

P78. The effect of warm-up for maximal strength performance: brief review

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INTRODUCTION

Warm-up is used with the purpose to progressively adapt physically and psychologically for the main activity. The main aim is to increase the performance and to decrease the risk of injuries (Neiva et al, 2014; Silva et al, 2018). To the best of our knowledge, no detailed studies have comprehensively examined the literature regarding the effects of different warm-up designs on 1RM performance. Therefore, the purpose of this study was to analyse the effects of different strategies of specific warm-ups on 1RM performance, thus contributing for increased knowledge to coaches and researchers on the warm-up design for resistance training.

METHODS

Databases (Web of Science, Scopus, PubMed, and ScienceDirect) were searched for original research articles published until 2017 (key-words: “warm-up”, “1RM”, “general warm-up”, “specific warm-up” and “no-warm-up”). A total of 18 studies were considered for further analysis.

RESULTS

The results found that general warm-up followed by a specific exercise when compared with only a specific warm-up, does not reveal consensual results. There were studies that revealed significant positive results when the subjects use only the specific warm-up (e.g. Ribeiro et al, 2014; Gil et al., 2015) and only one study revealed the opposite (Endlich et al., 2009). Some studies suggest that when the specific warm-up is performed at loads close to the maximum, the ability to produce strength can be positively affected (Junior et al, 2014). However, other studies verified the efficacy of the specific warm-up and no significant results were found (Abbud et al, 2013).

CONCLUSIONS

The results about the influence of warm-up on strength performance showed ambiguous results, perhaps caused by the different procedures and methods of evaluation. It seems that specific warm-up is the one that most affect strength performance, revealing its importance for resistance training. However, it was shown that some specific tasks, such as stretching and light loads, can negatively affect the strength performance.

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