

Previous research suggests that dehydration can impair both cognitive and physical performance. However, those results are inconsistent. One reason is that dehydration is often induced through exercise or heat, which may independently influence performance outcomes. The purpose of this study is to examine the effects of passive dehydration induced through fluid restriction on cognitive and physical performance. Approximately 50 participants, mainly student athletes, will complete cognitive and physical tests in both a euhydrated and dehydrated state using a within subjects design. Cognitive performance will be assessed by using a reaction time test and a Stroop test (a cognitive computer-based test), while physical performance will be evaluated by using a standing broad jump and a bodyweight wall sit. We hypothesize that dehydration will significantly affect cognitive and physical performance, although the extent of these effects will differ across specific areas. For example, muscle endurance and attention are hypothesized to show the biggest decrease in performance when dehydrated. Meanwhile, reaction time and broad jump distance may not be affected to the same degree. Our findings might help clarify how passive dehydration affects cognitive and physical performance and how the effects differ. Additionally, athletes will find our data particularly useful.