

## **Abstract**

**Title:** The influence of the inclusion of the DNS method on the HSS in the adolescent and junior categories

**Objectives:** The aim of this thesis is to determine whether the application of specific DNS interventions in the training of kayakers affects the condition of the deep stabilization system.

**Methods:** The method used in this thesis is the DNS method by Kolář. In both the initial and final diagnostics, 11 subjects were tested in 10 DNS tests, and changes in insufficiencies were evaluated. The subjects were from the youth and junior categories and were divided into two groups for the purpose of the research: one group underwent the intervention, while the other group was the control group. The intervention lasted 10 weeks. A custom numerical scale was created for the purposes of this study (no pathological finding = 0, insufficiency 1–3). This scale was used in the statistical analysis of the data, with the methods for statistical evaluation being the paired t-test and the two-sample t-test.

**Results:** Both groups achieved statistically significant improvement in insufficiencies. The intervention group achieved a statistically significant change, with a mean of -4.333 insufficiencies. Similarly, the control group achieved a statistically significant change, with a mean of -2.80 insufficiencies. The difference between the two groups was not statistically significant, with a mean of -1.53 insufficiencies.

**Keywords:** compensatory exercises, posture, functional disorders, canoe sprint, deep core stability muscles