skiing, in particular the important function of metabolism and morphological characterization of the cross-country skier. Furthermore, it describes specific requirements of the endurance athlete on a diet, individual macronutrients and micronutrients and describes proper diet supplements for endurance sport.

The practical part summarizes results received on the basis of evaluation of the questionnaires about the characterization of the training and respondent's four-days-menus. The research data collection involved eight professional and eight competitive cross-country skiers from the age 20 to 32. It was established that the professional cross-country skiers have higher training capacity and therefore higher expenditure of energy than competitive cross-country skiers. The sportsmen's menu evaluation referred to the diet differences between both groups. The recommended energy intake for cross-country skiers is 12.000 – 14.000 kJ a day depending on the level of the training burden and sports achievement. The sufficient total energy intake was recorded for competitive skiers and it was fulfilled up to 101 % of the recommended rate. Although the other group of professional skiers had a higher energy intake, their recommended energy intake was fulfilled only up to 92 % of the rate.

Key words: cross-country skiing, endurance, sports nutrition, energy intake, menu