

Research consortium LipiDiDiet finds a way to impact Alzheimer's disease before it's too late

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Professor Tobias Hartmann, Saarland University in Germany. Credit: UKS

The pioneering clinical trial is part of a large European Union funded project and involved 311 patients across 11 sites in four countries (Finland, Germany, the Netherlands and Sweden). The trial involved patients with prodromal Alzheimer's (often referred to as Mild Cognitive Impairment or MCI). Patients were randomised to receive either the nutritional intervention or an iso-caloric control drink for 24 months.

The study's primary endpoint, impact on NTB, was not met. The decline in the NTB of the control group was less than anticipated rendering this analysis statistically underpowered. However, key secondary endpoints showed significant advantages for nutrient-treated [patients](#) with 45% less worsening in the Clinical Dementia Rating-Sum of Box (CDR-SB). This measure is especially important because it tracks the patient's disease progression based on performance in managing everyday life, such as handling household emergencies, handling financial transactions or forgetting a major event. Furthermore, there was less [brain](#) atrophy in the active group, with 26% difference for the hippocampus and 16% for the ventricular volume. Progressive brain degeneration is typical for Alzheimer's, with hippocampal damage being responsible for many of the associated memory deficits. Over the 24-month period the incidence of any adverse events were similar between the active and control groups.

Professor Hilkka Soininen, Professor in Neurology MD, PhD from the University of Eastern Finland, who headed the clinical trial as part of the LipiDiDiet project, said: "Today's results, published in *The Lancet Neurology*, are extremely valuable as they bring us closer to understanding the impact of nutritional interventions on prodromal Alzheimer's, which we are now better at diagnosing but unable to treat due to a lack of approved pharmaceutical options. The LipiDiDiet study illustrates that this nutritional intervention can help to conserve brain tissue and also memory and patients' ability to perform everyday tasks - possibly the most troubling aspects of the disease."

The LipiDiDiet trial is now the third clinical trial on this nutritional intervention to show favourable effects on memory performance. The two previous [clinical trials](#) involved patients with mild Alzheimer's dementia and reported that daily intake of the nutritional intervention improved [memory performance](#) and increased measures of synaptic and functional connectivity in the brain.

Professor Tobias Hartmann, the project's coordinator, said: "While this nutritional [intervention](#) is not a cure for Alzheimer's, it effectively shows that the earlier in the disease process we intervene, the greater the advantage for the patient. Importantly, reduced atrophy in the patient's brain shows that the benefit extends beyond symptomatic effects, something never before achieved."

More information: *The Lancet* (2017). [DOI: 10.1016/S147](#)

Provided by Saarland University

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