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# Can Antibiotics Alleviate Alzheimer's Symptoms?

Research conducted by the <u>University of Chicago</u> showed that long-term antibiotic treatment may be effective at warding off and slowing down Alzheimer's disease in men. The study analyzed the effects of antibiotics on gut bacteria, which has been linked with the development of the disease. Although the study was conducted on male and female mice, the treatment was found to be ineffective in female mice.

#### Quick Read:

Antibiotic treatment in male mice has been shown to alter gut bacteria and, in turn, slow down the growth of amyloid plagues in the brain. These plagues disrupt brain function and may lead to the development of Alzheimer's disease. While the treatment worked in male mice, it did not work in female mice. Learn more about the study below!

Discover How Gut Bacteria Is Linked to Alzheimer's Disease!

## Plaque Buildup Can Cause Alzheimer's Disease

According to the National Institute on Aging, one-third of those who are 85 or older may have Alzheimer's disease. While many factors contribute to the development of the

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disease, including genetics, lifestyle and environment, <u>Alzheimer's</u> occurs when neurons are no longer able to communicate with each other.

Several things can disrupt neuron communication, including cell death, vascular issues, chronic inflammation, neurofibrillary tangles and amyloid plaques. This particular antibiotic treatment study was aimed at treating Alzheimer's caused by amyloid plaques. In this form of the disease, protein clumps together to form plaques, thus disrupting electronic signals within the brain.

### Antibiotics Alter Gut Bacteria in Male Mice

Male mice who were given a long-term <u>course of antibiotics</u> experienced changes in gut bacteria, which slowed the growth of amyloid plaques. This shows great promise for the future of Alzheimer's research. However, more work is needed to see how humans will respond to the treatment.

Although female mice did not receive the same benefit, they did react to the treatments in a unique way. Female mice had a higher chance of a boost in microglia activation, which may promote brain health.

## The Gut Bacteria and Alzheimer's Connection

Scientists have known about the link between <u>gut bacteria and cognitive health</u> for quite some time. A type of intestinal bacteria, called Bacteroides, produce amyloid proteins, which can travel through the bloodstream and become trapped within the brain where they develop plaques associated with a certain form of Alzheimer's disease. Whenever the gut has an overabundance of this type of bacteria, the risk of developing plaques is greater. Antibiotic treatment is aimed at reducing this harmful bacteria.

Currently, there is no cure for Alzheimer's. However, there are several medications on the market that help slow down the progression of the disease. Even more medications **Writer:** Do <u>NOT</u> write in this template. Please go to "File" > "Make a Copy", and make a copy of this template for yourself. When the text box opens, check "Share with the Same People" and "Copy Comments and Suggestions." Replace "Wellness.com - Writer Template" with "Title of Article". Make a new copy of the original template for each article.

and treatments used to prevent and/or treat the disease are in development. The <u>Alzheimer's Association</u> hopes to find a cure soon.

~Here's to Your Health and Wellness