

Marijuana nutrients found to help prevent Alzheimer's disease

A study conducted by scientists at Scripps Research Institute in California has found that, contrary to marijuana's reputation, the ingredients of the drug can actually fight off the memory-impairing effects of Alzheimer's disease. The researchers found that the active ingredient in marijuana -- delta-9-tetrahydrocannabinol, or THC -- is responsible for the positive effect, as it can prevent the breakdown of the neurotransmitter acetylcholine even better than commercially marketed prescription drugs. The study also showed that THC could completely prevent the enzyme acetylcholinesterase (AChE) from forming amyloid plaques, whereas twice as much donepezil and tacrine -- the two drugs approved for Alzheimer's treatment -- only reduced such clumping by 22 and 7 percent, respectively, the researchers reported in the journal *Molecular Pharmacology*. This led the scientists to conclude that a more effective Alzheimer's drug could be developed in the future. "We're not advocating smoking dope, but if we can make an analog of THC, it could play a role in treating Alzheimer's," said researcher Kim Janda, a chemist at Scripps. "It would be nice to do more animal studies along these lines." Past experiments of the effects of THC on human brain tissues and on rats have shown it can reduce inflammation and prevent mental decline, but other studies have shown that heavy marijuana use -- four or more cigarettes a week -- impairs memory, the ability to focus, and decision making over the years. Currently, marijuana is illegal in most countries, including the United States, but it is legal in some countries for medicinal use to help relieve the side effects caused by cancer and AIDS treatments, and to treat glaucoma. Scientists do not currently know what causes Alzheimer's -- a leading cause of dementia among the elderly marked by memory loss, impaired decision-making, reduced language skills and hampered movement -- but it is believed to be hereditary.