

# MARIJUANA POTENCY AND RISK: SEPARATING TRUTH FROM FICTION

## **I've heard that today's marijuana is 20 times stronger than what people smoked in the 1970s. Is that true?**

No. John Walters, director of the White House Office of National Drug Control Policy (ONDCP), claimed in a 2002 newspaper column that today's marijuana has "potency levels 10 to 20 times stronger" than years ago<sup>1</sup>, but experts consider such claims absurd. Even ONDCP—in a newspaper ad released in April 2005—has retreated sharply, claiming that today's marijuana is on average only twice as strong as that of decades past.<sup>2</sup>

## **I've heard that marijuana back in the 1960s and 1970s had less than 1% THC, and that now the THC content can be 20% or even higher.**

The 1% figure is considered inaccurate by experts. It comes from tests done on a small number of poorly stored samples in which the THC (the component that produces a "high") had almost certainly degraded before testing. Additionally, scientists have established that marijuana with a THC content of under 1% is not psychoactive. It's unlikely that marijuana would have experienced the huge increase in popularity it had during the 1960s and '70s if most of the marijuana available during those years produced no effects.<sup>3</sup>

Estimates of the current average potency of U.S. marijuana range between about 4% and 7%.<sup>4,5,6</sup>

## **Even if potency has only doubled, isn't that a big increase? Some say it makes today's marijuana a completely different drug than what baby boomers smoked years ago.**

One way to put this in perspective is to compare marijuana potency with the potency of alcoholic beverages. Beer made in the U.S. typically contains between 4% and 5% alcohol, while wine is commonly 13% to 15% alcohol—but no one would seriously claim that wine's higher potency makes it "a completely different drug." In fact, American marijuana is still considered weak by most of the world: A 2004 European Union report described U.S. marijuana potency as "low by European standards."<sup>7</sup> The minimum potency standard set by the government of the Netherlands for marijuana sold in pharmacies for medical use is 15% THC.<sup>8</sup>

## **Still, the idea that even some marijuana could have 20% THC or more seems scary.**

Concentrated forms of marijuana such as hashish or hash oil have had that level of potency for decades. For example, in 1983, U.S. government-funded researchers

reported an average THC content of 21.36% in hash oil samples seized by law enforcement.<sup>9</sup> Nevertheless, such high-potency marijuana remains rare: According to the Drug Enforcement Administration, of 4,609 samples of domestic marijuana tested from 1998 to 2002, only 8% (379) had over 15% THC, and only 1% (69) had over 20% THC.<sup>6</sup>

## **Is marijuana with a higher THC level more dangerous or addictive?**

No. THC is essentially nontoxic, and no research has demonstrated greater risks of addiction or health problems from higher THC levels.<sup>10</sup> As an Australian government report noted, much of the research showing marijuana to have minimal health risks has been done on users consuming very high amounts of THC.<sup>11</sup>

## **Could higher-THC marijuana actually be a good thing?**

Probably. Users of higher potency marijuana take smaller inhalations and hold the smoke in their lungs for a shorter time, resulting in much-reduced intake of tars contained in smoke.<sup>12</sup> This could reduce the risk of bronchitis and other respiratory problems associated with smoking. ■

1. Walters, J., "The Myth of 'Harmless' Marijuana," *The Washington Post*, May 1, 2002.

2. White House Office of National Drug Control Policy, "Face," newspaper ad released April 12, 2005.

3. Earleywine, M. "Understanding Marijuana," Oxford University Press, 2002, pp. 127-130.

4. Earleywine, p. 129.

5. White House Office of National Drug Control Policy, "Background: Marijuana Potency," Oct. 25, 2004.

6. Drug Enforcement Administration, "Drugs of Abuse," 2005 edition.

7. European Monitoring Centre for Drugs and Drug Addiction, "EMCDDA Insights: An overview of Cannabis Potency in Europe," p. 53.

8. Deutsch, A., "Medical Marijuana Sold in the Netherlands," Associated Press, Sept. 1, 2003.

9. ElSohly, M. et al., "Potency Trends of Delta-9-THC and Other Cannabinoids in Confiscated Marijuana from 1980-1997," *Journal of Forensic Sciences*, 2000; 45(1), pp. 24-30.

10. Earleywine, pp. 129-130.

11. Hall, W., Degenhardt, L. and Lynskey, M., "The Health and Psychological Effects of Cannabis Use," Monograph Series No. 25, National Drug Strategy, Commonwealth of Australia, 2001.

12. Mattias, P. et al., "Effects of Varying Marijuana Potency on Deposition of Tar and Delta-9 THC in the Lung During Smoking," *Pharmacology, Biochemistry and Behavior*; 997: 58(4) pp.1145-1150.

