

## **Abstract**

**Title:** The effect of Warm Up Protocols on Explosive Power Performance in Track and Field

**Objectives:** The main aim of this thesis was to compare three types of warm up protocols and their effects on explosive power performance.

**Methods:** This thesis tested 43 students of UK FTVS, who visited Athletic Conditioning lessons. The group consisted of 28 men (height 183,2+/-5,6 cm) and 15 women (166,3 +/-5,7 cm) aged 20-23 years. There was six measuring sessions separated by a week off. They performed a 800 m aerobic warm up mean run, followed by one of three types of warm-up protocols (static, dynamic, balance). Each of the warm-up protocol was performed two times in the opposite order. The experiment examined the explosive power of lower limbs and upper body/limbs. Performance score were recorded from vertical jump, a ball throw, and medicine ball front throw.

**Results:** The thesis did not confirm any of the hypotheses. It was found that the active static stretching had a positive medium effect on medicine ball front throw by Cohen scale effect size compared to the active dynamic and the active balance warm-up protocol. Other tests did not prove any significant changes, positive or negative, of any warm up protocols.

**Keywords:** Dynamic warm-up, Static warm-up, Balance warm- up, Testing, Explosive Power