

# Does growth hormone drug slow Alzheimer's disease?

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A new study shows that a drug that increases the release of growth hormone failed to slow the rate of progression of Alzheimer's disease in humans. The new research is published in the November 18, 2008, print issue of *Neurology*, the medical journal of the American Academy of Neurology.

Growth hormone is naturally produced in the body and stimulates the release of another hormone called insulin-like growth factor-1 (IGF-1). Studies on mice have suggested that IGF-1 helps reduce beta-amyloid, which is a form of plaque, from the brain. The accumulation of beta-amyloid is a core feature of Alzheimer's disease and is thought to be an important cause of the memory and behavioral symptoms of the disease.

In the study, scientists used the investigational compound MK-677 to boost the blood levels of the hormone. MK-677 stimulates the release of natural growth hormone from the pituitary gland. The growth hormone then stimulates the release of IGF-1 in other parts of the body.

The study involved 416 people who had mild to moderate Alzheimer's disease who underwent brain scans. Half of the group took MK-677 and the other half took a placebo for one year.

The study found that MK-677 did not slow the symptoms of Alzheimer's disease even though MK-677 was effective in increasing levels of IGF-1.

"This work suggests that targeting this hormone system may not be an

effective approach to slowing the rate of Alzheimer's disease progression," says study author J.J. Sevigny, MD, of Merck Research Laboratories in North Wales, PA. "Importantly it challenges the common theory that hormones may attack beta-amyloid plaque in the brain and builds on the body of clinical evidence for Alzheimer's disease as we seek to develop more effective treatments."

It is estimated that every 70 seconds, someone in the United States develops Alzheimer's disease. There are only five drugs that are FDA approved to treat the symptoms of the disease.

Source: American Academy of Neurology

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