

# The Effect of Kinesio Taping on the Explosive Muscle Power in Male Athletes

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Kinesio tape have made numerous claims as to its efficacy and to a great extend this has been proved by research. One claim remained to be tested. Does Kinesio tape have an effect on healthy, uninjured athletes? Research into the explosive muscle of athletes have been done at the High Performance Centre (hpc) to determine just that.

The research was done by Mostert Wentzel et al (2012)<sup>1</sup> on university male athletes. The goal of the research was to determine the short term effects of kinesio tape on the explosive power of the main hip extensor muscle (Gluteus Maximus) of male athletes in a vertical jump.

The sample size included sixty male university athletes with no musculo-skeletal injuries in the past six months before the screening, no medical condition(s) in the previous six months and not having any metabolic conditions affecting joint integrity.

The study used two groups of participants with different interventions. Group one received a y-strip kinesio tape application, on both sides over the gluteus maximus muscle applied with tension according to the kinesio application principles.

**Y-strip application**



**I-strip application**



Group two received taping that was applied in a neutral way with no tension in the application. This method was based on other studies and was used with the aim as a placebo. The I-strips were applied horizontally to the middle of the gluteus maximus muscle.

The results of the study were determined by looking at the time influence of the application of the tape and the height displacement during a vertical jump on a level, non-slip concrete surface. Subjects completed a standardised dynamic warm-up of 10 body weight squats, lunge walks for 10 meters and buttock kicks for 10 meters.

<sup>1</sup> Mostert Wentzel K, Swart JJ, Masenyetse LJ, Sihlali B, Cilliers R, Clark L, Martiz J, Prinsloo E, Steenkamp L 2012 Effect of kinesio taping on explosive muscle power of gluteus maximus of male athletes SAJSM 3:75-80



The Vertec (Sports Imports Inc 2004) was used to measure the height displacement during a vertical jump. The first recording included 3 jumps at maximal effort, 2 minutes apart, with no taping applied. There after subjects were strapped according to their group. Immediately after taping, 3 jumps were performed followed by a 30 minute rest period. The warm-up was repeated again and the last 3 jumps were performed, 30 minutes post taping.

The outcome of the study showed that the timing after the taping made a big difference on the results. The main findings was that kinesio tape improved short-term muscle power of the gluteus maximus muscle directly after the application and 30 minutes after, increasing the height displacement during the vertical jump. The main effect of the kinesio tape is applying the tape with tension as in contrast to the placebo used. The sensory input given by the tape modulates the gamma-motor firing, which in turn leads to increased muscle tone and increased explosive muscle power of the gluteus maximus muscle of male athletes.

The result of this study reveals that athletes may improve their vertical jump by up to 2.35cm at the 30 min post application mark. This study appears to be the first to test explosive muscle power in healthy subjects and may start the debate on whether kinesio taping can be seen as a performance enhancer.

