

Insulin increases resting-state functional connectivity in T2DM

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(HealthDay)—For older adults with type 2 diabetes, a single dose of intranasal insulin increases resting-state brain functional connectivity, according to a study published online Sept. 23 in *Diabetes*.

Hui Zhang, from Peking University in Beijing, and colleagues examined the impact of a single dose of intranasal insulin on resting-state brain functional connectivity in [older adults](#) with type 2 diabetes. The impact of a single dose of insulin or saline was examined in 14 adults with diabetes and 14 controls. Functional magnetic resonance imaging was used to quantify resting-state functional connectivity between the hippocampal region and default mode network (DMN).

The researchers found that patients with diabetes demonstrated increased resting-state connectivity between the hippocampal regions and the medio-frontal cortex (MFC) and other DMN regions following insulin versus placebo administration. Compared with controls, the diabetes group had lower connectivity between the [hippocampal region](#) and the MFC on placebo administration, but demonstrated MFC connectivity similar to that of controls on insulin administration.

"A single dose of intranasal insulin increases resting-state functional connectivity between the hippocampal regions and multiple DMN regions in older adults with type 2 [diabetes](#)," the authors write.

"Intranasal insulin administration may modify [functional connectivity](#) among brain regions regulating memory and complex cognitive behaviors."

More information: [Abstract](#)

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