Abstract:

**Topic:** Practical aspects of high-carbohydrate dieting in top sport

The topic of this thesis is sports nutrition. After a comprehensive summary of current scientific and generally accepted guidelines, the practical part is based on an example of the current state of sports nutrition in one concrete men's basketball team. Subsequently, the practical part combines the knowledge of theory and results of diet analysis of the current nutritional status in the team.

The aim of the analytical part of the thesis was to find out the individual and subsequently average data of the monitored file through the registration of weekly eating diaries, both in terms of macro and micronutrients. These data were statistically processed using the program Sportvital-Nutrition (http://www.bonfit.cz/), whose database contains the most comprehensive information about the composition of individual foods and meals, allowing analysis of up to 30 nutritional parameters.

The main aim of the application part of the thesis was to design and calculate a sample menu for seven whole days for top athletes based on predetermined and defined criteria based on theoretical background and analysis of collected eating diaries. These criteria were to follow the principles of healthy nutrition, i.e. primarily the variety, regularity and adequacy, as well as the appropriate ratio of macronutrients, with respect to the recommendations of the high-carbohydrate diet for athletes and also to meet the needs of micronutrients. This sample menu was also analysed using Sportvital-Nutrition program and its deficiency was discussed and solutions were offered.

We see the main profit of this thesis in the connection of the theory, which is difficult and often hard understandable for the athletes, with practise, which is better understood by athletes. This practical part is shown in a sample menu that offers concrete meals with concrete calculations linked to a concrete day in the sample week. In conclusion, our goal was not to create a dogma valid across the board for all top athletes, but to bring the current trend closer and show the right direction through a practical and imaginable demonstration of a sample menu.

**Key words:** Sport nutrition, High-carbohydrate diet, Sample dietary guidelines