

The cannabis conundrum

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The debate about cannabis (also known as marijuana or Indian hemp) continues. Is it “dangerous”? Is it “addictive”? Does it make you “crazy”? Everybody has an opinion, but what is the truth of the matter and how should this influence the legal status of the drug? At the present time the cannabis laws in the United States are very confusing. Consider this: the federal government has classified cannabis as a Schedule 1 drug, the same status accorded heroin. Schedule 1 drugs are supposed to have no medical applications or therapeutic uses whatsoever and are also supposed to be the most easily abused and the most addictive. It is difficult to obtain such drugs, even for research purposes. On the other hand, many individual states have moved to decriminalize the possession and use of small amounts of cannabis. The major psychotropic molecule in cannabis, Δ^9 -tetrahydrocannabinol (Δ^9 -THC), is actually available by prescription throughout the United States. The drug, known as dronabinol and sold under the trade name Marinol, is a Schedule 3 drug and thus is considered to be much less dangerous than the crude material from which it was originally isolated.

Let us understand how the federal government’s marijuana policy originated. Basically, it was the work of Harry Anslinger, the first head of the Federal Bureau of Narcotics. In the 1930s, Anslinger decided that cannabis was an easy political target for the Federal Bureau of Narcotics to prove its effectiveness in protecting the American people from drug problems. The drug was mostly used at that time by migrant Mexican workers and hadn’t really made major inroads into the rest of United States society. Anslinger made marijuana into a huge political issue. Aided by an extremely reactionary and racist press, Anslinger made ridiculous claims advising the public that a single puff of a marijuana cigarette could turn the smoker into a murdering rapist or nymphomaniac. Anslinger’s political influence eventually allowed for laws to be passed that made marijuana use highly restricted and at the same time strangled the emerging hemp industry, to the delight of his industrial backers who were scared of potential competition.

Is there any truth to these allegations, which resulted in cannabis eventually being

classified as a Schedule 1 drug in the 1970s? The fact is that the effects of cannabis on the general population have been studied numerous times over the years. To begin with, the British India Hemp Commission published a report in 1894, running some 3,800 pages. The United States carried out a study on cannabis use by the military in the Panama Canal Zone in 1925. In 1944 Fiorello LaGuardia, the mayor of New York, sponsored a large-scale report on the effects of marijuana, and in 1969 the British Wootton committee reported on marijuana use in the United Kingdom. In every case these reviews concluded that moderate cannabis use was not really a problem and wasn’t particularly “dangerous.” Moreover, for many years now The Netherlands have operated with a policy that basically decriminalized moderate marijuana use. And what has happened to the Dutch? Has Dutch society declined into a miasma of drug-induced lassitude? No, indeed. One must surely be impressed by the uniformity of all these results. Nevertheless, these data have been completely ignored by the US government.

Today we know a lot more about how cannabis works. Studies over the last 30 years have identified a widely influential cell-signaling system involving specific cannabinoid receptors and arachidonic acid-derived endocannabinoids (1). Endocannabinoid signaling regulates the functions of every tissue in the body and processes that include metabolism and inflammation, in addition to cognition (1). This research has raised the possibility that cannabis-like drugs may be useful in many therapeutic areas. Extremely active research on cannabinoid signaling continues, with exciting and illuminating results. This is not to say that the use of cannabis is completely free of problems. Some studies have suggested adolescent cannabis use increases the risk of future psychotic illness, although there is no consensus as yet on this matter (2). In addition, it seems clear that excessive use of cannabis can result in a degree of drug dependency (3). Overall, like most drugs, it appears that cannabis can have both beneficial and negative effects (4). Presumably, the status of cannabis should result from an informed discussion of all of these issues.



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Strangely enough, there is one group of people who have had virtually no influence on the US government’s cannabis policy since its inception: the scientists who actually study the drug. As indicated above, virtually all of the government’s cannabis policies have been made by lawyers and politicians and not by scientists. Indeed, over the years, different US governments have completely overlooked compelling scientific data that didn’t happen to fit in with their political position. This doesn’t make much sense. One might have thought that the people who actually study cannabis would have something useful to say about it. So come on, government—please give us a call—we’re ready to talk!

¹ Di Marzo V (2009) The endocannabinoid system: Its general strategy of action, tools for its pharmacological manipulation and potential therapeutic exploitation. *Pharmacol Res* 60(2):77–84.

² Rubino T, Zamberletti E, Parolaro D (2012) Adolescent exposure to cannabis as a risk factor for psychiatric disorders. *J Psychopharmacol* 26(1):177–188.

³ Danovitch I, Gorelick DA (2012) State of the art treatments for cannabis dependence. *Psychiatr Clin North Am* 35(2):309–326.

⁴ Hall W, Degenhardt L (2013) The adverse health effects of chronic cannabis use. *Drug Test Anal*, 10.1002/dta.1506.

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