

Medical Marijuana May Impair Thinking of MS Patients



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Study Shows Cognitive Impairment May Be an Issue for Long-Term Users of Medical Marijuana

WebMD Medical News

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March 28, 2011 -- Many [multiple sclerosis](#) (MS) patients use [marijuana](#) to ease [pain](#) and other symptoms associated with the disorder, but the practice might make one common symptom worse.

MS patients in a small study who smoked or ingested marijuana regularly for many years were twice as likely as non-users to show significant evidence of cognitive impairment when subjected to a battery of tests that measure thinking skills.

The study was published in the journal *Neurology*.

By some estimates, as many as 60% of patients with multiple sclerosis have some problems with attention, learning, or memory, ranging from mild to severe.

Study researcher Anthony Feinstein MD, PhD, of the Sunnybrook Health Services Center and the University of Toronto, says patients who use marijuana risk exacerbating these symptoms.

"Whatever benefits patients feel they might be getting from [smoking](#) marijuana might come at the cost of further cognitive compromise," Feinstein tells WebMD.

Advocate of Medical Marijuana

Former talk-show host and multiple sclerosis patient Montel Williams is a daily marijuana user and a vocal advocate for the legalization of medical marijuana.

Williams has lobbied lawmakers in more than a dozen states, and he tells WebMD that medicinal marijuana gave him his life back after narcotic pain drugs like [morphine](#) and [OxyContin](#) almost shut down his [liver](#) and [kidneys](#).

He delivered the same message in an episode of the syndicated medical program "The Dr. Oz Show," scheduled to air this week.

"I have had this diagnosis for the last 10 years and I have also continued to be a contributing, tax-paying member of society," Williams said. "[Marijuana] is what has allowed me to continue to work and continue to pay taxes."

Marijuana Use and Mental Performance

The study included 25 MS patients who reported smoking or ingesting marijuana regularly for many years and an equal number of MS patients who did not use marijuana. The two groups were matched for age, sex, education level, IQ before diagnosis, level of disability, and duration of MS.

Feinstein says the study did not include patients who took synthetic cannabinoid, such as the pill [Marinol](#), because these treatments did not have a psychoactive component and patients tend to prefer the real thing.

The average duration of marijuana use among the users studied was 26 years. Seventy-two percent of users reported using marijuana daily; 24% reported weekly use.

All study participants underwent a series of tests used to measure various aspects of mental functioning, including working memory, speed of information processing, and visual perception of spatial relationships. Study participants who used marijuana were not tested if last use was less than 12 hours before testing.

Feinstein says the marijuana users performed significantly worse than the non-users on tests measuring attention, speed of thinking, visual perception, and cognition related to planning and organizing.

Scores on one test measuring speed of processing information were about a third lower among marijuana users compared to non-users.

Thirty-two percent of non-users and 64% of users met the definition of globally cognitively impaired, meaning that they had measurable impairments in two or more aspects of intellectual functioning.

Medical Marijuana Debate

The researchers say larger studies are needed to confirm their findings.

Neurologist Lily Jung Hensen, MD, of Seattle's Swedish Neurosciences Institute, tells WebMD that the findings make a strong argument that the cognitive risks associated with marijuana use outweigh potential benefits for MS patients.

Morgan Fox of the Marijuana Policy Project notes that the researchers did not consider other medications that the study participants might have been taking and he said the study had other limitations that could have affected the findings.

"No study has been able to show long-term, permanent cognitive damage in adult marijuana users, only temporarily decrease abilities," he tells WebMD.

Fox noted that all medications have side effects, but decisions about whether or not to use them should be left to patients and their doctors.

Williams agrees, adding that a review of 15 medical marijuana studies conducted over the last 20 years showed no evidence of long-term cognitive decline. The review, conducted by researchers from the University of California's Center for Medicinal Cannabis Research, was reported in February 2010.

"Marijuana is not going to work for everybody, but no pain medication on the planet does," he says. "But if my doctor can write me [prescriptions](#) for morphine and for OxyContin, he should certainly be able to write me a prescription for this drug."

SOURCES: Honarmand, K. Neurology, March 29, 2011; vol 76: pp 1153-1160. Anthony Feinstein, PhD, University of Toronto; Sunnybrook Health Sciences Centre, Toronto. Montel Williams, former talk show host; author; public speaker. Morgan Fox, communications assistant, Marijuana Policy Project. Lily Jung Hensen, MD, medical director, Neurology Clinic, Swedish Neurosciences Institute, Seattle. News release, American Academy of Neurology.

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