SCR

18

SENATE COMMITTEE REPORT

FIRST COMMITTEE OF REFERRAL

Date of 5-DAY NOTICE 3/23/89
IN ACCORDANCE WITH UNIFORM RULE 23

FURTHER

**FISCAL NOTE(S) MUST BE ATTACHED
IN ACCORDANCE WITH AS 24.08.035
2/9/89

DATE TURNED INTO OFFICE 3/29/89

Mr. President:

HESS Committee considered SCR 18

inhalant abuse

and recommended:

[ ] replace with CS _____ [] same title
[] new title

[ ] attached amendment(s) and

[ ] _____ letter of intent adopted

[X] do pass

[ ] do not pass

[ ] no recommendation

[ ] individual recommendations

[ ] further referral to _____

FISCAL NOTE(S) attached [X] zero [ ] fiscal impact
[ ] appropriation no FN attached [ ] Gov. FN introduced w/ bill

MEMBERS SIGNING DO PASS

Tim Kelly
[illegible]
Bill Duncan

OTHER RECOMMENDATIONS

Paul Fisher (Do Pass)
Chairman signature and recommendation

[ ] Committee backup attached

Senate Health, Education and Social Services Committee

Senator Paul Fischer, Chairman

Senator:

The fiscal notes were ordered for SB 169 and SCR 18.

Health and Social Services was contacted and are aware that these are on the agenda.

DCM

POSITION PAPER/Department of Health & Social Services

POSITION PAPER

SENATE CONCURRENT RESOLUTION NO. 18

"A RESOLUTION RELATING TO INHALENT ABUSE"

The Department of Health and Social Services is in full agreement with Senate Concurrent Resolution No. 18. The University of Alaska publication entitled "Drug-Taking Behavior Among Alasakan Youth - 1988: A Follow-Up Study", provides data showing that: more Alaskan youth have tried substances (59.9%) than those who have not, and the overall prevalence of drug abuse is higher than it was in 1983. Inhalents show the largest increase in lifetime prevelence for experience since 1983, among illicit drugs.

It is generally thought that inhalent users tend to be younger than most other drug users (ages 12-17) because inhalents are inexpensive (often free since inhalents may be found in many household items), readily available, and induce an intense, altered state of conciousness. Older youth may use inhalents as a substitute for other drugs when these drugs are not available.

Across the nation, through surveys and research, it is becoming evident that lifetime prevalence of inhalent usage is increasing. National data shows an increase from 13.6 % in 1983 to 17.0 % in 1987. Student surveys may under-report prevalence, since a significant number of school dropouts are likely to be chronically inhalent involved. Sub-populations such as these may have a higher lifetime prevalence of use. A study by Beauvais, Oetting and Edwards (1985) found that by age 12 nearly one-fourth of Indian youth had used inhalents. Lifetime prevalence of inhalent use by 7th graders in Texas was 28 %.

The Office of Alcoholism and Drug Abuse is fully supportive of this resolution because:

-- the overall prevalence of drug usage among Alaskan youth has been increasing over the past 5 years;

-- since 1983, inhalents have had the highest increase in lifetime experience among secondary school age youth of all illicit drugs;

-- persons who use inhalents tend to be younger than other users; and

-- inhalents are some of the most highly toxic of all drugs and can cause irreversible brain damage or death.

Fiscal Note

POSITION PAPER/Department of Health & Social Services

Recommended by: Matthew C. Felix

Matthew C. Felix, Coordinator
Office of Alcoholism and Drug Abuse

Date: 3/30/89

Approved by: Myra M. Munson

Myra M. Munson, Commissioner
Department of Health and Social Services

Date: 3/29/89

STATE OF ALASKA
1989 LEGISLATIVE SESSION

BILL VERSION: SCR No. 18
PUBLISH DATE: 2/9/89

FISCAL NOTE

REQUEST:

Revision Date:
Title: Relating to inhalant abuse

Sponsor: Binkley, et.al.
Requestor:

Agency Affected: Health & Social Services
BRU: Alcohol & Drug Abuse Services

Component: Administration

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

ANALYSIS: (Attach a separate page if necessary)

Prepared by: For George Murdock Matthew C. Felix
Phone: 586-6201
Division: Alcoholism & Drug Abuse
Date:

Approved by Commissioner: Myra M Munson
Date: 3/29/89
Agency:

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

Senator Johne Binkley

Senate Finance Committee
P.O. Box V • Juneau, Alaska 99811 • (907) 465-4985

Finance Committee
Co-Chairman

MEMORANDUM March 10, 1989

TO: Senator Paul Fischer, Chairman
Senate Health, Education and Social Services Committee

FROM: Senator Johne Binkley JB

RE: SB 169 and SCR 18, relating to inhalant abuse

The two above-referenced pieces of legislation were referred to your committee on Feburary 9. SB 169 would extend the powers and duties of the State Office on Alcoholism and Drug Abuse to include programs relating to the misuse of volatile substances; that is, inhalants. The purpose of the bill is to recognize SOADA as the clearinghouse for inhalant information and assistance.

SCR 18 asks the Departments of Education and Health and Social Services to work with SOADA to get the information on the dangers of inhalant abuse out to the public. It also asks that the purchasing agents for each State agency within each branch of government buy when available products that do not contain chemicals that can be abused.

Attached is information for the committee members on inhalants. I would appreciate your scheduling these pieces of legislation at the earliest possible date. Please let me know so that I may plan on attending the hearing personally. Thank you.

than chance expectancy. The declines for cocaine (-16.1%) and stimulants (-10.2%), were also found to be statistically significant ($p < .01$). The small increase noted for marijuana (+1.1%) was not statistically significant, but the increase in hallucinogens (+8.7%) was found to be greater than chance expectancy ($p < .01$).

(3) Lifetime Experience with a Drug

Table 5-3 shows a pattern of increases and decreases for lifetime experience with different drugs (excluding alcohol and tobacco). Consistent with the findings in Tables 5-1 and 5-2, increases are noted for marijuana (3.6%) and hallucinogens (4.5%). A relatively large increase for inhalants (9.4%) is also noted, which is consistent with its reported increase in availability reported in Table 5-1. All of the differences in lifetime

Table 5-3
Comparison of 1983 and 1988 Findings
Lifetime Experience with Chemical Substances
Eight School Districts

Substance	1988 Percent*	1983 Percent**	Percent Change
Marijuana	53.0	49.4	+ 3.6***
Cocaine	14.4	18.3	- 3.9***
Stimulants	24.2	27.2	- 3.0****
Hallucinogens	13.2	8.7	+ 4.5***
Depressants	9.8	14.3	- 4.5***
Heroin	2.0	2.2	+ 0.2
Inhalants	25.9	16.5	+ 9.4***
Tranquilizers	9.9	11.5	- 1.6****

*N=3814 (Unweighted) **N=3609 (Unweighted)

***$p < .01$.

****$p < .05$.

From Alcohol and Drug Use among Youth Study, University of [redacted] Dr Bernie Segal.

in other research.

(g) Depressants

Depressants, largely in the form of barbiturates, has experienced a decline since 1983, a trend that is consistent with reports from other surveys.

(h) Tranquilizers

Use of substances such as Valium or Librium, classified as tranquilizers, have also declined since 1983, a trend which is also consistent with findings from other research.

(i) Inhalants

Of all the illicit chemical substances, inhalants have shown the largest increase. This increase is consistent with a small increase reported across the nation by Johnston et al. (1987). Inhalants have tended to be the substance of choice among very young users, largely because they are cheap, readily available, and induce an intense altered state of consciousness, perhaps emulating the perceived experience of the substances the naive user cannot readily obtain. Additionally, older adolescents may resort to using inhalants when other substances are unavailable. Beauvais and Oetting (1987) noted that inhalant use, at every age, "marks a very high level of drug involvement for that group and suggests potentially serious adjustment difficulties. Some of these difficulties include disruptive family relationships, poor school and job adjustment, serious emotional problems, and higher levels of deviance than other drug users" (p. 781). The statistics regarding inhalants should be of particular concern because most, if not all inhalant substances, are highly toxic and can cause irreversible brain damage or death.

(j) Alcohol

Consistent with the findings from different studies of drinking among youth across the nation, experience with alcohol in Alaska is ubiquitous among adolescents. It would also seem that drinking during adolescent years no longer represents a lifestage phenomenon, but has become an adolescent life-style phenomenon. To a large extent the drinking among adolescents could be considered to model the drinking behavior of the

Tundra Drums

Boy dies at party

ANCHORAGE (AP) — A 14-year-old Emmonak boy died during a weekend party near his village after he reportedly drank home-brewed liquor and sniffed gasoline, the Alaska State Troopers reported.

Troopers identified the youth as Robert Hamilton.

They said he had been at a party with other youths on a beach along the Yukon River early Sunday. He passed out and could not be revived troopers said.

An autopsy was scheduled for Tuesday in Anchorage.

Youth found dead near open gasoline container

ANCHORAGE (AP)-When last seen alive, 14-year-old Freddy George was wandering the streets of Pilot Station in the middle of the night.

A police officer told the boy to go home, but instead he went to a ramshackle cabin near the Yukon River used to store fishing gear.

The Alaska State Troopers say Freddy George apparently died that night after inhaling fumes from an open can of gasoline.

John Evan and his son, Freddy, 12, found his body the next morning on Aug. 10 as they prepared to go fishing.

"When I first saw him, I thought he was sleeping. I couldn't recognize him for awhile," Evan said. "I asked my Freddy to come see who it was. I've been feeling pretty bad about that."

Freddy George often stayed out late, said Patrick Nick, the village public safety officer. When the boy went home, it was usually to his married sister's house. He and his sister and their mother, Sarah, were the only living members of the immediate family, Nick said.

The boy is the second in the Yukon Delta to die in recent weeks after inhaling gas fumes. A 14-year-old Emmonak boy died during a party in late July after he reportedly drank home-brewed liquor and inhaled gasoline fumes.

Officials said gas-sniffing is a dangerous form of substance abuse that can be addictive and sometimes leads to death from asphyxia.

"That goes on in the Bush," said Trooper Capt. Glenn Godfrey, who heads the agency's rural law enforcement [illegible]. "Quite often, it's youngsters, teenagers and [illegible] experimenting [illegible] stances. The [illegible] being fatal [illegible] get a quick [illegible] sudden, [illegible]."

"There [illegible]" Godfrey, [illegible] served with [illegible] Bethel. [illegible] dinate [illegible] ing from [illegible] nothing we [illegible] ly."

Evan [illegible] troubled [illegible] morning he found the boy's body.

"That's the first time I've found someone like that," he said. "It's pretty hard to take. I didn't want to go fishing. When I got home, I called the priest. I talked to him. I didn't want to keep it in me. If you keep it inside, it seems to get [illegible]."

social settings and situations which prompt abuse.

410. Internal Medicine News, July 15-31, 1987, p 13.

COCAINE PRECIPITATES HEART ATTACK IN YOUNG ADULTS

Cocaine can be a major factor in the occurrence of heart attack in young adults. At an annual meeting of the American College of Cardiology, Henry W. B. Smith, III, M.D., reported his experience with nine heart-attack victims between the ages of 23 and 39 who were also cocaine users.

Four patients used cocaine twice a week or more for at least two months prior, and five patients were occasional users. Most also smoked cigarettes, and one had a history of heart disease in her family. Both of these factors contributed to the occurrence of heart attack.

After treatment, six patients stopped their cocaine use. Of the remaining three, two experienced later episodes of chest pain, and one died of a second heart attack which also resulted from cocaine use.

These findings indicate that cocaine can precipitate heart attack when it is smoked, inhaled or injected. Symptoms usually occur within one hour of use.

411. Internal Medicine News, June 1-14, 1987, p 8.

COCAINE CAN CAUSE HEART PROBLEMS IN FIRST-TIME USERS

First-time users of cocaine can experience heart problems, says Peter Martin, M.D., director, alcohol and substance abuse division, Vanderbilt University College of Medicine. Dr. Martin wishes to dispel the myth that only long-term abusers who take large amounts of the drug can develop heart complications.

Another myth is that snorting cocaine, instead of injecting or smoking it, reduces the risk of heart complications. Of seven patients entering one hospital emergency room, six had snorted cocaine and one had smoked a freebase preparation. Four patients experienced heart attack, and three developed other heart problems. Two patients died suddenly.

According to statistics for 1981 from the National Institute on Drug Abuse, cocaine use resulted in 3,296 visits to emergency rooms and caused an additional 195 deaths. In contrast, 9,946 visits to emergency rooms and 580 deaths resulted from cocaine use in 1985. Even more reports of complications may occur since the price of cocaine has gone down and is affordable for more people.

Dr. Martin says that the treatment goal for all cocaine abusers must be total abstinence.

412. Internal Medicine News, June 1-14, 1987, pp 9-10.

HEROIN

HEROIN ABUSE MAY LEAD TO DEVELOPMENT OF ASTHMA

In a study of 2,276 heroin addicts, 112 had a history of asthma. Of those, 31 showed an association between their heroin abuse and the development of asthma. In addition, more women developed asthma subsequent to heroin abuse than did men.

413. Internal Medicine News, July 1-14, 1987, p 6.

MARIJUANA

CHEST PAIN RESULTS FROM MARIJUANA AND COCAINE ABUSE

Maximo A. Lugue, III, M.D., and colleagues of Tampa General Hospital, report the case of an 18-year-old male who developed chest pain and shortness of breath after using marijuana and cocaine. Previously, these problems have been noted in cocaine and marijuana abusers who use positive pressure devices or techniques which supposedly enhance the drugs' effects.

The patient in this case denied using any such techniques or devices. With the increased problem of drug abuse among adolescents, the author advises physicians to routinely question adolescents who complain of chest pain about their use of drugs.

414. Pediatric Emergency Care, Vol 3, No 2, 1987, pp 107-109.

MARIJUANA HARMFUL TO LUNGS

Researchers at UCLA School of Medicine have examined the effect of smoking tobacco and marijuana on the lungs. At the cellular level, they compared the effect on 43 smokers and 19 nonsmokers of smoking cigarettes, marijuana or both.

Clearly, cigarette and marijuana smoke had a negative effect on the lungs. Further, the effects of marijuana are separate from those of cigarettes and actually add to or worsen the effects of cigarette smoke.

415. American Review of Respiratory Diseases, Vol 135, 1987, pp 1271-1275.

INHALANTS

TRICHLOROETHANE TOXIC TO HEART

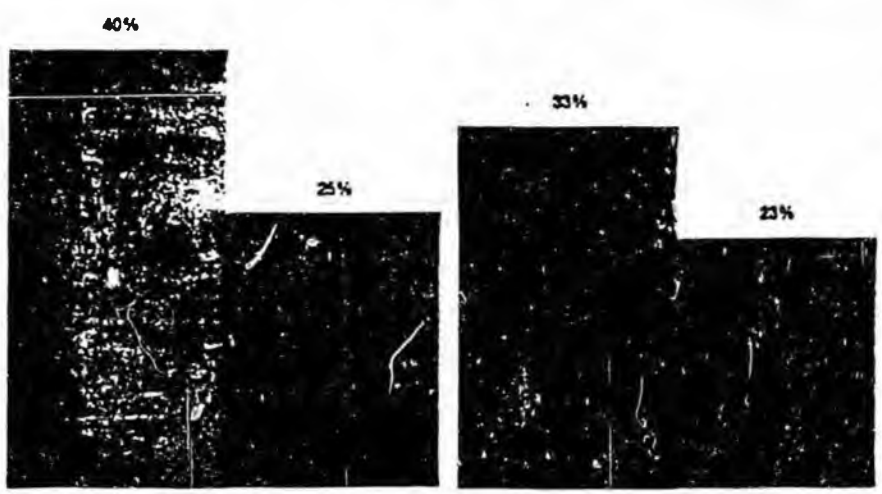
Adolescents who sniff glue may be exposed to a toxic substance called trichloroethane, or TCE, a commonly used solvent found in various glues, dry cleaning fluids, plaster remover and typewriter-correction fluid.

A report recently appeared in Britain of a 14-year-old boy who sniffed trichloroethane and who later developed irregular heart rhythm during surgery for removal of his tonsils. It appears that the anesthetic used during surgery added to the heart toxicity caused by trichloroethane.

A 54-year-old man who had occupational exposure to trichloroethane experienced similar problems during surgery. Both cases demonstrate that damage to the heart is a possible result of long-term occupational exposure or short-term abuse of trichloroethane.

416. British Medical Journal, Vol 294, 1987, pp 727-729.

SMOKING DURING PREGNANCY*



■ 1987 ■ 1980 *Married women 20 years of age and older. See page 7.

OTHER DRUGS

DOCTOR CALLS NASAL VITAMIN PURE RIPOFF

The Food and Drug Administration is investigating a nasal vitamin B12 product called Ener-B. When squeezed into the nose, Ener-B delivers large doses of vitamin B12 which consumers of the product believe will give them extra energy.

One critic of Ener-B, Victor Herbert, M.D., of the Bronx Veterans Administration Medical Center, submitted a petition to the Food and Drug Administration which states that Ener-B is a pure economic ripoff with no health or

ALCOHOL HIDDEN INGREDIENT IN NUMBER OF MEDICINES

She was prim and proper ... a real lady, polite and soft spoken. Her clothes weren't expensive, but she was neat and fashionable for a woman in her sixties.

The check-out clerk in the supermarket bagged her groceries, helped her out the door and turned to me with a bemused smile. "That's the second bottle of NyQuil this week," she said. "She's been buying the stuff like it's going out of style. Could her cold really last for four months?"

While it's entirely possible that this sweet, silver-haired lady had a persistent evening cough, it could also be that she was using this over-the-counter cold remedy as a nightcap.

NyQuil contains 25% alcohol (equal to 50 proof) combined with cough suppressant, decongestant, pain reliever and the antihistamine doxylamine. A nip of NyQuil could become a habit for some folks who, like our supermarket shopper, would probably never dream of drinking liquor.

Around the turn of the century, a lot of strait-laced ladies relied on Lydia E. Pinkham's Vegetable Compound, which was widely promoted for "women's problems." Many of these women disapproved quite strongly of drinking and would have been shocked to realize that their favorite tonic was stronger than wine.

Just last week, we learned of a foreman who sipped Listerine throughout the day. No doubt he would have been fired had he guzzled beer or whiskey so openly, but his boss was unaware the mouthwash was more than 25% alcohol.

Many popular liquid medications do contain substantial amounts of alcohol. Comtrex Liquid, for example, is 20% alcohol, nearly as much as NyQuil.

While this may not be dangerous in itself, if people take the cold remedy at the recommended dose for a limited time, it can pose a problem for those who must take prescription medicines that don't mix well with alcohol. They should beware of cough syrups such as terpin hydrate elixir (more than 80 proof) as well as cold remedies, including Contac Severe Cold Formula and Dristan Ultra Colds Formula. Liquid iron or vitamin formulas also may contain alcohol.

(Continued on back page)

INHALANT UPDATE

National surveys show inhalant use ranks third behind alcohol and marijuana. The most effective way to fight solvent use is through prevention and education efforts. When inhaled, most commonly abused vaporous substances act as central nervous system depressants. They disturb vision, impair judgment and reduce muscle control. Inhalant use can cause permanent brain damage and even death. Here's a list of products that young people might sniff. This information is provided to heighten awareness of the potential for abuse of these common and easily obtainable products. Please use this information discreetly and appropriately.

ADDITIVES
- gasoline additives

ADHESIVES
- building supply adhesives
- false eyelash adhesives
- fingernail adhesives
- PCV pipe adhesives

AGENTS
- engine drying agents

CEMENTS
- household cement
- model cement (glue)

CLEANERS
- auto body cleaners
- car engine cleaners
- electronic equipment cleaners
- gun cleaning solvent
- window cleaner

COATINGS
- aerosol leather coatings
- frying pan/pot coatings

DE-ICERS
- windshield de-icers

FLUIDS
- brake fluid
- charcoal starter fluid
- fire extinguisher fluid
- lighter fluid
- power steering fluid
- printer fluid
- transmission fluid
- typewriter correction fluid

FUELS
- lantern fuel
- stove fuel

GASOLINE

HARDENERS
- fingernail hardener

MARKERS
- felt tip markers
- dry erase marker

OCTANE BOOSTERS

PAINTS
- aerosol paint
- lacquer paint
- liquid paint

PENS
- fast-drying pens

POLISH
- fingernail polish
- shoe polish

PRODUCTS
- fiberglass refinishing products
- photographic chemical products
- resin products
- shoe shine products
- water proofing products

PROPELLANT GASES
- fluorocarbons
- hydrocarbons

REMOVERS
- asphalt remover
- fingernail polish remover
- paint remover
- stain remover
- tar remover

SEALANT
- tire sealant

STRIPPERS
- paint strippers
- varnish strippers

SUPPLIES
- art supplies
- household cleaning supplies
- furniture refinishing supplies

THINNERS
- paint thinner

VARNISH
- furniture varnish
- wood varnish

Reported to *Alcohol and Drug Abuse Pulse Beats*, August 1988, by Parents in Action in Nebraska.

AADAC

Inhalants

AADAC

Introduction

Breathing in chemical fumes to become intoxicated is commonly called "glue sniffing".

Using inhalants to get "high" is not new. Their use goes as far back as the mid-1800s. During the 1930s and 1940s, it was popular to sniff gasoline fumes. By the mid-1960s, when model airplane glue was sold, the number of persons who used inhalants increased. The term "glue sniffing" then became popular.

Today, there are a number of household items which can be used for sniffing. These include model airplane glue, nail polish remover, paints, lacquers, lighter fluids, aerosol sprays, non-stick cooking sprays, cleaning fluids, anti-freeze and gas.

Whatever the substance used, sniffing is very dangerous. It is a form of drug use which can have effects ranging from headaches to death.

One of the best ways to fight this and other forms of drug abuse is to inform everyone of the problem and the dangers. This pamphlet has been prepared to tell you more about inhalants, the risks which they present and their users.

Who Uses Inhalants?

Most inhalant users are children or teenagers. Alberta wide surveys of students in Grades 7 to 12, showed about eight per cent of the students had "sniffed" in the six months before the survey.

Most users were between 13 and 15 years of age. There was a sharp decline in use by students in higher grades.

Many occasional users are ordinary teenagers who try it once and leave it alone. There are a number of long-term users, though, with troubled backgrounds at school or at home.

What Are The Effects Of Inhalants?

After the first few deep breaths, there is a feeling of dizziness, relaxation and well-being. There may also be body "rushes", hot flushes, flashes of light and a sense of floating away. The actual "high" may only last a few seconds, although the effects usually last from five to 40 minutes.

Once the effects wear off, the user may experience a period of drowsiness. Headache and sickness may accompany recovery, and the user may not be able to remember what happened.

Constant use of inhalants can lead to such symptoms as nosebleeds, bloodshot eyes, bad breath, and thirst. There may also be tiredness, and slow movement.

Continued use can have dangerous effects. Some of these include memory loss, personality changes, and troubled links with family and friends.

In most cases, these effects disappear when the user stops using inhalants.

How Dangerous Are Inhalants?

The major danger in inhalant use is the chance of death by suffocation. If the user passes out while a plastic bag is over the nose and mouth, the danger is extreme.

Some substances — such as cleaning fluids or aerosol sprays — can bring about sudden death from a heart attack.

Some further effects include:

- Damage to the kidneys, lungs, nerves and other body parts.
- Increased danger when used with alcohol.
- A changed sense of judgement and self-control which can lead to violence and accidents.
- Burns and property damage caused by explosion of flammable inhalants.

Tolerance/ Dependence/ Withdrawal

A person develops "tolerance" to a drug when he or she must take more of it to cause its usual effects. Using inhalants often can lead to tolerance.

Dependence occurs when the body grows used to a drug and needs it to feel good. Inhalants can lead to a physical and mental dependence.

Withdrawal symptoms occur when the use of an addictive drug is suddenly stopped. Signs of withdrawal such as chills, headaches and hallucinations have been reported in cases where users have suddenly stopped.

Inhalants, Society and You

Most inhalant users are children or teenagers. Some young people will try inhalants once or twice and give it up quickly. Another group tend to use them more frequently. These young people very often have serious problems both at school and at home.

Pay close attention to your children and teenagers. Watch for symptoms which may suggest that your child is using inhalants. These include nosebleeds, increased saliva and spitting, mouth and nose sores, dry throat, bloodshot eyes, bad breath, unusual thirst, awkwardness and being tired all the time. If you notice some of these symptoms, a doctor or counsellor can help you determine the cause and suggest people to help your child.

In Alberta using inhalants or getting someone else to use them is against the Public Health Act.

the pending reorganization of Office of Financing and Coverage Policy, would continue.

2. Transfer all of NIMH to NIH, where, it is argued, research on mental illness would finally reach the stature accorded other diseases. This is the plan in the Inouye bill.
3. Transfer only the research effort of NIMH to NIH, and rename the remaining components of ADAMHA the "National Center for Addictive Disorders," consisting of the two institutes on drugs and alcohol. NAMI's Havel said his organization could support either of these two plans.
4. Separate all the research and non-research functions of ADAMHA. The research portions of all three existing institutes would go to NIH as a single entity. Then the alcohol and drug institutes could form an Institute on Addictive Disorders, with service-related components of NIMH administered separately. Since this would combine alcohol and drugs into one entity, "many people feel strongly one way or the other" on this point, Lewin said. Advocates for those suffering from drug addiction, as opposed to alcohol addiction, believe that the demographics of drug addicts are not the same as those of alcoholics. Therefore, they say, the two institutes must maintain their identities.

   Another variation of this option would call for the three entities to go to NIH as three separate institutes. But some of the service sectors could go either to the Centers for Disease Control or the National Center for Health Services Research. Administration of state block grants and some of the demonstration programs would become the responsibility of the Health Resources and Services Administration. Another option would be to create a bureau of ADM delivery-of-services efforts within HRSA.
5. Realign the existing ADAMHA structure to make research the exclusive mission of all three institutes. All service-related functions would be shifted to a bureau in ADAMHA, whose director would be on a par with the three institute directors. Proponents of this arrangement argue that there is much similarity in the services administered by the three institutes. This seems the most popular option among the drug and alcohol field.

Goodwin May Be Named

ADAMHA reorganization is a delicate subject right now since Frederick Goodwin, MD, who heads NIMH's Intramural Research Program, is expected to be named ADAMHA administrator sometime in February. Several sources cited possible conflicts among the various institute directors as the parent agency undergoes rearrangement. "There are institutional positions, and positions that people maintain in their heart of hearts," one HHS staffer said. "All the institute directors are in a tight spot."

If nominated and confirmed, Goodwin would succeed Donald Ian Macdonald, a pediatrician who has been serving as both ADAMHA Administrator and Director of the Drug Abuse Policy Office for nearly a year. Macdonald, who will stay on at his White House post which also carries the title of Special Assistant to the President for Drug Abuse Issues, has been heading ADAMHA since his confirmation in April 1985.

Goodwin, 51, an expert in depressive disorders, has been with the NIMH intramural effort, the clinical research program located at the National Institutes of Health campus in Bethesda, since 1965. He became its director in 1982.

The appointment of the ADAMHA administrator is subject to Senate confirmation. ADAMHA sources said White House clearance has already been obtained, and that the FBI was winding up its routine clearance procedures.

* * *

Incidence

YOUTHS' DRUG USE IN SLOW FALL, BUT INHALANTS SHOW GAIN

High school seniors are using less cocaine, but more and more of them report having experimented at least once with the drug and there is no noticeable decline in crack use, a new survey shows. And while overall drug use is slowly continuing to decline, inhalants are "bucking the trend," and their use is rising, said the researcher who recently completed a survey of drug use among young adults.

According to the annual National High School Senior Survey on Drug Abuse, prepared for the National Institute on Drug Abuse by Lloyd Johnston, Ph.D., project director of the University of Michigan Institute for Social Research, cocaine use among high school seniors declined gradually in 1987 for the first time since the survey began 13 years ago. About 42% of the seniors said they had used an illicit drug at least once in the past year, the lowest figure in 13 years.

Observers were quick to flag various possible flaws in the study. For example, some experts

pointed out that the study canvasses youngsters who have reached the last year of high school, or who are about to graduate It does not take into account the situation of high school drop-outs, and previous surveys show the rate of drug use is double among this group.

"We're always very up-front that we don't have data on drop-outs," Johnston said. "But drop-outs constitute 15-20% of this age group, so this limits how they can affect overall estimates. It really doesn't change the story for most drugs. Two possible exceptions: heroin and crack, since most serious users of these drugs are out of school. These two drugs signal advanced forms of drug involvement." Nevertheless, improvements in drug use are most difficult to attain among drop-outs, Johnston noted.

Of the nearly 17,000 high school seniors in 130 public and private schools who participated in the nationwide survey, 57% reported having used an illegal drug, compared to 58% last year, and 35% used a drug other than marijuana, against 38% in 1986. Use of other drugs, including LSD, heroin and other opiates, is about the same as last year.

The survey findings, which cover most of 1987, are "encouraging," said Rep. Charles Rangel (D-NY), chairman of the House Select Committee on Narcotics. "But let's not get carried away into thinking we're winning the war on drugs. ...In fact, cocaine is cheaper and purer than ever before, and cocaine overdoses and deaths are up, indicating a growing cocaine problem." He called the survey "the only bright spot in an otherwise bleak situation."

And Johnston himself cautioned that the good news may not last. "I certainly think it's cause for optimism, but there's nothing immutable about a downward trend" in drug use, he said. Drug use in the US is still the "highest in the industrialized world."

And more research is showing the harmful effects of marijuana use. A recent National Institute on Drug Abuse paper says that chronic use can destroy cells in the hippocampus, a brain structure important for learning and for linking sensation with feeling. This may account for marijuana's ability to impair short-term memory.

But Johnston did predict a continued improvement in the drug situation, provided that "the forces that gave rise to [it] can continue. Many influences have been making people aware of cocaine hazards, especially media campaigns and work by schools and families, although this is hard to quantify." Another factor was the deaths of athletes Len Bias and Don Rogers. "That really got the attention of young people," he said, adding that norms and attitudes must continue to shift.

There was a jump to 48% in 1987 from 34% in 1986 of young people who said they believe that use of even a small quantity of cocaine involves "great risk."

Johnston did not attribute any of improvement in drug use to treatment of addicts. High school students typically do not show a high demand for treatment, he said. One way to improve the statistics even further, he said, would be to fund more evaluation of prevention and education programs.

"What we end up doing is dumping huge amounts of money in an effort to close our borders, and relatively ineffectively. Until very recently, only token amounts were spent on prevention. ...Now there must be a commitment to consistent funding. We, as a society, have been remiss in not developing a knowledge base for prevention efforts. This requires money, especially for evaluation. I'm not saying the existing programs are ineffective; we just don't know."

The findings mark the 13th annual survey, and Johnston said he expects to continue the studies as long as the nation has a drug problem. Besides the high school seniors, it also quantifies drug use among about 10,000 members of the last 10 graduating high school classes. Response rates to these surveys, which are mailed, range from 89% to 73%, with the lowest responses coming from the class of 1976. Johnston termed these response rates "very high" for mail surveys.

* * *

Special Report

"CAUTIOUS OPTIMISM" SEEN FOR DRUG-ABUSE INDUSTRY IN 1988

"Cautious optimism" is the most common outlook among analysts of the drug abuse treatment industry as they assess the prospects for 1988. Most predict a healthy long-range profitability, despite some possible problems in the short-term as the industry sorts out after a not entirely successful 1987.

"1988 will be a mirror image of 1987, one of re-positioning in the industry," said Steve Munroe, senior vice president and chief financial officer of CompCare, based in Irvine, CA. The company owns and manages 20 drug and alcohol abuse treatment facilities, and has 150 man-

Health & Social Servs., Sup. Ct. Op. No. 2929 (File No. S-279), 698 P.2d 1190 (1985).

Sec. 47.37.030. Powers of office. The office may

(1) plan, establish, and maintain programs for the prevention and treatment of alcoholism and drug abuse;

(2) make contracts and award grants necessary or incidental to the performance of its duties and the execution of its powers, including contracts with and grants to public and private agencies, organizations, and individuals, to pay them for services rendered or furnished to alcoholics, intoxicated persons, or drug abusers; to the maximum extent possible, contracts and grants must be for a period of two years; contracts under this paragraph are governed by AS 36.30 (State Procurement Code);

(3) solicit and accept for use a gift of money or property or a grant of money, services, or property from the federal government, the state, or a political subdivision of it or a private source, and do all things necessary to cooperate with the federal government or any of its agencies in making an application for a grant;

(4) administer or supervise the administration of the provisions relating to alcoholics, intoxicated persons, and drug abusers of state plans submitted for federal funding under federal health, welfare, or treatment legislation;

(5) coordinate its activities and cooperate with alcoholism and drug abuse programs in this and other states, and make contracts and other joint or cooperative arrangements with state, local, or private agencies for the treatment of alcoholics, intoxicated persons, and drug abusers, and for the common advancement of alcoholism and drug abuse programs in this and other states;

(6) keep records and engage in research and the gathering of relevant statistics;

(7) do other acts necessary to implement the authority expressly granted to it;

(8) acquire, hold, or dispose of real property or any interest in it, and construct, lease, or otherwise provide treatment facilities for alcoholics, intoxicated persons, and drug abusers; however, the office shall encourage local initiative, involvement, and financial participation under grants-in-aid whenever possible in preference to the construction or operation of facilities directly by the office; contracting and construction under this paragraph are governed by AS 36.30 (State Procurement Code). (§ 1 ch 207 SLA 1972; am § 1 ch 117 SLA 1978; am § 61 ch 105 SLA 1986; am E.O. No. 71, §§ 13 — 17 (1988))

Effect of amendments. — The 1986 amendment, effective January 1, 1988, added "contracts under this paragraph are governed by AS 36.30 (State Procurement Code)" at the end of paragraph (2) and added "contracting and construction under this paragraph are governed by AS 36.30 (State Procurement Code)" at the end of paragraph (8).

The 1988 amendment, effective July 1, 1988, rewrote paragraph (1), which read "plan, establish, and maintain treatment programs"; substituted "alcoholics, intoxicated persons, or drug abusers; to the maximum extent possible, contracts and grants must" for "alcoholics or intoxicated persons; to the maximum extent possible, contracts and grants shall" in paragraph (2) and "alcoholics, intoxicated persons, and drug abusers of state plans" for "alcoholics and intoxicated persons of any state plan" in paragraph (4); in paragraph (5), inserted "and drug abuse" twice and substituted "alcoholics, intoxicated persons, and drug abusers," for "alcoholics and intoxicated persons"; and, in paragraph (8), substituted "alcoholics, intoxicated persons, and drug abusers" for "alcoholics and intoxicated persons" and made a minor punctuation change.

Sec. 47.37.040. Duties of office. The office shall

(1) develop, encourage, and foster statewide, regional, and local plans and programs for the prevention of alcoholism and drug abuse and treatment of alcoholics, intoxicated persons, and drug abusers, in cooperation with public and private agencies, organizations, and individuals, and provide technical assistance and consultation services for these purposes;

(2) coordinate the efforts and enlist the assistance of all public and private agencies, organizations, and individuals interested in prevention of alcoholism and drug abuse and treatment of alcoholics, intoxicated persons, and drug abusers;

(3) cooperate with the Department of Corrections in establishing and conducting programs to provide treatment for alcoholics, intoxicated persons, and drug abusers, in or on parole from penal institutions;

(4) cooperate with the Department of Education, school boards, schools, police departments, courts, and other public and private agencies, organizations, and individuals in establishing programs for the prevention of alcoholism and drug abuse and treatment of alcoholics, intoxicated persons, and drug abusers, and preparing curriculum materials for use at all levels of school education;

(5) prepare, publish, evaluate, and disseminate educational material dealing with the nature and effects of alcohol and drugs;

(6) develop and implement, as an integral part of treatment programs, an educational program for use in the treatment of alcoholics, intoxicated persons, and drug abusers, which includes the dissemination of information concerning the nature and effects of alcohol and drugs;

(7) organize and foster training programs for all persons engaged in treatment of alcoholics, intoxicated persons, and drug abusers, and establish standards for training paraprofessional alcoholism and drug abuse workers;

(8) sponsor and encourage research into the causes and nature of alcoholism and drug abuse and treatment of alcoholics, intoxicated

persons, and drug abusers and serve as a clearinghouse for information relating to alcoholism and drug abuse;

(9) specify uniform methods for keeping statistical information by public and private agencies, organizations, and individuals, and collect and make available relevant statistical information, including number of persons treated, frequency of admission and readmission, and frequency and duration of treatment;

(10) advise the governor in the preparation of a comprehensive plan for treatment of alcoholics, intoxicated persons, and drug abusers;

(11) review all state health, welfare, and treatment plans to be submitted for federal funding, and advise the commissioner on provisions to be included relating to alcoholics, intoxicated persons, and drug abusers;

(12) assist in the development of, and cooperate with, alcohol and drug abuse education and treatment programs for employees of state and local governments and businesses and industries in the state;

(13) use the support and assistance of interested persons in the community, particularly recovered alcoholics and drug abusers, to encourage alcoholics and drug abusers to voluntarily undergo treatment;

(14) cooperate with the Department of Public Safety and the Department of Transportation and Public Facilities in establishing and conducting programs designed to deal with the problem of persons operating motor vehicles while intoxicated or under the influence of drugs;

(15) encourage hospitals and other appropriate health facilities to admit without discrimination alcoholics, intoxicated persons, and drug abusers, and to provide them with adequate and appropriate treatment;

(16) encourage all health and disability insurance programs to include alcoholism and drug abuse as a covered illness;

(17) submit to the legislature an annual report covering the activities of the office;

(18) develop and implement a training program on alcoholism and drug abuse for employees of state and municipal governments, and private institutions;

(19) develop curriculum materials on drug and alcohol abuse for use in grades kindergarten through 12, as well as a course of instruction for teachers to be charged with presenting the curriculum. (§ 1 ch 207 SLA 1972; am Executive Order No. 39, § 11 (1977); am §§ 2, 4 ch 117 SLA 1978; am E.O. No. 55, § 45 (1984); am E.O. No. 71, § 18 (1988))

Effect of amendments. — The 1988 amendment, effective July 1, 1988, substituted "and drug abuse and treatment of alcoholics, intoxicated persons, and drug abusers" for "and treatment of alcoholics and intoxicated persons" in paragraphs (1), (2), (4), and (8), "alcoholics, intoxicated persons, and drug abusers" for "alcoholics and intoxicated persons" in paragraphs (3), (6), (7), (10), and (15), "alco-

of the department, considers this an effective and economical course to follow. Contracting under this subsection is governed by AS 36.30 (State Procurement Code). (§ 1 ch 207 SLA 1972; am § 5 ch 150 SLA 1980; am § 62 ch 106 SLA 1986; am E.O. No. 71, § 21 (1988))

Effect of amendments. — The 1986 amendment, effective January 1, 1988, added the last sentence in subsection (g).

The 1988 amendment, effective July 1, 1988, in subsection (a), substituted "alcoholics, intoxicated persons, and drug abusers" for "alcoholics and intoxicated persons" in the first sentence and "and, when feasible, programs must" for "and when feasible, programs shall" in the third sentence.

Sec. 47.37.150. Acceptance for treatment. The coordinator shall adopt regulations for the admission of persons into the treatment program, considering available treatment resources and facilities, for the purpose of early and effective treatment of alcoholics, intoxicated persons, and drug abusers. In adopting the regulations the coordinator shall be guided by the following standards:

(1) if possible a patient must be treated on a voluntary rather than an involuntary basis;

(2) a patient must be initially assigned or transferred to outpatient or intermediate treatment, unless the patient is found to require inpatient treatment;

(3) a person may not be denied treatment solely because the person has withdrawn from treatment against medical advice on a prior occasion or because the person has relapsed after earlier treatment;

(4) an individualized treatment plan must be prepared and maintained on a current basis for each patient;

(5) provision must be made for a continuum of coordinated treatment services, so that a person who leaves a facility or a form of treatment will use other appropriate treatment and facilities. (§ 1 ch 207 SLA 1972; am E.O. No. 71, § 22 (1988))

Effect of amendments. — The 1988 amendment, effective July 1, 1988, substituted "alcoholics, intoxicated persons, and drug abusers" for "alcoholics and intoxicated persons" in the first sentence in the introductory paragraph, "must" for "shall" in paragraphs (1), (2), (4), and (5), "may" for "shall" in paragraph (3), and "use" for "utilize" in paragraph (5).

Sec. 47.37.170. Treatment and services for intoxicated persons and persons incapacitated by alcohol. (a) An intoxicated person may come voluntarily to an approved public treatment facility for emergency treatment. A person who appears to be intoxicated in a public place and to be in need of help or a person who appears to be intoxicated in or upon a licensed premise where intoxicating liquors are sold or consumed who refuses to leave upon being requested to leave by the owner, an employee or a peace officer may be taken into protective custody and assisted by a peace officer or a member of the emergency service patrol to the person's home, an approved public

Facts About...

Inhalants

Presented By:
Health
Communications,
Inc.

WHAT IS IT?

From time to time, the phenomenon of inhalant use is brought to public attention. In the 1960s we had an "epidemic" of glue sniffing. Nowadays, there is still a small but consistent use of various solvents, aerosols and gases across the nation, and in certain locations, the problem is much more serious.

Some inhalant anesthetics (nitrous oxide, ether, chloroform) were used recreationally in the 19th century and inhalation parties were common at that time among students and physicians.

In the 1960s, the inhalation of volatile substances such as plastic model glue, nail polish removers, and aerosol sprays occurred frequently among adolescents.

A wave of anti-glue sniffing publicity which ensued at the time resulted in many local and state laws prohibiting buying of such substances by minors. In spite of these laws, inhalant vapors and sprays continue to be used to this day, partially because of the widespread application of such products in household use, and partially because of ineffective legislation and enforcement.

THE SUBSTANCES

Certain solvents and gases have some euphoric and intoxicating properties. Many are volatile hydrocarbons; most are gases at room temperature or turn to gas when exposed to air.

Some of the most common products are: fast drying glues and cements; many paints, lacquers and varnishes as well as thinners and removers, lighter and dry

THE SUBSTANCES (Con't.)

cleaning fluids, kerosene and some other petroleum products, nail polish remover, various aerosol products.

The active chemicals in these products include toluene, benzene, acetone, naphtha, hexane, cyclohexane, trichlorophane, trichloroethylene, carbon tetracholoride, chloroform, ethyl ether, various alcohols, ketones, and acetates.

FREQUENTLY USED INHALANTS

Nitrous Oxide

This is a clear gas which is used to kill pain in dentistry, and is also used as a propellant in some commercial products, such as canned whipped cream. No evidence exists regarding permanent harm resulting from its use. However, accidental suffocations have taken place when the gas was used through a strap-on face mask without oxygen. The high is a very brief one, lasting a few minutes at most.

Freon

This gas, like other cryogenics, comes out frozen. If inhaled directly it can freeze the larynx and lungs, causing suffocation. Nitrous oxide, freon and other pressurized gases can literally cause the lungs to "burst" blood vessels, and can cause death, due to the pressure at which the gas is expelled, if the mouth is placed directly on the container. Freon produces effects which generally last only a few minutes.

Butyl Nitrite

This is a liquid currently legal in most states. It is a powerful, short-acting heart stimulant and vasodilator. Sniffing butyl nitrite produces a "rush" of euphoria which lasts just a few seconds. It is also

FREQUENTLY USED INHALANTS

said to increase sexual enjoyment at the point of orgasm. At this time, there is no evidence to suggest that this substance causes any short or long-term damage. However, when used standing up there is a possibility of injury due to falling, if the user accidentally blacks out for a few seconds. There is no apparent tolerance, and some users inhale butyl nitrite constantly for hours while dancing or at parties. Some danger may exist for persons who, because of defective blood vessels, cannot handle the sudden vasodilation. **Amyl nitrite,** a chemically related substance to butyl nitrite, is a prescription drug with approximately the same effects, commonly used for angina pectoris.

THE EFFECTS

Users report a feeling of well-being, a reduction of inhibitions, an elevated mood. In many respects the effects are similar to those produced by alcohol and other sedatives.

Higher doses often produce laughing and giddiness, feelings of floating, dizziness, time and space distortions, and illusions. Some substances are said to induce psychedelic-like effects.

These effects may last anywhere ›m five minutes to an hour, depending ‹ the substance and the dose.

ADVERSE ACUTE EFFECTS

Acute use of solvents often brings on confusion, drunkenness, slurred speech, a feeling of numbness, runny nose, tears, headaches and muscular incoordination. Frequently there is nausea and vomiting.

In case of high dose, the general sedative-anesthetic effects take over and drowsiness, stupor, respiratory depression and unconsciousness may result. There have been reports of extremely heavy use inhibiting breathing and bringing on death.

Judgment is often impaired. There is confusion, hyperactivity, irritation, tension, often fright. Acute psychoses have been reported. There have also been reports of panic, and physical aggression. Some deaths have been attributed to solvent use, but these have generally occurred due to mechanical suffocation caused when the user fainted from inhalation and his nose and mouth remained covered by a plastic bag. A few fatalities have also been attributed to vomit suffocation.

Many of these substances appear to be capable of sensitizing the heart to adrenaline, which is manufactured in the body in the event of a sudden scare. Since the early 1960s, heart failure due to this effect, known as "Sudden Sniffing Death" Syndrome, or SSD, has been suspected in hundreds of users.

LONG TERM EFFECTS

Permanent, irreversible damage on either physical health or intellectual functioning among solvent sniffers has not been conclusively demonstrated. But temporary abnormalities have been

LONG TERM EFFECTS (Con't.)

shown in respect to liver and kidney function, bone marrow activity, gastritis, hepatitis, jaundice, blood abnormalities and peptic ulcers.

Some chronic users have exhibited slow-healing ulcers around the mouth and nose, loss of appetite, weight loss, and nutritional disorders. There have been reports of brain damage as a result of regular solvent use but mostly this has been shown to be reversible (without permanent effect) once the use was stopped.

There have also been reports of chromosome damage and blood abnormalities as a result of sniffing, but such effects have not yet been conclusively proven, and remain under study.

With so many different formulations of solvents and other hydrocarbon products on the market, it is impossible to predict the long-term effects of the inhalation of all possible substances. But recent information suggests that some substances, like toluene, may actually be less harmful than previously believed. On the other hand, long term use of other substances such as n-Hexane, which is commonly found in some plastic cement, gasoline, various adhesives and rubber cement, may cause permanent damage to the muscles.

TOLERANCE AND DEPENDENCE

When use of volatile substances continues for a long time and becomes heavy, tolerance may develop in that the user requires more and greater quantities of the drug to achieve the desired effects.

TOLERANCE AND DEPENDENCE

Physical dependence has also occurred among some chronic users, with withdrawal symptoms showing up when they sought to discontinue use. These symptoms include hallucinations, headaches, chills, delirium tremens, and stomach cramps. Hangover lasting several days have also been known.

There is also cross tolerance between some solvents and central nervous system depressants.

In some economically depressed communities, where adult use of solvents occurs, sniffing of hydrocarbon vapors from kerosene, spray paint, etc., is often substituted by alcoholics who have run out of liquor as a way of forestalling withdrawal and delirium tremens.

Alcohol and barbiturates have been shown to augment some of the adverse effects of certain solvents. Consequently, there is risk of unconsciousness or even heart failure if the effects of alcohol are added to the effects of volatile solvents.

WHO ARE THE USERS?

T. Rubin, in a review of American studies in the mid-1960s, (and reported in the LeDain Commission Final Report, 1973) found that the average age of sniffers varied from a low of 12 years to a high of 15. He also showed that boys were much more likely to sniff solvents than were girls.

In one study of senior high school students, conducted in 1981 by the Institute for Social Research, 27.5% had used inhalants at some time, though by the final year of high school only about 5% continued to be current users.

SUMMARY

The use of inhalants and volatile substances by youth is still not uncommon. This is a major reason for concern given that it is difficult to safely gauge the dosage of these substances, the possibility of suffocation, and the unstable nature of solvents or other fluids which raises the risk of fire.

The laws attempting to regulate these substances are not listed here since most of the compounds discussed are available in common household products.

The result has been poorly worded laws with many loopholes, ineffective and confusing enactment of those laws when enforcement was attempted.

Facts About...

FACTS ABOUT SERIES is a publication of Health Communications, Incorporated.

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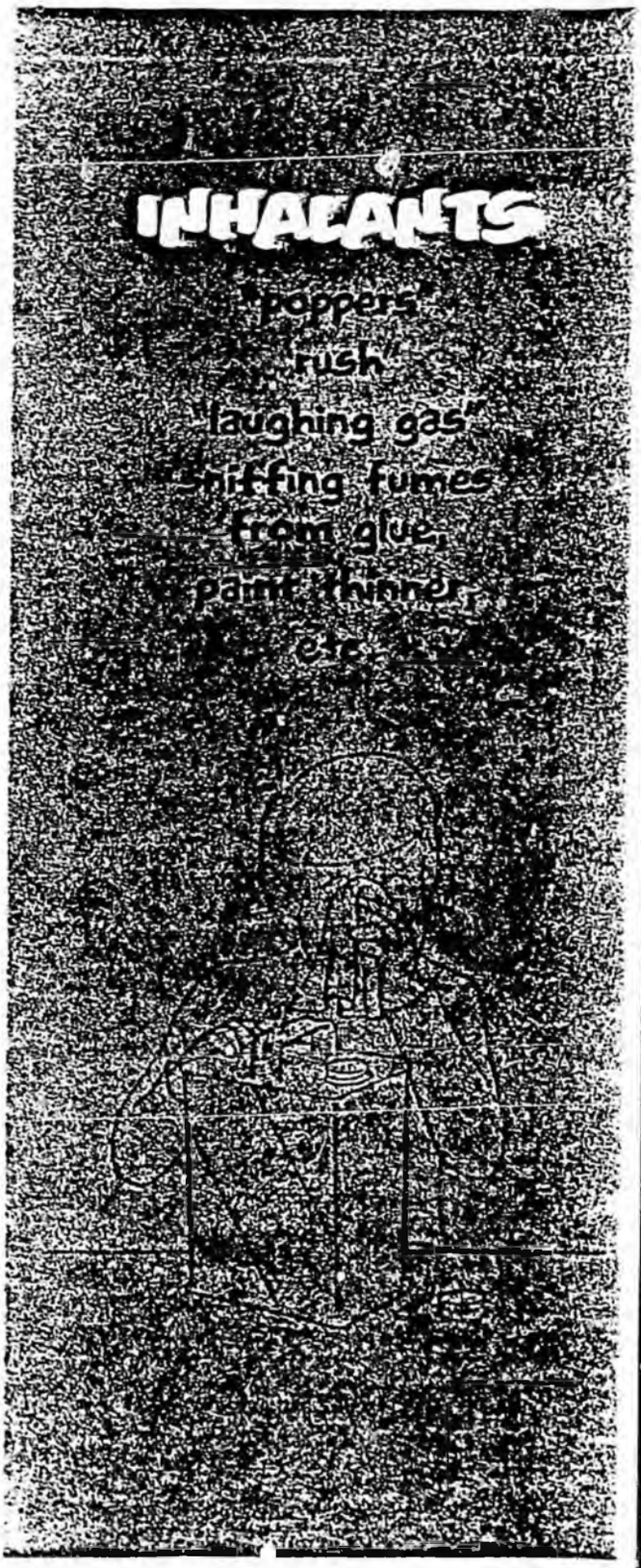
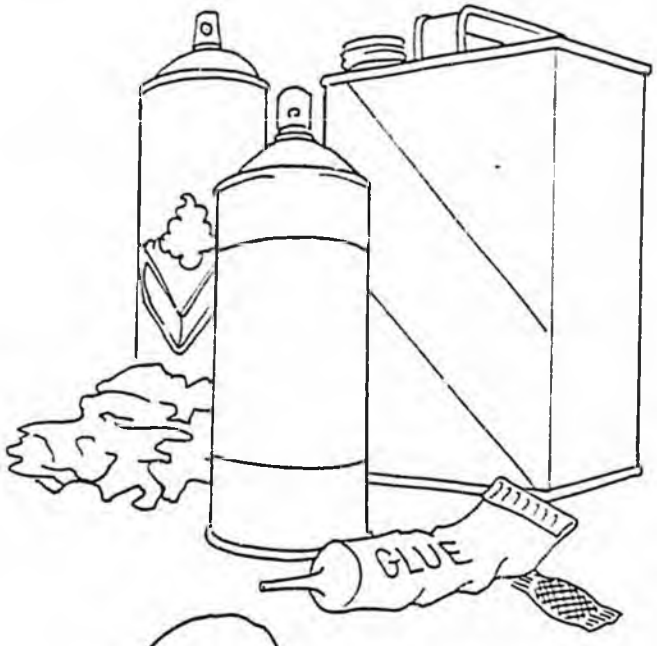

INHALANTS
"poppers"
"rush"
"laughing gas"
"sniffing fumes"
from glue,
paint thinner,
etc.

What are INHALANTS ?



They're chemicals that give off fumes or vapors that cause a drunken feeling when they're breathed in. They include:

- Solvents – paint thinner, glue, gasoline, etc.
- Aerosols – chemicals used in spray cans for spray paint, deodorant, cooking oils, etc.
- Amyl and butyl nitrite (see below) and nitrous oxide ("laughing gas").

LEGAL CLASSIFICATION

- Amyl nitrite – prescription drug used for heart pain (angina)
- Others – state and local laws vary

FORMS

- Amyl nitrite – cloth-covered bulb that "snaps" or "pops" when broken
- Butyl nitrite, solvents – liquid
- Aerosols, nitrous oxide – gas

HOW THEY'RE USED

Inhaled from a cloth, plastic bag, mask, etc.

A SCHIFTOGRAPHIC BOOKLET by CHANNING L. BETE CO., INC. South Deerfield, MA 01373 U.S.A.

Lithographed in U.S.A. 1988 Edition 31161A-6-88
To reorder phone 800-628-7733 and request booklet number 31161

WHY do people abuse inhalants ?

People may try inhalants for a variety of reasons:

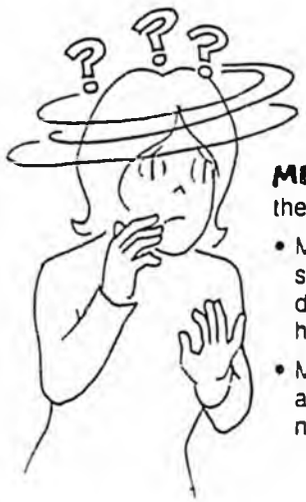
- For "kicks" or to get "high"
- To experiment
- Because inhalants are easy to get
- To go along with friends.

PEOPLE WHO CONTINUE USING INHALANTS
build up tolerance – they need more and more of the drug to get the same effect.

HOW do inhalants affect the mind and body ?

PHYSICALLY,
they:

- Are absorbed into the bloodstream and passed to organs within seconds
- Slow the flow of oxygen by replacing it with vapor
- May cause dizziness, double vision, slowed reflexes, convulsions, even death.



MENTALLY,
they:

- May cause confusion, mood swings, delusions or hallucinations
- May have no effect at all, in the case of nitrites.

INHALANTS CAN BE DANGEROUS!

Dangers include:

PHYSICAL HARM

- They may cause permanent damage to the nervous system, lungs, kidneys, and other organs.
- An overdose of solvents and aerosols can result in coma or death.
- They endanger unborn children when used by pregnant women.

Nitrites may harm the body's disease-fighting immune system.

ACCIDENTS AND CAR CRASHES

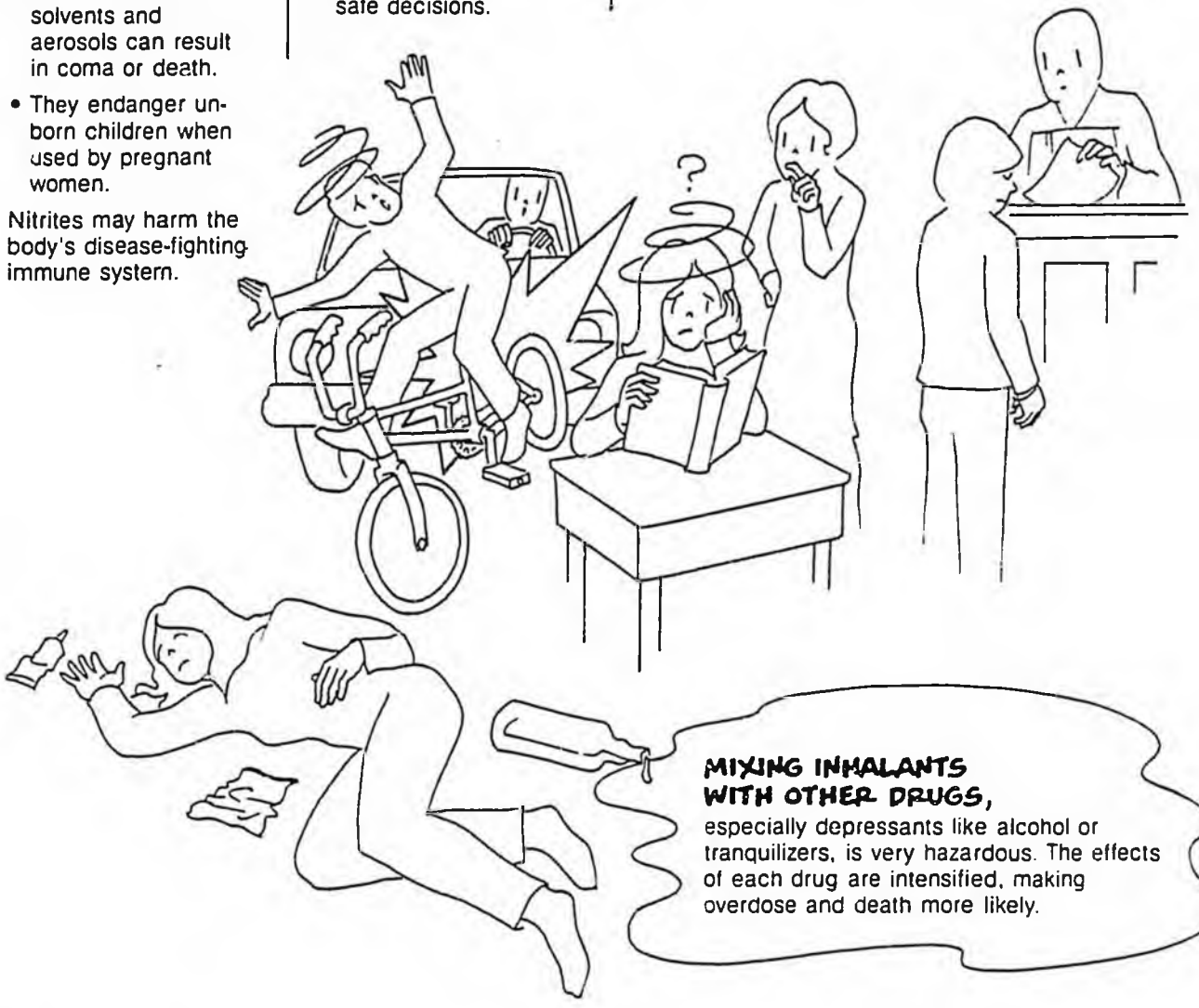
Inhalants affect judgment, vision, coordination, and many other skills needed for safe driving and making safe decisions.

SOCIAL PROBLEMS

Using inhalants can harm relationships with family and friends and destroy school and job performance.

LEGAL PROBLEMS

Depending on the drug and local laws, a user may risk a fine and jail terms.



MIXING INHALANTS WITH OTHER DRUGS, especially depressants like alcohol or tranquilizers, is very hazardous. The effects of each drug are intensified, making overdose and death more likely.

So o --

INHALANTS ARE DANGEROUS!

Don't start using them in any form -- stop if you already do. Get help, if you need it, from:

- ✓ Family and friends
- ✓ Hotlines and referral services
- ✓ Drug treatment programs
- ✓ Employee assistance programs
- ✓ Mental health agencies
- ✓ Drug abuse counselor
- ✓ Your physician or other health professional.

Check the Yellow Pages under "Drug Abuse" for organizations in your area.


INHALANTS

INHALANTS

Inhalants are chemicals which have a psycho-active or mood-altering effect when their vapors are inhaled or sniffed. Often they are not thought of as drugs since they are usually produced as commercial products. Most inhalants fall into one of three categories: solvents, aerosol sprays or anesthetics. Vasodilators (substances that enlarge the blood vessels) such as amyl and butyl nitrite are also inhalants.

Solvents include commercial products such as glue, gasoline, kerosene, lighter fluid, paint products, lacquer thinner, spot-remover, and nail polish remover. Aerosols include products such as hair sprays, deodorants, insecticides, restaurant food chillers, and cookware coating sprays.

Anesthetics used as recreational inhalants include ether, chloroform and nitrous oxide.

Solvent and aersosal users, are typically, among the youngest or poorest drug users. Inhalant use is higher among students in the lower grade levels than it is among students in the upper grade levels.

HOW USED

The fumes or vapors from the inhalant are sniffed through the nose. Sometimes the inhalant is put in a bag or the vapors are captured in a balloon to increase the concentration of the fumes.

COMMON STREET NAMES

Amyl nitrite:	snappers, poppers, pearls, amys
Butyl nitrite:	room odorizer, intimate incense, Rush®, O_2, Locker Room
Nitrous Oxide:	laughing gas, nitrous, gas

HISTORY

The history of inhaling vapors for their psychoactive effect goes back to ancient Greece. The psychoactive effects of inhalants such as nitrous oxide and chloroform were noted in the early 1800's. Ether was first inhaled for its psychoactive effects at the beginning of the twentieth century. Sniffing of solvents such as glue, gasoline, and paint products began in the late 1950's. The use of aerosols for their psychoactive effects began in the 1960's. The recreational use of the vasodilator amyl nitrite is an even more recent phenomenon, beginning in the late 1970's.

PHYSICAL EFFECTS

Nearly all inhalants act as central nervous system depressants. (They slow the users heart rate, brain activity and breathing.)

Other effects of inhalants include slurred speech, blurred vision, inflamed mucous membrane, light headedness, ringing in the ears, watering eyes, loss of coordination, and excessive nasal secretions. At high doses the user may lose consciousness or have seizures.

Symptoms of inhalant use include blood shot eyes, nosebleed and bad breath.

inhalants' effects are immediate and may last from 20 - 45 minutes after the last inhalation. Drowsiness, headache and nausea can follow use.

Chronic use of some inhalants is thought to be damaging to the liver, kidneys, blood and bone marrow. Depending on the type of inhalant this damage may or may not be reversible. Chronic sniffing of the solvent

toluene, found in gasoline, paint thinners and commercial cleaners has been shown to cause irreversible brain damage.

Research is in progress to study whether inhalant use causes chromosome damage or blood abnormalities.

Some inhalants create tolerance in the user. Tolerance means the user needs to sniff more of the inhalant (with each use) to get the desired effect.

There is disagreement over whether inhalants cause physical dependency. Some sources indicate that chronic users who stop using inhalants experience withdrawal symptoms such as chills, hallucination, headaches, stomach pains, cramps and delirium tremors.

Little is known about the effects of inhalants on pregnancy or fetal development.

PSYCHOLOGICAL EFFECTS

At low doses users may feel stimulated and energized. At higher doses the user may feel an uninhibited euphoria similar to an alchohol induced "high." Some users experience amnesia for the period of inhalant intoxication.

Chronic use of inhalants may result in forgetfulness, inability to think clearly, depression, irritability, hostility and paranoia.

Some users of inhalants may develop psychological dependency. This occurs when the effects of the inhalant become so essential to the user that he/she experiences emotional discomfort when not using inhalants.

MEDICAL USES

There is no legitimate medical use for the inhalants which are produced as commercial products. However, nitrous oxide is used as an anesthetic in dentistry. Amyl nitrite is used as a vasodilator to revive individuals who have lost consciousness, especially when the loss of consciousness is associated with a heart problem.

LETHAL DOSAGE

Sniffing high amounts of aerosol or solvent inhalants can cause an irregular heartbeat which may result in sudden death.

Death from inhalants is usually caused by suffocation since the inhalant displaces oxygen in the lungs. Sniffing inhalants from a bag or balloon increases the risk of suffocation.

Misuse of commercial aerosol products such as whip cream chillers has been reported to cause death by freezing the user's lungs.

POTENTIATION

The central nervous system depressing effects of inhalants are increased when they are used with other CNS depressing drugs such as alcohol, sleeping pills, pain pills, tranquilizers or Quaaludes® . This increases the chance of accidental or intentional overdose.

CRISIS TREATMENT

Individuals experiencing an inhalant overdose should receive immediate medical attention. While medical attention is being sought those in attendance should take care to see that the individual's airway (mouth, throat) is free from all obstructions. Efforts should also be made to keep the individual awake by having him/her talk, walk or move.

TREATMENT OF LONG TERM INVOLVEMENT

A chronic user of inhalants may need medical supervision to deal with the symptoms of withdrawal. Individuals who want to discontinue the use of inhalants will probably need both individual and group support.

RESOURCES

Individuals wishing to get treatment should contact their single state agency for drug abuse services or the National Institute on Drug Abuse, 5600 Fishers Lane, Rockville, Maryland 20857. (In Charlotte, NC, treatment services are available from Open House Counseling Service, Inc., 801 S. Graham Street.)

LEGAL CONTROL

Inhalants are not covered by the Federal Controlled Substances Act. In North Carolina inhalants are not covered by the State Controlled Substances Act. However, the State Toxic Vapors Act prohibits inhaling fumes for the purpose of intoxication and forbids selling, possessing or giving away such a substance. Sale or possession of inhalants intended for sniffing is a misdemeanor punishable by up to two years in prison, a maximum fine of $2000 or both.

RELATED READING

Inhalants Factsheet. Addiction Research Foundation, 33 Russell St., Toronto, Canada M5S 2S1.

Inhalants. National Clearinghouse for Drug Abuse Information, 5600 Fishers Lane, Rockville, MD 20857.

Inhalant Use and Treatment. National Institute on Drug Abuse, 5600 Fishers Lane, Rockville, MD 20857.

The DRUG EDUCATION CENTER

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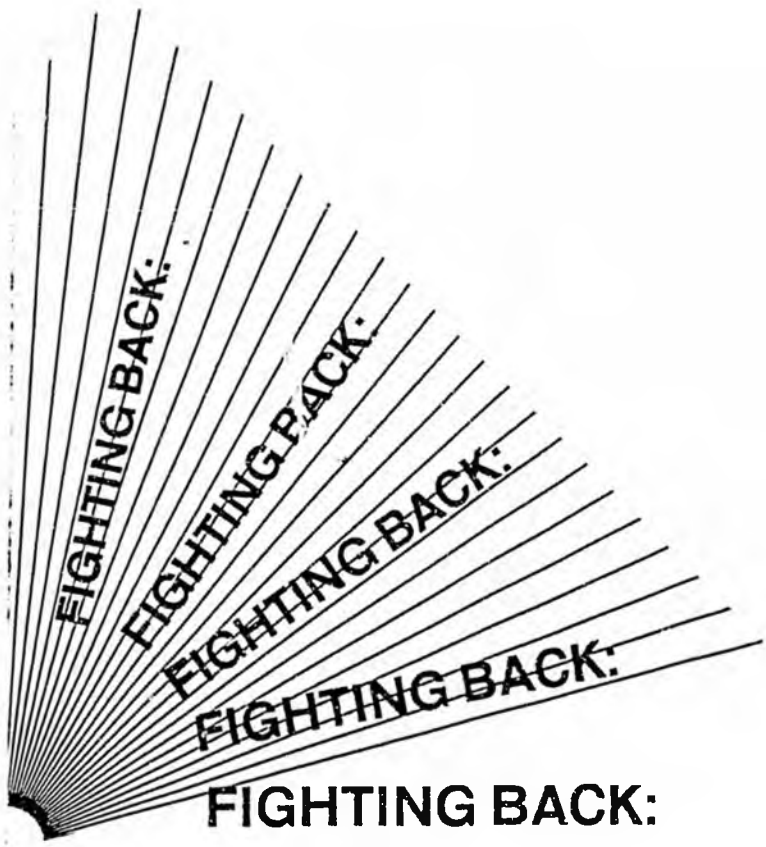


FIGHTING BACK:

HELPING YOUNG PEOPLE KICK THE SNIFFING HABIT

This brochure may help someone you care about, or even save their life. You may have heard about sniffing addiction, and wondered what it is and whether it will affect your family. Or perhaps sniffing addiction has already become a problem for your children. Whether or not they are active sniffers, you should keep in mind that continued sniffing, for the price of a quick "high," can lead to serious mental and physical deterioration and even result in death.

You may be a parent, an older brother or sister, a teacher, or a concerned person in the community, anxious to help an addicted youngster find the road back to health and a more productive life. This brochure will help you understand the sniffing problem, and describe your role as a crucial link in educating the young to the hidden and actual dangers that await those who "sniff to get high."

Inhalants: The Substances Abused Through Sniffing

Intentional misuse of gasoline, solvents, aerosols and other substances through sniffing or huffing has been a problem among young people since the early '60s. Inhalant abuse is itself part of the total drug abuse problem. Inhalant abuse may be described as the willful and deliberate, deep breathing and prolonged holding in of gases from certain substances to attain a modified state of consciousness, usually described as a euphoric, mind-altering "high." As distinguished from normal breathing or inhalation, inhalant abuse is intentional and voluntary, its only purpose being to draw these inhalants repeatedly deep into the lungs until the desired level of intoxication is reached.

Inhalants are a diverse group of chemicals that produce vapors which, when inhaled, interfere with normal functioning of the mind and body. Concentrated vapors of solvents in a variety of products such as glue, paint thinner, nail polish remover, cleaning and lighter fluid, typewriter correction fluid, refrigerant gases, and some aerosol products may act in this manner. These products are among the substances that continue to be misused and abused by young people today.

Sniffing is hard to control because it involves consumer products that are sold for legitimate purposes, are readily available, and are not harmful if used as directed. Certain chemicals in these products, which make them effective for lawful uses, also make them suitable for sniffing. By breathing in vapors from concentrated doses of these substances, instead of using them for the purpose intended by manufacturers, youngsters may induce a state of "high." Past efforts to regulate specific chemicals in products subject to abuse have not successfully deterred youngsters from sniffing them. In addition, such regulations unfairly discriminate against legitimate users of these products. It therefore appears that the sniffing problem cannot be curbed by banning the products, but only by preventing their willful misuse.

A Sniffer's Profile: The Path to Addiction

Studies show that youngsters begin abusive sniffing at a relatively young age—i.e., eight to 12 years of age. Although there are more male than female sniffers, the habit is common to both sexes. In the recent past, sniffers tended to come from poor, broken homes, mostly from minority populations in the Southwest. This pattern, however, is slowly changing, and now involves children from all walks of life.

Sniffing aerosols and other chemical products is attractive to youngsters because it offers them an easy, cheap thrill. These potentially inhalable products, made for

bonafide uses, are accessible in many retail outlets—supermarkets, hardware stores, drugstores, stationers. Young people who have not reached the legal drinking age can resort to inhalants in place of alcohol. With their limited spending power, youths find that these products are very affordable as compared to drugs which may be preferred. Given these "advantages," once hooked on sniffing, youngsters may find it extremely difficult to break the habit.

Sociologists, medical authorities and law enforcers have helped form a composite picture of why young people get hooked on sniffing. One of the most important factors, according to studies, is peer pressure. The wish to belong is overwhelming. Sniffing victims, moreover, often come from a home lacking the supervision and interest of caring, nurturing parents. Dealing on their own with the pains and problems of growing up, children raised in such an environment have low self-esteem and seek escape rather than face reality. Research also shows that chronic sniffers have time on their hands. Bored, depressed and anti-social, they find sniffing a preoccupation and lifestyle. Other reasons given are the absence of church influence, rebellion against authority, and idle curiosity—the urge to try anything once.

It is easy to reason that the young are unaware of the mental and physical harm they inflict on themselves through sniffing. Yet, certain body signals will tell the addict that something is wrong, even as the mind weakens in its ability to grasp the full meaning of the situation. Thus, no matter how frivolously or tentatively begun, sniffing becomes an addiction to these unsuspecting youngsters.

This is why you, concerned and responsible adults, can effectively intervene. You need, however, to be aware of the actual physiological effects of sniffing and of how you can tell, by observing your youngsters, if they are "hooked."

Gradual Destruction: The Toll on Mind and Body

The mental and physical effects of long term sniffing are deadly. It can be summed up with the phrase, "permanent damage to vital body organs."

Immediate effects. After quickly passing through the sniffer's nostrils or mouth, these gases invade the lungs and bloodstream, producing a "high" in a matter of seconds. The invading gases may cause varying allergic reactions: temporary paralysis, asphyxiation, irregular heartbeat, nausea, partial amnesia during intoxication, blurred vision, and reduced muscular coordination. These symptoms can last from 15 to 45 minutes after sniffing stops. Young people have confessed to sniffing intermittently through the day, for hours at a time.

Long term consequences. If the abuser continues to sniff and is still alive (there have been cases where the curious, unaddicted, first-time sniffer has dropped dead), long-term consequences set in with repeated abuse. Although physical and mental disorders from short-term sniffing are generally reversible, some damage may be difficult to heal. And, as heavy sniffing persists, the condition of the body's central nervous system declines, reducing the young person's physical and mental capabilities.

As the lungs are insulted by these extremely high levels of chemicals for a long period of time, their air capacity is diminished. The body's resistance to respiratory disease becomes greatly weakened. Permanent lung disorders, including chronic pneumonia, may result. Irreparable damage to liver, kidneys, blood and bone marrow, may occur. In addition, irreversible brain damage may set in.

The final result, death. The National Institute on Drug Abuse (NIDA), in its brochure entitled "Inhalants," states that sniffing highly concentrated amounts of some of these chemicals can produce heart failure and instant death. Known to medical personnel as "sudden sniffing death," heart stoppage can result without warning, even on the first try. The NIDA brochure also states that these abused inhalants, when taken in high enough doses, can cause death.

Sniffing can hurt young people in many other ways. As their tolerance for inhalable substances grows, they will seek larger and larger amounts to get the desired effects. And, as they sink deeper into addiction, they lose the chance to learn how to cope normally with their world and develop into responsible young adults.

Do You Have a Sniffer in Your Life?

Be alert to the tell-tale signs of early addiction. While the overt symptoms might elude you at first, sniffers are often unaware that their changing behavior and attitudes over which they gradually lose control, give them away. These changes are the critical signals, which you can spot if you know what to look for.

The signs of sniffing will be revealed to you by what you see, smell and hear, as well as observe generally over a period of time. Study your suspected sniffer subtly but thoroughly. Here are some suggestions for detecting this destructive habit.

When he or she walks through the front door, because it is perfectly natural to look into the child's face as you exchange greetings, you have the opportunity to study the eyes, face and general appearance.

You might see: dilated pupils, glazed, reddened, unfocused eyes; a guarded expression; a disoriented manner; blisters around nose; sore, cracked lips; unusual salivation; strange stains on clothing and body; unsteady muscle coordination, as though intoxicated.

Try to get physically near the youngster—help if there are books to carry, parcels to set down, a coat to take off.

You might smell: bad, unpleasant breath; chemical odor on clothing.

In addition, try making conversation, sticking to a general, non-controversial subject, but one that would require the youngster's response.

You might hear: uncontrolled, irrelevant giggling; slurred speech; conversation indicating distorted perception of time and distance; too much coughing; sniffling; expressions of invincibility and might.

If you fail to establish a dialogue, because the youngster deftly avoids you, or tells you he or she is ill and does not feel up to sitting down for a chat, take the cue. In the event that the child is suffering from sniffing addiction and not an ordinary bug, the young person in your charge is sick, and feels terrible.

You might notice: abnormal drowsiness; painful withdrawal symptoms, such as severe headaches, as well as stomach and leg muscle cramps.

If, for various reasons, you are unable to conduct a similar "study" in your home or classroom at the time the youth needs it most, other clues will help you. Strange "toys" may well be the paraphernalia of an active sniffer.

You might find: rags or cloths in the closet and other hidden corners in the backyard; dried stains on clothes smelling of chemicals; empty containers of abused products; old socks, plastic bags.

Over a period of time, you might begin to notice those changes in behavior mentioned earlier. If you are quite sure that these changes are unrelated to a genuine physical malady, they will be your final sign that your youngster needs help.

You might notice the young person's: chronic laziness; loss of appetite; slovenly appearance; detachment from family, ordinary youthful interests, former hobbies; vacant expression; restlessness; moodiness; nightmares.

While some of these characteristics are usually associated with a phase that all normal children go through while growing up, you can, within reason, sort out which of these are no cause for worry, and which are the danger signals. If a combination of several of these signs comes uncomfortably close to behavior you have noticed in your young, you must ask yourself: do I have an active sniffer in my life?

If yes, or maybe, plan to act now!

The first thing you should do is face the facts, and look into the resources available to you, in order to help both yourself and the young person in trouble. Before you act, however, keep in mind these important "don'ts."

Don't confront the child, especially when he or she is "high"; try not to lose your temper; and don't think that sniffing is a passing fancy that the child will outgrow.

Investigate why your youngster is abusing products through sniffing. If it is to try to conform to a group, a new interest might divert the child's attention and you should explore this promptly.

Your community center is a good place to start. If your youngster, however, is far advanced in the sniffing habit, contact your local drug center or seek professional help. Above all, remember that a loving home is a refuge for the young ones. Try to instill in the home or classroom an environment of understanding, enlisting the cooperation of other persons, such as the parents of your child's friends, as well as those who come in daily contact with the recovering sniffer. Discuss the issue openly and plan together to protect all the kids involved.

A Helping Hand: How Industry is Responding

Just as industry considers it important to provide safe, convenient products for home and personal use, it recognizes the need to educate consumers in the safe and correct use of these products. In accordance with applicable laws and regulations, the products are labeled for proper use and, in addition, with caution statements to help the consumer properly use the product. The label is

thus a guide to help the intended user. In addition, there are certain guidelines which supplement the laws that must be followed. There is no practical way for the label to tell young people who wish to abuse or misuse a product of all the potential dangers or harm that might befall them. The industry believes, therefore, that information such as that contained in this brochure should be made available to those who can influence and direct young people.

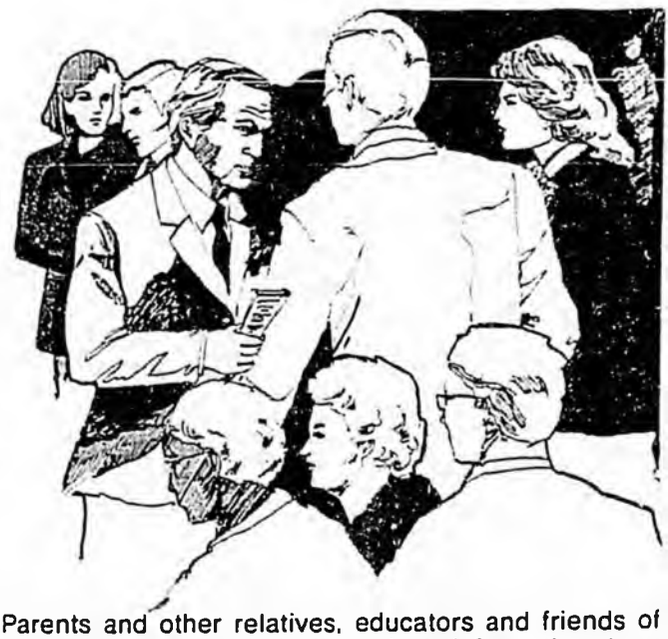
Consumer Responsibility: The Role of CSMA

The Chemical Specialties Manufacturers Association, which represents 85 percent of the chemical specialties industry, comprises a responsive and involved group that is as concerned about consumer health, as it is about assuring that its customers realize the benefits of its products. Some of the types of products subject to inhalation abuse include glue and adhesives, typewriter correction fluid, cleaning and lighter fluid, and a variety of aerosol sprays—paints, shoe polish and waterproofers, art supplies, cooking sprays, etc. The Association, therefore, takes a responsible role in the battle against sniffing.

When the problem of aerosol sniffing surfaced in the '60's, it became evident that educating the young, as well as parents, teachers and others who work with youth, was the key to changing their destructive habit. Thus, CSMA, together with a group of organizations affected by sniffing abuse, formed the Aerosol Education Bureau. This educational arm of the industry was charged with the task of instructing young persons, as well as adults in positions of authority, about the inherent dangers of abusive aerosol sniffing. By clearly demonstrating the risks associated with the habit, the industry hoped that a positive deterrent effect would result.

Over the years, since its founding in 1969, the bureau has administered a broad educational program to inform youngsters who deliberately seek intoxication through sniffing. Getting the message to its primary target audience through schools, community groups and the media, AEB has successfully called the public's attention to the fact that sniffing is a problem—and that the solution, which stresses education, requires everybody's cooperation.

In the belief that education will deter young people from risking their lives, the aerosol industry and other businesses affected by product abuse, ask public officials, teachers, parents, and the helping professions to join in spreading accurate and appropriate information on the dangers of sniffing. Health and social service workers need to be alerted to the symptoms of sniffing abusers, who are taken to treatment centers for sniffing-related disorders. Sometimes, these symptoms can be easily mistaken for a flu virus—runny nose, red eyes, sore throat, etc. Thus it is important that hospital workers have full access to information that would help them better identify sniffing symptoms and aid in obtaining cure for the afflicted youngsters. Sniffing is dangerous to the nation's children. It is important for all to know that this destructive habit can eventually maim or kill young people who do not realize the inherent dangers, and do not know how to secure the help they need.



Parents and other relatives, educators and friends of addicted sniffers can help disseminate information about sniffing within their communities. National and state organizations dealing with drug abuse, as well as local community resources such as youth groups, schools, libraries, churches and drug information centers offer information that will help concerned adults in the fight against inhalant abuse. Two national resources are:

The National Clearinghouse for Drug Abuse Information
Dept. CS
P.O. Box 1706
Rockville, Maryland 20850

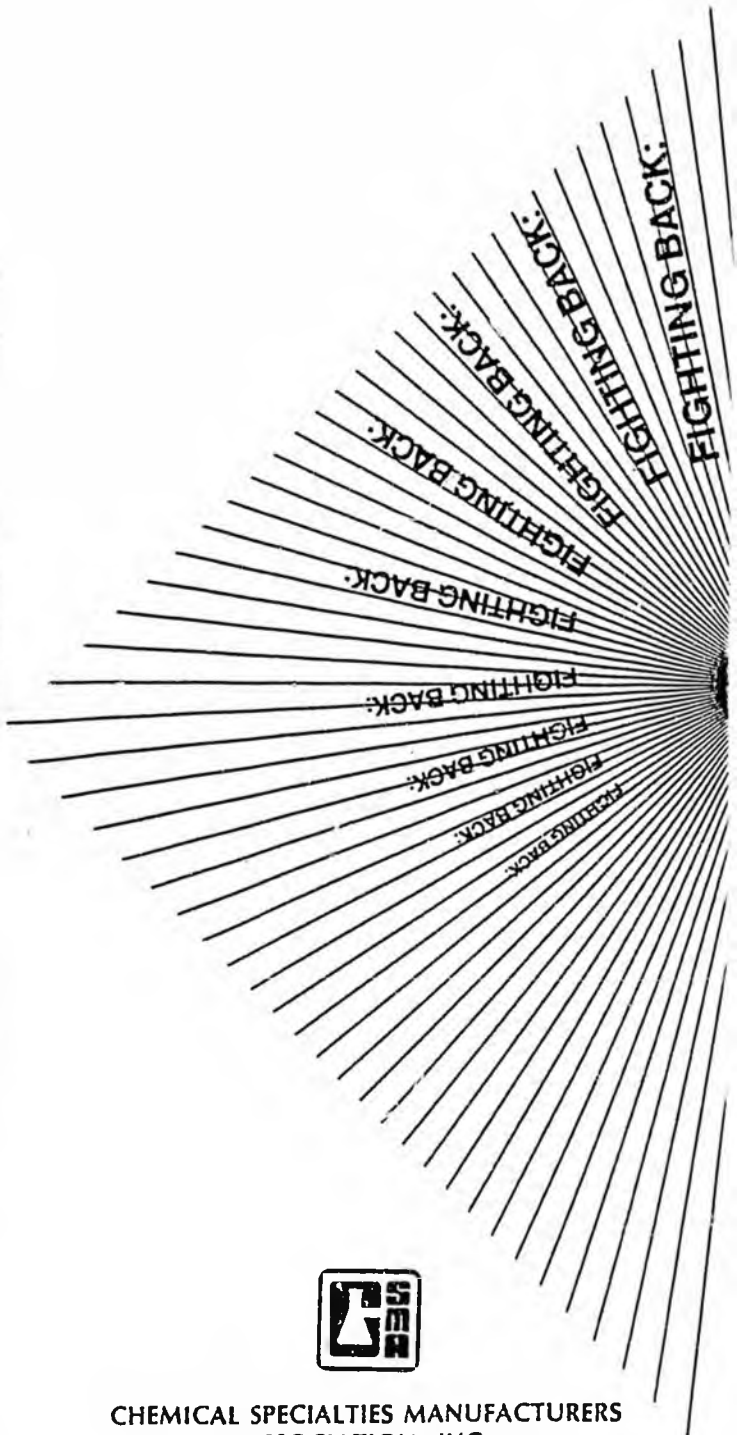
and

The National Federation of Parents for Drug-Free Youth
P.O. Box 722
Silver Spring, Maryland 20901
(Toll free) 800/554-KIDS

In addition, the AEB is a valuable industry resource which can supply educational tools at minimal cost, as it has done for many years in its efforts to warn the general public of this dangerous habit. If you know of any organization in your neighborhood that might be a good distribution center for this brochure, you may refer them to the bureau.

Write or call:

Aerosol Education Bureau
1001 Connecticut Avenue, NW—Suite 1120
Washington, DC 20036
202/872-8155



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