

Use of 'benzo' sedatives like Valium, Xanax won't raise dementia risk: Study

July 2 2024, by Dennis Thompson



Benzodiazepines do not appear to increase dementia risk, but could have subtle long-term effects on brain structure, a new study reports.

Researchers found no link between use of the sedative drug and a higher risk of dementia in a group of more than 5,400 adults in the Netherlands, according to findings published July 2 in the journal [BMC Medicine](#).

That runs counter to two previous meta-analyses reporting increased [dementia risk](#) with benzodiazepine use, researchers noted.

However, brain MRI scans taken of more than 4,800 participants revealed that benzodiazepine use is associated with accelerated shrinking of some brain regions, results show.

The findings "support current guidelines cautioning against long-term benzodiazepine prescription," concluded the research team led by Dr. Frank Wolters, a senior scientist of epidemiology and radiology and [nuclear medicine](#) at Erasmus Medical Center in the Netherlands.

"Further research is needed to investigate the potential effects of benzodiazepine use on brain health," the team adds.

Benzodiazepines promote the release of a neurotransmitter that makes the [nervous system](#) less active, the Cleveland Clinic says. Different types are used as sedatives or to treat anxiety, insomnia and seizures.

Analysis of medical records between 2005 and 2020 and pharmacy records between 1991 and 2008 revealed no association between benzodiazepines and increased risk of dementia, regardless of the total quantity of sedatives people took over time.

The team also found no link between dementia risk and specific types of benzodiazepines or the time it took for dosages to wear off. However, benzodiazepine use was associated with an accelerated reduction in the volume of the hippocampus and amygdala, which are brain regions involved in memory and mood regulation.

Certain types of benzodiazepines also were associated with changes in the size of white matter, which transmits nerve signals between [brain regions](#), researchers said.

Anxiolytic benzodiazepines prescribed for anxiety caused less shrinkage of white matter, results show. These include alprazolam (Xanax), clonazepam (Klonopin), clorazepate (Tranxene) and lorazepam (Ativan, Loreev), according to the Cleveland Clinic.

On the other hand, sedative-hypnotic [benzodiazepines](#) prescribed for sleep problems caused a quicker reduction in white matter volume. These include temazepam (Restoril), triazolam (Halcion) and quazepam (Doral), the Cleveland Clinic says.

More information: Ilse vom Hofe et al, Benzodiazepine use in relation to long-term dementia risk and imaging markers of neurodegeneration: a population-based study, *BMC Medicine* (2024). [DOI: 10.1186/s12916-024-03437-5](#)

The Cleveland Clinic has more on [benzodiazepines](#).

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