

Blood sodium levels may affect cognition in older adults

February 8 2018

A new study has found that lower level of sodium in the blood—known as hyponatremia—is linked with declines in cognitive function with advancing age. The results, which are described in an upcoming issue of the *Clinical Journal of the American Society of Nephrology (CJASN)*, raising the possibility that addressing sodium levels may help preserve cognition as individuals age.

Hyponatremia occurs when the sodium level in the blood falls below 135 mmol/L. Mild hyponatremia was once thought to be asymptomatic, but recent studies suggest that it may be associated with higher risks of attention deficits, gait disturbances, falls, cardiovascular events, and even premature death. Severe hyponatremia has been linked with [cognitive impairment](#) and neurological disturbances, but the association between different levels of [serum sodium](#) and cognition in older adults had been uncertain.

To investigate, Kristen Nowak, PhD, MPH (University of Colorado Anschutz Medical Campus) and her colleagues examined information on 5435 asymptomatic community-dwelling men aged >65 years who were followed for a median of 4.6 years. A total of 100 men had serum levels indicative of hyponatremia.

The researchers found that slightly lower sodium levels in the blood were related to both cognitive impairment and declines in cognitive function over time. Compared with men with sodium levels of 141-142 mmol/L, men with levels of 126-140 mmol/L were 30% more likely to have

cognitive impairment at baseline and 37% more likely to experience cognitive decline over time. The investigators also found an association of high serum sodium (143-153 mmol/L) with [cognitive decline](#) over time.

"Slightly lower sodium levels in the blood are likely to be unnoticed in clinical practice," said Dr. Nowak. "Because both slightly lower serum sodium levels and mild changes in cognitive function are common occurrences with advancing age, future research on this topic is important—including determining whether correcting lower [sodium levels](#) affects cognitive function."

More information: "Serum Sodium and Cognition in Older Community-Dwelling Men," *Clinical Journal of the American Society of Nephrology* (2018). [DOI: 10.2215/CJN.07400717](https://doi.org/10.2215/CJN.07400717)

Provided by American Society of Nephrology

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