American Drug Testing

Drug-Free Workplace Programs

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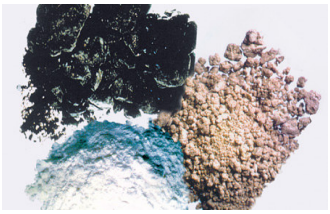
DRUG-FREE WORKPLACE ADVISOR

AN ONGOING SERIES TO PROTECT YOUR COMPANY BY HELPING TO KEEP DRUGS OUT OF YOUR WORKPLACE.

What is Heroin?

Heroin is an illegal, highly addictive drug. It is both the most abused and the most rapidly acting of the opiates. Heroin is processed from morphine, a naturally occurring substance extracted from the seed pod of certain varieties of poppy plants. It is typically sold as a white or brownish powder or as the black sticky substance known on the streets as "black tar heroin." Although purer heroin is becoming more common, most street heroin is "cut" with other drugs or with substances such as sugar, starch, powdered milk, or quinine. Because heroin abusers do not know the actual strength



of the drug or its true contents, they are at risk of overdose or death. Heroin also poses special problems because of the transmission of HIV and other diseases that can occur from sharing needles or other injection equipment.

The Drug-Free Workplace Advisor is a resource of American Drug Testing, the Lowcountry's premier drug-free workplace administrator, and testing company. Let us help you maintain a drug-free workplace. Contact us at (843)747-4111.

Robert B. Dodenhoff
President

Chronic Pot Use Slows Blood to Brain

Chronic pot use appears to reduce blood flow to the brain weeks after a person's last joint, according to a new study involving marijuana users.

A second study, this time with rats, suggests that drug withdrawal symptoms may return if addicts visit locales where they went 'cold turkey' in the past.

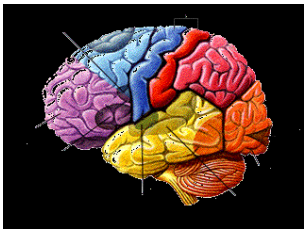
The findings are preliminary, but scientists said both studies may lead to a better understanding of drug addiction and recovery. The withdrawal research, which relied on rats, is especially promising because it's problematic to study withdrawal in human addicts, said Michael J. Kuhar, a professor of pharmacology at Emory University. "It's a very interesting step forward."

In the marijuana study, scientists had 54 chronic pot users live in their research facility for a month. The participants declined to undergo rehabilitation but agreed to abstain from marijuana use for the entire period and were regularly tested for drug use, said study co-author Dr. Jean Cadet, chief of the National Institute on Drug Abuse's Molecular Neuropsychiatry Research Branch.

Using a test designed to detect constricted blood vessels in patients who have had minor strokes, scientists scanned the brains of the participants at the beginning and end of their confinement. They also looked at 18 people who didn't use marijuana.

According to the researchers, cerebral blood flow was slower in the marijuana users than in the control group, and the researchers found indications that pot users' vessels had narrowed, limiting blood flow. These changes mirror those found in people with diabetes and chronic high blood pressure, they said.

Light and moderate marijuana users -- those who smoked two to 70 joints a week -- showed improvement after a month. However, the blood vessels of the heavy users, who smoked from 78 to a whopping 350 joints a week, remained narrowed.



The researchers report their findings in the Feb. 8 issue of *Neurology*.

Previous research has suggested the blood vessels of chronic cocaine users undergo similar changes.

Will the blood vessels of heavy users remain constricted permanently? "At this time, we don't know how long it lasts," Cadet said. "It would be important to look at the effects of marijuana at six months or a year after someone's been abstinent from marijuana."

As for the effects of the changes, Cadet said lack of full blood flow to the brain could affect mental skills such as memory and the ability to make decisions.

In the second study, French researchers had morphine-addicted rats enter a maze after being injected with a drug that induced symptoms of morphine withdrawal.

Writing in the Feb. 9 issue of *The Journal of Neuroscience*, researchers at the Universite Victor Segalen Bordeaux 2 say subsequent re-exposure to the maze seemed to set off neural circuits in the brain connected with symptoms of withdrawal. In other words, it was as if the mice re-visiting the maze caused the rodents to relive symptoms in some way.

"This has a practical importance when you help an addict stop using drugs," said Kuhar. "You can put someone in treatment and they'll have no drug craving, but when they go back to their neighborhoods, see their friends, see the drug paraphernalia, see the crackhouse, those cravings start again and facilitate relapse." Source: Health Day