

Diabetes, Alzheimer's together might increase stroke severity

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Bleeding strokes are the deadliest type of stroke and the hardest to treat.

What might make matters worse is having both diabetes and Alzheimer's disease versus either condition alone, new research shows.

The study looked at 2,071 adults in the Kentucky Appalachian Stroke Registry who had a hemorrhagic [stroke](#). The researchers reviewed each patient's health records to look for a previous diagnosis of diabetes or Alzheimer's [disease](#). They found 75% of those with both conditions had died or needed hospice or long-term care after their stroke compared to 39% with neither condition, 42% with diabetes alone, and 62% with Alzheimer's disease alone.

This stroke registry gave us "the opportunity to think about how having more than one (health condition), like diabetes and Alzheimer's disease, could influence outcomes compared to having just one," said the study's lead researcher Amanda L. Trout, a scientist at the Center for Advanced Translational Stroke Science at the University of Kentucky in Lexington. Trout will present the preliminary study Wednesday at the American Stroke Association's International Stroke Conference in Los Angeles.

Diabetes occurs when a person's [blood](#) sugar is too high. The condition increases risk for stroke, heart disease and other health problems.

Likewise, previous studies suggest stroke risk is higher for people with Alzheimer's disease, a brain disorder that slowly erases a person's memory and makes it difficult for them to carry out simple tasks. It is the most common cause of dementia—the lack of ability to think or reason—in older adults.

Comparisons of state data show rural Kentucky has one of the highest rates of stroke and stroke risk factors in the nation. The Kentucky Appalachian Stroke Registry was started in 2010 to identify gaps in care.

Most strokes are caused by a clot that cuts off blood flow to the brain.

But about 13% are caused by a weakened blood vessel that bleeds into or around the brain. According to American Heart Association statistics, about 795,000 people have a stroke each year in the U.S. and about 146,000 people die from it.

The most common cause of [hemorrhagic stroke](#) is uncontrolled high blood pressure. Previous research shows high blood pressure is prevalent in Kentucky. Although researchers in this latest study controlled for a previous diagnosis of high blood pressure, they were unable to include people's specific blood pressure measurements at the time of their stroke.

Not knowing if the people included in the study had high or uncontrolled blood pressure "makes it difficult to assess the overall health of the patients and determine whether it was having both Alzheimer's disease and diabetes that put them at higher risk for a [severe stroke](#)," said Dr. Robert H. Eckel, a professor emeritus of medicine and a diabetes specialist at the University of Colorado Anschutz School of Medicine in Denver.

Eckel, who was not involved with the study, said the findings wouldn't change the way he provides care to patients. But, he said, "it does raise my curiosity about whether there is something going on between the two, because we know that diabetes is related to dementia."

Trout said the team's study points to the need for more basic science research on why people with multiple health problems may have more severe strokes.

Overall, she said, the findings show the importance of managing conditions like [diabetes](#) with medications or lifestyle changes.

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