

# Poor sleep may heighten Alzheimer's risk

March 12 2018, by Steven Reinberg, Healthday Reporter

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(HealthDay)—Older adults who are sleepy during the day might have harmful plaque building in their brain that is a sign of impending Alzheimer's disease, researchers report.

A hallmark of Alzheimer's is the accumulation of a protein in the [brain](#) called beta-amyloid. It's believed that one benefit of [sleep](#) is to clear beta-amyloid, and [poor sleep](#) might allow it to build up, the authors of the new study pointed out.

"Elderly individuals with excessive daytime sleepiness may be more vulnerable to Alzheimer's [disease](#)-related changes," said corresponding author Prashanthi Vemuri, an associate professor of radiology at the Mayo Clinic in Rochester, Minn.

Vemuri noted that the new study is only observational and as such does not prove that poor sleep causes an increase in beta-amyloid.

The association, however, is so strong that a link between sleep and beta-amyloid probably exists, but exactly what that link may be isn't clear, she added.

It's also unclear how much poor sleep it takes to increase beta-amyloid accumulation, the researchers said.

Although beta-amyloid buildup is a sign of Alzheimer's, it doesn't doom one to the disease, and might only be a sign of other aging processes, Vemuri suggested.

"Sleep has been proposed to be important for clearance of brain amyloid," she said. "This study affirms that disrupted sleep may be a risk factor for Alzheimer's disease via increased amyloid."

Vemuri's team studied nearly 300 people aged 70 and older who didn't suffer from dementia. About 22 percent reported having [excessive daytime sleepiness](#) when the study began.

Study participants completed a survey about sleep and had at least two

brain scans between 2009 and 2016.

The researchers compared the scans in search of changes in the brain. They found increased beta-amyloids in key brain areas in participants who reported being very sleepy during the day.

The study was published online March 12 in the journal *JAMA Neurology*.

The co-author of an accompanying journal editorial said consistent and untreated sleep disturbance appears to aid Alzheimer's progression and it can happen early, before any symptoms are seen.

"These findings, however, further support the idea that sleep is critical for mental health, and that chronically disturbed sleep may facilitate the development of Alzheimer's disease or accelerate its progression," said Bryce Mander. He's an assistant professor of psychiatry and human behavior at the University of California, Irvine School of Medicine.

This is another reason you should talk to your doctor if you have [sleep problems](#), because many are treatable, Mander said.

Researchers now need to study whether treating [sleep disturbances](#) reduces plaque buildup, he added.

"We know very little about how sleep treatments can impact Alzheimer's disease risk and progression," Mander said. "It is really important that we, as a society, fund and conduct the studies necessary to find out."

**More information:** Prashanthi Vemuri, Ph.D., associate professor of radiology, Mayo Clinic, Rochester, Minn.; Bryce Mander, Ph.D., assistant professor of psychiatry and human behavior, School of Medicine, University of California, Irvine; March 12, 2018, *JAMA*

*Neurology*, online.

To learn more about Alzheimer's disease, visit the [Alzheimer's Association](#).

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Citation: Poor sleep may heighten Alzheimer's risk (2018, March 12) retrieved 6 May 2024 from <https://medicalxpress.com/news/2018-03-poor-heighten-alzheimer.html>

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