

Dehydration Affects Mood, Not Just Motor Skills

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Mild dehydration appears to affect mood and cognitive ability of young athletes in addition to impacting physical performance, according to a new ARS study.

(PhysOrg.com) -- Dehydration has long been known to compromise physical performance. Now, a new study provides insight into the effects of mild dehydration on young athletes, and possibly into the lives of people too busy to consume enough water daily. The study was supported in part by the Agricultural Research Service (ARS) and a U.S. Army grant.

Biological psychologist Kristen D'Anci led the study while with the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts

University in Boston, Mass. Other coauthors were Holly Taylor with Boston-based Tufts University, and Caroline Mahoney with the U.S. Army Natick Soldier Systems Center in Natick, Mass.

The study adds to a relatively new area of research and was published recently in *Perceptual and Motor Skills*.

Athletes commonly lose between 2 and 4 percent of their body weight during athletic practice. The researchers wanted to explore the effects of dehydration on cognition—the ability to use information to function—and mood.

About 30 male and female Tufts University students, with an average age of 20, participated in the study. When students were assigned to the “dehydration group,” they were not given fluids during athletics. When in the control condition, they were given [water](#) throughout athletics.

The participants weighed in before and after athletics to assess body water loss. After athletic activity, participants underwent cognitive tests, which included [short-term memory](#) and mood scales among others. The researchers found that dehydration was associated with negative [mood](#), including fatigue and confusion, compared to the hydrated group.

The level of mild dehydration (losses of between 1 percent and 2 percent) experienced among participants in the study could be compared to the mild [dehydration](#) some people experience in their daily lives from drinking insufficient amounts of water, according to authors.

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