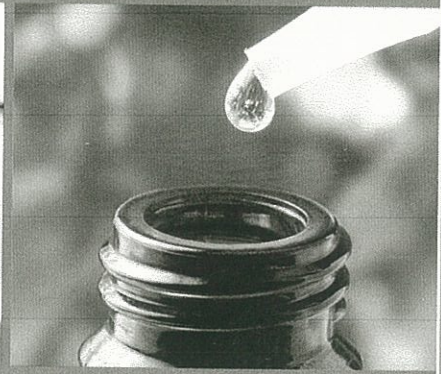


Marijuana Medical Handbook

Practical Guide to the Therapeutic Uses of Marijuana



Relief from Arthritis, Insomnia, Chemotherapy, Anorexia, Nausea, Chronic Pain

Dale Gieringer, Ph.D., Ed Rosenthal,
Gregory T. Carter, M.D.

associated with poorer scores among non-schizophrenics. Yet another recent study found that cannabis use was associated with improved cognitive functioning in males with schizophrenia/schizoaffective disorder [Coulston⁶¹]. Those with more frequent and recent cannabis use scored better on tests of attention, processing speed and executive function – exactly the opposite of what would be expected in normal subjects. This suggests that some schizophrenics may have legitimate reason to treat themselves with cannabis.

Post-Traumatic Stress Disorder (PTSD)

Many patients find marijuana especially useful for alleviating post-traumatic stress disorder. PTSD is a psychiatric condition afflicting thousands of war veterans, and accident and crime victims who have undergone violent trauma. Victims experience enduring and often disabling depression, sleeplessness, anxiety, mood swings, fatigue, and irritability, as well as chronic pain and other discomforts stemming from their trauma.

Physicians in California's Society of Cannabis Clinicians treat many PTSD patients with cannabis. Dr. Mikuriya reported that 8% of his 9,000 patients have primary diagnoses for PTSD. Sleep deficit, fatigue and physical pain are symptoms commonly alleviated by cannabis.

“Based on both safety and efficacy, cannabis should be considered first in the treatment of post-traumatic stress disorder,” said Dr. Mikuriya. “As part of a restorative program with exercise, diet, and psychotherapy, it should be substituted for ‘mainstream’ anti-depressants, sedatives, muscle relaxants, tricyclics, etc.”

61 Coulston CM, Pericles M, Tennant CC, “The neuropsychological correlates of cannabis use in schizophrenia: Lifetime abuse/dependence, frequency of use, and recency of use.” *Schizophr Res* 96:1-3:169-184 (2007).

“PTSD often involves irritability and inability concentrate, which is aggravated by sleep deficit. Cannabis use enhances the quality of sleep through modulation of emotional reactivity. It eases the triggered flashbacks and accompanying emotional reactions, including nightmares. The importance of restoring circadian rhythm of sleep cannot be overestimated in the management of PTSD. Avoidance of alcohol is important in large part because of the adverse effects on sleep.”

U.S. Army doctors, for whom cannabis is taboo, commonly prescribe veterans with PTSD anti-depressants, anti-convulsants, anti-psychotics, tranquilizers, and a host of other medications. Many report that marijuana works better than all their other prescriptions.

The Israeli army has indicated interest in testing THC to treat PTSD at the suggestion of pioneering cannabinoid researcher Dr. Raphael Mechoulam. Mechoulam hypothesizes that THC can relieve flashbacks of traumatic battle incidents by helping suppress unwanted memories. Animal studies by Giovanni Marsicano indicate that the endogenous cannabinoid system plays a role in extinguishing aversive memories as well as phobias and some kinds of pain [Marsicano⁶²].

Attention Deficit Hyperactivity Disorder (ADHD)

Attention deficit hyperactivity disorder is a neurological disorder commonly diagnosed in children, with symptoms usually persisting into adulthood. Symptoms include difficulty in concentrating (inattention), difficulty in organizing and completing tasks, especially those that are repetitive, boring or difficult, and

62 Marsicano G, et al. “The endogenous cannabinoid system controls extinction of aversive memories.” *Nature* 418:6897:530-534 (2002).

impulsiveness or hyperactivity, especially in children. In some cases the component of hyperactivity is lacking and the disease is referred to simply as attention deficit disorder (ADD). There is some dispute as to whether ADD is truly a disease or simply a variant of normal behavior, but extreme cases of ADHD can involve pathologically disruptive behavior. Some 3% to 7% of all children are thought to have ADHD or ADD; 70% of them show symptoms into adulthood.

Children with severe ADHD are commonly treated with psychoactive drugs. Paradoxically, the most popular drugs are stimulants such as amphetamines or Ritalin[®], which regularly excite and stimulate normal people but help hyperactive children to stay focused.

In light of this paradox, it is perhaps less surprising that some pediatricians have reported beneficial effects with cannabis. Despite the fact that most people find that cannabis decreases their powers of attention, many people with ADD say it helps them focus. The use of marijuana for ADD is highly controversial, and there have been no scientific studies to validate it.

Nonetheless, benefits have been observed in some ADD patients. Dr. Claudia Jensen, a pediatrician from Ventura County, California, reported in Congressional testimony that cannabis was uniquely beneficial for two of her young ADD patients who had not been helped by other drugs [Jensen⁶³]. For minors, Jensen first recommended Marinol. Only if that didn't work did she recommend marijuana, in the form of brownies or other edibles. (Use of smoked marijuana near school campuses poses obvious problems.) The use of cannabis by teenagers with ADD flies in the face of conventional wisdom, which assumes that marijuana is a step down the road to emotional withdrawal, disaffection,

63 Dr. Claudia Jensen, testimony to US House Government Reform Subcommittee on Criminal Justice, Drug Policy and Human Resources, April 1, 2004.

amotivation, and stunted emotional growth.

Still, dramatic cases have been reported, such as that of young Jeffrey, whose story is told by his mother, Debbie Jeffries, in "Jeffrey's Journey."⁶⁴ At an early age, Jeffrey exhibited severe behavioral problems, including violent tantrums, aggression, hostility, and obsessive-compulsive behavior. He failed to respond to treatment with amphetamines and a pharmacopoeia of other mood-altering drugs. In desperation, his mother decided to try giving him cannabis, using edibles and capsules of organic marijuana prepared by the Wo/Men's Alliance for Medical Marijuana (WAMM) in Santa Cruz.

"Six months later, my eight-year old son wasn't angry with the world," Jeffries writes, "He was actually learning how to have fun, and for the first time ever, his outbursts had diminished enough so that he was capable of benefiting from psychological and behavioral counseling." Despite Prop. 215, Jeffries had to fight court battles with child protective services and school officials to continue treating her son. Then, on September 5, 2002, DEA agents raided WAMM's garden, cutting off Jeffrey's supply of marijuana. Without his medicine, Jeffrey relapsed. WAMM tried to reformulate his medicine using other strains of cannabis, but they didn't work as well. Eventually, his mother gave up, halted the cannabis treatment, and sent Jeffrey to a residential program. "Medical marijuana had given Jeffrey two years to grow and mature," his mother writes, "It is impossible to know what path his therapy would have followed if his treatment had not been disrupted by the federal government."

While Jeffrey represents an extreme, it is unclear how much patients with milder ADD benefit from marijuana. There exists an extensive drug abuse literature showing that adolescent

64 Quick American Publications 2005.

marijuana use is correlated with a constellation of mental health problems, including ADD, depression, low self-esteem, lack of motivation, poor school performance, and so forth. The popular interpretation by drug abuse experts is that marijuana use naturally aggravates such problems. An alternative interpretation is that adolescents may be—at least in certain instances—self-treating their underlying emotional problems with marijuana.

Dr. Thomas O'Connell, a cannabis practitioner in California who has painstakingly interviewed over 4,000 patients, has proposed this unorthodox view. Dr. O'Connell reports that his patients are using marijuana for a variety of mood disorders, especially stress, anxiety, dysphoria, panic attacks, depression, and insomnia. Some 15% of Dr. O'Connell's patients have ADD; 20-30% have bipolar disorder; and 10% report drinking problems. The vast majority also had prior experience with drugs beginning from adolescence, participating in the explosion in youthful drug use that began with the Baby Boom generation. Virtually all began using alcohol and marijuana before age 18 for non-medical reasons; 96% had tried tobacco; over 75% had experimented with mushrooms or other psychedelics, and over 67% had tried other illegal drugs. The great majority had an absent, distant, or disabled father; and most suffered low self-esteem, insecurity, and related psychological complaints. In short, Dr. O'Connell's patient population closely resembles the standard picture of marijuana users in the drug abuse literature. The difference is that whereas the standard literature interprets their marijuana use as drug abuse, Dr. O'Connell views it as self-medication:

"Anecdotal evidence from repeated clinical contacts, and other data gathered incidentally over five years of experience with this population suggests that, except for very modest alcohol consumption and obligatory (addictive) use of tobacco by those trying to quit, cannabis is the only drug used past the age of twenty-five by

most. Indeed, their total drug histories suggest that by competing successfully with other, potentially more harmful agents, cannabis may have actually been protective.... For the majority, cannabis can be seen as an effective anxiolytic/antidepressant, performing as well or better than many currently available pharmaceutical agents prescribed for the same symptoms" [O'Connell⁶⁵].

An accurate evaluation of these claims would require rigorous, controlled studies, in which subjects were observed both with and without marijuana to see how their symptoms responded. In the absence of such studies, the question remains open.

One thing should be noted, however: not all emotionally disturbed marijuana users are self-medicating. In a survey of cannabis-dependent users, Arendt, et al found that those with lifetime depression used marijuana for the purpose of getting high, not medication, and actually suffered worse depression, anxiety and paranoia while under the influence [Arendt⁶⁶]. Those who had a history of violence were more likely to use marijuana for medical reasons in order to help relax and decrease aggression, but nonetheless manifested worse aggression when high. Marijuana is thus not always a solution for mood disorders, even for those who think it is. Patients with emotional disorders are strongly advised to follow professional counseling: not rely only on self-medication.

Chronic Fatigue Syndrome

Another anecdotal use of marijuana is for chronic fatigue syndrome (CFS), a mysterious illness of unknown etiology. Symptoms of CFS include debilitating fatigue, headaches, depression,

65 O'Connell T & Bou-Matar CB, "Long time marijuana users seeking medical cannabis in California (2001-2007): demographics, social characteristics, patterns of cannabis and other drug use of 4117 applicants," *Harm Reduction Journal* 4:16 (2007).

66 Arendt M, et al, "Testing the self-medication hypothesis of depression and aggression in cannabis-dependent subjects," *Psychological Medicine* 37:934-45 (2007).