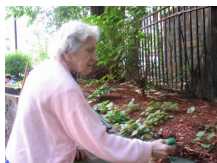


5 November 2008

By: Tudor Vieru, Science Editor



Alzheimer's could be treated and prevented via the use of Vitamin B3  
horticulturaltherapy

## [Alzheimer's Stopped by Vitamin B3](#)

### *Memory loss and neuron tangles were prevented in animal models*

Vitamin B3 seems to hold many surprises in store for researchers, as evidenced by the latest discovery related to it, when scientists learned that a compound of the vitamin, named nicotinamide, showed an incredible potential in stopping the development of severe Alzheimer's symptoms, such as acute memory loss and neuron tangles. The latter is one of the two lesions that the disease causes in the brain.

The tests scientists at the University of California Irvine conducted on mice revealed that the animals showed few to none signs of deteriorating brain functions, though they had been genetically engineered to develop the disease very quickly.

"Nicotinamide has a very robust effect on neurons. [It] prevents loss of cognition in mice with Alzheimer's disease, and the beauty of it is we already are moving forward with a clinical trial," said UCI scientist Kim Green, the lead author of the study, hinting at the fact that the success of the experiment already prompted the onset of human testing.

In mice, the compound, administered in large dosages, rendered a protein called phosphorylated tau completely inert. This protein is the main culprit for the formation of neuron entanglement, which causes most of the signs that characterize this terrible disease. In addition, the neural pathways electrical signals use to travel between portions of the brain were also strengthened by the vitamin.

Another positive aspect of the find is that mouse models showed improved cognitive ability, which led researchers to believe that similar effects could also occur in humans. Memory enhancements and neural connections catalysts might have been under the researchers' noses for the past few years, and no one suspected the effects the common Vitamin B# could have on the brain.

"Microtubules are like highways inside cells. What we're doing with nicotinamide is making a wider, more stable highway. In Alzheimer's disease, this highway breaks down. We are preventing that from happening," Green added.