Ohio Early Warning Alert
for Safe and Drug Free Schools and Communities

National Inhalants and Poisons Awareness Week
March 21-27

Drug Abuse Advisory:

DEADLY COMBINATION!
Youth Taking Ritalin in conjunction with Correctional Fluid (White out)

Numerous national studies have found that inhalant use is widespread among teens. The nationwide Youth Risk Behavior Survey of 2001, the most recent available, found that 14.7 percent of students in high school had abused inhalants at least once. That study did not rank states, but the 1999 survey listed Ohio as having the fifth-highest percentage of inhalant abuse, at 17.1 percent. According to the Partnership for a Drug-Free America, the use of inhalants by eighth-graders rose in 2003 after a seven-year decline. Inhalants are the most commonly abused substances among 12- and 13-year-old children. In addition, in the past 5 years, lifetime use of inhalants has more than doubled among 12- to 17-year-olds, from 4.8 percent in 1998 to 10.5 percent in 2002, according to SAMHSA’s 2002 National Survey on Drug Use and Health. A recent PRIDE survey indicated that 7.9% of Ohio fourth graders had experimented with this form of substance abuse within the last year. A national survey by the University of Michigan found that approximately 15-20% of our 8th-12th graders across the country have experimented with inhalants.

Prevalence Estimates:

Percent of Students Reporting Inhalant Use, 2003

<table>
<thead>
<tr>
<th>Student Inhalant Use</th>
<th>Eighth Grade</th>
<th>Tenth Grade</th>
<th>Twelfth Grade</th>
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<tbody>
<tr>
<td>Past Month Use</td>
<td>4.1</td>
<td>2.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Past Year Use</td>
<td>8.7</td>
<td>5.4</td>
<td>3.9</td>
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Be aware of a drug trend involving youth combining Ritalin and certain Inhalants such as correction fluids or room odorizers to get high. The use and combination of these drugs and chemicals can be deadly.

“I would be primarily and most concerned about a potential fatal interaction whereas the Ritalin having "sympathomimetic" effect or adrenalin like effect could enhance the possibility of Sudden Sniffing Death in the individual huffing the correction fluid.” There is a risk of sudden death with every episode of inhalant use. It could happen on the first incident, or any one after. Sudden Sniffing Death Syndrome occurs when the inhaled substance sensitized the heart muscle to the body’s own “adrenaline” leading to a fatal heart rhythm disturbance, Earl Siegel, Pharm.D., Co-Director, Drug & Poison Information Center, Cincinnati Children's Hospital Medical Center.

Children as young as 4th graders who begin to use volatile chemical solvent are also at the age where many might start experimenting with drugs, usually alcohol and marijuana.

"Most parents aren't aware of the extent of the problem," said Dr. Marcel Casavant, medical director of the Central Ohio Poison Center. The center hears about 45 to 60 cases of huffing each year, although Casavant thinks most go unreported. About half of the cases involve teens; most are boys. The National Inhalant Prevention Coalition said it knows of about 125 inhalant deaths each year, many more deaths likely are undiagnosed and unreported. Deaths of mostly 10-16 year old children continue to occur throughout Ohio. Southwestern Ohio has documented over 30 such deaths in a ten-year period. One as recent as last week involving a 16-year-old boy in Franklin County.

**What are Inhalants:**

The term "inhalant" refers to more than a thousand different legal household and commercial products that can be intentionally abused by sniffing or "huffing" (inhaling through one's mouth) for an intoxicating effect. Easy accessibility, low cost, and ease of concealment make inhalants, for many, one of the first substances abuse. Inhalant abuse is defined as the deliberate inhalation of concentrated amounts of one or more dangerous liquid or gaseous chemicals to produce a feeling of euphoria or “high”. Many of these substances are common household products, such as gasoline, glues, typewriter correction fluid, paints and varnishes. Solvent abuse begins in late childhood or early adolescence.

**Health Effects:**

While different in composition, most abused chemicals produce effects similar to anesthetics, which slow the body's functions. Inhalants cause intoxicating effects when administered via the nose or mouth into the lungs in sufficient quantities. If taken repeatedly, intoxication may last a few minutes or several hours. At first, users may feel slightly stimulated; with successive inhalations, they may feel less inhibited and less in control; finally, a user can lose consciousness.

**Health Effects Continued**
Sniffing highly concentrated amounts of the chemicals in solvents or aerosol sprays can cause “Sudden Sniffing Death”, especially when abuse of fluorocarbons or butane-type gases is involved.

Additionally, high concentrations of inhalants can lead to the displacement of oxygen in the lungs and central nervous system resulting in death by suffocation. Permanent effects caused by the use of inhalants include hearing loss, peripheral neuropathies or limb spasms, central nervous system or brain damage, and bone marrow damage.

Additional serious side effects include liver and kidney damage as well as blood oxygen depletion. Common modes of administration entail sniffing or huffing directly from the containers of products such as rubber cement or correction fluid, sniffing fumes from plastic bags placed over the nose, mouth or head, or sniffing cloth saturated with the substance. The substance may also be inhaled directly from an aerosol can or out of alternative containers such as a balloon filled with nitrous oxide. Some volatile substances may release intoxicating vapors when heated.

**Signs of Inhalant use and overdose:**
Entry into the brain is so fast that the effects of inhalation can resemble the intensity of effects produced by intravenous injection or other psychoactive drugs. The effects of inhalant intoxication resemble those of alcohol inebriation, with stimulation and loss of inhibition followed by depression at high doses. Users report distortion in perceptions of time and space. Many users experience headache, nausea or vomiting, slurred speech, loss of motor coordination, and wheezing. A characteristic "glue-sniffer's rash" around the nose and mouth is also common. An odor of paint or solvents on clothes, skin and breath is also a sign of inhalant abuse. The chronic use of inhalants has been associated with a number of serious health problems. Glue and paint thinner sniffing in particular produce kidney abnormalities, while the solvents, toluene and trichloroethylene, cause liver toxicity. Memory impairment, attention deficits, and diminished non-verbal intelligence have been associated with the abuse of inhalants. Deaths resulting from heart failure, asphyxiation, or aspiration have occurred as well.

**Product Information:**

**Short Term Effect:**
Most inhalants produce a drunken, light-headed "high" that is typically short-lived. Unfortunately, this high comes at a high price: Inhalants can depress your heart rate, disturb your heart rhythm, and sap your body of oxygen. At the extreme, using inhalants can result in sudden death due to ventricular fibrillation -- even the first time you try them. Users are killing brain cells every time they breathe in. They may also experience nausea, loss of appetite, nosebleeds, coughing fits, and disorientation and loss of coordination, making it hard to walk or even stand for about 15 minutes after sniffing. It can also effect driving, and could cause motor vehicle accidents. Inhalants are highly explosive, and can very easily cause damage and possibly death.

**Long Term Effect:**
Inhalant abuse can result in permanent brain damage and widespread destruction of organs such as the heart and lungs. Extended periods of abuse can cause: Personality changes, learning disabilities, memory loss, blindness, slurred speech, vision problems, balance and coordination difficulty, hearing loss, liver damage, lung damage, nerve damage causing numbness or paralysis in arms and legs, reduced muscle tone, damage to bone marrow, and cancer. Although problems may not be immediately apparent, some users have noticed a change in their mental and physical abilities after using inhalants.

Product information input from: Earl Siegel, Pharm.D., Professor of Emergency Medicine and Pharmacology and Toxicology, and Co-Director, Cincinnati Drug & Poison Information Center (1-513-636-5111).

What is Ritalin:

Ritalin (methylphenidate) is a schedule II stimulant (similar effects to amphetamine). Ritalin comes in tablet form. The primary legitimate medical use of Ritalin is to treat attention deficit disorders (ADD or ADHD) in children. When taken as prescribed, methylphenidate is a valuable medicine. Research shows that people with ADHD do not become addicted to stimulant medications when taken in the form prescribed and at treatment dosages.

Because of its stimulant properties, however, in recent years, there have been reports of its abuse by people for whom it is not a medication. Members of NIDA's Community Epidemiology Work Group (CEWG) noted that:

- Some stimulant users mix Ritalin (or "West Coast") with heroin, or with both cocaine and heroin for a more potent effect.
- Middle and high school students crush and inhale the drug or take the pill orally.
- Some adults have been admitted to treatment programs for abusing the drug from their children's prescriptions.
- According to reports by youth treatment providers, some adolescents continue to abuse the drug, which is most easily available through diverted prescriptions.

Because stimulant medicines such as Ritalin do have potential for abuse, the U.S. Drug Enforcement Administration (DEA) has placed stringent controls on their manufacture, distribution, and prescription.

Signs of Ritalin overdose:
Symptoms include restlessness, tremors, rapid breathing, confusion, hallucinations, panic, aggressiveness, nausea, vomiting, diarrhea, an irregular heartbeat, and seizures.

The abuse of these drugs used individually could have deadly results. The abuse of these drugs used in combination could greatly increase the probability of a fatal overdose.

For further information contact the following agencies.

References / Resources:
Ohio Resource Network for Safe and Drug Free Schools and Communities. www.ebasedprevention.org
National Inhalant Prevention Coalition. nipc@io.com or www.inhalants.org
Ohio Department of Alcohol and Drug Addiction Services. www.odadas.state.oh.us
Cincinnati Drug and Poison Information Center. www.cincinnatichildrens.org
Substance Abuse and Mental Health Services Administration. www.samhsa.gov
Ohio Substance Abuse Monitoring Network. www.med.wright.edu/citar/osam/html
National Drug Intelligence Center. www.usdoj.gov/ndic
Partnership for a Drug Free America. www.drugfreeamerica.org
Center for Substance Abuse Prevention. www.samhsa.govcenters/csap
National Clearinghouse for Alcohol and Drug Information. www.ncadi.samhsa.gov
Drug Rehabilitation Information. www.drug-rehabs.org
Stop Addiction / Narconon. www.stopcocaineaddiction.com
Teen Challenge. www.teenchallenge.com
Blueprint for Health. www.blueprint.bluecrossmn.com

This warning is being sent to inform parents, prevention and treatment professionals, law enforcement and educators of this emerging trend. Please distribute this information through list serves, newsletters or bulletin boards, etc. using the Ohio Early Warning Network as your source.

For additional information on the above alert contact: The Ohio Resource Network for Safe and Drug Free Schools and Communities, P.O. Box 210109, 2624 Clifton Ave Cincinnati, Ohio 45221-0109 Phone # 1-800-788-7254 (opt#2) or fax# 1-513-556-0782.

To participate in this OEWN initiative, visit www.ebasedprevention.org and fill out the OEWN registration form. Anyone in Ohio can report an issue to the Ohio Early Warning Network by calling the toll-free non-emergency InfoLine at 1-866-OhioEWN.

This alert is brought to you by the Ohio Early Warning Network initiative sponsored by: the Ohio Department of Alcohol and Drug Addictions Services, the Ohio Department of Education and the Ohio National Guard.

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