

Abstract

This diploma thesis deals with the issue of protein intake in fitness strength sports. Proteins are one of the most important nutrient for strength athletes because muscle mass is made up of about 20% of proteins. Because of athlete's desire for a well-balanced muscular body, they attach proteins a major role and often overstate their significance. Bodybuilding and other strength sports are often associated with extreme protein intake, which can lead to negative health effects (deficiency of some minerals, kidney load, digestive troubles, etc.).

The aim of this thesis is to evaluate whether power athletes receive excess, optimum intake or lack of protein according to the current recommendations for sports nutrition. A record sheet for diet intake was used to collect the data. The protein intake of power athletes was calculated in the Nutriservis program and compared with the recommendation according to number of training lessons and the target of the athletes (fat reduction, weight maintenance or muscle growth). The diet of power athletes was also critically evaluated. The results were evaluated by relevant text commentaries and summarized using a graph. The result is that 45% of strength athletes consume excess protein and their intake is higher than 2.0 g protein/kg/day. However, it was also found that 42% of respondents had a completely different problem - their recommended daily needs of proteins was not filled. Only 13 % of respondents receive the optimal protein intake.

Second aim was to find out the main protein sources of the strength athletes. The data was collected with a questionnaire and the results were evaluated in graphs. According to the data, strength athletes prefer full-value animal proteins than plant proteins with lower biological value.

The last aim of thesis was to verify whether strength athletes overuse the sports supplements. This hypothesis was confirmed by a questionnaire survey. 79 % of respondents use some form of sports supplement. Most commonly used is a whey protein that athletes use several times a day and even partially replace solid meals.

Key words: nutrition, protein, sport, supplementation