

## MARIJUANA AS “MEDICINE”?

The Governor's Office of Drug Control Policy recognizes the importance of listening to science. On the question of smoking marijuana as medicine, the body of science to date does not support the premise.

The most comprehensive, scientifically rigorous review of studies of smoked marijuana was conducted by the Institute of Medicine, an organization chartered by the National Academy of Sciences. In a report released in 1999, the Institute concludes that because of the health risks associated with smoking, smoked marijuana should generally not be recommended for long-term medical use, but did conclude that active ingredients in marijuana could be isolated and developed into a variety of pharmaceuticals, such as Marinol.



*Marinol*



*Marijuana Joint*

### FACTS

- Marijuana currently seized and tested in the Iowa Department of Public Safety crime lab is more potent than the marijuana of the 1960's and 70's. The THC levels of tested marijuana samples more than doubled, from 2000 to 2005 alone. This increase in potency makes marijuana a much more dangerous drug that can cause a host of physical and psychological problems, including addiction. (Iowa Department of Public Safety/2009 Drug Control Strategy)
- 11 scientific research studies have demonstrated that heavy marijuana use, defined as smoking marijuana 27 days in the past 30 days, has a significant impact on users' ability to learn, remember what they learned, and function in society. (National Institute on Drug Abuse)
- These are some of the findings from research of heavy marijuana users in the workplace: Workers who smoke marijuana are more likely to experience increased absences, tardiness, accidents, workers' compensation claims, and job turnover. Workers who test positive for marijuana use have 55 percent more industrial accidents, 85 percent more injuries, and a 75-percent increase in absenteeism compared to non-smokers. Heavy marijuana abusers self-report that their use of the drug had negative effects on their cognitive abilities, career status, social life, and physical and mental health. (National Institute on Drug Abuse)
- The primary adverse effect of *acute* marijuana use is diminished psychomotor performance. It is, therefore, inadvisable to operate any vehicle or potentially dangerous equipment while under the influence of marijuana, THC, or any cannabinoid drug with comparable effects. (Institute of Medicine, *Marijuana and Medicine: Assessing the Science Base*, 1999)
- The *chronic* effects of marijuana are of greater concern for medical use and fall into two categories: 1) The effect of chronic smoking: which numerous studies suggest is an important risk factor in the development of respiratory disease, and 2) The effects of THC, which include risk of dependence, antisocial personality and conduct disorders, and possibility for withdrawal symptoms like irritability, agitation, restlessness, insomnia, sleep EEG disturbance, nausea, and cramping. (Institute of Medicine, *Marijuana and Medicine: Assessing the Science Base*, 1999)
- In April 2006, the Food and Drug Administration (FDA), the agency responsible for approving drugs as safe and effective, issued an interagency advisory stating that it has NOT approved smoked marijuana for any medical condition or disease indication. In addition, the FDA noted that “there is currently sound evidence that smoked marijuana is harmful.”

- Only a small minority of marijuana dispensary customers have AIDS, glaucoma, or cancer – ailments for which marijuana as medicine is advocated by proponents. The vast majority of customers are relatively young – almost 4 out of 5 are age 40 or younger. (White House Office of National Drug Control Policy, 2008 *Marijuana Sourcebook*)
- Marijuana smoke contains 50–70 percent more carcinogenic hydrocarbons than does tobacco smoke. Marijuana users usually inhale more deeply and hold their breath longer than tobacco smokers do, which further increase the lungs' exposure to carcinogenic smoke. (National Institute on Drug Abuse)
- Marijuana use causes precancerous changes in the body similar to those caused by tobacco use. Smoking pot delivers 3 to 5 times the amount of tars and carbon monoxide in to the body. It also damages pulmonary immunity and impairs oxygen diffusion. (White House Office of National Drug Control Policy, 2008 *Marijuana Sourcebook*)
- States that allow marijuana to be used as medicine are more likely to have higher marijuana use and initiation rates. 8 of the 10 states with the highest percentage of past month marijuana users also are states with medical marijuana programs. 5 of the 10 states with the highest percentage of *new* youth marijuana users also are states with medical marijuana programs. (White House Office of National Drug Control Policy, 2008 *Marijuana Sourcebook*)
- 27% of Iowa 11<sup>th</sup> graders report having used marijuana in their lifetime. (Iowa Youth Survey, 2008)
- Marijuana continues to be the most abused illegal drug in Iowa among both adults and juveniles. Marijuana, as a primary drug of choice, accounts for over 55% of all juveniles, and 19% of all adults, screened or admitted to publicly funded treatment centers. (Iowa Department of Public Health/2009 Drug Control Strategy)
- The American Medical Society, the National Cancer Institute, the American Cancer Society, and the National Multiple Sclerosis Society do not support smoked marijuana as medicine.

Scientific data indicate a *potential* therapeutic value of cannabinoid drugs, primarily THC, for pain relief, control of nausea and vomiting, and appetite stimulation. However, smoked marijuana is a crude THC delivery system that also delivers harmful substances. At this time, neither the medical community nor the scientific community has found sufficient data to conclude that smoked marijuana is the best approach to dealing with these important medical issues.

The overwhelming scientific consensus is that smoked marijuana should not be used as medicine. Take for example, morphine: It has proven to be a medically valuable drug, but the FDA does not endorse the smoking of opium or heroin. Instead, scientists have extracted active ingredients from opium, which are sold as pharmaceutical products like morphine, codeine, hydrocodone or oxycodone. In a similar vein, the FDA has not approved smoking marijuana for medicinal purposes, but has approved the active ingredient-THC-in the form of scientifically regulated Marinol.

Marinol is already legally available for prescription by physicians whose patients suffer from pain and chronic illness. Mouth sprays containing THC, such as Sativex, are currently in trial in the U.S. and are expected to be completed by the end of 2009.

Unless, or until, the consensus of medical evidence changes, ODCP opposes any proposal to legalize marijuana smoking for medical purposes.