

Effects of changes in water intake on mood of high and low drinkers.

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Introduction

It is well-admitted that high dehydration levels negatively impact cognition and mood, but little is known about healthy adults experiencing mild changes in water balance during normal activities of daily living. The most consistent effects of mild dehydration on mood are related to sleep/wake mood impairments (i.e.; increased fatigue and decreased vigor/activity) and an increase in complaints of headache, thirst, sleepiness and concentration difficulties. Studies examining the effects of increased water consumption on mood and physiological sensations (e.g. thirst and headache) are even rarer and the existing literature on the effect of water consumption on mood is inconsistent.

This study addressed the effects of a change in water intake on mood (tension, satisfaction, confusion, positive/negative emotions, etc.) and physiological sensations (thirst, sleepiness, fatigue/vigor, etc.) in high and low drinkers. More precisely, habitual high-volume ($\geq 2\text{L/d}$) and low-volume ($< 1.2\text{L/d}$) drinkers were asked to respectively decrease and increase their daily water intake during 3 controlled intervention days during which mood and sensation assessments were repeated several times.

Key Findings

In habitual low-volume drinkers, this intervention study showed that daily water intake increase had beneficial effects on several mood and sensation assessments. Low drinkers indicated to be less fatigued, less confused, and less thirsty; they tended also to be less asleep after the switch toward an increase in water intake.

In habitual high-volume drinkers, the results showed that daily water decrease had detrimental effects on mood rating. High drinkers indicated that the restricted water intake negatively impacted their mood state. After the switch toward a decrease in water intake, high drinkers indicated being thirstier, less calm, less content, less vigorous, and reported lower positive emotions.

Thus, the present research results suggest that an increase or decrease in habitual water intake have, respectively, an improving or worsening effect on mood and sensations depending upon an individual's habitual drinking habits.

Relevance for Healthy Hydration

Previous researches showed that the first deleterious effects of the dehydration can be observed very rapidly after an acute fluid deprivation (i.e.; after 12-16 hours of fluid deprivation). The present research demonstrates that the effects of hydration and dehydration on mood can be evidenced without water deprivation protocols. The results of the present research demonstrate that even subtle changes in habitual fluid intake led to significant changes in mood states and physiological sensations. Thus these results should encourage adopting optimal drinking habits (i.e.; $\geq 2\text{L/d}$) in order to improve mood state.