

## Acid Blockers Linked to Mental Decline

### H2 Blockers May Raise Risk of Age-Related Cognitive Impairment

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WebMD Medical News

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Aug. 3, 2007 – Long-term use of H2 blockers, including Axid, Pepcid, Tagamet, and Zantac, may increase the risk of mental decline in later life.

H2 blockers, available over the counter as well as by prescription, belong to a family of drugs that reduce stomach acid.

The finding -- which must be confirmed by additional studies -- comes from Indiana University researcher Malaz Boustani, MD, MPH, and colleagues.

"We demonstrate a simple association for taking these medications for a long time -- more than two years -- and the chance of having dementia or mild cognitive impairment," Boustani tells WebMD. "Patients had two to two-and-a-half times the odds of having a deficit in their cognitive performance. It ranged from mild to potentially severe dementia similar to Alzheimer's disease."

Boustani, a gerontologist, noticed that his elderly patients sometimes appeared confused after taking over-the-counter H2 blockers.

He's not the first to notice this. Histamine-blocking drugs such as some kinds of antihistamines or H2 blockers often contribute to mental confusion, says neurologist Charles J. Duffy, MD, PhD, director of cognitive and behavioral neurology at the University of Rochester, N.Y. Duffy was not involved in the Boustani study.

"We have known for some time that H2 blockers have an impact on cognitive capacity and can contribute significantly [as one of many factors] in delirium -- particularly in the elderly or in those with brain pathology," Duffy tells WebMD.

#### Long-Term Use of H2 Blockers

Boustani wondered whether long-term use of H2 blockers might cause more permanent mental effects. To test the idea, he looked at the use of H2 blockers among 1,558 over-65 African-Americans enrolled in a study of aging.

The study showed that after taking into account other factors, elderly people who reported "continuous use" of H2 blockers had a 2.4-fold higher chance of some form of cognitive impairment.

Boustani notes that previous studies looking at H2 blockers have come up with conflicting data. Some show no effect, some show a negative effect, and some even show a positive effect.

"We think we have a study that adds a piece to the puzzle to make the picture a little clearer," Boustani says. "At a minimum, this finding needs confirmation. We don't want people to stop taking these medications and have worse outcomes from ulcer bleeds and so on."

It's not clear why H2 blockers might interfere with brain function. The drugs affect histamine, part of the brain's normal signaling functions. However, Boustani found no similar effect for antihistamine allergy drugs.

It's also possible that by blocking stomach acid, H2 blockers interfere with the absorption of vitamin B-12, which is important for mental function.

Whatever the mechanism, Duffy says H2 blockers might be one of many factors that contribute to dementia. But he warns against jumping to the conclusion that these drugs are, all by themselves, a major cause of cognitive decline or Alzheimer's disease.

"Medicines like this, and many other types of medicine, can contribute to cognitive impairment. So can that cocktail you have tonight," he says. "But that doesn't mean cocktails cause Alzheimer's disease."

Duffy joins Boustani in warning that nobody should take any medication frequently -- even over-the-counter medicines -- without consulting a doctor.

The Boustani study appears in the August issue of the *Journal of the American Geriatrics Society*.

- Do you suffer from GERD? Find information and support on WebMD's [GERD Support Group message board](#).

SOURCES: Boustani, M. *Journal of the American Geriatrics Society*, August 2007; vol 55: pp 1248-1253. Malaz Boustani, MD, MPH, assistant professor of medicine, Indiana University School of Medicine; scientist, Regenstrief Institute, Indianapolis; director of research, Indianapolis Discovery Network for Dementia. Charles J. Duffy, MD, PHD, professor of neurology and director of cognitive and behavioral neurology, University of Rochester, N.Y.

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