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## Article Details

**Title:** Effect of a long-term intensive lifestyle intervention on prevalence of cognitive impairment.

**Authors:**

**Source:** Neurology. 2017 Apr 26. pii: 10.1212/WNL.0000000000003955. doi: 10.1212/WNL.0000000000003955.

**Relevance Rating:** 5.00

**Newsworthiness Rating:** 5.00

**Abstract:**

**OBJECTIVE:** To assess whether an average of 10 years of lifestyle intervention designed to reduce weight and increase physical activity lowers the prevalence of cognitive impairment among adults at increased risk due to type 2 diabetes and obesity or overweight. **METHODS:** Central adjudication of mild cognitive impairment and probable dementia was based on standardized cognitive test battery scores administered to 3,802 individuals who had been randomly assigned, with equal probability, to either the lifestyle intervention or the diabetes support and education control. When scores fell below a prespecified threshold, functional information was obtained through proxy interview. **RESULTS:** Compared with control, the intensive lifestyle intervention induced and maintained marked differences in weight loss and self-reported physical activity throughout follow-up. At an average (range) of 11.4 (9.5-13.5) years after enrollment, when participants' mean age was 69.6 (54.9-87.2) years, the prevalence of mild cognitive impairment and probable dementia was 6.4% and 1.8%, respectively, in the intervention group, compared with 6.6% and 1.8%, respectively, in the control group ( $p = 0.93$ ). The lack of an intervention effect on the prevalence of cognitive impairment was consistent among individuals grouped by cardiovascular disease history, diabetes duration, sex, and APOE epsilon4 allele status (all  $p \geq 0.50$ ). However, there was evidence ( $p = 0.03$ ) that the intervention effect ranged from benefit to harm across participants ordered from lowest to highest baseline BMI. **CONCLUSIONS:** Ten years of behavioral weight loss intervention did not result in an overall difference in the prevalence of cognitive impairment among overweight or obese adults with type 2 diabetes. **CLINICALTRIALSGOV IDENTIFIER:** NCT00017953 (Action for Health in Diabetes). **LEVEL OF EVIDENCE:** This study provides Class II evidence that for overweight adults with type 2 diabetes, a lifestyle intervention designed to reduce weight and increase physical activity does not lower the risk of cognitive impairment.

The full text may be available from [PubMed](#).