

factsheet: Inhalants

What are inhalants?

Inhalants are breathable chemicals that produce mind-altering effects in people who inhale them. Although more than 1,000 common household products can be misused as inhalants, many people mistakenly do not consider these products to be dangerous drugs because the products are not intended for such use. Inhalants differ from other legal and illegal drugs because they are available without any restrictions involving federal law, age or prescriptions.

Many different chemicals are used as inhalants, including solvents (water-insoluble substances found in many household and office products and art supplies), aerosol sprays, gases used in household and commercial products, nitrites and medical anesthetic gases.

Terms associated with the use of inhalants include “huffing” and “sniffing.” Slang terms often used to identify the products themselves include “bolt,” “bullet,” “climax,” “laughing gas,” “locker room,” “nitrous oxide,” “poppers,” “rush,” “snappers,” “solvents,” “Texas shoe shine” and “whippers.”

As a Matter of Fact...Inhalants. 1993. Jefferson City, Mo.: Missouri Department of Mental Health Division of Alcohol and Drug Abuse.

Drug-Free Resources Net: Inhalants. 1997. New York: Partnership for a Drug-Free America.

NIDA Research Report Series: Inhalant Abuse – Its Dangers Are Nothing to Sniff At. 1994. Rockville, Md.: National Institute on Drug Abuse.

Mendelson, J., Mello, N. 1992. *The Encyclopedia of Psychoactive Drugs: Inhalants, The Toxic Fumes.* New York: Chelsea House Publishers.

NIDA Capsules: Inhalant Abuse. 1996. Rockville, Md.: National Institute on Drug Abuse.

Tschirgi, T., Cox, F. 1993. *Guide to Information About Inhalants.* College Park, Md.: University of Maryland Office of Substance Abuse Studies.

Tschirgi, T., Cox, F. 1993. *What Are the Legitimate Uses of Inhalants?* College Park, Md.: University of Maryland Office of Substance Abuse Studies.

Tschirgi, T., Cox, F. 1993. *What Are the Signs of Inhalant Abuse?* College Park, Md.: University of Maryland Office of Substance Abuse Studies.

How are inhalants abused?

Inhalants are breathed into the lungs through the mouth and/or nose, resulting in a direct and dangerous route of administration. The lungs have a huge capacity for absorbing drugs. Therefore, inhalants reach the brain almost instantly, producing an immediate “high.”

Mendelson, J., Mello, N. 1992. *The Encyclopedia of Psychoactive Drugs: Inhalants, The Toxic Fumes.* New York: Chelsea House Publishers.

Telephone interview. 1997. Columbia, S.C.: Department of Pharmacology, University of South Carolina School of Medicine.

Tschirgi, T., Cox, F. 1993. *How Are Inhalants Abused?* College Park, Md.: University of Maryland Office of Substance Abuse Studies.

Tschirgi, T., Cox, F. 1993. *What Street Names Are Associated with Inhalant Abuse?* College Park, Md.: University of Maryland Office of Substance Abuse Studies.

Why do people use inhalants?

Although often not realizing how dangerous they are, people use inhalants for a variety of reasons. Inhalant intoxication occurs almost immediately and can produce feelings of euphoria, a blurring of the outside world and, at times, hallucinations.

People use inhalants because the “drugs” abused are often easily obtainable household products. They are also inexpensive, legal and easy to conceal.

Drug-Free Resources Net: Inhalants. 1997. New York: Partnership for a Drug-Free America.
Tschirgi, T., Cox, F. 1993. *What Are the Subjective Effects of Inhalants on the Mind?* Rockville, Md.: University of Maryland Office of Substance Abuse Studies.

Who are the primary users of inhalants?

The primary users of household inhalants are pre-teenagers and young teenagers. The average age of first use of inhalants is 13, and inhalant use tends to decrease with age. Boys use inhalants slightly more often than girls, but the gap is narrowing. The majority of these teenagers use inhalants only experimentally or occasionally and do not become addicted. However, even one use can be dangerous or fatal.

Frequent inhalant users often come from economically disadvantaged and/or single-parent homes; have poor school performance; and have at least one alcoholic parent.

Drug-Free Resources Net: Inhalants. 1997. New York: Partnership for a Drug-Free America.
Facts About...Inhalants. 1991. Toronto: Addiction Research Foundation.
Preliminary data. 1996. Columbia, S.C.: South Carolina Department of Alcohol and Other Drug Abuse Services Division of Management Information and Research.
Tschirgi, T., Cox, F. 1993. *How Do Inhalants Differ?* College Park, Md.: University of Maryland Office of Substance Abuse Studies.

How common is inhalant use?

Although inhalant use among young teenagers increased in the United States throughout most of the 1990s, approximately one in five eighth-graders (20.5 percent) reported using inhalants at least once in their lives in 1998 — down slightly from 21.2 percent in 1996. Inhalant use does seem to decrease with age, with 4.8 percent of eighth-graders, 2.9 percent of 10th-graders and 2.3 percent of 12th-graders reporting use of inhalants in the past 30 days.

Closer to home, approximately 14 percent of South Carolina eighth-graders have used inhalants at least once

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during their lives. Furthermore, 7.8 percent of eighth-graders and 5.5 percent of all eighth-, 10th- and 12th-graders in South Carolina have used inhalants in the past 30 days.

1998 *Monitoring the Future Study*. 1998. Rockville, Md.: National Institute on Drug Abuse.
Summary of Results of South Carolina Prevention Needs Assessment Study, School Survey: Grades 8, 10 and 12. 1995. Columbia, S.C.: South Carolina Department of Alcohol and Other Drug Abuse Services.

Does inhalant use lead to other drug use?

Unfortunately, inhalant use is one of the easiest and least expensive ways of getting involved with drug use, so many children and adolescents experiment with inhalants before moving on to other drugs, particularly alcohol and other depressants. Tragically, such experimentation can have deadly consequences.

Tschirgi, T., Cox, F. 1993. *Who Abuses Hydrocarbons?* College Park, Md.: University of Maryland Office of Substance Abuse Studies.
Mendelson, J., Mello, N. 1992. *The Encyclopedia of Psychoactive Drugs: Inhalants, The Toxic Fumes*. New York: Chelsea House Publishers.

Are inhalants addictive?

According to the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV) published by the American Psychiatric Association, the symptoms of addiction fall into three categories: (1) compulsion or loss of control – taking more than intended, unsuccessfully trying to stop and spending too much time under the influence or recovering from the drug's effects; (2) tolerance – including withdrawal symptoms when drug use is discontinued; and (3) impairment – using the drug despite adverse effects and preoccupation with the drug over everything else.

Inhalants can meet all three criteria. Tolerance can develop quickly in frequent users of inhalants, and psychological dependence is common. Physical dependence occurs less often. Common withdrawal symptoms include irritability, agitation and increased heart rate. More severe withdrawal symptoms range from chills to hallucinations, headaches, abdominal pains and the “shakes.”

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition. 1994. Washington, D.C.: American Psychiatric Association.
Facts About...Inhalants. 1991. Toronto: Addiction Research Foundation.

Can inhalant use cause psychological problems?

Yes. Depression, insomnia and paranoia are common among regular inhalant users. Long-term use also can

lead to paranoid psychosis. Inhalants may cause psychotic symptoms in any individual (but they do not cause schizophrenia in persons without a predisposition to mental disorders).

Evidence also suggests that inhalant use can cause brain damage resulting in dramatic drops in intelligence quotient (IQ) scores.

Facts About...Inhalants. 1991. Toronto: Addiction Research Foundation.
Mendelson, J., Mello, N. 1992. *The Encyclopedia of Psychoactive Drugs: Inhalants, The Toxic Fumes*. New York: Chelsea House Publishers.
Tschirgi, T., Cox, F. 1993. *What Are the Objective Effects of Inhalants on the Mind?* College Park, Md.: University of Maryland Office of Substance Abuse Studies.
Young, L.Y., Koda-Kimbell, M.A. 1995. *Applied Therapeutics: The Clinical Use of Drugs, 6th Edition*. Vancouver, Wa.: Applied Therapeutics, Inc.

Can inhalant use cause medical problems?

Yes. Both short-term and long-term inhalant use can cause serious medical problems. Short-term medical problems associated with inhalant use include seizures; nosebleeds; nausea; loss of appetite; decreased heart rate; decreased respiratory rate; headaches; and abdominal pain.

Long-term medical problems associated with frequent inhalant use include pallor; weight loss; sores on the nose and mouth; bone marrow damage; impaired liver function, including cirrhosis; impaired kidney function; decreased motor coordination; fatigue; decreased sense of smell; lung damage; hearing loss; and impaired immune function.

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Facts About...Inhalants. 1991. Toronto: Addiction Research Foundation.
NIDA Capsules: Inhalant Abuse. 1993. Rockville, Md.: National Institute on Drug Abuse.
Tschirgi, T., Cox, F. 1993. *What Are the Effects of Inhalants on the Immune System?* College Park, Md.: University of Maryland Office of Substance Abuse Studies.
Tschirgi, T., Cox, F. 1993. *What Are the Effects of Inhalants on the Liver?* College Park, Md.: University of Maryland Office of Substance Abuse Studies.
Tschirgi, T., Cox, F. 1993. *What Are the Effects of Inhalants on the Nervous System?* College Park, Md.: University of Maryland Office of Substance Abuse Studies.

Are inhalants dangerous?

Yes. In addition to the potential medical and psychological damage, inhalants are dangerous for other reasons.

Many inhalants are volatile substances. This means they will ignite from a spark at very low temperatures. Inhalant users are constantly at risk of causing an explosion and setting themselves and their surroundings on fire.

Inhalant use also impairs judgment, and many users engage in risky or even violent behavior while under the

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influence. Inhalant abuse has been linked with reckless driving, property damage and theft.

Finally, using inhalants even one time can be fatal. (See *What is “SSD”?*)

Drug-Free Resources Net: *Inhalants*. 1997. New York: Partnership for a Drug-Free America.
Facts About...Inhalants. 1991. Toronto: Addiction Research Foundation.
Tschirgi, T., Cox, F. 1993. *Are There Any Immediate Dangers Associated with Volatile Hydrocarbon Use?* College Park, Md.: University of Maryland Office of Substance Abuse Studies.

What is “SSD”?

“Sudden sniffing death” (SSD) occurs when inhalants “starve” the inhalant user’s body of oxygen, leading to unconsciousness followed by death. SSD can occur without warning during any inhalant use, including the first.

Drug-Free Resources Net: *Inhalants*. 1997. New York: Partnership for a Drug-Free America.

How great is the risk of inhalant overdose?

Death often occurs when an overdose is inhaled. But because a user has no idea of the concentration inhaled, the user cannot predict when an overdose will occur. Just because an inhalant was “successfully” used once is no guarantee that an overdose will be avoided the next time.

In addition to overdose, inhalant users also have died from suffocation after falling asleep with inhalant paraphernalia covering their heads.

Unfortunately, there is no way of knowing how many people die each year as a result of inhalant overdose or use because many of these deaths are attributed to suffocations, suicides or accidents.

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Facts About...Inhalants. 1991. Toronto: Addiction Research Foundation.
NIDA Research Report Series: Inhalant Abuse – Its Dangers Are Nothing to Sniff At. 1994. Rockville, Md.: National Institute on Drug Abuse.

Do inhalant users typically use other drugs?

Yes, particularly alcohol and tobacco. In South Carolina, 78 percent of inhalant users also drink alcohol, and 74 percent of inhalant users smoke cigarettes.

Using inhalants in combination with other drugs — particularly alcohol, tranquilizers and other depressants — increases the already high risk of overdose.

As a Matter of Fact...*Inhalants*. 1993. Jefferson City, Mo.: Missouri Department of Mental Health Division of Alcohol and Drug Abuse.
Preliminary data. 1996. Columbia, S.C.: South Carolina Department of Alcohol and Other Drug Abuse Services Division of Management Information and Research.

How can you tell if someone is using inhalants?

Physical symptoms of inhalant use include red, glassy or watery eyes; slow, thick, slurred speech; disorientation; general “drunken” appearance; headache; nausea; chemical odor on the body or clothes; chemical odor in the room; staggering gait and loss of coordination; inflamed nose; nosebleeds; rashes around the nose and mouth; and loss of appetite.

Behavioral symptoms include mental confusion; depression; irritability; hostility; and paranoia.

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Facts About...Inhalants. 1991. Toronto: Addiction Research Foundation.

Are inhalants regulated by the federal government?

Because inhalants are manufactured for legitimate household and industrial uses, their possession is not prohibited by federal law. Therefore, it is the responsibility of parents to see that these “drugs” are kept away from children.

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NIDA Capsules: Inhalant Abuse. 1993. Rockville, Md.: National Institute on Drug Abuse.

Where can I get more information?

In South Carolina, the Department of Alcohol and Other Drug Abuse Services (DAODAS) operates a statewide toll-free telephone line that provides information and assistance on a variety of topics related to alcohol and other drug abuse. The number is **1-800-942-DIAL (3425)**. DAODAS also offers an online clearinghouse of alcohol and other drug information on the Internet at www.scprevents.org.

The county alcohol and drug abuse authorities and other public and private service providers offer local information and assistance as well.

Nationally, the National Institute on Drug Abuse operates a hotline. That number is **1-800-662-HELP**.



**THE
DRUGSTORE**
Information
Clearinghouse

South Carolina Department of Alcohol and Other Drug Abuse Services
101 Business Park Boulevard • Columbia, SC 29203-9498

toll-free: 1-800-942-DIAL (3425)
www.daodas.state.sc.us

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