Intranasal insulin may have pro-cognitive benefits

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Intranasal insulin (INI) seems to have a beneficial effect on global

cognition among patients with Alzheimer's disease (AD)/mild cognitive impairment (MCI), according to a review published online June 28 in *PLOS ONE*.

Sally Wu, from the Center for Addiction and Mental Health at the University of Toronto, and colleagues conducted a systematic review and meta-analysis to examine the effects of INI on cognition in diverse patient populations and healthy individuals. Data were included from 29 studies with 1,726 healthy individuals and patients with AD/MCI, mental health disorders, and metabolic disorders.

The researchers found that an improvement in global cognition was more likely among patients with AD/MCI treated with INI (standardized mean difference, 0.22). No significant effects of INI were found for global cognition among healthy individuals and other patient populations.

"This systematic review and meta-analysis demonstrate that INI may be associated with pro-cognitive benefits, specifically for pooled global cognition. However, this effect is limited to patients with AD/MCI," the authors write. "As this is still a novel field of study, more research is required to understand the heterogeneity in treatment response of INI to extend the pro-cognitive benefits across different patient populations with the ultimate goal to improve their overall quality of life."

More information: Sally Wu et al, Outcomes and clinical implications of intranasal insulin on cognition in humans: A systematic review and meta-analysis, *PLOS ONE* (2023). DOI: 10.1371/journal.pone.0286887

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