

## **ABSTRACT**

**Title:** Stabilization training with sensorimotor tool Propriomed in handball

**Goal:** The aim of our experiment was to evaluate an influence of short-term and long-term exercise with Propriomed on an accuracy of throwing ball in handball with taking speed of throwing into consideration.

**Methods:** It was used an experiment to evaluate changes of throwing accuracy and speed depending on a specific intervention. Concretely interventions were an usual training unit without using Propriomed, an exercise unit with Propriomed and long-term exercising with Propriomed which lasted for a month. Measuring of values was always done before the beginning of training with participation of 11 probands. A radar gun named Stalker was used for measuring of speed throwing. Final values were processed in the programme Dartfish for an analysis of throwing accuracy.

**Results:** Negative effect on throwing accuracy was found in the case of 7 probands because of exercise unit with Propriomed. In the case of 2 probands this intervention led to increase of accuracy and two probands were without an effect. Long-term intervention with Propriomed did not have a positive effect on throwing accuracy either. There was an exception of two probands with increasing accuracy after intervention. Both interventions had a positive effect on four different players. A training unit without exercise with Propriomed had also a positive effect, so throwing accuracy increased except of four probands. Their values of accuracy decreased.

**Key words:** Propriomed – handball – posture – ball throwing – throwing accuracy – throwing speed