

Aim of this thesis is to compare muscle endurance in group of people with different physical activity.

For this thesis we chose 24 people, specifically 14 women and 10 men, who were 21-27 years old and we divided them into two groups according to their daily energy expenditure into active and inactive group.

Because of the fact that during physical activity ratio of body composition changes, part of this thesis was also anthropological measurement, where we measured body composition of every person by method of bioimpedance and also their weight and height. We also measured spirometry parameters. Then we used myometer and pinchgrip for measurement of muscle endurance in selected group of muscles in half of maximal strength.

We discovered significant differences in muscle endurance in various groups of muscle. In some groups of muscles we proved significantly higher values of muscle endurance (determined as time of endurance test and area under the curve of dependence of muscle strength on time) in the group of people with higher daily energy expenditure. We successfully proved significant association of muscle endurance with energy expenditure, body composition and spirometrical parameters.