

Diabetes complications linked to rising risk of dementia

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People who have diabetes and experience high rates of complications are more likely to develop dementia as they age than people who have fewer diabetic complications, according to a new study published in the Endocrine Society's *Journal of Clinical Endocrinology & Metabolism*.

An individual develops diabetes when the pancreas doesn't produce enough of the hormone insulin or the body can't use insulin properly to process sugar. When blood sugar levels remain high due to uncontrolled diabetes, serious complications can develop, including blindness, kidney failure and decreased blood flow in limbs that can lead to amputation.

More than 29 million Americans have diabetes, according to the Society's [Endocrine Facts and Figures Report](#). Among every 100 Americans diagnosed with the condition, 21 have nerve damage, 27 have diabetic kidney disease, and between 29 and 33 have diabetic eye disease that can cloud vision.

"Our research is the first nationwide study to examine how the severity and progression of diabetes is related to dementia diagnosis rates in an older population," said one of the study's authors, Wei-Che Chiu, MD, PhD, of the National Taiwan University College of Public Health, Cathay General Hospital and Fu Jen Catholic University, all in Taipei, Taiwan. "We found that as diabetes progresses and an individual experiences more [complications](#) from the disease, the risk of dementia rises as well."

The 12-year-long population-based cohort study used the Taiwan National Health Insurance Research Database's records dating back to 1999 to identify 431,178 people who were older than 50 and newly diagnosed with diabetes. The researchers reviewed records to determine how many people in the cohort were admitted to a hospital or had at least three outpatient medical visits for dementia after they were diagnosed with diabetes. To evaluate the progression of each individual's diabetes, the researchers used an adapted version of the Diabetes Complications Severity Index, a tool used to predict deaths and hospitalizations among people with diabetes.

Among the people in the cohort, 26,856 people, or 6.2 percent, were diagnosed with dementia. The risk of developing dementia was higher among people who had a high score on the Diabetes Complications Severity Index than for those who had a low score.

"The study demonstrates why it is so crucial for people with [diabetes](#) to work closely with health care providers on controlling their blood sugar," Chiu said. "Managing the disease can help prevent the onset of [dementia](#) later in life."

More information: The study, "Progress of Diabetic Severity and Risk of Dementia," will be published online at press.endocrine.org/doi/10.1210/jc.2015-1677, ahead of print.

Provided by The Endocrine Society

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