

Inhalant Lesson Revised! What You Need to Know to Keep Students Safe

by Isabel Burk, M.S., CES

Huffing, sniffing, bagging: these terms may not be familiar to educators, but you may be surprised to learn that many of your students know them. These are slang terms for inhalant abuse, the practice of intentionally breathing in chemical fumes or product vapors to get a dizzy, hazy, semi-hallucinogenic feeling.

Do youngsters really do this? Yes, and it's more prevalent than most people realize. Now widely recognized as a serious threat to the youngest of potential abusers, Project ALERT has responded by updating and expanding Core Lesson 8: Inhalant Abuse. You should already have received your revised lesson plan in the mail.

The University of Michigan's 1999 *Monitoring the Future Study* reports that one out of five students surveyed in the eighth grade admit to at least one episode of inhalant abuse. Ten percent say they have "huffed" or "sniffed" within the past year; five percent have abused within the past 30 days.

INHALANT USE			
GRADE	ANY USE IN LIFETIME	USED IN PAST YEAR	USED IN PAST 30 DAYS
8	20%	10%	5%
10	17%	7%	3%
12	15%	6%	2%

1999 University of Michigan Annual Survey of American Schoolchildren

Surprising to most, this behavior can begin as early as age eight or nine. The Parents Resource Institute for Drug Education (PRIDE) 1998 survey of 26,086 fourth-graders in 22 states reveals some disturbing facts: in the last year, 7.7 % of fourth graders drank beer, 6.3 % used inhalants and 4.1 % smoked cigarettes. In these age cohort, inhalants are the second-used substance!

INHALANT USE		
GRADE	USED IN PAST YEAR	USED IN PAST 30 DAYS
4	6.3%	2.2%
5	6%	2.3%
6	7.3%	2.7%

PRIDE (Parents Resource Institute for Drug Education) Survey of Schoolchildren. 1997-98 data: 26,086 students in 22 states

Raising Awareness

Breathing fumes in through the mouth is known as "huffing"; sniffing means breathing in through the nose; bagging refers to the practice of concentrating fumes in a plastic or paper bag, placing the bag over the face, and inhaling. Inhalants are indeed a school problem: student drug surveys reveal that while most drugs aren't abused in school or on school grounds, inhalant substances are equally likely to be abused in school as out of school. The abuse may go unnoticed because school personnel and parents don't recognize this problem.

Products commonly abused include correction fluid, gasoline, butane (lighter fluid), fingernail polish remover, permanent markers; aerosol products such as hair spray, air freshener, fabric protector, computer cleaning spray, spray deodorant, and others. Nitrous oxide, for instance, is abused in a form known as "whippets," using small metal canisters intended for whipping cream machines.

For most students, these products are easily accessible, either at home, at school or in the community. Because they are everyday products, they rarely arouse suspicion in the hands of youngsters. Likewise, the paraphernalia doesn't set off alarms: we might not recognize that small plastic bags, balloons, rags, cotton balls and swabs can be used in this way.

Educators need to know that most students don't consider inhalants dangerous, because they aren't really "drugs." But their powerful and instant effects attract children. Consider it from their point of view: a student who drinks alcohol or takes pills would not feel the effects for about fifteen minutes, and the effects may be visible longer than that youngster can stay out of sight. A huffer feels the effects within two seconds, and the effects wear off after a minute or two. Thus, abusers can exploit even short periods of time without adult supervision by huffing or sniffing.

INHALANT ABUSE! (cont'd from p. 1)**Serious Consequences – the Dangers of Breathing In Toxic Chemicals**

How do inhalant products affect the brain and body? Immediate effects include hallucination, dizziness, disorientation, loss of coordination, distortion of time and senses, memory loss, irregular heartbeat, excitation and/or loss of consciousness. After-effects may include headache and lethargy.

Long-term effects may include any or all of the following: brain damage/dysfunction; sensorial impairment; respiratory problems; damage to liver, heart and major organs; slurred speech; cognitive dysfunction; bone marrow damage; coordination deficits. Treatment specialists say that with early diagnosis and appropriate therapy many of these negative health consequences can be reversed. Clearly, inhalant abuse presents serious risks.

Even more serious, death is a possibility each and every time someone abuses inhalant products, whether it is the first time or the one-hundredth time. If a person becomes unconscious while huffing, he/she can suffocate with the bag over their face or from swallowing a small plastic bag, or can choke on vomit. Sudden Sniffing Death can occur when the heart muscle becomes sensitized to adrenaline in the system, and this causes cardiac arrest. Death can also result from fire or explosion of combustible fumes. Researchers cannot pinpoint exactly how many deaths occur from inhalant use, but best estimates are set at about 100 fatalities per year.

What Can We Do About the Problem?

► First, check your school's alcohol and drug policy to see if it addresses inhalants. If not, this is a good time to modify it. Your school policy should prohibit "the inappropriate use and abuse, sale and/or distribution of inhalable substances for the purpose of intoxication, inebriation or affecting the senses, including but not limited to: glues and adhesives; gases; solvents; aerosols; butane, propane; and similar products." Make sure all school staff knows about the policy and procedures for reporting, and the benefits of early identification of substance abuse problems.

► Recognize abusable products, and limit students' access. Glues and cements, correction fluid, permanent markers, butane lighters, gasoline, shellac, turpentine, aerosol cans, spray paint, xerox duplicating fluid, spray air freshener, and more than 1,000 other products have abuse potential. Alert staff and ask them to keep close watch on such products and only allow product usage under close supervision.

► Experts agree that it is rare to see a youngster under the influence of an inhalant product, because of the very brief duration of their effects (usually 1-3 minutes.) However, you might notice some or all of the following signs: red rash around nose or mouth; watery or glassy eyes; runny nose; dizziness or disorientation; paint or chemical stains on hands or face; chemical odor on breath or clothing; slurred speech; difficulty with coordination. These signs are quite general, and it is certainly possible that they might not be connected with huffing or sniffing. Youngsters have been known to "paint"

their fingernails with correction fluid and insert the fingers into their nostrils, sniffing the fresh fumes, so look at fingers. Be alert for products or paraphernalia. Look for plastic bags with chemical stains or smell; quantities of empty product containers; rags, tissues or paper towels with chemical odors; empty whippets (nitrous oxide cream chargers) and balloons.

► Raise awareness and help colleagues to learn more about inhalant abuse. Check with school security to see if they have found quantities of empty product containers or paraphernalia. Gather information and resources (see page 3), and talk about inhalant abuse at a staff meeting or other forum.

Many parents and educators are reluctant to discuss this issue because they feel it might open the door to experimentation. A recent American Academy of Pediatrics' nationwide survey (conducted in 1999) reported that children ages 10 to 11 are the least likely to learn about inhalants in school (67 percent) as well as the least likely to talk with their parents about inhalants (only 48 percent), but are the most likely to have personally been exposed to inhalant abuse. Project ALERT recognizes how important it is to discuss inhalant abuse with students, and Lesson 8 opens up the topic for discussion between students and parents.

In fact, research proves that talking about inhalants definitely discourages use. According to a 1998 study by the Partnership for a Drug Free America, teens whose parents discussed inhalant abuse at home were 50 percent less likely to abuse than teens whose parents didn't discuss the issue. Inhalants abuse among teens whose parents talked regularly about this was 14 percent, compared to 28 percent for those teens who said it wasn't discussed at home. The study further found that parents need to talk to their children about drugs regularly, rather than just having a one-time discussion.

► Educate parents: parents should open these discussions at a young age. The researchers found that among fourth-graders, 74 percent said they wanted more information from their parents about drugs. Among eighth-graders, the figure declined to 19 percent. So we have a unique window of opportunity in the middle school grades.

The key to prevention of inhalant abuse lies in influencing attitudes. When we frame products as poisons rather than drugs, students can better understand their dangers. Discussing ways to prevent "body pollution" reinforces the need to avoid chemical vapors. And instead of saying "inhalants can get a person high" we can say "inhalants can effect the body in serious ways."

► Role model safe methods of using products such as cleaners or aerosols. Let students read the label aloud and ask them to explain and demonstrate the recommended safety precautions. Teachers of art, technology, home economics and science can reinforce the safety message by reviewing safety procedures with appropriate products used in their class.

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RESOURCES**National Inhalant Prevention Coalition**

2904 Kerbey Lane
Austin, TX 78703
800-269-4237
<http://www.inhalants.org>

National Clearinghouse on Alcohol and Drug Information

P.O. Box 2345
Rockville, MD 20852
800-729-6686
<http://www.health.org>

Agency for Toxic Substances and Disease Registry

Division of Toxicology
1600 Clifton Road NE, Mailstop E-29
Atlanta, GA 30333
800-447-1544
<http://www.atsdr.cdc.gov>

Partnership for a Drug-Free America

<http://www.drugfreeamerica.org>

Join Together (national organization for drug-free communities)

<http://www.jointogether.org>

National Institute on Drug Abuse Research Report - Inhalant Abuse

NIH Publication No. 94-3818
<http://www.health.org/pubs/qdocs/inhal/abuse.htm>

National Institute on Drug Abuse Video about inhalants: "Educate"

<http://www.health.org/pubs/qdocs/inhal/index.htm>

American Academy of Pediatrics "Inhalant Abuse: Your Child and Drugs"

<http://www.aap.org/family/inabuse.htm>

RESEARCH ABSTRACTS: INHALANTS**Deaths Associated with Inhalant Abuse in Virginia from 1987-1996**

Inhalant abuse is currently one of the most prevalent drug abuse problems in the world. One repercussion is that abuse may result in lethality. The authors surveyed deaths recorded from the Commonwealth of Virginia from 1987 to 1996 and identified 39 deaths related to inhalant abuse in all regions of Virginia. Age of death ranged from 13-42 years; most occurred at 22 years or younger. 95% of individuals were male.

Bowen, SE, Daniel, J, Balster, RL, *Drug and Alcohol Dependence*, 53:239-245, 1999.

The Epidemiology of Adolescent Inhalant Drug Involvement

The authors examined age, sex, and race or ethnicity in the occurrence of inhalant use, plus trends and the purported transitory nature of inhalant use among adolescents in the U.S. using data from NIDA's National Household Survey on Drug Abuse, 1990-1995. Inhalant use increased during this time. Initiation of inhalant use is not limited to early adolescence and is not a transitory behavior. The increasing use of inhalants, widespread availability, and risks involved indicate a need for more attention to this public health problem.

Neumark, D, Delva, J, Anthony, JC, *Archives of Pediatrics and Adolescent Medicine*, Aug; 152(8):781-786, 1998

Inhalant Abuse in Pregnancy

Information suggests the possibility of adverse effects of maternal inhalant abuse. Reports of occupational exposure to toluene and 1,1,1-trichloroethane (TCE) enumerate many instances of spontaneous abortion and fetal malformations.

Health care workers exposed to nitrous oxide may be at risk for decreased fertility and spontaneous abortion. More than 100 cases are cited of children born to solvent-abusing mothers. Most were small at birth, some with craniofacial abnormalities similar to FAS.

Jones, HE, and Balster, RL, *Obstetrics and Gynecology Clinics of North America*, Mar;25 (1):153-167, 1998.

Patterns by Gender and Ethnicity Among School Attenders and Dropouts

Differences in patterns of volatile solvent use were explored with special emphasis on school enrollment status [dropout, academically at-risk (enrolled), and control]. Findings indicated that a higher proportion of the dropout cohort have used volatile solvents, used volatile solvents regularly, and used volatile solvents with more intensity than either the academically at-risk group or the control group. American Indian females reported higher lifetime prevalence and thirty-day prevalence than did American Indian males; for both the Mexican-American and White American samples, males report higher rates than females.

Bates, SC, Plemons, BW, Jumper-Thurman, P, Beauvais, F, *Drugs and Society*, 10, 67-78, 1997.

American Academy of Pediatrics Policy Statement: Inhalant Abuse (RE9609)

Beginning with children as young as 6 years of age, inhalant abuse is an under-recognized form of substance abuse with significant morbidity and mortality. This reviews important aspects of inhalant abuse and makes recommendations involving prevention and education strategies. U.S. mortality data are not collected; however, the United Kingdom (with a population approximately 1/5 that of the U. S. and the only major country in the western world that tracks inhalant deaths) has documented two deaths per week.

Pediatrics, Volume 97, Number 3, March, 1996

Things To Do List

- Visit the new Project ALERT web site. Click on the Faculty Lounge and discover all the resources waiting for me. Click on all the video buttons too. www.projectalert.best.org
- Open my tube of posters and hang several in my classroom to spark student interest in upcoming lessons.
- Put the newly revised lesson plan for Core Lesson 8: Inhalant Abuse in my curriculum binder and discard the previous version of that lesson.
- Call Project ALERT today if my posters or my copy of Lesson 8 haven't arrived. Dial 800 - ALERT - 10.
- Thank Project ALERT for the posters and updated lesson plan by telling my colleagues about the program.