

## **Abstract**

**Title:** Influence of body composition on explosive power of elite judokas

**Objectives:** The main aim of the thesis is to discover whether the body composition effects the explosive power of elite judokas. The work also depicts the development of the explosive power during training and describes how to measure and compare the explosive power in upper limbs of a selected group of professional judo fighters within a general and specific exercise. Another aim of the thesis is to determine which weight categories are characterized by the biggest explosive power in upper limbs and whether this power mounts with the increasing weight category.

**Methods:** The thesis has an empirical and theoretical character. Methods of data collecting, analysis of technical literature in the field of general sports preparation and judo training were used for the research. For the evaluation, the basic statistic methods and Spearman correlative coefficient were applied.

**Results:** The results of the thesis point out the fact that the explosive power doesn't depend on the amount of active substance in the body of a contestant. The best results in the amount of explosive power from the testing exercises were achieved by the individuals within the weight category up to 90 kg, 81 kg and 100 kg. It has also been affirmed that the explosive power doesn't increase simultaneously with the weight category.

**Keywords:** judo, training, explosiv power,