

Researcher finds color of urine to be valid gauge for hydration in children

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Athletes and the military have used color charts to track hydration levels for years, and a new study in the *European Journal of Nutrition* by a U of A researcher found the same method of self-assessment is effective for children.

Stavros Kavouras, a leading expert in hydration and associate professor in the College of Education and Health Professions, along with seven collaborators, including Evan C. Johnson, U of A postdoctoral fellow, tested whether the 8-point urine [color](#) scale was a valid method for children aged 8 to 14 years old to assess their own hydration levels.

Their findings, published this spring, found that not only does the urine color scale apply to hydration levels in children, but that children are able to accurately use the chart to determine their own hydration levels.

"The establishment of an acute measurement tool would give an anchor to allow children to be more aware of their hydration status and to improve hydration practices," Kavouras said.

A study in the *American Journal of Public Health* this month found that half of American children are inadequately hydrated, with boys showing the highest levels of dehydration.

"The need for valid hydration assessment within children is apparent because both U.S. and European children have been observed to fall short of daily water recommendations," Kavouras said.

Mild dehydration in children has been linked to reduced cognitive functioning and is associated with poorer school performance in [children](#).

More information: "Validation of a urine color scale for assessment of urine osmolality in healthy children." *European Journal of Nutrition*. DOI: [10.1007/s00394-015-0905-2](https://doi.org/10.1007/s00394-015-0905-2)

Provided by University of Arkansas

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