

INHALANTS

WHAT ARE INHALANTS?

These are chemicals that evaporate easily and are abused by inhaling—"sniffing," "bagging," or "huffing." They cause a "high" when their vapors are inhaled. Many of these chemicals are found in common household products that are not normally thought of as drugs.

Even if they are inhaled accidentally, these chemicals can cause injury or health damage. But the concentration of vapors is higher, the chemicals are absorbed into the blood more rapidly, and the risks are much greater when they are intentionally inhaled.

WHICH INHALANTS ARE ABUSED?

Many aerosol sprays are abused, including products such as spray paint, aerosol whipped cream, cooking oil spray, and hair spray. The gas that propels these products is inhaled. "Whippets," the pressurized canisters that propel whipped cream, are also abused.

Certain solvents and glues are also abused. These include gasoline, transmission fluid, model airplane and other glues, nail polish and nail polish remover, paint thinners, some felt tip markers, and some typing correction fluids.

Medical substances that may be abused by inhaling include the anesthetic nitrous oxide (laughing gas) and halothane.

Butyl nitrite (also called "Rush," "Jock," and "Locker Room") is also abused. It is sometimes sold as a "room odorizer", or "liquid incense."

WHAT ARE THE EFFECTS OF SNIFFING?

Most inhalants depress the central nervous system. They slow down breathing and other body functions.

During and shortly after using, a person usually becomes dizzy and loses muscle coordination. Slowed reflexes, slurred speech, lightheadedness and excitation are common. The user becomes less able to think or act clearly, and may become abusive or violent.

Nausea, sneezing, coughing, nosebleeds, fatigue, and loss of appetite are common. The eyes, nose, and mouth are often irritated. Rapid pulse, decreased blood pressure, and headaches are common.

Outward signs of inhalant abuse may include a chemical smell on the breath or clothing, red or runny eyes or nose, spots or sores around the mouth, and containers from the inhaled substance.

WHAT ARE THE IMMEDIATE RISKS OF SNIFFING INHALANTS?

Sudden death can result in several ways. Spray or liquid may get into the airway, causing suffocation. The gas in some spray cans may freeze the larynx and lungs, also causing suffocation. Breathing can also be stopped when the central nervous system is depressed by levels of the chemicals in the brain. The inhaled substance can also cause death through irregular heartbeat (arrhythmia) and heart failure. This is sometimes called "sudden sniffing death." One study found that almost one third of inhalant deaths were from first-time use.

Finally, death or injury can result from reckless or violent behavior while under the influence, including suicide.

WHAT LONG-TERM DAMAGE CAN OCCUR?

Studies show many problems with long-term exposure to inhalants. These include damage to the bone marrow (usually linked with benzene), lungs, liver, and kidneys. Brain damage and permanent damage to the

central nervous system can occur. Heart damage is also possible.

Other long-term physical effects include tiredness and weight loss. Vision, memory, and the ability to think clearly may be impaired. Hearing loss is possible.

Finally, tolerance to inhalants develops. Both physical and psychological dependence occur.

WHO ABUSES INHALANTS?

Inhalants are abused by all ages, but most often by young people between the ages of 7 and 17. This may be in part because inhalants are easy to obtain and low in cost. Adults who abuse inhalants usually cannot afford other substances, or have developed an inhalant dependency.

Young inhalant abusers most often do so in small groups. Among teenagers, boys are more likely to abuse inhalants regularly (in the past month) than girls are, but girls are more likely to have tried inhalants in their lifetime or in the past year. Inhalant abuser occurs most often among youth with poor school attendance and delinquency, low self-esteem, and emotional problems. However, abuse occurs among others as well.

Children may misuse inhalant products found around the house without meaning to. Parents should keep these substances away from young children, just as they would other dangerous substances such as alcohol, medicines, and poisons.

HOW COMMON IS INHALANT ABUSE?

In the 2000 "Monitoring the Future" survey of US students, use of inhalants in the last month was reported by 4.5% of eighth graders, 2.6% of tenth graders, and 2.2% of twelfth graders. Inhalant use by young people increased each year from 1991 to

its greatest levels in 1995 (2.5 to 3.6%). From 1996 through 1998, reported inhalant use decreased for all age groups. In 2000, use decreased for eighth graders, but increased slightly for twelfth graders. Use is more common among younger students.

The 1999 National Household Survey found that .9% of young people aged 12 to 17 had used inhalants in the past month.

ARE THERE RISKS IF INHALANTS ARE USED DURING PREGNANCY?

The chemicals that are inhaled are absorbed into the blood stream and cross the placenta to the fetus. Damage to the fetus is possible. Animal studies indicate that solvents cause birth defects. Preliminary studies link prenatal exposure to the solvent toluene to nervous system problems, retarded growth, facial abnormalities, and urinary tract disorders.

Women who are pregnant, considering pregnancy, or breastfeeding should not use inhalants.

LEGAL ISSUES

Since inhalants are legally available for legitimate uses, their control is difficult. Some local governments restrict the sale of model glue or butyl nitrite.

Other methods have been used to limit access to these products, however. For instance, manufacturers of many products have changed their ingredients so that inhaling the products no longer creates a "high." Stores may also restrict sale of such products to minors.

Parents have an important role in discussing with their children the risks of inhaling these chemicals, and in controlling their children's access to these products.

SOURCES

Archives of Disease in Childhood, Vol. 69, 1993. Pages 356-360. Cited by Join Together on their website, January 1996.

Johnston et al *Monitoring the Future Study*, 1996 data. University of Michigan press release December 19, 1996. Table 1.

Johnston et al *Monitoring the Future Study*, 1997 data. Information from Prev-Line website, University of Michigan, released December 20, 1997. Table 1b.

Johnston et al *Monitoring the Future Study*, 1999 data. National Institute on Drug Abuse. Website information. Table 1a.

LD Johnston, PM O'Malley, JG Bachman. (Dec. 2000). *Monitoring the Future Data Tables 1 and 2. 2000 Data*. University of Michigan News and Information Services: Ann Arbor, MI. [Online]. Available: www.monitoringthefuture.org; accessed 02/16/2001.

Michigan Office of Drug Control Policy "Inhalants" packet. August 19, 1994. Item IV.

Michigan Office of Drug Control Policy "Understanding Inhalant Users" not dated.

Texas Commission on Alcohol and Drug Abuse. information packet on inhalant abuse. 1991.

US Consumer Product Safety Commission. "A Parent's Guide to Preventing Inhalant Abuse." not dated, about 1996.

US Department of Health and Human Services. National Household Survey on Drug Abuse: Population Estimates 1996. Table 6a, Page 41.

US Department of Health and Human Services. National Household Survey on Drug Abuse: 1999 data. Website information. Table 4.2.

US Department of Labor. *What Works: Workplaces Without Alcohol and Other Drugs* 1991.

Wisconsin Clearinghouse. Inhalants. 1991.



MICHIGAN RESOURCE CENTER
For Alcohol, Tobacco & Other Drug Information,
Health Awareness, and Traffic Safety Education Materials
111 W. Edgewood Blvd., Ste. 11 • Lansing, MI 48911
(517) 882-9955
For 24 Hour Substance Abuse Referral
888.736.0253
MATERIALS INFO 800.626.4636
FAX 517.882.7778
www.michiganresourcecenter.org
info@michiganresourcecenter.org
Operated by:

TRAFFIC SAFETY ASSOCIATION OF MICHIGAN
The Michigan Resource Center is operated by the Traffic Safety Association of Michigan under a contract from the Michigan Department of Community Health Office of Drug Control Policy. Additional funding and materials are provided by the Michigan Office of Highway Safety Planning.