

Abstract

Warmup in Swimming Competition: Characterization of the strategies used by Portuguese coaches

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The main objective of this study was to characterise the warmup strategies currently used by Portuguese coaches in swimming competitions. A questionnaire, "Warmup in Swimming Competition: Characterization of the strategies used by Portuguese Coaches" was applied to collect the data.

All coaches who participated in the study stated that they prescribe warmup to athletes in a competition situation, arguing that the main benefits are related to the physical component, such as preparing the body for intense activity and sensitivity to water; the mental component, about concentration and component tactical, referring to the adjustment of the swimming rhythm and adaptation to the characteristics of the pool (e.g., block and walls).

We observed that all coaches used warmup in water, and 57.1% of these coaches prescribed this warmup with distances between 1000m and 1400m, and 42.9% used material, such as a board, pull buoy, snorkel, and fins.

When analysing the transition phase between warmup and competition, many coaches report that it does not always have the ideal duration. This idea is in line with what Neiva

et al. (2017) showed that for 100m freestyle competitions, a transition phase of 10 minutes would be ideal for maintaining the benefits of warmup and that after 20min, the decrease in benefits was high, and seemed to follow an increasing trend.

Coaches indicated that the main reasons that negatively influence the duration of the transition phase are: the lack of a specific warmup pool, very long competition sessions, and the beginning of the competition being far from the end of the warmup. Probably looking for a way to mitigate the loss of the benefits of the warmup, 89.3% of the coaches state that they prescribe re-warmup tasks, pointing to the use of tasks such as re-warmup in water, dynamic flexibility exercises, static flexibility exercises, general low impact exercises, joint mobilisation, elastic reinforcement, warm clothing, and strength exercises.

When athletes swim multiple events in the same session and the time between them is less than 20min, 57.1% of coaches prescribe re-warmup tasks with strategies similar to those mentioned above. When this transition phase between tests is longer than 20min, we see a slight increase in the use of rewarming tasks, with 61.3% of coaches prescribing re-warmup.

We consider essential the development of studies that seek to guide coaches on the most favourable strategies to use during this transition phase between warmup and competition and between competitions.

References

- Neiva, H., Marques, M., Barbosa, T., Izquierdo, I., Viana, J. & Marinho, D. (2017). Effects of 10 min vs. 20 min passive rest after a warmup on 100 m freestyle time-trial performance: A randomized crossover study. *Journal of science and medicine in sport* 20(1) 81–86. <https://doi.org/10.1016/j.jsams.2016.04.012>