Professional sports persons should drink more water
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Professional sports persons should drink more water. Credit: Ricardo Mora-Rodríguez

Top sports persons must always perform to their maximum capacity, making them the most vulnerable to the effects of dehydration. Now, a new study conducted by researchers from the Universidad de Castilla la Mancha (UCLM) reveals that 91% of professional basketball, volleyball, handball and football players are dehydrated when they begin their training sessions.

"Dehydration negatively affects sporting performance, even when the level of dehydration is low (such as a 2% loss of body weight through perspiration)", UCLM researcher and author of the article Ricardo Mora-Rodriguez explained to SINC.

Many studies have tested dehydration in outdoor sports, but little scientific information is available on indoor sports. This new study, which has been published in the European Journal of Sport Science, calculates the loss of body fluids and salts on behalf of professional basketball, volleyball, handball and indoor football players.

"Despite being indoor sports, the pace these professionals play at makes them sweat a great deal", Mora-Rodriguez added. In this sense, it is worth highlighting indoor football players, who lose approximately 1.8 litres per hour through perspiration.

The researchers analysed how sports persons replenish lost body fluids by drinking liquids between workouts and the degree of dehydration "inherited" from the previous day that they begin their training sessions with.

Four professional men's sports teams were studied (Benetton de Treviso basketball and volleyball teams, the Ciudad Real handball team and the Boomerang indoor football team), from which 43 players re-hydrated, recovering 63% of the fluid they had lost through perspiration. As a result, their level of dehydration remained below 2%.

How to sweat 1.4 litres per hour

According to urine specific gravity data, 91% of the players began their training sessions "slightly dehydrated". Furthermore, total sodium losses through perspiration amounted to an average of 1.3 grams per person.

"Professional indoor sports persons sweat profusely when playing their sports (1.4 litres/hour on average), but their rehydration habits prevent them from reaching levels of dehydration that would affect their sporting performance," the research underlined.

The authors insist how important it is to recover body fluids and sodium after training sessions.

More information: Nassim Hamouti, Juan del Coso, Emma Estévez & Ricardo Mora-Rodriguez. "Dehydration and sodium deficit during indoor practice in elite European male team players". European Journal of Sport Science; 10(5): 329-336,
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