

Effects of swim training on energetic and performance in women masters' swimmers

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Abstract

The aim of this study was to analyze and compare the changes of performance and energetic profile of female masters swimmers over a season, in three distinct time periods (TP): December (TP₁), March (TP₂) and June (TP₃). Eleven female masters swimmers performed an all-out 200 m freestyle to evaluate the swimmers' energetic adaptations. The 200 m freestyle performance, the total energy expenditure (E_{tot}) and the partial contribution of aerobic energy source (%Aer), partial contribution of anaerobic lactic energy source (%AnL) and partial contribution of anaerobic alactic energy source (%AnAl) contributions were estimated or assessed. Female masters swimmers improved significantly the 200 m freestyle performance over a season. However, a non-significant improvement was found on their energetic profile. Hence, one might speculate that performance improvement might be related to other performance determinants, such as, technical enhancement. Aerobic metabolism was the major contributor for E_{tot} whereas anaerobic alactic was the second major contributor.