

Recovery Pointe

July 2009
Volume 1, Issue 2

Special points of interest:

- Methamphetamine abuse may result in a long-term neurochemical compromise that may give rise to problems in choosing between healthy and unhealthy behaviors.
- Damage to the anterior cingulate cortex by methamphetamine may heighten relapse vulnerability.
- Abuse Alert: Salvia divinorum a rediscovered hallucinogen.

INSIGHTS: on substance abuse is a monthly newsletter providing brief information on current issues in substance abuse treatment and research.

If you have specific questions regarding substance abuse please contact Recovery Pointe for more information.

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State Certified
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INSIGHTS: on substance abuse™

Methamphetamine Abusers Show Increased Distractibility

Long-term abuse of the drug methamphetamine appears to induce lasting impairment in brain cells whose functioning underpins the ability to focus and screen out distractions.

In a recent study, brain images of former methamphetamine abusers showed evidence of impairment in the anterior cingulate cortex (ACC), an area of the brain that is known to influence cognition, emotion, behavior regulation and decision making.

Although abstinent at the time of the study, 69% of the participants had a prior history of methamphetamine abuse, reporting in average of 12 years during which it had been their primary drug. The remaining participants had not abused illegal drugs or

alcohol during the previous 5 years and had never experienced dependence on methamphetamine.

When the researchers examined the Proton magnetic resonance spectroscopy scans of the ACC they observed a pattern that suggests neural injury in the former methamphetamine abusers.

Study participants were also administered a psychological test measuring the ability to stay on task, screen out distractions, focus on information that matters, and make choices in the face of conflicting inclinations. Test results showed the former methamphetamine abusers received lower scores, than the participants who had never abused the drug. The findings suggest metham-



Reduced ability to choose between conflicting stimuli corresponds to neural damage

phetamine abuse damages the anterior cingulate cortex in a way that impacts the ability to choose between healthy and unhealthy behaviors. One consequence might be to heighten former abusers' vulnerability to relapse.

SOURCES: Salo, R., et al. Attentional control and brain metabolite levels in methamphetamine abusers. *Biological Psychiatry* 61 (11):1272-1280, 2007.

Effective Treatment Is Not Widely Available

Less than 10 percent of adults and about 20 percent of adolescents with substance abuse problems in the Nation's jails, prisons, and probation programs can receive treatment on a given day, according to the National Criminal Justice Treatment Practices Survey (NCJTPS). Although 65 percent of adult facilities report that they offer substance abuse treatment, the number of people who can participate in these programs is often severely limited.

These findings further

reveal the scope of the problem highlighted by previous research indicating that the most frequently provided services for adults and adolescents — substance abuse education and low-intensity group therapy (less than 4 hours a week) — are not likely to help offenders change their behavior. The survey also disclosed that only 40 percent of adult facilities and 29 percent of juvenile facilities reported having full-time personnel to provide drug abuse therapy.

As many as half of the

individuals serving sentences in the Nation's jails and prisons have drug problems. The transition from detention or incarceration is a period of high risk for relapse to drug use, acquisition and transmission of infectious diseases, and drug-related recidivism

For more information, see the *Journal of Substance Abuse* 32 (3), April 2007;

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INSIGHTS: on substance abuse

Substance Alert: Salvia (Salvia divinorum)

**Alcohol/Drug
Information School
(English Session)
July 11th**

**Alcohol/Drug
Information School
(Spanish Session)
July 25th**

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Salvia (Salvia divinorum) is an herb common to southern Mexico and Central and South America.

Traditionally, Salvia divinorum has been ingested by chewing fresh leaves or by drinking their extracted juices. The dried leaves can also be smoked as a joint, consumed in water pipes, or vaporized and inhaled.

Although Salvia currently is not a drug regulated by the Controlled Substances Act, several States and countries have passed legislation to regulate its use. The Drug Enforcement Agency has listed Salvia as a drug of

concern and is considering classifying it as a Schedule I drug, like LSD or marijuana.

People who abuse Salvia generally experience hallucinations or delusional episodes that mimic psychosis. Subjective effects have been described as intense but short-lived; they appear in less than 1 minute and last less than 30 minutes. Effects include psychedelic like changes in visual perception, mood, and body sensations; emotional swings; feelings of detachment; and importantly, a highly modified perception of external reality and the self, which leads to a decreased



ability to interact with one's surroundings. This last effect has prompted concern about the dangers of driving under the influence of salvinorin.