

Abstract

The bachelor thesis deals with the influence of the combination of dietary supplements on the body composition of single-sex twins with comparable sports activity. The theoretical part of the thesis includes nutrition from the general point of view and the importance of individual macronutrients and micronutrients in sport. There are mentioned also selected types of sports nutrition supplements, which are widely used in order to support nutrition to achieve better performance, better recovery after sports performance, muscle tissue growth etc. The theoretical part deals with the nutrition of individual population groups from inactive individuals to the top athletes. The practical part of the thesis focuses on research aiming at the detection of the difference in body fat loss, the increase in body muscle mass and the increase of the basal metabolic rate in single-sex twins for three months. Nowadays, many individuals, especially women, are considering whether to add supplements to achieve better results and performance even though they do not train at the same level as top athletes or high endurance ones. Throughout the research, both subjects had the same diet regimen, a training program, the only difference was in the use of specified supplements in one of the twins (subject 1). To determine body composition values at the beginning and end of the study, bioimpedance measurements were used with the InBody 230 instrument. By measuring, it was found that the fat loss of the two subjects was the same as predicted, and in subjects who received the supplements increased muscle tissue and basal metabolic rate. It turns out that fatty tissue loss, which women most often solve, has the greatest influence on proper eating habits, regular movement, and therefore, if they are not at a higher level, do not need to add supplements to achieve faster fat loss.

Keywords: eating habits, supplements, fatty tissue, nutrition