Mid Atlantic Regional Chapter
of the
American College of Sports Medicine

46th Annual Scientific Meeting, November 3rd - 4th, 2023
Conference Proceedings
International Journal of Exercise Science, Issue 9, Volume 12

The Effects of a Resistance Band Warm-Up Protocol on Muscular Endurance: A Pilot Study

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A warm-up is defined as a series of exercises done in preparation for subsequent competition or training for performance enhancement. Different warm-ups include static stretching, dynamic stretching, or dynamic exercise (with or without equipment). Currently, debate exists as to which type is most beneficial for subsequent performance. **PURPOSE:** To determine if a resistance band-based warm-up affects muscular endurance in recreational strength and conditioned individuals. **METHODS:** Three males and two females (age: 21 ± .84 yrs; height: 178.9 ± 8.96 cm; weight: 75.04 ± 16.45 kg) took part in this pilot study. Each subject completed a specific dynamic warm-up protocol, once with a looped resistance band (BND) and another time without (N-BND) it. Subjects were then tested on back squats for maximum repetitions, immediately following the warm-up, at 50% of their pre-determined 1-repetition maximum weight. A subjective performance measure was taken via a post-test survey regarding ratings of perceived exertion (RPE). Comparisons were made by paired t-tests and $P \leq 0.05$ was considered statistically significant. **RESULTS:** There were no significant differences in back squat repetitions (p=0. 074) or RPE (p=1.00) between N-BND and BND conditions. There was a large effect size of d=1.077 for repetitions completed following the BND protocol. **CONCLUSION:** Based on the magnitude of this effect, it may be possible that resistance bands are effective in enhancing muscular endurance performance. This could provide a practical, cost-effective, and more portable option for athletes and coaches when searching for an optimal warm-up strategy to improve performance. **SIGNIFICANCE/NOVELTY:** The results from this pilot study are encouraging and additional research with more subjects is forthcoming.