

Supagond Phosrithong 2014: Effect of Warm-up with Weight Machine and Elastic Tubes on Reactive Agility and Vertical Jump Performance in Basketball Players. Master of Science (Sports Science), Major Field: Sports Science, Faculty of Sports Science. Thesis Advisor: Mr.Phornphon Phimpaphorn, Ph.D. 82 pages.

The objectives of this research were to study and compare the effect of warm-up with weight machine, elastic tubes and dynamic warm-up on reactive agility and vertical jump performance. Subjects were twelve basketball players age between 18-21 years in the faculty of Sports Science at Kasetsart University, Kampaengsaen campus. Subjects performed 3 different warm-up protocols i.e. 5RM squats using Smith machine, 5RM squats using elastic tubes and dynamic warm-up. Jump performance and reactive agility were measured. The data were analyzed by using one way ANOVA with repeated measures and the multiple comparisons testing using the Tukey's method. All testing used the 0.05 level of significance.

The results of this study showed that jump performance of the subject after performing 3 warm-up protocols were significantly different ($p < 0.05$). Jump performance after performing dynamic warm-up protocol was found to be highest (0.423 ± 0.064 m), followed by 5RM squats using elastic tubes (0.408 ± 0.060 m) and 5RM squats using Smith machine (0.404 ± 0.065 m). However, there were no significant differences of the reactive agility between 3 different warm-up protocols.

Student's signature

Thesis Advisor's signature