

## **“Inhalants: A Primer”**

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The inhalants, as a category of abused chemicals, are a group of more than a thousand household and commercial products. You don't need a “source” or connections to get them. Any hobby shop, discount department store, or home improvement center will do just fine.

Inhalants, as the name implies, are substances, or more appropriately chemicals, that are introduced into the body via the mouth or nose and into the lungs. Though some are categorized as drugs, the majority are industrial chemicals and solvents that are volatile in nature. The chemicals that are in this category may be gaseous or may be in a liquid state that readily yield fumes or yield fumes when heated. These products are accessible, inexpensive, and can be easily hidden—even in plain sight. It is for these reasons that inhalants are often the first substances to be experimented with or abused.

The products can be inhaled directly from the product's container or transferred into a bag, balloon, or onto rags for inhalation. Some of the products include; lighter fluid, cleaning solvents, model glue, nitrous oxide, rubber cement, paint products, and correction fluid.

Inhalants can be broken into four separate sub-categories. They include:

The Volatile Solvents; which are liquids that vaporize at room temperatures.

Adhesives	model airplane glue, rubber cement, household glue
Solvents	nail polish remover, paint thinner, type correction fluid and thinner, toxic markers, pure toluene, cigar lighter fluid, gasoline, carburetor cleaner, octane booster
Cleaning agents	dry cleaning fluid, spot remover, degreaser
Food products	vegetable cooking spray, dessert topping spray (whipped cream), whippets

The Aerosols; which are sprays that contain propellants and solvents.

Aerosols	spray paint, hairspray, air freshener, deodorant, fabric protector
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The Gases; which include medical anesthetics as well as gases used in household or commercial products.

Anesthetic Gases	nitrous oxide, ether, chloroform
Gases	nitrous oxide, butane, propane, helium

The Nitrites; which are often considered a special class of inhalants.

Nitrites	Amyl nitrite, cyclohexyl nitrite, butyl nitrite
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Once these products are inhaled or 'huffed', the effect on the body resembles that of alcohol ingestion. In the case of the inhalants, the body reacts by forcing the heart to beat faster in order to increase blood flow to the brain. The initial feeling is stimulation and a distorted sense of reality and perception. After a short time (minutes), the senses become depressed and overall lethargy sets in. This is what is called a 'head rush'. This process can be repeated several times in a short period by the user because of the short acting nature of these chemicals. Some of the side effects experienced include headaches, nausea, vomiting, slurred speech, loss of coordination and wheezing.

Continued use of the inhalant can result in tolerance and physical withdrawal symptoms, which may include sweating, rapid pulse, hand tremors, insomnia, nausea and vomiting, physical agitation, anxiety, hallucinations, and grand mal seizures. Even after the first use, a condition known as "Sudden Sniffing Death" can occur. During the early stages of this condition, the initial effect in which the heart beats faster actually spirals out of control. The heart beat becomes irregular and can lead to cardiac arrest. Even first-time abusers have been known to die. Many of these chemical products are under pressure in a container that when expelled, not only travel with tremendous speed and pressure, but may also be expelled at a very low temperature. Coupled with many of them being extremely flammable, these factors alone can result in a disastrous situation.

While the majority of inhalants act directly on the central nervous system and are mood altering, the sub-category of nitrites are primarily vasodilators and muscle relaxants and are used as sexual enhancers. This use, as well as the culture and environment in which they may be used, can lead to other health problems such as HIV and STDs.

The time required to self administer these chemicals is extremely quick. As a result, the probability of initially getting caught 'in the act' is not that great. As a parent or adult, physiological indicators of inhalant abuse include spots or sores around the mouth, red or runny eyes and nose, chemical odor on the breath, a drunken or dazed appearance, nausea and/or loss of appetite, slurred or disoriented speech. Chronic inhalant abusers may exhibit such symptoms as anxiety, excitability, irritability, or restlessness. One must realize that these compounds were never intended as drugs and their effects many times are **permanent** on the human physiology (hearing loss, peripheral neuropathies, CNS or brain damage, bone marrow damage, liver and kidney damage, and oxygen depletion.)

The physical signs of inhalant use may include: sitting with a pen or marker near nose; constantly smelling clothing sleeves; observable paint or stain marks on the face, fingers, or clothing; and hiding rags, clothes, or empty containers of the potentially

abused products in closets and other places. In addition, paper or plastic bags with chemical residues in them, balloons purchased prior to a concert, or the can of whip cream that is full but nothing comes out, are flags we all need to be aware of. Concerts and certain other entertainment events are of particular concern. Balloons are filled with nitrous oxide and ‘hits’ are sold to individuals. The hits may also be taken directly from the tanks themselves. This method of inhalation is particularly dangerous due to the gas pressure and gas temperature within the tank as the nitrous oxide is expelled.

Similar to other abused drugs, the users have their own terminology for products and actions related to the abuse of the inhalants. Some of the terminologies used among abusers are as follows:

Term	Definition
Air Blast	Inhalants
Bagging	Using Inhalants
Buzz Bomb	Nitrous Oxide
Climax	Isobutyl Nitrate
Glading	Using Inhalants
Gluey	Sniffing or inhaling glue
Huffer	Inhalants abuser
Poor Man's Pot	Inhalants

There is no typical profile for this type of abuser. They encompass the entire spectrum and their ages dip down into the elementary and middle school grades. Treatment facilities for inhalant users are rare and difficult to find. Users suffer a high rate of relapse and often require thirty to forty days or more of detoxification.

Sources:

National Institute on Drug Abuse  
Office of National Drug Control Policy  
National Inhalant Prevention Coalition