#### **Abstract**

### Title of the thesis

Diagnosis of the overload the anterior part of the shoulder joint in elite swimmers and the possibility of compensation

#### Thesis aim

The aim of this thesis is to look into a group of elite swimmers with a specific pain in the anterior part of the shoulder joint, to determine the cause of the pain and then to create a plan compensation.

#### Methods

The thesis was scientific - research quantitative study, which had the character of an experiment. That was attended by 14 probands between 15-30 years of a different swimming styles of the sport sector "swimming". The principle was to determine the causes of pain in the anterior part of the shoulder joint using aspection and palpation examination, examination of joint play and special tests for instability of the shoulder joint, tests on the tendon of the long head of the m. biceps brachii, tests on the rotator cuff and tests of the m. pectoralis major. Finally was built a compensation program, which will prevent the shoulder pain.

## Results

Hypotheses that i chose at the beginning of the research, were confirmed in two cases. The cause of the pain in the anterior part of the shoulder joint in swimmers can not be accurately determined with regard to the swimming style. Among breatstrokers is a muscle strain caused by the rotator cuff in other ways prevails muscle overload in the form of the impingement syndrome. The intensive three-months compensation program has had an impact on the reduction of pain in the anterior part of the shoulder joint and for its omission for more than 7 days there was no significant reduction in pain among probands. Pain in the anterior part of the shoulder joint arise regardless of the dominance of the upper limb.

# **Keywords**

The shoulder joint, pain, swimming, compensation, special tests.