

## Teen Meth Abuse May Lead to Long-term Brain Disorders

Source: AFP and Yahoo News

Young adults who use methamphetamine could be more prone to age-related brain diseases long after they stop using the drug, according to new animal research published Tuesday.

Scientists were working on the previous hypothesis that early meth abuse can cause the same symptoms as those experienced by Parkinson's disease patients who are missing a key protein, said the findings in the journal *Neuroscience*.

For the study, researchers gave two groups of young mice either methamphetamine or saline injections four times over an eight-hour period.

One group of mice was normal, the other had a partial depletion of glial derived neurotrophic factor (GDNF), a protein that protects and repairs dopamine, an important neurotransmitter, in areas of the brain related to motor control.

Loss of nerve cells that produce dopamine is a major contributor to Parkinson's disease.

The mice were 2.5 months old, or adolescents, at the start of the study. At 12 months old, the GDNF-depleted mice moved significantly less than the normal mice that got the same meth injections, according to the study.

Additionally, the immediate effects of the meth binge were exacerbated in the mice with the GDNF depletion.

"These studies speak directly to the possibility of long-term public health consequences resulting from the current epidemic of methamphetamine abuse among young adults," said Jacqueline McGinty, researcher at the Medical University of South Carolina, who led the study.

The study was funded by the US Army and National Institutes of Health.

Meth, also called speed, crystal or ice, is a highly addictive stimulant that increases wakefulness and suppresses appetite. It can be taken as a pill, smoked, snorted or injected. Long-term use can lead to hallucinations and stroke.

Nearly 12 million Americans have tried meth, according to a 2004 federal survey on drug use. Among teens, 6.2 percent of 17- and 18-year-olds in the United States said they have tried meth at least once.

## DOT's 10 Steps to Collection Site Security and Integrity Office of Drug and Alcohol Policy and Compliance

1. Pay careful attention to employees throughout the collection process.
2. Ensure that there is no unauthorized access into the collection areas and that undetected access (e.g., through a door not in view) is not possible.
3. Make sure that employees show proper picture ID.
4. Make sure employees empty pockets; remove outer garments (e.g., coveralls, jacket, coat, hat); leave briefcases, purses, and bags behind; and wash their hands.
5. Maintain personal control of the specimen and CCF at all times during the collection.
6. Secure any water sources or otherwise make them unavailable to employees (e.g., turn off water inlet, tape handles to prevent opening faucets, secure tank lids).
7. Ensure that the water in the toilet and tank (if applicable) has bluing (coloring) agent in it. Tape or otherwise secure shut any movable toilet tank top, or put bluing in the tank.
8. Ensure that no soap, disinfectants, cleaning agents, or other possible adulterants are present.
9. Inspect the site to ensure that no foreign or unauthorized substances are present.
10. Secure areas and items (e.g., ledges, trash receptacles, paper towel holders, under-sink areas, ceiling tiles) that appear suitable for concealing contaminants.

## Questions of the Month Drug and Alcohol Testing Industry Association

### Question:

Do student truck drivers have to be involved in drug testing (including a random pool) for the time at which they are in school?

### Answer:

Generally drivers are pre-employment tested early in the school course to weed out future problems. Because the students will drive CMVs on public highways and the driving is in furtherance of your commercial enterprise, a random testing program should be implemented covering the maximum number of student-driver positions that would be attending class at any time throughout the year. The 50% selections should be spread throughout the year. The pool of drivers would continue to change as classes' graduate and new classes are filled. The school is generally considered the employer. (Jim Keenan, DOT - FMCSA Drug & Alcohol Program Manager)

### Question:

If an employee requests his or her records from the MRO, do these records include the MRO's notes and comments or only copies of the CCF and laboratory result?

### Answer:

According to DOT's January, 2002 Q & A, "In general, the MRO should provide all records that are available to that employee, to include written notes, checklists, or comments. All of this information was obtained from the employee or from the appropriate individuals or organizations (with the employee's authorization) or from documentation provided by the employee. The records should remain consistent with the appropriate medical record constraints, the MRO may need to withhold or interpret sensitive medical, psychiatric, and mental health record information."