Abstract

Title: Neuro-athletic training in tennis

Objectives: The bachelor thesis is divided into two parts. The first part is theoretical and its aim is to inform about neuro-athletic training and the possibilities of including this training in the tennis preparation of players of different age categories. At the same time, the theoretical part also provides a basic overview of the central nervous system and sensory systems on which neuro-athletic training is built. The goal of the second part is to create a stack of exercises that neuro-athletic training uses for tennis players of different age categories. The set of exercises will be divided into four sections - evaluation of training results, general exercises for visual, vestibular and proprioceptive training, neuro-athletic exercises for speed development, neuro-athletic exercises for strength development.

Methods: In the theoretical part, we analyzed literature, internet resources and videos dealing with the topic of neuro-athletic training. Based on the analysis, we synthesized the individual findings in order to create a clear information base on the physiological aspects of tennis, the central nervous system and sensory senses, neuro-athletic training. Based on this information, we selected suitable neuro-athletic exercises and created a stack of exercises for tennis players of different age categories.

Results: The result of this bachelor thesis is a stack of neuro-athletic exercises for tennis players of different age categories.

Keywords: tennis, brain, spinal cord, central nervous system, proprioception, vestibular system, visual system, neuro-athletic training