

NSAIDs prevent early sign of Alzheimer disease in mice

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If taking nonsteroidal antiinflammatory drugs (NSAIDs) such as ibuprofen or naproxen is to protect you from developing Alzheimer disease then you will have to start taking them at a very early age according to new research in a mouse model of the disease that is to be published in the *Journal of Clinical Investigation*.

Emerging data indicate that an early molecular event in the development of Alzheimer disease is the induction of neuronal cell cycle events (CCEs). While searching for triggers of neuronal CCEs, a team of researchers led by Karl Herrup, at The State University of New Jersey, Piscataway, and Bruce Lamb, at the Cleveland Clinic, Cleveland, developed two lines of experimental evidence implicating a role for neuroinflammation in the process in a mouse model of Alzheimer disease.

First, administration of the inflammatory molecule LPS induced the early appearance of neuronal CCEs. Second, treatment with either ibuprofen or naproxen blocked the induction of neuronal CCEs. Importantly, although no new neuronal CCEs were induced when older mice were treated with either of these NSAIDs, existing neuronal CCEs persisted. These data provide a potential explanation for observations in humans: retrospective studies indicate long-term NSAID use is protective against AD, whereas prospective NSAID clinical trials have been unsuccessful in patients with mild to moderate AD.

[More information:](#) NSAIDs prevent, but do not reverse, neuronal cell

cycle reentry in a [mouse model](#) of Alzheimer disease. View this article at: [www.jci.org/articles/view/3971 ... FZ0P005I36nTaBOsg7d1](http://www.jci.org/articles/view/3971...FZ0P005I36nTaBOsg7d1)

Source: Journal of Clinical Investigation

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