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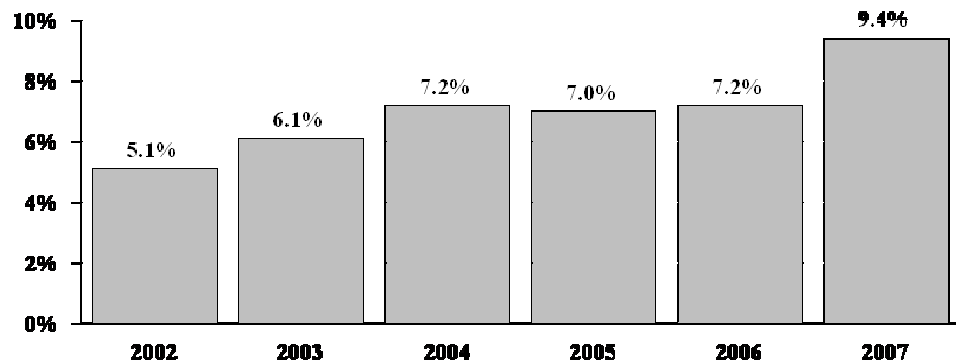
SNARE the Drug Impaired

**THE OFFICIAL NEWSLETTER OF THE MINNESOTA DRE
DECEMBER 2009**

ILLICIT DRUG USE INCREASES AMONG ADULTS AGE 50 TO 59 TREND DRIVEN BY AGING BABY BOOM GENERATION

Illicit drug use among older adults has increased in recent years, according to data from the National Survey on Drug Use and Health (NSDUH). The percentage of adults ages 50 to 59 who reported using at least one illicit drug* in the past year—primarily marijuana and nonmedical use of prescription drugs—increased from 5.1% in 2002 to 9.4% in 2007 (the most recent year for which data are available). Additional analyses show that this trend was driven by the aging of the baby boom generation—those born between 1946 and 1964. This cohort has a much higher lifetime illicit drug use rate than earlier cohorts and represents an increasing proportion of persons ages 50 to 59. The rate of illicit drug use among this age group, however, remains lower than that of other age groups. For example, 33% of adults ages 18 to 25 and 19% of youths ages 12 to 17 reported past year illicit drug use in 2007. Noting that the future treatment needs of this population has become a growing public health concern, the authors stress the importance of developing effective primary care screening and intervention strategies and expanding substance abuse treatment programs to address the growing needs of this population.

Percentage of Adults (50-59) Reporting Past Year Illicit Drug Use, 2002-2007



*Illicit drug use: Any use of marijuana, cocaine, heroin, hallucinogens, inhalants, or nonmedical use of pain relievers, tranquilizers, stimulants, or sedatives.

ALCOHOL-INDUCED BLACKOUT

For a long time, alcohol was thought to exert a general depressant effect on the central nervous system (CNS). However, currently the consensus is that specific regions of the brain are selectively vulnerable to the acute effects of alcohol. An alcohol-induced blackout is the classic example; the subject is temporarily unable to form new long-term memories while relatively maintaining other skills such as talking or even driving. A recent study showed that alcohol can cause retrograde memory impairment, that is, blackouts due to retrieval impairments as well as those due to deficits in encoding. Alcoholic blackouts may be complete (en bloc) or partial (fragmentary) depending on severity of memory impairment. In fragmentary blackouts, cueing often aids recall. Memory impairment during acute intoxication involves dysfunction of episodic memory, a type of memory encoded with spatial and social context. Recent studies have shown that there are multiple memory systems supported by discrete brain regions, and the acute effects of alcohol on learning and memory may result from alteration of the hippocampus and related structures on a cellular level. A rapid increase in blood alcohol concentration (BAC) is most consistently associated with the likelihood of a blackout. However, not all subjects experience blackouts, implying that genetic factors play a role in determining CNS vulnerability to the effects of alcohol. This factor may predispose an individual to alcoholism, as altered memory function during intoxication may affect an individual's alcohol expectancy; one may perceive positive aspects of intoxication while unintentionally ignoring the negative aspects. Extensive research on memory and learning as well as findings related to the acute effects of alcohol on the brain may elucidate the mechanisms and impact associated with the alcohol-induced blackout.

Source: International Journal of Environmental Research and Public Health

AMA RESOLUTION CALLS FOR REVIEW OF FEDERAL DRUG SCHEDULE FOR MARIJUANA

The American Medical Association (AMA) has adopted a resolution asking that marijuana's federal Schedule I classification be reconsidered. The two sentence statement is as follows: "*Our American Medical Association urges that marijuana's status as a federal Schedule I controlled substance be reviewed with the goal of facilitating the conduct of clinical research and development of cannabinoid-based medicines. This should not be viewed as an endorsement of state-based medical cannabis programs, the legalization of marijuana, or that scientific evidence on the therapeutic use of cannabis meets the current standards for a prescription drug product.*"

Under the Controlled Substances Act (CSA), which is administered by the Drug Enforcement Administration (DEA), marijuana is classified as a Schedule I drug, the most restrictive classification. The White House Office of National Drug Control Policy (ONDCP) and the DEA support the classification because marijuana meets the three criteria for placement in Schedule I under 21 U.S.C. 812(b) (1) (e.g., marijuana has a high potential for abuse, has no currently accepted medical use in treatment in the United States, and has a lack of accepted safety for use under medical supervision).

According to the National Institute on Drug Abuse (NIDA), there are studies showing serious health concerns surrounding smoked marijuana. NIDA Director Dr. Nora Volkow states, "The use of marijuana can produce adverse physical, mental, emotional, and behavioral changes, and - contrary to popular belief - it can be addictive". The regular use of marijuana may play a role in cancer and problems of the immune and respiratory systems. ONDCP Director Gil Kerlikowske has called the legalization of marijuana a "non-starter" for the Obama Administration.

DID YOU KNOW.....

Thirty years ago drug use by Americans reached its all time high. With relaxed attitudes regarding the harmfulness of marijuana, cocaine, and other illegal substances, young people recklessly experimented with these drugs and others substances. According to the 1979 National Survey on Drug Abuse, more than 2/3 of young adults age 18-25 reported experience with an illicit drug. In 2008, less than half—47% of Americans 12 or older—reported using illicit drugs in their lifetime.

NATIONWIDE HEALTH ALERT: LIFE-THREATENING RISK POSED BY COCAINE LACED WITH VETERINARY ANTI-PARASITE DRUG

The Substance Abuse and Mental Health Services Administration (SAMHSA) is alerting medical professionals, substance abuse treatment centers and other public health authorities about the risk that substantial levels of cocaine may be adulterated with levamisole – a veterinary anti-parasitic drug. There have been approximately 20 confirmed or probable cases of agranulocytosis (a serious, sometimes fatal blood disorder), including two deaths, associated with cocaine adulterated with levamisole. The number of reported cases is expected to increase as information about cocaine adulterated with levamisole is disseminated. “SAMHSA and other public health authorities are working together to inform everyone of this serious potential public health risk and what measures are being taken to address it,” said SAMHSA Acting Administrator Eric Broderick, D.D.S., MPH.

Levamisole is used in veterinary medicine and is currently approved for use in cattle, sheep and swine as an anti-parasitic agent. Although it was once used in human medicine in the past for treating autoimmune diseases and cancer, it is no longer an approved drug for human use. Ingesting cocaine mixed with levamisole can seriously reduce a person's white blood cells, suppressing immune function and the body's ability to fight off even minor infections. People who snort, smoke, or inject crack or powder cocaine contaminated by levamisole can experience overwhelming, rapidly-developing, life threatening infections. Other serious side effects can also occur.

According to the Drug Enforcement Administration and State testing laboratories, the percentage of cocaine specimens containing levamisole has increased steadily since 2002, with levamisole now found in over 70% of the illicit cocaine analyzed in July. In addition, a recent analysis in Seattle, Washington found that almost 80% of the individuals who test positive for cocaine also test positive for levamisole.

According to the SAMHSA alert substance abuse treatment providers, clinicians, outreach workers, and individuals who abuse cocaine need to be aware of the following:

“A dangerous substance, levamisole, is showing up with increasing frequency in illicit cocaine powder and crack cocaine. Levamisole can severely reduce the number of white blood cells, a problem called agranulocytosis.

This is a very serious illness that needs to be treated at a hospital. If you use cocaine, watch out for: high fever, chills, or weakness; swollen glands; painful sores (mouth, anal), any infection that won't go away or gets worse very fast, including sore throat or mouth sores -skin infections, abscesses -thrush (white coating of the mouth, tongue, or throat) -pneumonia (fever, cough, shortness of breath).”

SAMHSA is working with the U.S. Centers for Disease Control and Prevention (CDC), the Drug Enforcement Administration, the Food and Drug Administration, the Office of National Drug Control Policy, and other federal and international organizations, as well as state agencies to monitor the levamisole issue. CDC will be publishing a case report analysis in the Morbidity and Mortality Weekly Report (MMWR) and will be working with state health departments to systematically collect information on cocaine-associated agranulocytosis cases. Information from this effort will be used to guide treatment and prevention initiatives to address this public health concern. Individuals are encouraged to report suspected and confirmed cases of agranulocytosis that are associated with cocaine abuse to their respective state health departments.

EFFECTS OF LONG TERM KETAMINE USE

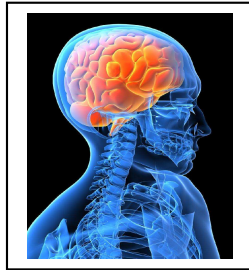
Frequent, long-term use of the club drug ketamine appears to cause significant impairment in short-term and visual memory, according to researchers from University College London.

Reuters reported that researchers tracked 150 users of ketamine, a.k.a. "Special K", for more than a year. They found that while occasional users of ketamine seemed to suffer few ill effects, frequent users of the anesthetic drug experienced problems with memory and concentration as well as a decline in psychological well-being. Short-term and visual memory problems worsened over time, study author Celia J. A. Morgan and colleagues found.

"Despite the dramatic increase in ketamine use over the past decade, young people who use this drug are still largely unaware of its damaging health properties and its potential for dependency," the study said. "Health education campaigns should target ketamine users to ensure that people are informed of the negative consequences of heavy ketamine use." The findings were published in the journal *Addiction*.

IS "BRAIN VIAGRA" A POTENTIAL DRUG OF ABUSE?

Provigil (modafanil) is a prescription drug that tops the list of a new class of medications called "wake promoting" drugs. Originally approved by the FDA in 1998, Provigil was designed and intended to treat narcolepsy, excessive sleepiness associated with a handful of central nervous system disorders and fatigue associated with shift work. Provigil acts on the areas in the brain associated with neurochemical processes of the sleep/wake mechanism it does this by affecting the reuptake of dopamine and norepinephrine. Modafanil accomplishes this without producing a feeling of euphoria or central stimulation. Central nervous system stimulant drugs like methamphetamine and Ritalin work in a manner very different than Provigil; these drugs are extremely potent substances that can bring about powerful emotions of excitement and personal power. Unlike the central nervous stimulants, Provigil's potential for abuse is believed to be relatively low and is therefore controlled under the Federal Controlled Substance Act Schedule IV. To obtain Provigil, a patient must have a prescription from a physician.



These days, like many other prescription drugs, Provigil is utilized in "off-label" sort of applications, used to treat a condition(s) other than what it was approved for. Provigil is one of several prescription drugs that are used in "off-label" fashion to treat cocaine and methamphetamine addiction. In cases of recovery from cocaine addiction, Provigil seems to reduce cravings and contributes towards the reduction of relapse.

More importantly is the fact that Provigil works in the

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NEW RESEARCH ON MEDICAL USES OF LSD

LSD got its start in a psychiatric research lab, and decades after its heyday as a hallucinogenic party drug of the 1960s it is now being studied once again for possible medical applications, the *San Francisco Chronicle* reported.

Researchers at the University of California at San Francisco (UCSF) are investigating a variety of possible uses for LSD, such as psychiatric applications or to treat chronic headaches. "Psychedelics are in labs all over the world and there's a lot of promise," said Rick Doblin of the Multidisciplinary Association for Psychedelic Studies in Santa Cruz. "The situation with LSD is that because it was the quintessential symbol of the '60s, it was the last to enter the lab."

The fact that researchers like Timothy Leary were among the proponents of recreational use of the drug helped keep LSD blacklisted on many research campuses. "That put a lot of researchers off, and it made it very hard for researchers to justify getting back into the field. And there were no pressing health needs, no pressing treatments other than curiosity", said UCSF researcher John Mendelson.

The studies on LSD began about a year ago; the UCSF researchers are looking at how the drug affects the brain. The school began researching other hallucinogens, like ecstasy, about a decade ago. UCSF and Harvard University are currently the only schools in the U.S. to be running human studies on LSD

'PACO' EMERGES AS DEVASTATING DRUG PROBLEM

"Paco," a cheap mixture of cocaine residue mixed with industrial solvents, kerosene or even rat poison, has become a major drug of abuse in the slums of Buenos Aires, Argentina, the *New York Times* reported.

In shantytowns like Ciudad Oculta, paco has become "the scourge of the poor", providing a quick but intense high but also leading to addiction, brain damage and rapid weight loss. Some users get clean in treatment, only to return to using paco when they come home to the same crushing poverty they left a year or two earlier.

Paco has been around since about 2003, a byproduct of the processing of cocaine coming in from Peru and Bolivia. A hit costs as little as \$1.30. The marketplace is not dominated by big-time drug dealers but rather by poor women who mix up the drug in their kitchens at home. Paco contains only about 10 percent cocaine.

Source: *Join Together Online* www.jointogether.org

"BRAIN VIAGRA" (continued)

prefrontal cortex area of the brain to strengthen the brain's decision-making apparatus, a process that can be substantially degraded for people recovering from methamphetamine or cocaine addiction.

Provigil may not be troublesome as a drug of abuse, but it does beg some questions for those who are concerned about chemical purity in sport and other competitions. Could a psycho-stimulant drug like Provigil enhance athletic or academic performance by making the brain's cognitive processes move faster and more efficiently? Called "Viagra for the brain" in some quarters, will Provigil use elevate a competitor's game? Is someone somehow cheating if he/she takes Provigil before an academic competition such as an LSAT or MCAT exam? How about Provigil in the workplace? Is it wrong for someone who is sleep deprived to obtain a prescription for Provigil in order to stay awake at work? One of the applications for Provigil is as a wakefulness aid for shift working emergency personnel. There is a vested public interest in having alert and responsive police and fire fighters at 4:00 in the morning; we can all agree that early morning shifts are tough on the body and on the brain. There are over the counter drugs currently available to help with wakefulness, No-Doz and caffeine preparations have been around for decades. Modern energy drinks like Red Bull are capable of causing stimulation and hyperactivity in the consumer that goes beyond the limits of Provigil. Nevertheless, Provigil has more CNS system potency than caffeine. Provigil is a medication where it can be sometimes difficult to draw the line between what is appropriate use of a performance-enhancing drug and what isn't? These sorts of questions do not begin or end with Provigil. There will probably be other drugs like Provigil that will come to market and be made available by prescription. Is there really any downside to enhancing the capacity and performance of a person's executive function? Not if it's your executive functioning right?

For further information about Provigil contact MEDTOX

WHY YOU COULD BE DRINKING HEALTHY ALCOHOL IN 3 YEARS

A substance said to give the feeling of booze without the health risks is being developed by controversial ex Government drugs tsar Professor David Nutt. The solution is added to liquid. It is claimed anyone using it will get the alcohol high without the hangover or deadly liver damage. There is even an antidote which would allow a user to drive home after taking it. Here, the scientist - recently sacked as chairman of the independent Advisory Council on the Misuse of Drugs after saying ecstasy is safer than alcohol - gives the reason for the innovation:

“We have been poisoning ourselves for 2,000 years. Modern science can now provide a safer way for us to have fun. I am working on a prototype of a synthetic alcohol. We can make someone feel pleasantly inebriated then reverse it. We have a partial alternative tested on volunteers. With Government backing, the first ever synthetic alcohol could be available in three to five years.

The potential for this is enormous. It could slash Britain's binge drinking epidemic, which currently costs the NHS £3billion a year, and reduce the number of deaths from alcohol poisoning. At the moment it is very hard to treat alcohol poisoning - medics simply have to wait for booze to clear the system. With the new approach, they would have an antidote available immediately.

Law enforcement could even have the antidote to use on revelers who have used the solution. We could get rid of liver cirrhosis, stomach ulcers, cardiac problems and a huge number of the toxic effects. We have worked out how alcohol affects the brain and can target these areas. We gave one volunteer a substance similar to Valium, which is a sedative. The feeling was similar to being drunk. We then reversed this. We have the knowledge to make a far superior synthetic alcohol. But this project is hard to progress. Firstly, there is little external interest, perhaps because people think this idea is too radical.

Secondly, selling the substance would be difficult. It would be classified as a drug and would fall foul of drug laws. This is why we need Government support. Alcohol manufacturers may also protest. At the moment we don't have a sensible approach to alcohol - it's time for a discussion about safe alternatives. You are never going to stop people enjoying a drink. But if they are going to drink, let them do it without the terrible risks of alcohol. I believe in 25 years we could be drinking high-quality, safe alcohol.”

Source: The Sun www.thesun.co.uk

DOPAMINE SYSTEM TARGETED BY RESEARCHERS

Researchers seeking treatments for conditions ranging from addiction and obesity to Parkinson's disease are focusing on medications that affect the dopamine system, the pleasure center of the brain, McClatchy Newspapers reported. "We are looking at the potential for new medications that reduce the brain's sensitivity to these conditioned drug cues and would give patients a fighting chance to manage their urges," said researcher Anna Childress of the University of Pennsylvania School of Medicine. "We have a brain hard-wired to appreciate rewards, and cocaine and other drugs of abuse latch onto this system."

Jay Giedd of the National Institute of Mental Health explained, "If we make good decisions, our dopamine goes up. It tells our brain, you know, good call, that was the right move, you know, do that again next time, and it literally changes the anatomy of the brain. It strengthens certain connections. It decreases others."

The National Institute on Drug Abuse recently announced findings from research into a cocaine vaccine that prevents the drug from entering the brain and overloading the dopamine system. NIDA also has funded research into a nicotine vaccine.

CONNECTICUT ASSOCIATION OF OPTOMETRISTS ENDORSES THE DRE PROGRAM

Resolution Endorsing the Drug Recognition Expert Program

WHEREAS, the Board of Directors of the Connecticut Association of Optometrists, Inc. believes that the Drug Recognition Expert Program (hereinafter "DRE program") provides an efficient screening for drug/ substance and or alcohol influence and impairment; and

WHEREAS, the DRE program examinations are based upon theories, tests and procedures accepted by the healthcare community; and

WHEREAS, the DRE program, in providing a method for screening for drug/substance and or alcohol impaired drivers, provides improved public safety and public health.

NOW THEREFORE BE IT RESOLVED, that the Board of Directors of the Connecticut Association of Optometrists, Inc. hereby endorses the DRE program, and encourages doctors of optometry to familiarize themselves with Horizontal Gaze Nystagmus and the DRE program in order to become a greater asset to their community.

DEA FAST FACT.....

On average, marijuana today is far more intoxicating than 30 years ago. THC (delta-9-tetrahydrocannabinol) is responsible for the psychoactive effects of marijuana. According to the Drug Abuse Quarterly Potency Monitoring Project Report, THC levels in analyzed illicit cannabis samples have grown from 1.37% in 1978 to 8.49% in 2008, an increase of more than 500%.

PRESCRIPTION DRUG ABUSE DOWN BUT LSD, ECSTASY USE UP

While there was a decline in the current use of prescription drug abuse among 12 to 17 year olds, there were increases in the rates of past year use of Ecstasy and LSD, according to the National Survey on Drug Use and Health (NSDUH). The survey was released today by the Substance Abuse and Mental Health Services Administration (SAMHSA) at a news conference in Washington, D.C.

Among youth aged 12 to 17, the survey shows a decline in overall past month illicit drug use from 9.5% in 2007 to 9.3% in 2008. Additionally, the number of teens who reported past-month use of prescription-type psychotherapeutic drugs decreased significantly during this time frame, from 3.3% in 2007 to 2.9% in 2008. Other drugs that also dropped in use were methamphetamine and cocaine.

Source: Community Anti-drug Coalitions of America