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Review [Alzheimer Dis Assoc Disord.](#) 2016 Apr-Jun;30(2):186-92.doi: [10.1097/WAD.000000000000134](https://doi.org/10.1097/WAD.000000000000134).

Epileptic Seizures in Alzheimer Disease: A Review

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Abstract

Alzheimer disease (AD) is the most frequent cause of major neurocognitive disorders with a huge economical and medical burden. Several studies pointed out that AD is associated with a high risk for developing epileptic seizures. The aims of our review were to evaluate and to summarize the current literature (ending in September 2015) of animal and human studies in the relation of AD and epileptic seizures. It seems likely that epileptic hyperexcitation could be partially responsible for the progression of AD due to the increased rate of amyloid deposition. Pathologic changes in animal models of AD are similar to those seen in human temporal lobe epilepsy. Antiepileptic treatment had a positive effect on cognitive function in animal and human studies. Because the detection of seizures in patients with cognitive decline is extremely difficult because of methodological problems, the true prevalence of seizures has remained unclear. Nonconvulsive seizures with no overt clinical symptoms may be frequent seizure types in AD. These are difficult to detect by clinical observation and with standard scalp electroencephalogram (EEG) methods. We propose that long-term EEG recording and video-EEG monitoring is necessary to prove the presence of epileptiform activity in demented patients.

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