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## An Observation of Resistance Training History in Ultramarathon Runners and Implications on Performance

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There is minimal current literature relating resistance training history and periodization to ultramarathon performance. Thus, it is necessary to gain a fundamental understanding of current training techniques and methods to improve training standards in this population of athletes. **PURPOSE:** The purpose of this investigation was to identify current resistance training practices in-season and off-season in ultramarathon runners participating in the Eastern States 100. Additionally, the aim of this study was to determine the relationship between resistance training practices and pace throughout the 102.9-mile event. **METHODS:** A training history survey was completed by registered runners prior to the commencement of the Eastern States 100 ultramarathon ( $n = 44$ ). Runners were asked if they resistance train during the in-season or off-season and were asked to provide details regarding their resistance training methods. During the event, time of arrival was recorded at each aid station for all study participants. Thereafter, pace was calculated. Frequencies were used to analyze survey data and correlations were used to analyze relationships between pace and resistance training tendencies. **RESULTS:** 20 study participants completed the ultramarathon. Of the 20 finishers, 10 participants resistance trained in-season and 10 participants did not resistance train. 24 study participants did not complete the ultramarathon. Of the 24 non-finishers, 14 participants resistance trained and 10 participants did not resistance train in-season. Within the group of 20 finishers, there was no significant difference ( $p = 0.224$ ) in overall pace between participants who resistance trained and who did not resistance train. **CONCLUSIONS:** This investigation offers insight on current resistance training practices of ultramarathon runners. In addition, this study demonstrates that there is no significant difference in overall ultramarathon performance between runners who resistance train and who do not resistance train. Future research is necessary to determine the relationship between resistance training methods and ultramarathon performance.