

## COMPARISON OF KINEMATIC PARAMETERS OF JUMP SHOT PERFORMANCE BY FEMALE HANDBALL PLAYERS OF DIFFERENT AGES

### **Abstract**

*The basic aim of this research was to analyze kinematic parameters when performing a jump shot. The sample of entities consisted of four female handball players, potential candidates for the Croatian national teams in their age categories (a junior, an under eighteen, an under-fifteen and a girl). The kinematic variables sample set was made up from the parameters related to the specific phases of a jump shot and they referred to: move of the body's centre of gravity (CG) by horizontal and vertical plane, the velocity of the body's centre of gravity in a horizontal and vertical plane, maximum linear velocity of some body segments and their activation in time. From the series of seven attempts, the throws with the highest ball flight velocities were chosen for each of the subjects and they were explained in detail by kinematic variables observed. It is possible to use registered kinematic parameters to explore the execution of the jump shot by the sample subjects, with the purpose to detect the characteristics of the jump shot. These features, then, might be used to improve and correct the performances of the players within the process of their technical development (correcting mistakes), i.e. they might be considered as indicators relevant for directing the future training process in general.*

**Key words:** *kinematic analysis, female handball players, jump shot*

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