safety first

Educate Yourself

FACTS about DRUGS: PSILOCYBIN *("Magic Mushrooms")*

WHAT IS IT?

Psilocybin is a naturally occurring hallucinogen found in over one hundred species of mushrooms growing throughout the world. Many of these species also grow in parts of the United States, particularly in the Deep South and the Pacific Northwest. Psilocybin mushrooms have a long history of ritualistic use by the native populations of Mesoamerica; the Aztecs called them teonanacatl ("flesh of the gods"). Contemporary users of mushrooms containing psilocybin will experience LSD-like effects, although of considerably shorter duration.

SLANG

Magic mushrooms, shrooms, mushies, cubes (for psilocybe cubensis), liberty caps (for psilocybe semilanceata).

AVAILABILITY & USE

The number of mushroom species growing wild in the United States and found to contain psilocybin continues to increase. In the Pacific Northwest alone, over a dozen species of such mushrooms have been identified with many sought by psychedelic foragers since the late 1970s (Beck & Gordon 1982). There are also several species (particularly psilocybe cubensis), which can be cultivated with relatively simple and inexpensive techniques. In fact, throughout most of the country (including California), cultivation has continued to be the predominant source of supply for "magic mushrooms" (Erowid 2004).

Psilocybin mushrooms are almost always ingested orally in either fresh or dried forms and sometimes brewed as a tea to make them more palatable. Different species have markedly different potencies and considerable variation can occur between mushrooms from the same species collected at different sites (Stamets 1996). Typical doses range from 1 to 5 grams of dry mushrooms depending on both the particular species and individual strength of the specimens. Dosages for wet mushrooms tend to be approximately ten times higher – 10 to 50 grams. Prices vary widely across the country

THE RISKS

The risk of death from psilocybin overdose is virtually nonexistent – there remains no conclusive evidence of any fatalities despite ingestion (often accidental) of dosages greatly exceeding the effective amount. No apparent physiological damage from the use of psilocybin has been observed from the limited research conducted to date (Grinspoon and Bakalar 1997; Stamets 1916).

Of particular concern for mushroom foragers however, is the risk of poisoning resulting from misidentification. It is estimated that toxic mushroom species outnumber those containing psilocybin by at least ten to one. Many mushroom hunters do not realize that there are some extremely poisonous species, which superficially resemble particular mushrooms containing psilocybin (Stamets 1996).

As with LSD, the actual risks posed by psilocybin are predominantly psychological in nature. Acute negative experiences ("bad trips") are certainly the most significant concerns associated with psilocybin use. Bad trips are much more likely to occur among first-time users, particularly when large dosages are ingested in inappropriate settings. Unpleasant or frightening experiences are more likely if the user is already anxious (about what will happen, for example) or depressed. Such an individual may become panicky and suffer paranoia – particularly in unfamiliar, intense, or chaotic environments (Strassman 1984).

Reviews of the clinical literature suggest that chronic problematic effects, when they do occur,

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AVAILABILITY & USE (cont.)

depending upon a number of factors such as supply and demand and relative potency, but typically range from $100 to $250 per ounce of dry mushrooms (Erowid 2004).

RATES OF USE

It is difficult to gauge the extent of psilocybin use in the United States because surveys and other data sources rarely ask questions specific to its use. However, one exception is the 2002 National Survey on Drug Use and Health (NSDUH), which asked its representative sample of over 68,000 Americans about their lifetime use of psilocybin. Overall, 8% of Americans aged 12 and over (2% of youth ages 12 to 17 and 13% of those aged 18 to 25) had reportedly tried psilocybin (Wright 2004).

THE HIGH

As with LSD, the psilocybin or "magic mushroom" experience is often unpredictable and varies greatly depending on dose level, how the user feels ("set"), and the situation or environment ("setting"). The effects typically begin within 30 to 90 minutes following ingestion and last for 4 to 6 hours. The physical effects produced by psilocybin are surprisingly minimal given the intensity of the psychological experience.

Users often experience visual effects such as intensified colors, distorted shapes and sizes, and movement in stationary objects. Distortion of sound and changes in the sense of time and place are also common. Sensory perceptions sometimes blend in a phenomenon known as synesthesia, in which an individual seems to hear or feel colors and see sounds.

Emotional reactions while under the influence of psilocybin can run the gamut from very positive to very negative - even within the same experience. Some individuals believe they become more aware of themselves and others and describe the mushroom high as a visionquest, religious, or spiritual experience that gives them increased insight. Many users believe psilocybin helps them connect with nature in profound ways. Feelings of being separated from the body can also occur at high doses (Grinspoon and Bakalar 1997; Stamets 1996).

SIGNS OF USE

The relatively mild physical effects typically observed include dilated pupils, yawning, and sweating. Some also experience loss of appetite, sleeplessness, dry mouth, and tremors. Individuals may display a wide range of emotional reactions within the same psilocybin experience. Difficulties in communicating and interacting with others may also occur particularly with higher doses.

THE RISKS (cont.)

are most often linked to psychological instability present prior to psilocybin use. Comprehensive reviews of psilocybin used in research settings during the 1950s and 1960s have consistently found extremely low incidences of acute and chronic problems among individuals lacking pre-existing severe psychopathology (Strassman 1984).

The phenomenon of "flashbacks" following the use of psychedelic drugs such as LSD and psilocybin continues to evoke considerable anxiety. Although the incidence and perceived danger of flashbacks has often been overstated, particular concern has focused on the development of "hallucinogen persisting perception disorder" (HPPD) in some users. This condition appears to be a real but very rare occurrence among psychedelic users. HPPD has received only limited study to date, and it's claimed association with psychedelic use is confounded by polydrug use as well as other variables (Grinspoon and Bakalar 1997; Myers, Watkins, and Carter 1998).

Finally, both psilocybin and psilocin are illegal substances with conviction for possession and/or sale resulting in potentially severe criminal penalties.

Short of abstinence, reducing risk requires the user to know with confidence the species and potency of the mushrooms in their possession. Accurate identification often depends upon mycological expertise and/or chemical analysis. To avoid an overwhelming experience, caution must be exercised in accurately gauging the desired dose and avoiding the concomitant use of other drugs. Finally, those under the influence of psilocybin must avoid driving, operating machinery, or engaging in other hazardous activities requiring good reflexes, coordination, and attention.

RECOMMENDED READING

Stamets, Paul, *Psilocybin Mushrooms of the World*, Berkeley, CA: Ten Speed Press, 1996.

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ABOUT SAFETY FIRST

Safety First, a project of the Drug Policy Alliance, is dedicated to providing parents of adolescents with honest, science-based information about drugs and drug education. For more information, visit www.safety1st.org.

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