

Inhalant Abuse: A Growing Public Health Problem

Inhalants are breathable chemical vapors that are psychoactive (affect the brain). The chemicals in inhalants are found in many common household products and not generally thought of as drugs.

Inhalant abuse or “huffing” is disturbingly common among children and adolescents. It is the most common form of drug abuse among pre-adolescents and early adolescents and a gateway to other drugs. Children are likely to abuse inhalants because they are readily available and inexpensive.

Inhalants may be sniffed from an open container or “huffed” from a rag soaked in the substance and held to the face. The open container or soaked rag can be placed in a bag where the vapors concentrate before being inhaled. The effects of inhalant intoxication are similar to those of alcohol – stimulation and loss of inhibition, followed by depression. Many users experience headache, nausea or vomiting, slurred speech, loss of motor coordination, and wheezing. Odor of paint or solvents on clothes, skin and breath, and rash around the nose and mouth are possible signs of inhalant abuse.

TOLUENE

Toluene is the chemical found in the most commonly abused inhalants. It is an industrial solvent used in various household products such as correction fluids, glues, paints and paint thinners. Toluene has toxic effects, primarily on the central nervous system, and can also cause irreversible kidney and liver damage. Symptoms of toluene abuse include fatigue, sleepiness, headaches, and nausea. Sudden heart failure has also been reported in a few cases of toluene inhalation. Toluene has come to replace benzene in many solvents due to benzene’s high carcinogenicity.

STATISTICS ON INHALANT ABUSE

- ❖ In a 1998 national survey, 2.2 percent of fourth graders and 2.7 percent of sixth graders admitted to using inhalants on a monthly basis.¹
- ❖ By the time they reach the eighth grade, 5 percent will be using inhalants monthly and 19.7 percent will have used inhalants at least once in their lifetime.¹
- ❖ There were 1 million new inhalant users in 1999, up from 390,000 in 1990.²
- ❖ The rate of 12 to 17 year olds trying inhalants for the first time rose significantly in the last decade, from 10.9 per 1000 potential new users in 1990 to 29 in 1999.²

HEALTH EFFECTS OF INHALANTS

- ❖ Sniffing highly concentrated amounts of chemicals can directly induce heart failure or death.³
- ❖ Inhalants may cause death from suffocation by displacing oxygen in the lungs and then in the central nervous system, causing breathing to cease.³
- ❖ The chronic use of inhalants has been associated with hearing loss, brain and central nervous system damage, bone marrow damage, liver and kidney damage, and blood oxygen depletion.

TYPES OF INHALANTS³

- ❖ Solvents
 - Industrial or household solvents or solvent containing products, including paint thinners or solvents, degreasers (dry-cleaning fluids), gasoline, and glues. Many of these contain toluene.
 - Art or office supply solvents, including corrections fluids, felt-tip marker fluid, and electronic contact cleaners. Many contain toluene.
- ❖ Gases
 - Gases used in household or commercial products, including butane lighters and propane tanks, whipped cream aerosols or dispensers, and refrigerant gases.
 - Household aerosol propellants and associated solvents in items such as spray paints, hair or deodorant sprays, and fabric protector sprays
 - Medical anesthetic gases, such as ether, chloroform, halothane, and nitrous oxide (laughing gas)
- ❖ Nitrites
 - Aliphatic nitrites, including cyclohexyl nitrite, which is available to the general public; amyl nitrite, which is available only by prescription, and butyl nitrite, which is now an illegal substance.

References

- (1) National Parents' Resource Institute for Drug Education (www.pridesurveys.com), 1998 Survey
- (2) National Institute on Drug Abuse, National Institutes of Health – 1999 Monitoring the Future survey (www.monitoringthefuture.org)
- (3) National Institute on Drug Abuse, National Institutes of Health Website (www.nida.nih.gov/infobox/inhalants.html)