



Judo performance Struggling to Train Judo in the Heat?

During summer many judo training camps are held in places where temperatures are really high, and unfortunately not all sport venues are air-conditioned, being a challenge for the athletes to train or compete in conditions with extreme hot and humidity.

Best practices to protect athletes health and performance and during competition include **heat acclimation** (HA) complemented by pre-planned and practised **cooling** and **hydration strategies**.



HEAT ACCLIMATION (HA)

Long-term preparation involves implementing a long-term HA strategy consisting of 10-14 days of consecutive passive and/or active exposures. Heat acclimation, using artificial hot environment (**heat chamber, sauna, hot baths, overdressing**) or heat acclimatisation (naturally **hot environment**) are some of the specific strategies. Short-term heat mitigation strategies should be complementary to long term HA.

COOLING and HYDRATION STRATEGIES

Hydration and **cooling strategies** alone are effective in alleviating heat strain and improving athletic performance in hot conditions, but evidence suggests they should be complementary to the adoption of HA. Ice vest, ice hats/towels, cold water ingestion are some of the strategies to mitigate the impact of heat. Cooling and hydration strategies should be individualised and well-practised.

Education surrounding evidence-based hydration and cooling guidelines should be implemented to ensure athletes implement best practice and are ideally prepared for their event.

PRACTICAL RECOMMENDATIONS FOR ATHLETES

1. Optimal HA for performance

Best Practice **A** 10-14 consecutive days (natural/artificial) **B** $T_{re} \geq 38.5^{\circ}\text{C}$, $T_{sk} \geq 35^{\circ}\text{C}$, and heavy sweating **C** Minimum exposure ≥ 60 minutes **D** Mimic the worst expected conditions

2. Improvise with effective alternative methods

NB: tolerance to these HA strategies should be built up gradually over time ideally, supervised by qualified personnel, monitored using body temperature measurement tools, to avoid adverse health risks

Best Practice **A** Utilise post-exercise sauna $\geq 80^{\circ}\text{C}$ **B** Hot water immersion $\geq 40^{\circ}\text{C}$ **C** Minimum exposure ≥ 30 minutes **D** Wear additional layers of clothing during training

3. Apply complimentary strategies

Best Practice **A** Hydration strategy: plan and practice **B** Cooling strategy: plan and practice **C** Avoid: GI disturbance & shivering prior to/during competition **D** Practice/understand altered pacing in the heat



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