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SIGNS AND SYMPTOMS OF CHEMICAL USE

WARNING SIGNS

When children begin to use alcohol and other drugs few signs are initially noted by parents since many changes are expected during adolescence. Parents rarely find their child intoxicated, "high", or otherwise impaired. Likewise, hard evidence of usage such as finding the actual drugs or alcohol is often a matter of occasional accidental discovery. Parents must rely most often on the subtle signs and symptoms and the inference of drug use which can be drawn from various signs.

Parents may have cause for concern if their child has rebellious attitudes towards parents and other authority figures, changes friends, is very eager for acceptance by friends, uses bad language, is irresponsible toward work and school, strives to develop a "cool" image, or frequents rock concerts. Some changes may start before alcohol or drug use begins as the child becomes attracted to the drug culture.

THE DUAL LIFE

The alcohol or drug-involved child is apt to lead a dual life in the early stages of usage. A clean image is maintained in front of parents, teachers, and straight friends and a totally different image is projected among drug-using friends. Although their drug use may be well hidden, they put an emotional distance between themselves and their parents and other adults. Many are able to maintain a good appearance, good grades, athletic, and other extra-curricular activities for a surprisingly long period of time (years). The ability to lead a dual life also deceives the user into believing he has control of usage.

BEHAVIORAL SIGNS

As he is drawn more to the drug culture attitudes change, and what was once unacceptable (gross, crude, or illegal) behavior is now "cool" and acceptable. Sports, extracurricular activities, and hobbies, may be discarded. Carelessness, laziness, depression, cheating, stealing, lying, conning, vandalism, bad language, rapid emotional ups and downs, poor concentration and memory, falling grades, curfew violations, school and work absences, disrespect for authority, paranoia, interest in witchcraft, and sexual promiscuity point to possible drug use.

The family relationship deteriorates, family activities are shunned, meals are eaten quickly with the child retiring to his room and listening to loud rock music for long periods of time. Eye contact with parents and other authority figures is avoided. Everyone is "on his case." All of his failures are blamed on others.

> "I began to worry about my 14 year old when he became hostile, not just toward me, but to his sister. She had, up to now, been his best friend. I was bewildered by his urge to hurt those who loved him most. This puzzled me and I felt alone and wounded. When he ridiculed his best friend and abused other "friends" verbally I worried even more. Then other strange behavior began. He became insanely jealous of his sister and anyone he thought might get a crumb more of any treat he felt he deserved. He blew up at a moment's notice if he was asked to help around the house. He rarely talked, but when he did he revealed an alarming absence of reality in his thinking, planning a future career as an artist with no thought of education or marketability of his work.
>
> At home he was either arguing, complaining or locked alone in a bedroom, bathroom or basement. His moods swung from apathy to hatred. Hardly ever was there any peaceful ground between."

For some, threats to run away become an effective method to get their way. Many do run away and stay at friends' homes or in the woods. Parents of his friends may be told by the runaway that his parents are abusing him.

The "druggie look" is expressed in a child's flat facial expression, ragged, worn clothes, "bop" walk (walk with a bounce), slouched stance and generally depressed appearance. Girls often use heavy makeup, wear long bangs over the eyes, sexy clothes and jewelry. Both girls and boys strive to appear older. Personality changes can evolve slowly, over the years or occur very rapidly in a matter of months.

PHYSICAL SIGNS

Most physical signs do not occur until alcohol and/or drug use are well under way. Marijuana irritates the whites of the eyes, and the use of Visine or similar products alleviates irritation and redness. A persistent cough is very common. Other suspicious conditions are a runny nose, nasal sores, a facial puffiness, dilated or constricted pupils, glassy eyes, a skin rash similar to measles, poor muscle coordination, and stains and burns on lips, inside the mouth, finger tips or fingernails. There may be a craving for sweets, excessive or depressed appetite, excessive thirst, bad breath, or a weight gain or loss. Frequent illnesses are common.

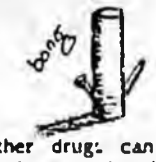
Children who "do drugs" are frequently tired because many of the drugs depress the central nervous system. Also, many teenagers are tired because a druggie lifestyle frequently involves sneaking out of the house at night (often through a window) in order to join friends, and returning in the morning before the family awakens. The child catches up or lost sleep in class or at home in the afternoon.

It is important to note that alcohol use alone can manifest many of the above behavioral and physical signs and should be considered just as serious as other drug use.

PARAPHERNALIA

Many drugs require paraphernalia to prepare them for consumption. Some drugs such as PCP and even the insecticide, RAID, are sprayed on substances such as dried parsley leaves and sold in tiny foil packets or baggies. Marijuana is stored and distributed in plastic bags, small jars, or film canisters. Marijuana seeds, about the size of large bird seed, may be found in baggies, pockets, or small containers. The handrolled marijuana joint requires rolling papers and quantities of matches to keep it lighted. The marijuana ash is smaller, more fragile and whiter than tobacco ash.

Marijuana joints (reefers) and other types of drug-treated cigarettes which are smoked down to the butt (roach) are often held by roach clips to avoid burning fingers. These clips resemble the alligator clips found in hardware stores. Fancier ones such as feathered and highly decorated clips can be purchased in many stores and gas stations.



Marijuana, hashish, and other drugs can be smoked in various types of pipes ranging from ordinary tobacco pipes to elaborate smaller ones that can easily fit into a pocket. Small probing tools are used to clean the sticky brown tar residue left from the smoking process. Some drugs can be smoked without pipes by burning them like incense in a partially covered container and inhaling the smoke.

Bongs are especially favored for marijuana smoking and are often shared by a group. A bong is an apparatus that cools, filters, and concentrates the smoke giving the user a better high. It consists of a cylinder 6 to 12 inches high which holds water. A tube leading into the side holds the "bowl" in which the drug is burned. By sucking air at the top of the cylinder, smoke is drawn from the bowl through the water and inhaled. It can also be used to smoke hashish, PCP, quaaludes, and other drugs. Bongs come in many styles and materials, and are often homemade.

Many kids will grow marijuana plants from the seeds they clean from their marijuana.

> "My daughter convinced me that the potted plants growing on her window sill were a school project. Feeling very proud of her new interest in science I helped her keep them watered. Much later I found out I was watering marijuana plants."

"Snorting" is another method of drug use popular among cocaine users. Any powdered or pulverized drug can be snorted. The drug is usually deposited on a mirror and aligned with a razor blade. The "line" is sniffed through a short straw, rolled dollar bill, or tiny spoon.

Items which may indicate intravenous drug use are syringes, eye droppers, spoons for heating and dissolving powders, and cords or belts used for tourniquets. Balloons or paper bags are used for inhalants.

OTHER SIGNS

Much of the alcohol used at first comes from parents' homes. Water is often added to liquor bottles to fool parents. It is well to do a taste test when checking supplies. Soft drink glasses and cans easily disguise alcohol. Girls often hide small bottles of alcohol in their purses.

Medications purchased by the child as innocuous as cough syrup or any over the counter drugs may indicate problems other than coughs or sore throats. These preparations may be used to alter moods when consumed in sufficient quantities. Often they contain alcohol.

Breath sprays mask alcohol use and smoking. Incense, candles, or room deodorizors remove smoking odors from a room.

Popular hiding places for drugs are stereo speakers, trophies, lamp bases, books, albums, stuffed animals, air conditioner vents, parents' and child's out of season clothing, parents' rooms, car trunks, attics, garages, tool sheds and bushes.

Faked or forged ID cards are easily obtained and used to buy alcohol. Bikes, clothes, stereos, etc. may appear or disappear if they are being used for trade in drugs. School yearbook inscriptions often reflect changed values, as do posters, drug culture clothing, jewlery, record albums, and magazines.

Frequent short telephone calls, hanging up when parents answer, prank and late calls are cause for suspicion.

Favorite hang outs include shopping centers, especially stairways, hallways and game rooms; convenience stores and pizza parlors; school smoking lounges; parks and secluded sites.

PUTTING THE CLUES TOGETHER

It is very helpful to write down all the behaviors, events, and physical evidence which have caused concern with either parent. Recall dates as well as you can and continue to keep the list. Such record keeping reduces exaggeration and minimizing, and helps both parents see their child's behavior more realistically. Bad attitudes, disrespect for authority, and a decline in the family relationship are some of the most tell-tale indicators of substance abuse, and warrant room checks, monitoring of phone calls, spot checks of school attendance, and relating concerns and observations to the parents of the child's friends. Impromptu urine testing for marijuana is of limited value since many factors affect the results of the test. The kids know tricks to bring about negative tests. Determination of which drugs the child is using is unnecessary. The fact that any drug use is causing problems in his life indicates that help is needed. A parent's best guide is probably his or her own "gut feeling" about the child. That "gut feeling" can be confirmed by an evaluation at a drug rehabilitation facility.

REFERENCES: See page 11, Nos. 1-6.

CHEMICAL DEPENDENCY IS A DISEASE

The disease of chemical dependency is established when the user needs mood altering chemicals on a periodic or continuous basis to feel good. The user is unable to control or stop usage, and a psychological and/or physical dependence is developed. Tolerance to the drug also develops, which means that larger doses are needed to produce the original results.

Physical dependency is present when the drug becomes a part of the person's normal body chemistry and unpleasant physical symptoms, such as vomiting, tremors, sweating, muscle cramps, or even convulsions occur when the chemical is abruptly withdrawn. Physical withdrawal symptoms last for 3 to 10 days depending on the drug. Drugs that cause a physical dependence include nicotine, alcohol, narcotics, hypnotic sedatives, and some tranquilizers.

Psychological dependency on any mood altering chemical is much more difficult to overcome than the physical dependence because it lasts for the rest of the user's life. In other words, he is never cured, but is always in either a recovering or active state of the disease. To stay well he can never again use any mood altering chemical.

The cause of this disease is unknown. It is a primary, progressive, and chronic disease which becomes a family disease as it progresses. It progresses faster in women and adolescents. If allowed to progress it can result in death. It is not a symptom of a disease, it is the disease. The undesirable behaviors associated with chemical use are caused by the chemical use rather than the chemical use being caused by other underlying factors such as inadequate parenting, learning disabilities, low self-esteem, etc. No one intends to become chemically dependent when they begin using alcohol or drugs. Most studies show there is no preaddictive or prealcoholic personality. But, once the disease has begun, behavior patterns become very similar in all abusers. Fortunately, these personality changes are reversible if treatment intervenes to arrest progression of this illness. Vernon Johnson, founder of the Johnson Institute, believes all abusers are guilt-ridden people having a very high set of values and morals which appear to be nonexistent because of their destructive and anti-social behavior resulting from their chemical abuse.

The illness is often divided into four stages. The stages are very similar for adults and adolescents but the following description will focus on the adolescent disease in today's drug culture. Chemical dependency can develop in six months in some adolescents, while it usually takes many years for an adult. Adolescents do not often become physically addicted to alcohol but they become psychologically dependent on it. If drugs are involved the progression of the disease tends to be more rapid than when only alcohol is used. Many adolescents begin tobacco use before or along with alcohol and/or marijuana use.

STAGE ONE

The first stage may be referred to as "learning the mood swing." The user learns that the chemical makes him feel good. If only alcohol is involved, this is still classified as social drinking. If other drugs are involved it could be classified as "experimentation". Few unpleasant effects occur. The chemicals involved are probably tobacco, beer, wine, pot, and/or inhalants. They are probably given to and not bought by the user. The child usually refused participation several times, and often did not get intoxicated on the first alcohol encounter or high the first several times he tried pot, because he had not learned how to inhale it. For peer acceptance, he may have faked being high. When he did learn how to use it effectively, very small amounts got him high because no tolerance had been built up. In stage one he drinks and does drugs only when it's convenient and available, mainly on weekend social events. For most there are no observable behavior changes yet, although some kids begin to adopt "druggie" attitudes and behaviors before usage begins. The parents are unaware of any usage unless they accidentally discover evidence or occasionally recognize the child is high or intoxicated. Ususally such a discovery is considered a "normal phase" by the parent.

STAGE TWO

As he enters stage two, he begins to "seek the mood swing." He plans his use of chemicals, buys them, and may use them alone. He begins to feel unpleasant symptoms as his high ends and tolerance increases. New chemicals may be introduced such as hashish, hash oil, "uppers" and "downers". Usage increaes from weekends ("weekend warrior"), to week nights, to week days. The child begins the dual life, gradually progressing to a more obvious druggie dress and life style. Druggie friends are often met away from home.

Unexplainable mood changes begin, including withdrawal, anger, and aggression. Verbal abuse towards parents, profanity, and rebellious attitudes become a constant friction point between parent and child. The child prefers to isolate himself from his family, and spends many hours in his room often with loud musical accompaniment. As drug use and tolerance increase, stealing from parents and siblings begins to pay for drugs. The first signs of the amotivational syndrome appear. That is, there is loss of motivation and drive. Everything is a "hassle." Hobbies and extracurricular activities may be dropped. All of the child's problems are blamed on other people.

As school grades drop, parents may react with strong disciplinary action. The child will bring up his grades, often by cheating or changing grades on his report card. The improvement "cons" the parents into believing the problem is improved or solved.

The child begins to violate his normal moral values. Vandalism, theft, shoplifting, lying, and/or sexual promiscuity is common. As he experiences shame and guilt for these acts, he gets high or is able to wipe out their memory by "blackouts" or selective amnesia.

Drug use increasingly becomes a necessity to feel good rather than a choice. The youngster can no longer control his drug use. Unfortunately, to most parents, school personnel, and counselors the problems are still not distinguishable from normal adolescent growth problems. Chances are slim that the parents can handle the problem alone. The child is already in need of outside help, but it is unlikely that he will receive the right kind of help.

STAGE THREE

The third stage is the dependency stage. Now his life centers on getting high. He may advance to hallucinogins, cocaine, or opium smoking. He is high most of the time. Tolerance increases and attempts to reduce dosage or stop usage fail. Solitary use is frequent. Suicidal thoughts occur. Overdoses and flashbacks begin to occur. Behavior continues to deteriorate, police incidents occur, jobs are lost, and the child may drop out of school. Chronic cough begins. He feels distress when not high. Rationalization of chemical use becomes an art and guilt feelings run high. He cannot see what is happening to himself.

Family life deteriorates. There may be skipping school, sneaking out of bedroom windows during the night, and running away. The child is guilt ridden and self esteem is very low. He thinks he is "different" from his druggie friends. Drugs are no longer fun. It appears to him everyone else is having fun. He becomes careless and maybe obvious with his use and paraphernalia (may be a plea for the help he is unable to ask for). Parents often believe the child is only using drugs occasionally. The family uses rationalizations to deny the problems.

STAGE FOUR

In stage four, chemicals must be used to feel normal. Use is no longer fun. It is compulsive, uncontrollable, and is regular throughout the day. He may be shooting up. Drugs must be used just to function. Physical health deteriorates. Delusions and paranoia can be severe. Euphoria is rarely even experienced from the drugs. Suicidal thoughts are frequent. Overdose, blackouts, and amnesia occur. He is usually well known by the police. The user is often referred to as a burnout or a zombie. If intervention does not occur, death will result from suicide, overdose, an accident, physical illness, or other untoward behavior.

REFERENCES: See page 11, Nos. 1-6

THE FAMILY

As the alcohol or drug using person's behavior deteriorates, each family member experiences anger, shame, guilt, fear, hurt, and loneliness. To relieve the pain of these feelings and to make attempts to cure the abuser, various defensive behaviors develop. These responses may begin before anyone in the family is aware that the problem is actually one of chemical abuse. In the case of the adolescent, usually the parents take on the role of the primary enabler. There are many forms of enabling. The enabler may protect the user by rationalizing his behavior; bailing him out of trouble at school, the job, the law, or even trouble with the other parent; making special allowances that would never be given to the other children; or keeping the problem secret. One enabling parent may become a controller by taking on responsibilities that actually belong to the user such as getting him up on time, taking him to school, blaming others for his problems, or by striking up bargains with the user. The other parent often enables by withdrawing from unpleasant situations, working late at the office, getting deeply involved in community affairs, being a peacemaker between the child and other parent, or blaming the spouse. As each parent takes on different forms of enabling, frequent conflicts arise and often they begin to believe that their declining marriage relationship is the cause of their problems. The user can become very skillful in exploiting this situation to his advantage. The enabling behaviors become just as compulsive as the user's chemical use. The enabler can become just as disturbed as the user.

As one parent comes out of denial and recognizes that the problems are caused by alcohol and/or drugs the other parent may still be in denial. The parent who comes out of denial first is usually the one who spends the most time with the child and handles most of the crises. The second parent may come partially out of denial, but still deny the seriousness of the abuse. Nothing constructive can happen until the second parent comes completely out of denial and the parents are united in their approach. Sometimes denial is broken when that parent is left alone to experience the embarrassment, hurt, or anxiety of each crisis his child creates with the school principal, the police, or in the emergency room. Much help can be gained in this area by attending self help support group meetings such as Al-Anon, Families Anonymous, or Tough Love.

As the conflict between the abuser and his parents continues, the other children in the family adopt various survival behaviors. Some become too good to be true, or "heroes." They overachieve, are very responsible, give the family a good name, but can be bossy, obnoxious, and achieve for attention rather than for healthy motives. Later in life these children are often "workaholics" and enablers to their spouses and their own children.

Another child may become a "scapegoat" and be rebellious, irresponsible, act out, and disrupt class. The reward is negative attention, which takes the spotlight off the user. This child could easily be mistaken for an abuser, and often abuse is in his future.

The apathetic child is often referred to as the "lost child." This child withdraws, shows little emotion, avoids conflict, and develops few social skills. He is sometimes overweight. On the surface the child appears calm and serene, when in reality there is pain, confusion, and denial of the family's problem.

The family clown gets attention by being funny and distracting. (He is often the youngest in the family.) The child is unable to express feelings and despite the humorous behavior there is much pain.

Each family member's defensive behavior becomes compulsive and habitual. As the lifestyle becomes too painful to bear, the person looks for a way out. Hopefully, this will be through a self-help group such as Al-Anon or Ala-Teen or by the family becoming involved in a rehabilitation program. Other forms of escape the person may use are leaving the family or, worst of all, by suicide.

If appropriate help is not enlisted the siblings in the chemically dependent family are more likely to become chemically dependent themselves. They have chemicals available to them, they have not developed good coping mechanisms, and the whole family is involved in unhealthy compulsive behavior patterns. With the proper help the chemically dependent family can become a nurturing family again, but without help, the family situation can only deteriorate.

REFERENCE: See page 11, Nos. 1 - 6.

FREE DIRECTORIES REHAB PROGRAMS

Directory of Community Substance Abuse Programs in Virginia: Secretary for Community Substance Abuse Services, Div. Of Substance Abuse, Dept. of Mental Health and Retardation, PO Box 1797, Richmond, VA. 22214; Call 804-786-1524.

National Directory of Drug Abuse and Alcoholism Treatment Programs. #(ADM) 83-321. NCDAI, PO Box 1908, Rockville, MD. 20850.

DOES MY CHILD NEED HELP?

By the time both parents recognize that the problems they have been experiencing are caused by chemical use rather than by other factors, the child has usually been abusing for at least one to three years, and is already chemically dependent, even though his use may be restricted only to alcohol and marijuana. If the parent finds that strict rule enforcement, close surveillance, spending more time with the child, professional counseling, etc. do not solve the problem, it gradually becomes obvious that the parents cannot "fix" their child alone. Outside help is needed from those experienced in the field of chemical dependency.

A child's drug use is not the parents' fault. The main cause is peer pressure. The child made his choice to do drugs. That choice progressed into the disease of chemical dependency. He needs treatment just as a diabetic child needs treatment. Few parents of diabetic children would withhold treatment because their child did not want injections. Untreated diabetes and untreated chemical dependency are fatal. A characteristic of chemically dependent persons is denial of their disease, and so they rarely seek help. In the case of an adolescent, it is the family's responsibility to intervene so recovery can be initiated.

Recovery from chemical dependency is very difficult, taking a long time, just like breaking a nicotine habit. Group therapy seems to be more effective than individual counseling. A good first step for parents is attendance at one of the free self-help groups such as Al-Anon, Families Anonymous, or Tough Love. There the parents will learn how to recognize their own unhealthy reactions to their child's behavior, how to make the child responsible for his actions, and how to use crises created by the child constructively. Often when the child is no longer able to manipulate parents he becomes ready to accept treatment. A child who asks for help and is motivated may do very well by attending every night or enrolling in an outpatient program. These children's programs will be more successful if their parents attend their own self-help group meetings. The less motivated children will probably require very intensive, long term programs. There are many types of treatment programs. It is advisable to meet and talk with parents and kids who have been through the programs that are available.

CRITERIA TO LOOK FOR IN A PROGRAM

1. It treats drug and alcohol abuse as a disease rather than as a symptom of a disease. It believes the unacceptable behavior is caused by the chemical use rather than by an underlying cause. It makes the user responsible for his own actions.

2. It promotes an alcohol-and-drug-free life style with drug free counselors. Recreational alcohol or drug use is not allowed. Mood altering prescription drugs are not part of the therapy. Out-patient programs often use urine screening to monitor marijuana use, and Antabuse to monitor alcohol use. Antabuse is a medication that makes one very ill when alcohol is ingested. Parents have the right to know results of urine tests, and the side effects of Antabuse.

3. It uses the twelve steps of Alcoholics Anonymous or includes AA meetings as a part of its program. These tools for self-change have a long successful history.

4. It provides daily support in the form of group counseling and/or AA meetings for at least 6 months. Aftercare continues on a less frequent basis, often in the form of AA meetings or self-help meetings.

5. At least some of the counselors should be recovered abusers who can relate by personal experience and read through the "cons" of their clients.

6. It provides counseling and education for the total family including siblings. This may be in the form of Al-Anon and Ala-Teen meetings. The family learns to recognize and to change its undesirable behavior responses it has developed in response to the abuser's unacceptable behavior. It strives to re-establish good family relationships.

7. The client must learn to live free of alcohol and drugs in a drug oriented society. After adequate progress in a structured, controlled, drug free environment the client begins a gradual re-entry into society, learning to remain alcohol and drug free at home, school, job, and during leisure time. Therapy continues during re-entry.

REFERENCES: See page 11, Nos. 1-3.

MARIJUANA

Marijuana (Cannabis sativa) is a plant which contains over 420 chemicals. The effects of most are unknown. In 1964 its principal psychoactive component (intoxicating chemical), delta-9-tetrahydrocannabinol (THC), was identified. The THC content of marijuana has increased dramatically in recent years due to improved plant genetics and cultivation techniques. Seizures made by the U.S. government in 1965 averaged a THC content of 0.1-0.2%, by 1970 the average THC content climbed to 1.0%, and by 1983 the average THC content had climbed to 2-5%. The most potent strain, sinsemilla, averages a THC content of 11-14%, and is grown illegally extensively throughout the U.S. The potency of marijuana has increased from 50 to 100 times since 1960.

Two marijuana derivatives are also widely used. Hashish or "hash" is the pure resin extracted from the flowering top of the marijuana plant dried and compressed into brown or black cakes or balls. The THC content averages 10-20%. Hash oil is a concentrated viscous liquid that varies in color from clear to black. Its average THC content is 30-40%. Pure THC is never sold on the street because it is very unstable and too costly to manufacture. What is sold as THC is actually PCP or some other drug.

Some slang terms for marijuana are grass, Mary Jane, pot, sens, reefer, weed, hemp, and roach. Marijuana looks like dried parsley mixed with stems and seeds. It is usually bought in small plastic baggies, called nickle or dime bags. One ounce of marijuana will make about 40 joints (cigarettes). A joint sells for about a dollar. Joints are hand rolled, smaller than tobacco cigarettes, and twisted on the ends. The end of a joint, a roach, is often held with a "roach clip" and smoked. Marijuana is also smoked in pipes and bongs (described under paraphernalia). Thai sticks are marijuana buds bound onto short sections of bamboo. Hashish is smoked in pipes or bongs. Hash oil is dropped on a cigarette or joint, or smoked in a special opium pipe. Dried marijuana can be eaten but is only one third as potent.

THC is fat soluble and is stored in the fatty tissues of the brain, reproductive organs, liver, kidney, and lungs. "It takes 30 days to eliminate a single dose of THC. ."[14] In comparison, alcohol is water soluble and excreted from the body in six hours. "Carefully conducted studies with known doses of marijuana or THC leave little question that tolerance develops with prolonged use."[15] Marijuana is psychologically addictive. There is evidence that it is also physically addictive, although there are no major physical withdrawal symptoms because of its slow metabolism and excretion.

IMMEDIATE EFFECTS

A single marijuana cigarette induces a "high" within minutes which lasts from 2 to 5 hours and usually does not result in a hangover. It gives an increased sense of well-being, and a dreamy, carefree state of relaxation. The user may experience sensations of floating and a more vivid sense of touch, sight, smell, taste, and sound. There is often a craving for sweets and dryness in the mouth and throat. The eyes may be irritated and red, and have a glassy look. The state of intoxication may not be noticeable to an observer, even an experienced drug user. Marijuana suppresses the nausea resulting from a large alcohol intake so that users are able to consume large (even fatal) quantities of alcohol.

EFFECTS ON DRIVING SKILLS

In a study done in 1974 by Dr. Harry Klonoff, 38 drivers covered a 16 mile route from a university campus to the traffic-heavy downtown area, and back again. They were rated by the system used to examine drivers for licensing. Final figures for the road test showed that those on the low dose (one joint with 1.2% THC) had a 42% decline in driving skills, while the high-dosage drivers (two joints with 1.2% THC) had a 63% decline. Unusual driving behavior included missing traffic lights or stop signs, poor handling of the vehicle in traffic, and unawareness of pedestrians and stationary vehicles. A 1972 study of driving behavior in a safety-controlled area showed a "marked" decline in driving abilities was still present 5 to 6 hours after smoking, a "definite" effect 8 to 10 hours after smoking, and a lingering effect as long as 24 hours later.

EFFECTS ON THE LUNGS

Marijuana burns at a higher temperature, and its smoke is inhaled deeper and held in the lungs longer than tobacco. Marijuana has 50% more cancer causing materials than tobacco. Benzopyrene, a known cancer causing agent, is 70% more abundant in marijuana smoke than in tobacco smoke. Smoking less than one marijuana joint a day decreases vital lung capacity as much as smoking 16 tobacco cigarettes a day. Marijuana has an irritant effect on the airways, resulting in inflammation and airflow obstruction of the airways. Heavy pot smoking can cause sore throats, bronchitis, sinusitis, pharyngitis, emphysema and other respiratory difficulties in a year or less. Marijuana smoke weakens the defenses of the lung against infection and disease.

EFFECTS ON THE HEART

During the "high", which can last from 2-5 hours, the heart rate increases from the normal 70-80 beats per minute to as much as 130-150 beats per minute. The blood pressure also increases. As a result, the heart muscle requires more oxygen. The marijuana smoke increases the amount of carbon monoxide in the blood, thereby reducing the amount of oxygen delivered to the wanting heart muscle, and weakening its pumping action. Only 10 puffs of a joint reduces the amount of time one can exercise before chest pain occurs by 50%.

EFFECTS ON REPRODUCTIVE SYSTEM

Possible effects on the male include lowered sperm count, enlarged breasts, damaged sperm, and decreased testosterone (male hormone) levels. These effects seem to stop when usage is discontinued. The female may experience irregularities in the menstrual cycle, failure to ovulate, and lower female hormone levels. THC crosses the placental barrier and enters the fetal bloodstream. It also passes into breast milk.

EFFECTS ON THE BRAIN

In a study done on monkeys by Dr. Robert Heath of Tulane University, a heavy smoking group smoked 3 "monkey sized" joints with 2.5 to 3% THC per day, five days a week. A moderate smoking group, smoked one "monkey sized" joint twice a week. A light smoking group received one tenth the dose of the heavy smokers. A fourth group was given an equal dose of THC intravenously to control the variables of smoking effects. A control group was given inactive marijuana to smoke. The heavy, moderate, and intravenous groups showed lasting changes on their brain recordings after only 3 months of usage. The marijuana use was continued for an additional 3 months, and the abnormal changes persisted. The marijuana was discontinued for an 8 month period. Studies were then done on their brains with electron microscopy. The heavy, moderate, and intravenous groups had changes in brain function and in brain structure. Cellular changes were greatest in the areas which control emotion and memory. The findings correlate with the behavioral changes seen in marijuana users.

BEHAVIORAL EFFECTS

Two Philadelphia psychiatrists, Drs. Harold Kolansky and William T. Moore, conducted one of the earliest well-documented studies of the effects of cannabis on the psyche between 1965 and 1974. Only patients who displayed no psychological problems or predisposition to mental illness before marijuana usage began were used. The only drug used by patients was marijuana and/or hashish. They smoked two or more times weekly, usually two or more joints each time. Common symptoms displayed included mental confusion, inability to concentrate, diminished attention span, loss of memory, loss of motivation, lack of goals, and declining academic performance. Irritability and outbursts of aggression were common, especially if the patient was questioned about his personality change, new philosophy, drug use, or if his drug supply was threatened. Control of impulses and judgment was impaired. Most felt a growing sense of isolation from others, a desire to shun social activities, and deep-seated feelings of anxiety and depression. An altered sense of reality, and symptoms of paranoia were observed in many. All of these symptoms began with marijuana use and were reduced or disappeared within 3 to 24 months after marijuana use was stopped.

Dr. Jason Baron states, "Once marijuana no longer relieves the anxieties and conflicts, then a drug with stronger effects is often tried. Of the 6,000 patients treated by our program over the years, at least 90% started their drug usage with marijuana. Do not let marijuana smoking continue in your child, or he may become the first of many drugs he uses during life."[19]

REFERENCES: See page 11, Nos. 1 & 13-20.

MARIJUANA AND EFFECTS ON YOUNG ADULTS

by Harold Voth M.D.

In my experience there is only one certain way to be cured from marijuana smoking. The user must be totally isolated from the drug for a minimum of three months. Only after a period of sustained abstinence will the user become aware of the profound effects the drug has had on him and, at the same time, become free of its addictive effects.

The inability of the user to perceive himself or gain insight into what has happened to him over time is one of the truly pernicious and remarkable aspects of the effects of the drug. Talking rarely works; forthright decisive action by someone willing and able to take responsibility for the fate of the user is necessary. The chronic and heavy, and probably even moderate user, cannot take responsibility for himself.

CONTINUED ON PAGE 6

FROM PAGE 5 - DR. VOTH

How the person or persons exercise their responsibility to the user depends on the age of the user, his life circumstances, the severity of the retrogressive changes and deterioration of the user, and so on. I recommend sparing no effort whatsoever in achieving this objective. Searches are in order, use of police to back up parental authority if necessary, hiring a companion for the user, confinement to the home and hospitalization are all methods that I have recommended and have seen used.

Someone who cares must intervene, totally, consistently and with unrelenting perseverance. Efforts short of an all-out effort generally fail.

In summary, I believe chronic marijuana use affects judgment, motivation, perception, cognition, and will. In addition, the drug causes an overall deterioration of personality; it leads to an estrangement from the mainstream of life; it lowers performance in all areas; and it leads to a social phenomenon in which users bond together into both loose and tightly bound subsocial groups. The effects on the user's family life is frequently devastating.

In my opinion, the influx of marijuana into the United States constitutes a national crisis and should be combatted by the use of any and all methods until the flow of the substance has been completely stopped. It is remarkable that our federal government does not utilize our armed forces to supplement the coast guard and the county and state police to search out and destroy the ships and planes along with the cargo of drugs they carry...such an all-out effort seems entirely justified to me, in light of the incredible harm which is being done to millions of Americans...most of them our youth.

REFERENCE: See pg. 11, No. 7.

ALCOHOL

About 75% of Americans drink alcohol because they believe it helps them relax and is associated with social gatherings and "good times". While most new drinkers do not particularly enjoy the taste of beer, wine, and liquors, they persist until a taste for them is developed over time. Later many people begin to seek the relaxing effects of this drug to "forget" their troubles and to ease the stress of living.

IMMEDIATE EFFECTS

Alcohol is directly absorbed into the bloodstream from the stomach and small intestine, which if full, absorbs it more slowly than if empty. The blood carries alcohol to the brain, where it affects every level of the nervous system. Alcohol is a depressant, although as blood level rises or in small doses it causes a drinker to feel stimulated and confident. The rate of alcohol absorption is affected by a drinker's body weight (women, smaller, and younger people are affected faster than large men), presence of food in the stomach, and dilution of the drink. People who have just learned to use alcohol are more quickly and profoundly affected than "seasoned" drinkers, whose bodies have built up a tolerance to the drug. When the amount of alcohol in an individual's blood is somewhat high he tends to talk loudly and less distinctly, becomes socially uninhibited, or more courageous, and less attentive. An intoxicated person will have difficulty keeping his balance, will have a thwarted memory, and suffer from fluctuating moods. A very high blood alcohol level can cause muscle tremors, stupor, and eventual unconsciousness. A protective response by the body to an overdose of alcohol is vomiting. Death can occur from an alcohol overdose, particularly if tolerance is low, if other drugs or medications have been used, or if any other absorption factors mentioned above are present.

Contrary to popular belief, neither coffee, long walks, nor cold showers will speed the excretion of alcohol from the system. Only time will help a person become sober. Another myth is that beer and wine contain less alcohol than hard liquor. The alcohol content in a 12 oz. can of beer is the same as that of one 5 oz. glass of wine, or 1 1/2 oz. of 80 proof liquor (an average mixed drink).

INTERACTION WITH OTHER DRUGS

Of the 150 most frequently prescribed drugs, more than half contain at least one ingredient known to react adversely with alcohol. The interaction of other drugs with alcohol may be classified as antagonistic, additive, or supra-additive. The effectiveness of both drugs will be diminshed when the interaction is antagonistic. Alcohol inhibits the action of anti-convulsants and some anti-biotics. If the effect is additive, effects that are similar in the two drugs will be intensified. Antihistamines combined with alcohol will produce more sedation than if either drug were taken alone. Alcohol combined with marijuana results in poorer performance driving tests than when either substance is used alone. A supra-additive interaction produces effects more than double - in other words two plus two will not equal four but maybe five or even ten. A blood alcohol level as low as 0.10% combined with barbiturates has caused death. To prevent undesirable interactions, read labels and check with your doctor or pharmacist.

EFFECTS ON ADOLESCENTS

Since the average beginning age of alcohol use is 12.5 yrs. more research is needed on its effects on adolescents. Scientists think it is highly possible that alcohol can cause certain degenerative changes in the brain, especially in the pituitary gland, which governs growth, and the hypothalamus, which is closely associated with emotions and stress. The younger the age at which an individual starts to ingest alcohol, the greater the chances that he will develop into a chronic alcoholic. For the action of the alcohol is channeled directly toward the adolescent's imbalanced hypothalamus and autonomic nervous system, thereby obstructing his emotional maturation on both psychological and physiological levels. The regular or frequent ingestion of alcohol during adolescence may produce a permanent imbalance of the hypothalamus and a concomitant irreversible malfunctioning of the autonomic nervous system, thereby leading to the development of chronic alcoholism. In brief, the direct action of the alcohol on the hypothalamus produces chronic alcoholism."[11]

EFFECTS ON DRIVING

Alcohol is known to reduce a person's ability to judge distances, speed and angles, as well as one's ability to handle machinery. Because of its uninhibiting effects, alcohol causes a tendency in drivers to take risks and feel overconfident in spite of adverse conditions. It also causes impaired reflexes, forgetfulness and sleepiness. Over 60 deaths every day in this country are due to drunk driving.

CHRONIC EFFECTS ON BODY ORGANS

Continued use of alcohol damages and eventually destroys brain cells, since its action is six times as great on nerve cells as on other cells in the body. From 50% to 70% of alcoholics entering treatment have some central nervous system impairment. Long term alcoholics may develop the Wernicke-Korsakoff syndrome, (the alcohol amnesia syndrome).

Alcohol is directly toxic to the liver and can cause fatty liver, hepatitis and cirrhosis (degeneration). Alcoholism can be associated with pancreatitis, stomach ulcers, and cancers of the mouth, throat, larynx, stomach, intestines, liver, and pancreas. Many authorities feel alcohol abuse is the most common cause of vitamin and mineral deficiencies in adult Americans.

Alcohol has a toxic effect on the heart muscle, causing heart palpatations and difficult breathing. It can lead to heart failure. High blood pressure is common among alcoholics.

Many hormonal imbalances are also caused by alcohol, especially in the reproductive system. It is closely associated with male impotence, infertility, and menstrual disturbances in women. It causes increased insulin secretion, causing diabetic-like symptoms in some people.

In pregnant women, even small amounts of alcohol can pass through the placenta and affect the fetus. Fetal Alcohol Syndrome identifies a characteristic combination of birth defects in infants born to alcoholic mothers. It is the third leading cause of mental retardation in newborns. Alcohol passes into breast milk to the nursing infant.

PHYSICAL DEPENDENCE AND WITHDRAWAL

Physical dependence can develop after 3 to 5 years of very heavy drinking, but more often it requires 10 to 20 years of heavy drinking. Early stages of the withdrawal syndrome may be characterized by nausea, vomiting, irritability, tremors, sweating, and insomnia 6 to 8 hours after heavy drinking has stopped. A more advanced syndrome, delirium tremens (DTs), can include increased blood pressure, heart rate, and temperature; visual, auditory, and tactile hallucinations; severe confusion; heavy tremors; and possible convulsions 2 to 4 days after abrupt withdrawal. Even with proper medical care DTs can be fatal.

CROSS TOLERANCE

A by-product of increased tolerance in heavy drinkers is a cross-tolerance for certain drugs. It occurs only when the person is sober. He may either be less sensitive or more sensitive to the other drug. Alcoholics require higher doses of ether to be anesthetized. Barbiturates or sedatives will have less effect, consequently the sober heavy drinker may take larger doses. Other drugs may require lower doses for the desired effect. Some chemicals may also be more toxic for the alcoholic. Carbon tetrachloride will damage the liver of an alcoholic more than that of a non-alcoholic.

REFERENCES: See page 11, Nos. 1 & 8 - 12.

STIMULANTS

Chemical agents which stimulate the central nervous system are called stimulants. Two of the most prevalent legal stimulants are nicotine, found in tobacco, and caffeine found in coffee, tea, chocolate, and some bottled beverages such as Coca-Cola and Pepsi-Cola. These stimulants relieve fatigue and increase alertness. More potent stimulants which have a high potential for dependency and tolerance are under regulatory control of the Controlled Substance Act. They include cocaine and the amphetamines.

The effects of amphetamines and cocaine are very similar, although the amphetamines are slower and longer acting. Possible effects of stimulants are increased alertness, euphoria, increased energy, a feeling of being powerful and able to master any task, followed by irritability, anxiety, and apprehension. Physical effects include dilated pupils, increased pulse rate, elevated blood pressure, insomnia, loss of appetite, dry mouth, and bad breath. Very high doses can produce tremors of the hands, arms, and legs, hallucinations, paranoia, disorientation, and seizures. If taken by intravenous injection, a sudden "flash" or "rush" usually occurs, followed by a very depressing "crash," which the abuser often counteracts with another dose.

Chronic stimulant users are usually polydrug users. They rely on alcohol and/or other depressant drugs to relieve their tenseness, depression, and insomnia caused by their stimulant use. Chronic users can develop a measles-like rash, weight loss, and probably because of poor nutrition, have trouble with their teeth, gums, nails, and hair. They may begin grinding their teeth, have muscle twitches, exhibit memory loss and paranoia with hallucinations, and have decreased sex drive. Brain damage can occur. When used intravenously over a period of time the user is subject to the complications of unsterile and adulterated injections such as blood infections, AIDS, hepatitis, lung abscesses and endocarditis.

Overdoses may be indicated by dizziness, tremors, an agitated state, headache, flushed skin, chest pains, sweating, vomiting and cramps, high fever, and possible convulsions. Fatalities have been reported among athletes who have been under extreme exertion after using moderate doses of stimulants.

Immediate withdrawal symptoms may last for several days with profound depression, apathy, fatigue, and disturbed sleep for up to 20 hours a day. Anxiety, tenseness, impaired perception and thought processes, and suicidal tendencies may persist for weeks or months.

COCAINE

"An incredible 22 million Americans - one out of every 10 - report that they have used cocaine at least once. And every day, some 5,000 teenagers and adults try it for the first time".[22] It is the fastest growing drug of abuse. In a recent study, the average daily cocaine user spent a weekly average of $637 for cocaine, with a range of $100 to $3,200.[22] It is often called the "Great Addictor".

Cocaine is distributed as a white crystalline powder. In professional medicine it is used as a local anesthetic. Illegally it is used for its euphoric effects. It is usually sniffed or "snorted" through a straw, rolled up dollar bill, or tiny "coke spoon". Because it constricts the blood vessels in the nose, it often results in a stuffy, running nose and nasal irritation, relieved by nasal decongestant sprays. Chronic snorting can lead to erosion and even perforation of the nasal septum. For immediate, more intense, but shorter results it can be injected intravenously or smoked in a free-base form. Using special kits available in paraphernalia stores, the user removes the hydrochloride salt and inert adulterants from the cocaine converting it to free-base, which is suitable for smoking. The conversion process is very dangerous because it uses ether, a highly flammable and explosive substance, which is usually evaporated over a flame. "Freebasing" and IV injection also entail the risk of respiratory failure and death. Depending on the avenue of administration, effects can last several hours but the euphoric high lasts only 15 to 40 minutes followed by a let-down and desire for more of the drug. Chronic cocaine users are sometimes afflicted with tactile hallucinations such as imaginary insects crawling under their skin, often referred to as "coke bugs."

Some slang terms for cocaine are big C, coke, nose candy, snow, white, and snowbirds. Synthetic cocaine composed of a "caine" drug such as lidocaine and glucose is being sold legally as an incense in head shops and through the mail under such names as Toot, Florida Snow, Supercaine, Ultracaine, Base-O-Caine, and Superior Caine. Deaths have been reported from these preparations which are not controlled by the Drug Enforcement Administration.

AMPHETAMINES

Amphetamines are used medically for narcolepsy (uncontrollable desire for sleep), hyperactive behavior in children, and for weight reduction. Vast quantities are produced illegally for the illicit market, especially methamphetamine ("crystal methedrine"), the most potent amphetamine. They are ususally taken orally but can be injected intravenously. Some brand names are Benzedrine, Biphetamine, Desoxyn, and Dexedrine. Look-a-like pills are often sold as amphetamines. Slang terms include speed, uppers, ups, beans, bennies, black beauties, bumblebees, hearts, pep pills, co-pilots, and footballs.

Other stimulants which may be abused are Ritalin and Cylert used medically for hyperactive children, and the appetite suppressants such as Preludin, Didrex, Pre-State, Voranil, Tenuate, Tepanil, Pondimin, Sanorex, Plegine, and Ionamin.

REFERENCES: Page 11, Nos. 1, 21, 22,& 29.

DEPRESSANTS

Substances classified as depressants under the Controlled Substance Act have a high potential for physical and psychological dependency with tolerance developing rapidly. In street language they are "downers" or "downs." Sedatives or sleeping pills and tranquilizers make up this classification. Most of these drugs are taken orally. Therapeutic low doses produce mild sedation and relief of anxiety, irritability, and tension. Higher doses, used by abusers, may relieve anxiety, produce temporary euphoria or the other extreme of mood depression and apathy. They are often used to sooth "jangled nerves" brought on by stimulants, to soften "flashbacks", or to ease a withdrawal from heroin. Intoxicating doses can result in impaired judgement, slurred speech, distorted vision, and often unrealized loss of motor control, making driving dangerous. The user may be quarrelsome and appear intoxicated with no odor of alcohol. Large doses could also induce sleep, stupor, respiratory depression, coma and even death. When mixed with alcohol or other drugs the effects can be very dangerous, sometimes causing death. A moderate overdose resembles alcohol intoxication. A severe overdose causes dilated pupils, cold clammy skin, weak and rapid pulse, either slow or rapid breathing and possible coma. Withdrawal symptoms of depressant addiction are more severe and dangerous than of heroin addiction. Withdrawal should only be attempted in a controlled hospital environment.

SEDATIVES

The following include the more common street drug depressants. Among the barbiturates are Nembutal, Seconal, Amytal, and Tuinal. Some slang terms, often indicating the color of the pills, are barbs, bluebirds, blue devils, red birds, red devils, yellow jackets, and yellows.

Commonly abused non-barbiturate sedatives are Placidyl, Chloral Hydrate, Doriden, Noludar, and Methaqualone (Quaalude). In 1980 Quaaludes followed marijuana as the drug of choice of teenagers. In 1984 this drug was virtually eliminated from the streets when the only legal manufacturer of Quaaludes in the U.S. discontinued their production, and the DEA declared war on illegal importation of the drug.

TRANQUILIZERS

Tranquilizers are the least toxic of the depressants but are highly addictive. Because they are fat soluble, they are eliminated from the body slowly, and withdrawal symptoms do not occur until 7 - 10 days after the drug is discontinued. They are used therapeutically to relieve muscle spasms and anxiety. Since both alcohol and tranquilizers are found in many homes, they are easily abused together by young people. The most common tranquilizers are Valium, Librium, Equanil, Miltown, Serax, Tranxene, and the more potent ones, Thorazine, Mellaril and Halcion. Valium is the most frequently prescribed drug and the most frequently abused drug in drug related emergency room admittances in this country.

REFERENCE: See page 11, No. 29.

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HALLUCINOGINS

Hallucinogens, often called psychedelics, affect perception, sensation, thinking, and emotions. The user may have difficulty distinguishing between fact and fantasy and may refer to seeing sounds or hearing colors. Other possible effects may include dilated pupils, incoherent speech, lack of coordination, cold, sweaty hands and feet, vomiting, laughing, crying, shivering, goose pimples, irregular breathing, a strong body odor, and suicidal or homocidal tendencies. Chronic use can cause brain damage. The effects may be different in each person with each administration. Persons in hallucinogenic states should be upset as little as possible to keep them from harming themselves or others.

PCP

Phencyclidine or PCP is the most commonly used hallucinogen. Many authorities consider it to be the most dangerous of all drugs including heroin. Because it is so easily and inexpensively produced in bootleg laboratories, it is often sold as another drug, especially LSD. It is sold as a liquid, a white powder (angel dust), crystals, or in pills called "hogs" or PeaCe Pills. PCP can be taken orally or injected but smoking it after being sprayed on cigarettes, parsley or marijuana is the preferred route. The liquid is sometimes dropped in the eye for faster absorption. This can damage the eye. PCP has the odor of ether. One ounce of PCP yields 30-40 dime ($10) bags or foil packets. When sprayed on marijuana it costs about $15 for one fourth of a teaspoon. Some slang terms for PCP include KW, killer weed, green, tac, DOA (dead on arrival) rocket fuel, supergrass, and elephant tranquilizer. PCP sprayed on marijuana is called lovely or loveboat.

Diagnosis of PCP use is frequently missed because the user often looks normal, yet PCP can cause very violent and bizzare behavior, injuring the user or those around him. There are several reasons for this. Physical strength can be greatly increased under the influence of PCP. Police report incidences of users breaking handcuffs and becoming very violent. The drug is an anesthetic and numbs the user so he does not feel physical harm he may do to himself. The drug is also an amnesic so the user may not remember what he did under the influence of the drug. More deaths are caused by the resultant behavior than from the physical effects of the drug. Psychotic behavior may last for as long as 2 weeks after a single dose. Some adolescents are smoking PCP on a daily basis. When combined with marijuana on a daily basis the user can barely function.

LSD

Lysergic acid or LSD is once again a poplular street drug. It is a difficult and dangerous drug to manufacture. For this reason PCP is often sold as LSD. It is odorless, colorless, and tasteless. Doses of LSD are miniscule - an aspirin sized tablet makes 2 million hits and is worth $600,000. LSD requires very careful handling since it is absorbed through the skin when touched. It is sold in the form of tablets, thin squares of gelatin ("window panes"), and impregnated paper ("blotter acid"). The window panes can be put in the eye under the eyelid for quick absorption or for quick removal of evidence of possession. The blotter acid often looks like stamps which have pictures or Disney type characters (especially attractive to children) on them. It is put on the tongue or licked. Drops of LSD can be frozen in ice cubes or dropped into someone's drunk unknown to the recipient. Some slang terms for LSD are acid, green or red dragon, paper acid, white lightening, blue heaven, purple haze, sugar cubes, and blotter acid.

LSD is stored in the fatty tissue of the brain and slowly released back into the bloodstream. This can cause the user to experience "flashbacks", which are the recall of unpleasant effects of the drug weeks or months after the last dose.

MESCALINE

Mescaline is the active ingredient of the peyote cactus and is used as part of the religious rites of some American Indian tribes. It is sold as Peyote buttons which are sliced off the plant and dried to form a hard brown disc. The buttons are chewed and swallowed and have a very foul taste. It is very irritating to the eyes requiring the protection of sunglasses for a week after usage. Synthetic mescaline is rarely found on the streets because of its very high cost. A drug sold as mescaline is usually PCP.

MUSHROOMS

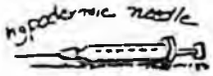
Psilocybin and Psilocyn are derived from certain mushrooms which are brewed in a tea. The taste is very unpleasant. They are chemically related to LSD. Kits are available for growing them through drug culture magazines. Substances sold as mushrooms usually are PCP.

REFERENCES: See page 11, Nos. 1 & 29.

CALL THE ABC

Suspected violations of alcohol control laws may be reported to the Virginia Department of Alcohol Beverage Control (ABC) by calling a toll-free number in service 24 hours a day, 7 days a week. The Department urges citizens to call. Know the name, address, and town where the violation occured.

CALL 1-800-522-3200



NARCOTICS

The term narcotics refers to opium, its derivatives, and synthetic substitutes. Narcotics are physically and psychologically addictive drugs. In professional medicine, they are the most effective pain relievers known. Drug abusers use them for their euphoric effects. Other effects may include drowsiness, stupor, poor coordination, confusion, watery eyes, pinpoint pupils, loss of appetite, slowed breathing and pluse rate, nausea, constipation, and excessive itching. Indications of overdose are deep sleep, stupor, slow shallow breathing, cold clammy skin, limp body, and a relaxed jaw. Coma and/or convulsions can occur. Death may result from respiratory depression. Chronic addiction can lead to malnutrition, neglect of general health, infections from contaminated syringes at sites of injections, blood infection, hepatitis, AIDS, or endocarditis. Physical withdrawal symptoms may include muscle cramps, chills and sweating, and nausea which may last 4 to 10 days after the drug is stopped.

The most commonly abused narcotics are the most addictive ones with tolerance developing rapidly. The intravenous route, "mainlining," is preferred by users. Heroin gives the most intense "high". It is a powder which may range in color from white to dark brown. It may also be snorted, smoked, or injected under the skin, "skin popping." Some slang terms for heroin are big H, boy, brown sugar, snow, stuff, junk, smack, scag, and horse.

Morphine, Demerol, Methadone, Dilaudid, and Percocan are other narcotics frequently abused. They may be taken orally but injection is preferred by abusers.

Opium may be smoked through a long stemmed pipe. It is also used in antidiarrheal preparations such as paregoric.

Codeine is less addictive and produces less euphoria than the above drugs. It is usually taken orally in preparations combined with Emperin Compound, Aspirin, or Tylenol. Codeine also acts as a cough suppressant and is found in some cough medicines such as Robitussin AC, Cheracol, and Elixir of Terpin Hydrate with Codeine. While Codeine is generally not preferred by narcotics addicts, it should be noted that it is a drug often present in many homes of adolescents who are experimenting with drugs. It should be kept in a locked container.

Darvon and Talwin are pain relievers, not classed as narcotics, but their misuse has caused them to be regulated by the Controlled Substance Act.

Fortunately, narcotics are not frequently abused by adolescents, but as young adults become bored with the other drugs they have been using and their tolerances build up they "graduate" to this classification.

REFERENCES: See page 11, No. 29.

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A parent is on call Monday thru Friday, from 9 a.m. to 5 p.m. to answer your questions, give you support, and mail information to you. Resource lists for those conducting drug awareness meetings are also available. The area code for callers outside the Washington DC area is 703.

DRUG INFORMATION SERVICE

A state-wide toll-free telephone information service provides telephone access to recorded information tapes, 2-3 minutes long, on drug and alcohol related topics. Trained operators are available to supplement the taped messages in the event of emergencies. It is a 24 hour service for push button phones, and a 9 a.m. to 3 p.m., Mon. thru Fri. service for rotary dial phones. Tapes and their No. Virginia code nos. include:

Marijuana
- 125 - a brief overview
- 121 - effects - females
- 126 - effects - males
- 120 - damage to lungs
- 127 - increased potency
- 119 - physical tolerance
- 128 - emotional impact
- 124 - body accumulation
- 117 - Amphetamines
- 129 - Tranquilizer
- 130 - Barbiturates
- 134 - Drug use by youth
- 135 - Alcohol
- 118 - Cocaine
- 133 - Codeine
- 132 - Heroin
- 131 - LSD
- 115 - Opium
- 114 - Morphine
- 113 - Methadone
- 116 - PCP
- 112 - Smoking

CALL 1-800-552-3784

DID YOU KNOW?

* Virginia law allows a judge to suspend the drivers license for up to one year of any underage person convicted of purchase or possession of alcoholic beverages. This is in addition to a fine for the offense. From Va. Code *4-62, & 4-112(c).

* You can be fined up to $500 and receive up to 6 mos. in jail for drinking or possession of any alcohol on school grounds during school hours or any school activity. From Va. Code *4-78.1.

* You can be fined up to $1,000. and/or be put in jail for up to 1 year if you purchase alcoholic beverages for anyone under 19 years of age. From Va. Code *4-112.1(a).

* If your minor child is abusing driving responsibilities, you can have his license suspended and ask that no duplicate be issued.

INHALANTS

It was once thought that "sniffing" was just a "passing thing" that kids "grow out of." Recent studies show that these youngsters often become our heaviest drug users. As nitrous oxide and butyl nitrite become more and more popular with college students, inhalant use is no longer just "kid stuff."

Inhalants are volatile substances inhaled intentionally for their intoxicating effects. Their effect is immediate because the substance passes directly into the blood stream. Effects usually last for a few minutes, but sometimes can last longer. Because the high is so short, users often inhale repeatedly during each sniffing episode. Inhalants can be classed into three main categories: 1. commercial solvents and aerosol sprays mostly used as cleaning or beauty agents, glues, or as fuels; 2. anesthetics; and 3. the volatile nitrites.

SOLVENTS AND AEROSOL SPRAYS

Some commonly abused items in this group are spray paints, hair sprays, vegetable oil sprays, cold weather car starters, air sanitizers, window cleaners, furniture polishes, insecticides, disinfectants, spray medications, deodorants, gasoline, transmission fluid, glues, paint thinners, nail polish and removers, magic markers, typing correction fluid, and shoe polish. Low doses may produce slight stimualtion, moderate doses cause one to become uninhibited, and high doses can cause loss of consciousness and sometimes death. Especially dangerous is inhaling from a bag. Other effects may be drowsiness, headaches, nausea, vision disturbances, watering of eyes, excess nasal secretions, coughing and salivation, chemical smell on the breath, sores on the nose and mouth, pallor, flushing, and poor muscular control. Long term use can cause damage to the central nervous system, liver, kidneys, blood, and bone marrow.

ANESTHETICS

Nitrous oxide (laughing gas) is used as a general anesthetic, especially in dental offices, and among other uses, as a propellant for whipped cream. For making whipped cream it is either in an aerolized spray can and considered a legitimate food additive, or in a small 8 gram metal cylinder used with a dispensing machine. These cylinders are called "Whippets" and are now sold in head shops and some record stores. Paraphernalia is sold to use with the cylinder, such as a balloon from which the gas is inhaled and a pipe ("Buzz Bomb") which combines with the cylinder. The production of Whippets has tripled in the last few years.

Adverse reactions can include shortness of breath, nausea, variations in heartbeat, and hearing loss. Long term use can cause nerve damage. Death can occur if the gas is inhaled without sufficient oxygen.

VOLATILE NITRITES

The most common nitrites in use are amyl nitrite and butyl nitrite. They are used as a euphoriant and as a sexual stimulant. The high produced lasts only a few seconds to a minute. Consequently users tend to inhale repeatedly during each sniffing episode. The nitrites temporarily dilate the blood vessels, causing the heart to beat harder and faster and fill the blood vessels with blood. Other effects include rapid pulse, headaches, dizziness, flushed face, lowered blood pressure, nausea and vomiting, fainting, and involuntary passing of urine and feces. Increased intraocular pressure with headaches can be a symptom of nitrite use rather than glaucoma. Long term use can cause an impetigo-like rash around the nose and mouth. It is felt that prolonged use may be linked to hepatitis and brain hemorrhage.

Amyl nitrite is a clear yellowish liquid with an ethereal, fruity odor. It was formerly used for treatment of the heart disease, angina pectoris, but has been replaced by other drugs. It is supplied in 0.3 ml. glass containers, enclosed in a gauze jacket of woven absorbent covering which is easily broken and inhaled. The popping sound when broken gives it the street name, "poppers" or "snappers."

Butly nitrite is a liquid which smells like dirty socks or a locker room. A fragrance is added to it and it is legally sold as a "room odorizer" in adult book stores, head shops, and by street vendors. FDA has no control over it. From 4 to 10 million vials of it are sold each year, mainly to older teenagers and young adults. Trade names include Rush, Bolt, Locker Room, Bullet, Jac Aroma, Climax, Loc-A-Roma, Shotgun, Satan's Scent, and many others.

REFERENCES: See page 11, Nos. 22 - 27.

LOOK-ALIKES

A popular addition to the drug scene are the look-alike drugs. Originally they were manufactured to resemble, or look like, prescription stimulants and depressants, with numbers, letters, or markings similar to the drugs they were copying. Because of the passage of "look-alike" laws and certain judgements by the FDA, the manufacturers are also selling pills that no longer look like controlled substances. They are sold in bottles of 100 or 1,000 in stores and through flyers in the mail, often referred to as "legal stimulants", allowing a young seller a very high profit margin. When sold as uppers these pills usually contain caffeine alone or in combination with ephedrine. When sold as downers they usually contain antihistamines.

CAFFEINE: At normal doses, caffeine is a mild stimulant that reduces fatigue and suppresses appetite. In larger amounts, or when there is a sensitivity to caffeine, it may cause restlessness, anxiety and insomnia. The amount of caffeine in look-alikes varies anywhere from 37.1 mg. to 323.8 mg. An average cup of coffee contains 100 mg. of caffeine. Serious side effects have been reported from using more than 600 mg. of caffeine a day.

EPHEDRINE: Medically, ephedrine is often used as a broncho dilator in asthmatic preparations and as a decongestant in prescription and over-the-counter preparations. It is similar to adrenalin. The effects of ephedrine are stimulation of the central nervous system, constriction of the arterioles which causes shrinkage of the mucous membranes and relief of nasal congestion, increased blood pressure and heart rate, dilation of the pupils, dilation of the bronchials, nausea, headache and anxiety.

ANTIHISTAMINES: Antihistamines are used to relieve symptoms of colds and nasal allergies, and to relieve itching caused by allergic reactions. Side effects include drowsiness, dizziness, dryness of the mouth and throat, and disturbed coordination. However insomnia, nervousness, and even convulsions can occur.

Each of the ingredients in look-alikes is dangerous when taken in sufficient quantities. To get a high, kids quickly learn they must ingest several of these pills, or even a handful. By October of 1981, 12 deaths had been associated with these drugs due to caffeine intoxication. There is also a danger that a child accustomed to the weak "copy-cat" drug will unknowingly buy the authentic drug, take several pills, and overdose.

REFERENCE: See page 11, No. 30.

* * * * * * * HOTLINES * * * * * * *

PANDAA Parents of Teens (Wash DC Area)
703-237-8121, Mon. - Fri., 9 am to 5 pm
National Federation of Parents
local, 649-7100, or 800-554-KIDS
Pride Drug Information - 1-800-241-9746
National Institute on Drug Abuse
local-443-6500, or 800-638-2045
National Cocaine Hotline - 1-800-COCAINE
Fairfax-Woodburn Center - 573-5679
Family & drug abuse emergencies
Families Anonymous-Richmond-804-771-9109

PANDAA

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Phone - 703-237-8121 - Mon-Fri, 9 am to 5 pm

Editor - Joyce Tobias

PANDAA (Parents Association to Neutralize Drug and Alcohol Abuse, Inc.) was founded at Jefferson High School in Fairfax County, VA in April, 1980 by a group of parents concerned about teenage alcohol and drug abuse. The goals of the group are to combat substance abuse in the home, school, and community and to educate the public about all aspects of substance abuse. PANDAA is incorporated and has tax exempt status. There are no salaried personnel. All donations are tax deductible. Membership is open to any individual upon payment of $5.00 annual dues which includes a subscription to the newsletter. PANDAA is supported solely by dues and donations.

PANDAA publishes an educational 8 page newsletter 5 times a year. Its circulation is 5,000 copies. It is mailed to PANDAA members, federal, state, and local legislators, law enforcement personnel, civic leaders, civic clubs, youth leaders, churches, school counselors and principals, pediatricians, and treatment programs, and it is distributed at awareness meetings, workshops, and conferences.

PANDAA also publishes a 12 page GUIDE TO CHEMICAL USE for parents and professionals which includes why kids do drugs, signs of use, stages of use, effects on the family, treatment, and the drugs of abuse including alcohol. An order form for the GUIDE on page 7.

PANDAA works closely with the County School System strengthening school policies and educating school personnel.

The PARENTS OF TEENS program offers a confidential listening ear telephone service (237-8121) Mon. thru Fri. from 9-5 for parents in need of help and support in identifying an alcohol or drug problem. Materials on drug information, treatment programs, and resource lists for awareness programs may be received by calling this number.

The COURTWATCH committee observes drug cases weekly and is effecting changes in the judicial system. PANDAA also lobbies for legislation regarding substance abuse.

PANDAA does many speaking engagements and assists in the formation of new groups. It is a member of the National Federation of Parents and the Virginia Federation of Parents.

PANDAA PHILOSOPHIES

Our children have the right to grow up in a drug free environment. Parents have the responsibility to be informed about substance abuse, to communicate to their children a clear and firm "no use" position about alcohol and drug use, to set an example to their children, and to use consistent discipline combined with love and care. A parent's right takes precedence over a child's right to privacy whenever a situation is threatening to the child's health and safety.

PANDAA believes the use and abuse of both legal and illegal drugs has reached epidemic proportions. It has extended into every segment of our communities bringing with it corruption, violence, property loss, family disintegration and disregard for the law. It has become the number one health problem for the 15 to 24 yr. age group, the only age group with a rising death rate.

PANDAA opposes the use of illegal drugs or illegal use of mood altering prescription drugs. PANDAA considers any alcohol use under the legal drinking age abuse. We consider alcohol to be a DRUG which affects emotional and physical development in adolescents, and is capable of producing dangerous changes in behavior and well-being.

The initiation of adolescent alcohol and/or drug use is caused by pro-alcohol and drug media messages, drug using role models, peer pressure, curiosity, availability, acceptance by society, inadequate laws and enforcement of laws. Usage continues because it gives short term pleasure, it becomes a temporary problem solving tool, and society imposes few consequences for abuse. As usage continues it can develop into the disease of chemical dependency which affects the entire family and usually requires treatment. Adolescents can become chemically dependent in 6 months to 1 year while in the adult, dependency usually occurs after 5 to 20 years of usage.

The use of drugs is a clear choice and the user is responsible for any actions committed while under the influence of any drug. Juveniles and adults involved in alcohol and drug related crimes should be evaluated for chemical dependency and where appropriate treatment should be mandated, along with other appropriate consequences. We consider drug trafficking a violent crime which demands serious consequences.

The treatment of chemical dependency has a low success rate. Development of more successful treatment modes is needed. Treatment programs must be free of legal and illegal mood altering drugs including alcohol. They should be accessible, affordable, and acceptable to health insurance plans.

Schools have an obligation to the community and the families they serve to provide an alcohol and drug free learning environment for students. Schools should provide drug education, strictly enforced consequences for violations, substance abuse recognition training for school personnel, help families recognize chemical dependency, and require treatment for readmittance to school when chemical dependency has been diagnosed.

Elected and appointed officials have a responsibility to be informed, enforce the laws as written, and support improved and necessary new laws.

PANDAA GOALS

PANDAA's goal is to eliminate alcohol and drug abuse in our community by:

Offering support and educating families, professionals, and the community about the dangers and legal responsibilities of illegal drug and alcohol use, and prevention and intervention techniques.

Working with school officials, parents, and students for a drug free envitonment at school.

Working within the community to de-emphasize the "do drug" messages, opposing the aggressive commercial promotion of alcohol, and encouraging public and social support for those who choose not to use alcohol or drugs.

Supporting the efforts of law enforcement officials by courtwatching, lobbying, and other civic action activities.

Assisting in the formation and development of groups similar to PANDAA.

LEGISLATIVE GOALS

All persons convicted of a drug felony should have their bonds revoked when found guilty and experience incarceration until sentencing.

All juveniles and adults involved in an alcohol or drug related crime should be evaluated for chemical dependency and mandated to treatment when appropriate as a part of his sentence.

Any juvenile convicted of an alcohol or drug related crime should have his driver's license revoked until his 18th birthday.

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FROM PAGE 1 - A PARENT'S STORY

about my own feelings that I did not know at this point whether I did reject him or not. Psychiatrists, family therapists, and drug counselors reinforced my guilt by attributing his drug use to problems in my marriage, problems which were being exacerbated or actually caused by his drug use! This self-doubt, leading to self-hatred for being such a terrible father, was for me the worst aspect of the ordeal. Meanwhile, I was getting about three or more phone calls a week in my office from teachers, counselors, and the principle telling me he had come to school drunk, had been taking pills at school, was missing from class, etc. As I now know, he was in fact using his school as a place to obtain drugs and make contact with "druggie" friends.

Meanwhile, my daughter, in the sixth grade at the time, was following in his footsteps, getting more and more hostile, carving names of rock groups into her hand with razors, wearing tons of make-up, and basically spitting in the face of our family. My marriage was going down the drain along with my kids' lives. Everyone in the home was in tremendous pain. My third kid was withdrawing into himself, and also starting to experiment with drugs to gain the acceptance of his druggie siblings and friends.

Fortunately for us, we found a very rigorous drug rehabilitation program which worked for our family. Our kids have undergone what appears to be a transformation, but is really just the result of good, loving therapy leading to self-awareness. I personally feel better now than ever before in my life - happier with myself, more loving, and stronger than ever before. More has happened than just getting rid of drugs, much more. Each of us has grown with the support, love and help of this program, and I will be grateful from the depths of my heart to it forever.

COURTWATCH

What happens to drug dealers? Join the PANDAA COURTWATCH and find out. We attend trials and sentencings of drug related cases and compile our observations. With our data we are effecting changes in the judicial system and the laws. If you can help once a week or once a month call:

CALL 237-8121

VIRGINIA TEACHER IMMUNITY LAW

§8.01-47. Immunity of school personnel investigating or reporting alcohol or drug use: In addition to any other immunity he may have, any teacher, instructor, principal, school administrator, school coordinator, guidance counselor or any other professional or administrative staff member of any elementary or secondary school, or institution of higher learning who, in good faith with reasonable cause and without malice, acts to report, investigate or cause any investigation to be made into the activities of any student or students or any other person or persons as they relate to alcohol or drug use or abuse in or related to the school or institution or in connection with any school or institution activity, shall be immune from all civil liability that might otherwise be incurred or imposed as the result of the making of such a report, investigation or disclosure. Virginia Code 1950, §8:631.1; 1972, c.762; 1977, c.617; 1981.

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Position Statement on Psychoactive Substance Use and Dependence: Update on Marijuana and Cocaine

Am J Psychiatry 144:5, May 1987

Position Statement on Psychoactive Substance Use and Dependence: Update on Marijuana and Cocaine

This statement is an adjunct to the position statement on substance abuse published in the June 1981 issue of the American Journal of Psychiatry, *which emphasizes diagnosis and treatment. It replaces the position statement on marijuana laws published in the May 1979 issue of the* American Journal of Psychiatry. *The statement was prepared by the Committee on Drug Abuse[a] of the Council on Psychiatric Services and was approved by the Assembly in November 1986 and by the Board of Trustees in December 1986.*

The misuse of psychoactive substances is the nation's foremost public health challenge. The use and abuse of alcohol, cigarettes, illicit drugs (heroin, cocaine, marijuana, etc.), and licit drugs (sedatives and tranquilizers) are by far the largest cause of preventable and premature illness, disability, and death in our society. The annual economic cost of alcohol and drug abuse has been estimated to be $136 billion, over four times that of cancer and nearly a third greater than that of cardiovascular disease (1). Illicit drug use has increased so rapidly over the past 25 years that it may be difficult for someone over age 50 to comprehend the extent to which drugs have permeated our society. Experience with illicit psychoactive drugs was restricted to 2% or less of the population in most areas of the country in the early 1960s (2). In contrast, the 1982 household survey (3) found that almost a third of the household population in the United States age 12 and older had had some experience with illicit drugs. Almost 60 million household residents had tried marijuana, and an estimated 20 million were current users. In 1982, it was estimated (4) that over 20 million had tried cocaine and over 4 million were current users. The prevalence of cocaine use and abuse has increased dramatically in the ensuing 4 years (4).

Illicit drug use is most prevalent in young adults. Typically, children begin experimenting with drugs of abuse by trying alcohol and cigarettes in early adolescence. By the time they complete secondary school, they have established attitudes toward drugs and patterns of use that will carry them through much of their lives. Most adults addicted to nicotine through smoking cigarettes established regular smoking in their teens. Adult users of cocaine and opiates generally began drug use in adolescence and may have been heavy marijuana users (5). In addition to exposing themselves to the risks of drug use (automobile accidents, overdose, or impaired physical, emotional, and psychological development), adolescents are establishing attitudes toward and actual patterns of use that have profound long-term consequences on health. By the time they graduate, more than half (54%) of high school seniors have tried marijuana and a fourth (26%) are current users. Cocaine use tends to begin a few years later than marijuana use, and heavy marijuana use is an important risk factor for cocaine use. Nevertheless, cocaine use now is increasing among our high school population. In the 1985 national survey of high school seniors (6), it was found that 17% had tried cocaine and almost 7% were current users.

In addition to statistics on the prevalence of use, there are now data from National Institute of Mental Health (NIMH) catchment area studies (7) on the lifetime prevalence of substance abuse disorders, which was found to vary from 15.0% to 18.1% among the three sites reported. These rates were significantly higher than the lifetime prevalence of any other group of disorders (except for phobic disorders at one site).

SOCIAL CONSEQUENCES OF USE OF MARIJUANA AND OTHER DRUGS

Young people may use drugs in an attempt to alleviate problematic family relationships. Over the short term, drugs may allow the young person temporarily to ignore intrafamilial strife, including developmental adjustments between child and parents and among siblings. Regular or heavy drug use undermines the adolescent's ability to work through these problems with other family members, thereby exacerbating family problems over the long term. The heavy drug user may withdraw socially from other family members, refuse to consider their needs and concerns, and put his or her own needs above those of the family. Theft from other family members (to obtain drugs) and lying (to hide drug use) undermine the trust necessary for coexistence within the family. Angry outbursts, property destruction, and intrafamily violence can ensue. Alienation of the drug user from the family, once present, is difficult to repair (8). Adult substance abusers also exert powerful effects on their families. Families react variably but often go through stages of denial, overprotection, personal mental illness, and family disruption. The effects on children in such families have been so profound that a national movement, the Adult Children of Alcoholics, has recently emerged to provide support and understanding (9–11).

Heavy drug use can precipitate financial problems in two ways. First, drugs themselves cost money; drug expenses are proportional to the cost of the drug, frequency of use, and dose consumed. Such costs mount as tolerance develops, habitual use becomes established, and larger amounts of drug are consumed more often. A second source of financial problems is unemployment or job loss. Early drug use may seem to facilitate work by alleviating fatigue or boredom or helping the user tolerate work-related stresses. Eventually, continued drug use undermines the person's energy, ambition, concentration, problem-solving abilities, performance, productivity, and social skills in dealing with co-workers and supervisors. Drug-induced paranoia, if present, further exaggerates interpersonal dissensions. In addition to individual financial loss, theft and unpaid loans from other family members can cause financial difficulties for the entire family.

The heavy drug user may resort to criminality to financially support the drug habit. Theft and illicit drug selling are the most

[a]The Committee on Drug Abuse includes Edward Kaufman, M.D. (chairperson), Edward Khantzian, M.D., Joseph Westermeyer, M.D., Dorynne Czechowicz, M.D. (consultant), Steven Mirin, M.D. (consultant), and Roger Meyer, M.D. (former member).

common illegal activities, but prostitution, robbery, and drug smuggling also occur. Easy money from criminal behavior impedes later rehabilitation, since the youthful person has been learning criminality rather than a licit occupation during this critical development period. Learning a job skill or profession requires hard work, willingness to make a commitment and risk failure, and learning responsibility, tasks not easily accomplished. Frustration, anxiety, and fear result to a greater or lesser extent, feelings that marijuana, cocaine, and other drugs can alleviate temporarily. Continued drug use undermines the persistence and industriousness needed to succeed at this developmental task. Drug intoxication and, later, withdrawal, impair the ability to concentrate, synthesize, and organize material, learn new material, apply general principles to specific problems, exert judgment in complex tasks and situations, and make timely decisions (12).

In developing friendships and, later, intimacy with persons of the opposite sex, most youthful persons experience anxiety, embarrassment, and fear of rejection. They may believe that drugs can relieve these aversive feelings as well as alleviate premature ejaculation (in males) and vaginismus (in females). However, prolonged heavy use can reverse these temporary gains in sexual performance, leading to anhedoma, amenorrhea, impotence, and rejection by a sexual partner (13). The lack of judgment seen in young drug and alcohol users often results in teenage pregnancy.

Adolescence is the time to acquire hobbies, sports, and other avocations that may last decades, even a lifetime (14). By and large, drug use does not enhance these activities. Drug use may in fact lead to abandonment of these pursuits and may intensify social isolation. Instead, the drug user pursues activities that focus on the drug use experience and that tend to be banal and boring if done without drug use. Thus, without drugs, the chronic user may be bored and at a loss for stimulating and rewarding activities. Recreational pastimes usually require a period of learning and acquiring skills, another lengthy process that is abandoned with drug use. Drug use during activities involving rapid psychomotor coordination, speed, and judgment (e.g., driving a car or motor boat, water or snow skiing) places the intoxicated person at risk of harming self or others.

In the process of becoming an adult, an adolescent learns to accept responsibility and cope with adversity. Maturation demands a focus outside oneself, task orientation, and the ability to delay gratification for a time. This personality development is impaired by the use of drugs, which furthers an egocentric and present-oriented attitude. If regular drug use began early in adolescence and was continued over several years, the recovering abuser often has the personality characteristics and maturation level of a much younger person (15). It is important to note that alcohol and cigarettes are "gateways," predecessors of marijuana use, which is in turn a predecessor of other drug use and abuse (16).

CONSEQUENCES OF MARIJUANA USE

General Medical Consequences

Two distinguished independent scientific groups separately have reported on marijuana in the past few years. The Institute of Medicine, National Academy of Sciences, prepared a report on marijuana and health that was published in 1982 (17). The Addiction Research Center, World Health Organization, prepared a report on the Conference of Adverse Health and Behavioral Consequences of Cannabis, which was published in 1981 (18). Both reports concluded that cannabis has both known and suspected health hazards that should be of serious national concern.

The health consequences of chronic marijuana use depend to some extent on the frequency, duration, and intensity of use, the age at which use begins, and biopsychosocial characteristics of the user, which may contribute to risk in still unspecified ways. For example, not all individuals who smoke tobacco cigarettes will go on to develop carcinoma of the lung, but the risk of this disorder is much greater among smokers, and the relative risk increases with the intensity, frequency, and chronicity of use.

Since the two aforementioned studies were published, further evidence of the harmful effects of marijuana has been established. In particular, the clearest evidence for harmful changes in physical health involves the pulmonary system (19–22 and a December 1979 report of the AMA Council on Scientific Affairs). Bronchitis and related inflammatory changes have been shown repeatedly. More recently, it has been shown that marijuana smoking causes a significant reduction in the gas-diffusing capacity of the lung. Moreover, there is considerable evidence to suggest that long-term use, like tobacco smoking, may lead to pulmonary cancer. Indeed, marijuana has up to 50% more aryl hydrocarbons in its smoke than tobacco, and high levels of these are associated with susceptibility to bronchogenic carcinoma. Many marijuana smokers also smoke tobacco, and it is postulated that the combined effects of smoking both substances may substantially increase the risk of cancer. Most important are the profound acute and chronic psychosocial, cognitive, and behavioral effects associated with marijuana use by youth. Acute toxicity is accompanied by negative effects on learning and memory, as well as psychomotor impairment. The typical effects of cannabis resemble a transient acute brain syndrome; they include deficits in attention span, concentration ability, short-term memory, information processing, and the performance of complex perceptual motor tasks. Thus, accidental injury to persons driving motor vehicles, piloting airplanes, or operating heavy machinery while intoxicated with marijuana is of special concern.

Even when marijuana use is discontinued, the memory loss continues for 3 to 6 months. This particularly affects adolescents who have been having difficulties in school. This consequent negative reinforcement leads them to return to marijuana use.

Specific Psychiatric Concerns

Psychiatrists have described three general complications associated with cannabis: acute adverse reactions, flashbacks, and prolonged reactions. Acute reactions are characterized by errors in judgment and confusion, which may be followed by an amnestic period. These are dose related and fall within the general category of deliria (23, 24). Anxiety may progress to acute panic reaction with overwhelming anxiety and a fear of losing control in response to drug-induced symptoms. Factors related to setting and or personality may lead to severe anxiety.

Flashbacks refer to brief, spontaneous recurrences of mental states experienced during marijuana intoxication that occur sometime after the last drug use. At this writing, the exact mechanism for flashbacks is uncertain.

Prolonged reactions secondary to marijuana use include psychotic and nonpsychotic reactions. Marijuana smoking may trigger a schizophrenic reaction in vulnerable individuals. Descriptions of long-lasting cannabis-induced psychoses appear mainly in medical journals in Asia and North Africa, where individuals may use cannabis at substantially higher doses than in the United States. Descriptions of cannabis psychoses vary by culture, and most reports suggest a persistent delirium, which includes bizarre behavior and the potential for violence and panic feelings in the absence of a "typical" schizophrenia-like psychotic state. There is fairly general agreement that persons suffering from marijuana psychosis do not develop psychotic thoughts or symptoms characteristic of schizophrenia. Most reports describe cannabis psychosis as lasting 1–6 weeks among very heavy users of high doses of cannabis. However, some reports describe longer-lasting marijuana psychoses in which the psychotic episodes do not clear in the usual time but persist in residual form. Repeated intoxications may result in recurrent psychotic episodes. There has been a problem in relating marijuana psychosis to the experience in Western countries because of differences in smoking patterns in the East and the West, the difficulty of translating the psychiatric symptom picture from one body of literature and culture into another, and the impossibility of generalizing from cases that come to psychiatric attention to the overall marijuana-using population.

Nonpsychotic prolonged adverse reactions have also been described. Chronic anxiety states, depressive symptoms, and changes in life style (including an "amotivational syndrome") have been linked to chronic marijuana use by a number of observers. The amotivational syndrome includes apathy, loss of effectiveness, and diminished capacity or willingness to carry out complex long-term

plans, endure frustration, concentrate for long periods, follow routines, or successfully master new materials. Verbal facility often is impaired both in speaking and in writing. Such individuals experience greater introversion, become totally involved with the present at the expense of future goals, and demonstrate a strong tendency toward regressive, childlike, magical thinking. It remains unclear whether those who are attracted to heavy marijuana use already were inclined toward an amotivational syndrome, of which the marijuana use was symptomatic, or whether the amotivational syndrome developed as a consequence of the chronic marijuana use. What is clear is that chronic marijuana smokers who develop amotivational patterns of behavior need to stop marijuana use if they are to be rehabilitated.

Finally, the question of marijuana's dependence-producing capability is raised frequently. Laboratory animals do not self-administer Δ^9-tetrahydrocannabinol as they do opioids, sedative hypnotic drugs, alcohol, and stimulants. Nevertheless, compulsive patterns of cannabis consumption do develop in human beings, and heavy use of marijuana in humans is associated with the development of a dependence syndrome. Moreover, heavy users of marijuana appear to be at substantially greater risk for other forms of drug abuse than persons who do not use marijuana. Finally, the long persistence of cannabinoids in the body after ingestion (up to 9 days after a single dose) raises the additional prospect of toxicity due to accumulation of the drug and its metabolites in the brain and other lipid-containing organs.

CONSEQUENCES OF COCAINE USE

The growing popularity of cocaine, as a drug of both use and abuse, is testimony of the willingness of human beings to consume psychoactive substances without regard to their effects on the brain or other body organs.

The adverse effects of cocaine on health may be divided into the general medical, specifically psychiatric, and social sequelae of acute and chronic use. The probability that adverse effects will occur is, in turn, related to factors such as dose, route of administration, and frequency and duration of use. Changing routes of cocaine administration (such as "free basing" or using "crack") increases the severity of health consequences. Frequent administration, even over short periods of time, leads to the accumulation of cocaine in plasma and presumably in brain tissue and increases the risk of adverse medical and psychiatric sequelae. Cocaine rapidly depletes endogenous neurotransmitters, leaving the user in a depressed state. Individual tolerance and vulnerability to the physical and psychological effects of the drug also play a role.

General Medical Consequences

Some sequalae of cocaine use stem from the drug's local anesthetic properties, its direct effects on small capillaries, and its ability to stimulate sympathetic nervous system activity. Other medical complications are the indirect result of the drug-using life style.

Until the upsurge of smoking crack cocaine, 80% of all cocaine use was by nasal inhalation (snorting). The direct effects of the drug on mucous membranes are responsible for a number of medical complications. These include rhinitis, erosion of the mucous membranes, and in severe cases, perforation of the nasal septum (25). Intravenous cocaine use, favored by some for the rapidity of onset and intensity of drug effects, is associated with all of the complications that one might expect with any type of unregulated intravenous drug use. These include skin abscess, thrombophlebitis, septicemia, hepatitis B, acquired immune deficiency syndrome (AIDS), and tetanus (26). Smoking the basified extract of cocaine (free basing or crack smoking) delivers the drug into the pulmonary capillary bed, where it is rapidly absorbed and results in a dramatically intense effect and a more rapid onset of addiction. Free basing and crack smoking have been associated with the development of chronic bronchitis and impairment in pulmonary diffusing capacity (27).

Cocaine's ability to stimulate the sympathetic nervous system may result in elevated heart rate and increased susceptibility to premature ventricular beats and, in some vulnerable individuals, ventricular fibrillation, respiratory arrest, and death (28). Acute elevations of blood pressure, with headache and the potential for cerebral hemorrhage, also have been described (29). Increased body temperature due to failure of the brain mechanisms controlling heat regulation, coupled with vasoconstriction and hyperactivity, has led to some deaths from hyperthermia (30).

Another untoward effect of cocaine is the development of status epilepticus. This may occur either as an acute response to high-dose use or as a result of a sensitivity to cocaine developed during chronic administration. The latter may be due to a so-called "kindling" phenomenon, in which brain neurons become increasingly sensitized to the effects of cocaine and fire in response to even relatively low doses of the drug (30).

All of the adverse medical complications of cocaine use are far more likely after acute administration of large doses. In many instances overdose is unintentional, since the user has little knowledge of the purity or even the amount of the drug consumed. Overdose deaths have occurred after the first use in apparently healthy individuals with no preexisting illness. In addition, repetitive use is associated with increasing sensitivity in some of the excitatory effects of cocaine. Finally, a small number of individuals suffer from a congenital lack of the enzyme pseudocholinesterase and thus are unable to metabolize the drug. In these individuals, even small doses can produce dramatic effects. The medical complications of cocaine use are more likely to occur in persons with preexisting heart or respiratory disease, hypertension, seizure disorders, or compromised immune function and in those who are taking other drugs whose effects are potentiated by cocaine.

Specific Psychiatric Complications

The acute subjective response to cocaine is characterized by euphoria, insomnia, increased energy, enhanced mental acuity and alertness, and an increase in sensory awareness. However, some individuals become hyperexcitable, while others, particularly those with underlying depressive disorders, experience dysphoria. Anxiety, concentration difficulties, decreased attention span, and memory problems also have been reported after use of cocaine. In individuals with underlying panic disorder, the drug can precipitate panic attacks. Some cocaine users may misperceive reality and/or experience auditory, visual, and tactile hallucinations. Flight of ideas, distractibility, pressured speech, restlessness, impulsivity, and poor judgment are common. Paranoia and delusions of persecution, coupled with profound irritability and grandiosity, may lead to assaultive and/or homicidal behavior by some cocaine abusers. These alterations in thinking, mood, and behavior may last a short time or, in certain vulnerable individuals, may persist long after the drug has been metabolized (31, 32).

Chronic cocaine use also is associated with untoward effects on psychological health. Several studies have demonstrated a direct relationship between cocaine dose, chronicity of use, and the development of cocaine-related psychopathology. Chronic cocaine users frequently complain of fatigue, headaches, impairment of recent memory, concentration difficulties, and sexual indifference. They also are more likely to develop a cocaine psychosis (described previously).

In some individuals the powerfully reinforcing effects of cocaine lead to increased frequency of use, escalation of dose, and the eventual development of psychological and physical dependence. The onset of dependence is particularly rapid with the use of crack. The primary reinforcing effects of the drug are probably mediated through the limbic system mechanisms responsible for the perception of pleasure—specifically, those neural circuits that use norepinephrine and dopamine as neurotransmitters. Other factors that contribute to the development of dependence include psychological variables, peer pressure, drug availability, and (perhaps) some sort of underlying biological vulnerability.

The tendency toward repetitive use is further enhanced by the occurrence of a cocaine withdrawal syndrome characterized by depression, lethargy, fatigue, feelings of guilt, anxiety, and feelings of helplessness, hopelessness, and worthlessness. In some individuals, particularly those with preexisting underlying depression, transient suicidal thoughts may emerge.

The cocaine withdrawal syndrome is particularly marked after chronic high-dose use. The signs and symptoms usually last 12–36 hours. In some individuals, however, the depression may last up to several weeks. To avoid withdrawal, some chronic users will self-administer the drug every 20–30 minutes. This pattern of use is more likely to be associated with the development of cocaine psychosis. The serious psychosocial consequences of cocaine use include loss of job and problems with one's family, friends, and finances.

In summary, both acute and chronic cocaine use are associated with adverse effects on health. In addition to medical and psychiatric sequelae, chronic cocaine use also is associated with the hazards of a drug-using life style. These include anorexia and associated weight loss, malnutrition and vitamin deficiencies, accidents, and a greater likelihood that one will be the perpetrator or victim of violence.

ROLE AND RESPONSIBILITY OF PSYCHIATRISTS

Psychiatrists should exercise a leadership role in drawing attention to the major public and mental health consequences of substance abuse in our society. Psychiatrists have a responsibility to educate the public about how ubiquitous drug abuse is and how it is both the cause and consequence of emotional problems. We must be aware that drug and alcohol abuse are often the primary problem among patients who present themselves to psychiatrists. Psychiatrists should take leadership responsibility in assuring that adequate training in substance abuse occurs at all levels of medical education and in influencing physician attitudes and behaviors as part of this training process. Psychiatrists also should interface with nonmedical care givers, such as educators, the clergy, counselors, and self-help groups, in imparting an understanding of the psychiatric implications of substance abuse. The psychiatrist's role in working with the family is essential.

Evidence has accumulated over the past decade that there is a significant association between psychopathology and substance abuse. In some instances, substance abuse has resulted from psychopathology and in other cases has been the cause of it. In either case, for most individuals regular reliance on drugs is incompatible with a life of meaningful relationships, productivity, and satisfaction. Substances of abuse are dangerous because they exert powerful deleterious effects on human emotions and behavior. Mind-altering drugs, including alcohol, create illusions that emotional distress can be avoided, that desired states or behaviors can be augmented, and that performance can be enhanced or improved. During adolescence, when particularly intense emotions, behaviors, and performance concerns loom large, this is a seductive and dangerous effect of drug use. However, these dangers also apply to other phases of life, when other developmental challenges are encountered and need to be mastered.

Psychiatrists should address the emotional and mental health needs of substance abusers. Psychiatrists should educate themselves and the public about how substance abuse affects the psychological and social functioning of individuals and their families and should take active roles in developing and establishing guidelines and protocols for the assessment and management of substance abuse problems. Psychiatrists should provide the public with information on the hazards of substance abuse through the media, public education campaigns, and contacts with other care providers and professional associations. Psychiatrists should take the initiative in developing guidelines and procedures for quality assurance and assessment of treatment outcome for substance abuse treatment programs. Finally, psychiatrists, through the American Psychiatric Association, should exercise an ongoing leadership role to assure nondiscriminatory reimbursement practices for substance abuse treatment services.

Each psychiatrist has a responsibility to understand and learn about substances of abuse; their psychoactive, toxic, and withdrawal effects; and how they interact with human emotions and behavior. Practicing psychiatrists must routinely obtain drug and alcohol histories, focusing not only on duration, amounts, and patterns of use but also on the effects that patients seek and obtain from the drugs they choose. Similarly, family histories of drug use and misuse patterns also should be obtained routinely. Psychiatrists should routinely consider whether their patients with psychiatric conditions suffer from concomitant substance abuse disorders and whether patients presenting with substance abuse disorders also might be suffering from coexistent treatable psychiatric problems. Psychiatrists should be cognizant of the life-threatening aspects of substance abuse as background for emphasizing the importance and necessity of obtaining control and abstinence at the onset of treatment. Accordingly, psychiatrists must learn how to use appropriate hospital and other residential treatment, support groups (e.g., Alcoholics Anonymous and Narcotics Anonymous), pharmacological treatment, and psychotherapeutic modalities [33].

Psychiatrists involved in the treatment of children and youth presenting with behavioral and emotional problems should be alert to the possibility that drug use may be a contributing factor. Close cooperation between psychiatrists, primary care providers, parents, and educators is needed to overcome the serious problems of alcohol and other drug abuse among our youth.

Finally, psychiatric practitioners are well suited to work with primary care providers in assessing and managing substance abuse patients in both outpatient and inpatient settings. They also are able to work with and interface with nonmedical caregivers, especially in consulting with self-help programs and drug counselors and helping them appreciate the mental health needs and psychiatric disabilities of their clients. The psychiatrist has a substantial contribution to offer in the management of the substance abuser. The psychiatrist can provide a dynamic understanding of the patient and can plan individualized multidisciplinary treatment and its implementation. It is the responsibility of the psychiatrist to emphasize the danger of drug use. To adopt a more neutral stance toward drug use by youth and refrain from warning of the dangers to mental health is to fail to fulfill an important public health responsibility of our profession.

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Facts About:

SUBSTANCE ABUSE

- Alcohol and drug abuse afflicts 25.5 million Americans. When its effect on the abusers' families and people close to those injured or killed by intoxicated drivers are included, such abuse affects an additional 40 million people.

- Alcoholism costs a total of $89.5 billion for treatment and indirect losses such as reduced worker productivity, early death, and property damage resulting from alcohol-related accidents and crime each year. Drug abuse drains a total of $46.9 billion in direct and indirect costs to business and the economy.

- Substance abuse victims can't control their use of alcohol or other drugs. They become intoxicated on a regular basis (daily, every weekend or in binges) and often need the drug for normal daily functioning. They repeatedly try to stop using the drug but fail, even when they know the drug causes or worsens a physical ailment. Use of the drug interferes with their family life, social relationships and work performance.

  Substance dependence victims suffer all the symptoms of abuse plus a tolerance for the drug so that increased amounts of it are necessary for the desired effects. Opioids, alcohol, and amphetamines also lead to physical dependence in which the person develops withdrawal symptoms when he stops using the drug.

- Ten million adults and 3 million children are alcoholics. These people will die 10 years earlier than nonalcoholics.

- Alcoholic drivers kill 28,000 people in traffic accidents each year.

- Alcoholism is a progressive disease that generally first appears between the ages of 20 and 40, though children can become alcoholic.
  - It takes five to 15 years of heavy drinking for an adult to become alcoholic; it takes six to 18 months of heavy drinking for an adolescent to become alcoholic.
  - Generally, abuse occurs in one of three patterns: regular, daily intoxication; drinking large amounts of alcohol at specific times, such as every weekend; and long periods of sobriety interspersed with binges of heavy daily drinking that lasts for weeks or months.
  - As drinking continues, dependence develops and sobriety brings serious withdrawal symptoms such as delirium tremens (DTs) that include physical trembling, delusions, hallucinations, sweating and high blood pressure.
  - Long-term, heavy drinking can cause dementia, in which the individual loses his memory, the ability to think abstractly, to recall names of common objects, to use correct words to describe recognized objects or to follow simple instructions.

- Drug abuse afflicts more than 12.5 million Americans. Of that, 7 million use addictive prescription drugs without physician supervision, 5 million abuse cocaine, and a half million are addicted to heroin.

- The five major classes of drugs are sedative-hypnotics, opiates, hallucinogens, marijuana, and psychostimulants. Not all are physically addictive, but all can lead to psychological addiction, in which the user needs the drug in order to function.
  - Abuse of sedative-hypnotics or barbiturates most often begins either as a prescription for insomnia among middle-class women between 30 and 60 or as a recreational experiment among men in their teens or early 20s. Often, abusers regularly take heavy daily doses and develop an addiction.
  - Abuse of opioids such as heroin or morphine generally follows abuse of other drugs such as alcohol, marijuana, sedatives, hallucinogens or amphetamines. About half of those who abuse the drugs develop a dependence or addiction.

- Successful treatment of drug and alcohol abuse includes a variety of therapies geared toward abstinence.
  - Psychotherapy helps the patients understand their behavior and motivations, develop higher self-esteem and cope with stress. Self-help groups such as Alcoholics Anonymous also are effective.
  - The only medication for alcoholism requires daily use of disulfiram (Antabuse) which induces violent physical reactions to alcohol.
  - Opiate addicts have been treated with methadone, a long-acting medication that maintains tolerance to opiates but substantially reduces the positive effects of herion. Another treatment relies on opiate antagonists, which block the effect of the abused drug.

~~WOMEN & CHILDREN'S HEALTH ASSOCIATES~~

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TEL:(907) 745-4711

DEA. No. ______

For Ian Kerttula Age ______

Address ______

℞ Date 4-16-88

This bill is nuts!
Please do what you can
to deal with it in an
objective way.

Dr. you are right
I'll send the amounts to
House Comm.

REFILL 1☐ 2☐ 3☐ 4☐ 5☐ NR☐

LABEL ☐ PRN ☐

☐ SUBSTITUTION ALLOWED ☐ DISPENSE AS WRITTEN

Carolyn
(Signature)

al-is The major substance
Problem.

03511 15628

For your information

JK

April 16, 1988

I find CS for Senate Bill 32 an amazing document.

While the legislature is dealing with this serious problem, I wonder why the same attention is not given to the use of alcohol?

If one reads through CS for SB 32 and thinks alcohol in the same place of marijuana, it becomes apparent to the most casual thinking person that the use and abuse of alcohol in this state so far surpasses the use and abuse problems related to marijuana that to carry on with ciminalizing marijuana without giving the same attention to alcohol would make CS for SB 32 absolutely ludricous and absurd.

There is much to be said for giving serious attention and concern to marijuana. There is an even more critical mandate to give that same serious attention and concern to alcohol use in this state.

Why separate the two? I am aware of the alcohol lobby. I understand the economic impact of alcohol sales. I also see the victimization of innocent children, of women and men, of gainful employment, of domestic violence, and of meaningful productivity related to alcohol use in this state.

If one makes any attempt to be objective (not political, not economically astute, not consumed with one's own addiction), one cannot but deal with alcohol and marijuana in the same vein - however it is attacked and dealt with.

And where does that leave judgment about CS for SB 32? It appears to be a witch hunt for a junior witch when there are astronomical and agonizing costs accruing to the other witch. How can intelligent people deal with only one of these "societal" problems without giving some attention to the other.

Come, let us be reasonable. What is good for the goose is good for the gander.

Carolyn Brown

carolyn V. Brown, M.D.

Offered: 3/31/87 5-0131B
Referred: Judiciary & Finance

Original sponsors: Fischer and Faiks

IN THE SENATE BY THE HEALTH, EDUCATION AND SOCIAL SERVICES COMMITTEE

CS FOR SENATE BILL NO. 32 (HESS)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to marijuana; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. FINDINGS. (a) The legislature finds that marijuana use is a serious health problem for the following reasons, each of which constitutes a legitimate and compelling state interest:

(1) marijuana and other cannabis preparations may contain over 420 different compounds;

(2) tetrahydrocannabinol (THC), one of the pharmacologically active compounds in marijuana, is not soluble in water, but goes into the fatty tissues of the brain, testicles, ovaries, and other internal organs, and takes as long as 30 days to be eliminated from the body;

(3) the buildup of THC in the system means that repeated administration of even small doses may lead to an accumulation of the drug higher than levels reached at any time after a single dose;

(4) the buildup of THC in the body causes the user to smoke more marijuana to achieve the desired high and may result in loss of sleep, appetite, and initiative, as well as moodiness and depression;

(5) it is possible for a human being to overdose from the use of marijuana, especially if it is used in conjunction with alcohol, because it increases the effects of alcohol;

(6) the THC content of commonly obtainable marijuana has increased from less than one percent 10 years ago to as high as 10 percent today;

(7) marijuana with THC content higher than one percent is generally available in the state, through both importation and local cultivation;

(8) marijuana may cause schizophrenia, illusions, and hallucinations, including a dulling of the senses, creating the possibility that the user is unable to respond to body signals such as pain;

(9) although it may take a heavy cigarette smoker as long as 20 years to develop lung cancer, one marijuana cigarette a day may cause lung cancer in three years;

(10) THC affects eggs, sperm, sexual hormones, and the development of a fetus and marijuana use may result in deformed or undersized offspring;

(11) other physical reactions to marijuana include irreversible changes in the brain, sinusitis, pharyngitis, bronchitis, emphysema, increased heart rate, and decreased blood circulation;

(12) other psychological reactions to marijuana include loss of memory, anxiety, panic, paranoia, psychosis, psychological dependence, and impairment in thinking, reading comprehension, verbal and arithmetic problem solving, and perception of distance and time;

(13) the use of even small amounts of marijuana by adults in the home subjects children present to a substantial health hazard; and

(14) marijuana and tetrahydrocannabinols have been found by the United States Congress to possess a high potential for abuse.

(b) The legislature further finds that

(1) patterns of marijuana use in the state have changed over the past decade;

(2) the daily use of marijuana in the state has increased to as high as four percent among the general population and as high as six percent among secondary school students;

(3) marijuana use in the state within both the general population and among adolescents is significantly higher than in the nation as a whole;

(4) there is a direct relationship between the use of marijuana at home by adults and the percentage of secondary school students who experience disciplinary and academic problems in public schools; over the last three years in the Anchorage School District, of the 230 students who have been s spended from school for possession or use of marijuana, 29 percent have indicated that marijuana is used by adults in their living environment;.

(5) the changing patterns of marijuana use and the relationship between marijuana use by adults and adolescents have significantly compromised the state's legitimate efforts to prevent the spread of marijuana use to adolescents and protect the health of adolescents; and

(6) these efforts constitute a legitimate and compelling state interest.

(c) The legislature further finds there is a legitimate and compelling governmental interest, based on testimonial and scientific evidence, that the public health and welfare will suffer if personal use of marijuana even in small amounts is allowed.

* Sec. 2. AS 11.71.060(a) is amended to read:

(a) Except as authorized in AS 17.30, a person commits the crime of misconduct involving a controlled substance in the sixth degree if the person

(1) uses or displays any amount of a schedule VIA controlled substance or possesses one or more preparations, compounds, mixtures, or substances of an aggregate weight of less than one-half pound [ONE OUNCE OR MORE] containing a schedule VIA controlled substance [ON A PUBLIC STREET OR SIDEWALK OR ON THE PREMISES OF A PUBLIC

CARRIER OR BUSINESS ESTABLISHMENT OR IN ANY OTHER PUBLIC PLACE]; or

[(2) KNOWINGLY POSSESSES ANY AMOUNT OF A SCHEDULE VIA CONTROLLED SUBSTANCE WITHIN THE IMMEDIATE CONTROL OF THAT PERSON WHILE OPERATING A PROPELLED VEHICLE;

(3) BEING UNDER 19 YEARS OF AGE, POSSESSES ONE OR MORE PREPARATIONS, COMPOUNDS, MIXTURES, OR SUBSTANCES OF AN AGGREGATE WEIGHT OF LESS THAN FOUR OUNCES CONTAINING A SCHEDULE VIA CONTROLLED SUBSTANCE;

(4) POSSESSES ONE OR MORE PREPARATIONS, COMPOUNDS, MIXTURES, OR SUBSTANCES OF AN AGGREGATE WEIGHT OF FOUR OUNCES OR MORE CONTAINING A SCHEDULE VIA CONTROLLED SUBSTANCE; OR]

(2) [(5)] refuses entry into a premises for an inspection authorized under AS 17.30.

* Sec. 3. AS 11.71.070 is repealed.

* Sec. 4. This Act takes effect immediately under AS 01.10.070(c).

ANCHORAGE TIMES
APRIL 3, 1988

1 in 10

That's the ratio of problem drinkers in Anchorage. But resources exist to help them triumph over the bottle

STORIES BY

ANN CHANDONNET

Editor's note: In Anchorage the problem of alcoholism isn't hopeless. Programs exist to help even the most confirmed drinker rediscover a life not dominated by mood-altering chemicals such as alcohol. The intent of this week-long series of articles is to help demystify the treatment process, and make it more accessible to those who wish to regain control of their lives. The series will be continued this week in the Neighbors section.

It's three minutes to noon on Fourth Avenue, and pedestrians scurry to grab a quick bite of lunch or squeeze in one more errand.

Tony K., 42, very drunk and unkempt, wanders unsteadily through the crowd, asking passers-by for spare change. Most ignore the sidewalk pest.

One of those passing is Arthur W., 37. Nicely dressed, with a neat moustache, Arthur W. is just another face in the crowd — a successful contractor wearing designer jeans under his London Fog overcoat. Arthur W. hurries to lunch. He hasn't had a drink since breakfast. If he doesn't have one soon he feels sure he'll lose the battle to control the shakes.

Dodging into an upscale restaurant, he's greeted by name. A double martini appears in his hand without his asking. He downs it in a gulp, and another appears. There are 50 minutes of his lunch hour left.

Tony K. and Arthur W. are both alcoholics. Arthur is already losing contracts through inconsistent workmanship and unprofessional temper tantrums. His home is mortgaged to the hilt. His wife goes to Al-Anon. His children peer into rooms before they enter, to see if he's there. His downward slide has begun.

• • •

Alcohol in Anchorage is not exclusively a native problem — something "out in the bush" and far away. One out of 10 Alaskans has a drinking problem, and the majority of those problem drinkers are white residents of the Anchorage municipality. They may never miss work. They may never drink on the job. But they come home at 5 p.m. with two six packs of beer that are gone before 11. Or they go for weeks without a bender — then slug back the straight bourbon and become violent with a girlfriend. Later they don't remember.

The conclusion is inescapable that alcoholism touches all our lives. The cost to society in dollars and lost potential is staggering.

Figures from the state Office of Alcoholism and Drug Abuse paint a stark picture: The average alcoholic in Alaska is not a "street person." He or she is between the ages of 20 and 55, married, a parent, educated and employed.

A decade ago, there were 15 Alcoholics Anonymous groups in Anchorage. Now there are 100, points out alcoholism counselor Bobbie Parker of the Women's Resource Center. "You can go to AA meetings from 6:30 in the morning to midnight if you want to," Parker says.

Alcoholism is not a problem limited to the one tipping the bottle. "Alcoholism affects the entire family," Parker explains. "The children of the family, even if they don't drink, are carrying on those behavior patterns into the raising of *their* children. It goes on and on."

Despite this gloomy picture, Parker is optimistic. "I firmly believe that inside every alcoholic there is a beautiful person

trying to get out — no matter what sex, age or ethnic background he is. But there is a lot of denial (that the problem exists). And denial is what kills people."

Although personal substance abuse may be easy to scoff at, statistics are not. Here are some Alaska substance abuse facts. Except as noted, they were derived from the annual report to the legislature in 1986 by the Office of Alcoholism and Drug Abuse, Department of Health and Social Services; and from a November 1986 report by the Anchorage Municipal Health and Human Services Commission.

- Of Alaska's 95 suicides in 1985, 80 percent were alcohol-related.
- In 1985, the equivalent of 4.35 gallons of absolute alcohol was sold per person over 21 in Alaska. The U.S. average was 2.52 gallons.
- Fifty-eight traffic accidents with fatalities in 1985 resulted in 69 alcohol-related deaths. Each fatality is calculated to cost $306,000, or a total cost to Alaska of $21,114,000.
- In 1986 there were 1,706 liquor licenses issued in Alaska, or one for every 178 Alaskans 21 or over.
- Fifty-five percent of all crime in Alaska is estimated to be alcohol-related. (Individual local police officers suggest this figure might be closer to 70 percent.)
- There were more than 9,500 reports of child abuse in Alaska in fiscal year 1986. In up to 80 percent, alcohol is a significant factor.
- Of clients using the emergency services of the Association for Stranded Rural Alaskans in fiscal year 1987, 12 percent needed services for alcohol treatment, according to figures provided by Mary Wolcoff, executive director of ASRAA.
- In 1985, 1,782 local drivers were arrested for driving while intoxicated in Anchorage.
- In fiscal year 1985, 10.5 percent of admissions at Alaska Psychiatric Institute were alcohol-related.

• • •

In November, Otis R. Bowen, secretary of the U.S. Department of Health and Human Services, unveiled a national initiative of government and private sector efforts to address alcohol-related problems.

Outlining his plan at the National Conference on Alcohol Abuse and Alcoholism, Bowen stressed that "alcoholism is a disease and highly treatable."

As is evident in Anchorage, Bowen emphasizes that alcohol has "a ripple effect" on public health concerns and the economy. That is, no citizen is immune to its effects. Alcohol consumption is directly linked with traffic deaths, suicide, fires, infant mortality and morbidity, recreational accidents with snowmobiles and three-wheelers, and a variety of diseases such as cancer of the esophagus.

Medical research has shown that children born to alcoholics are at the highest risk of developing attention deficit disorders, stress-related medical problems, eating disorders and some birth defects. Business and industry are affected by what Bowen called "the staggering economic costs" of lost productivity due to alcohol abuse. And America's health care system is becoming increasingly burdened by having to provide care for people who engage in "risk-taking behavior."

The estimated cost of alcoholism to American society in 1980, including the cost of reduced productivity, was approximately $90 billion, according to a study cited in the Jan. 21 issue of the New England Journal of Medicine.

Bowen says, "Recent evidence even points to the role of alcohol in AIDS and other immune-disabling disorders. Alcohol alters the state of the immune system and increases the speed with which the HIV virus weakens its host environment."

Some of Bowen's recommendations include:

- Encouraging colleges and universities to restrict campus promotions for alcoholic beverages.
- Taking further action on alcohol labeling.
- Securing radio and television programming to promote nonuse of alcohol by youths and others at high risk.
- Producing public service announcements on public health problems and the negative aspects of drinking during potentially dangerous activities, such as sports.
- Notifying small businesses concerning the benefits of employee assistance programs to combat alcohol abuse.
- Expanding health plans to cover alcohol and other drug abuse treatment.
- Reviewing Medicare reimbursement for alcoholism treatment.
- Adopting the terminology "alcohol and other drug abuse" in publications and reports, since "substance abuse" is, says Bowen, "too broad and diminishes public attention to alcohol-related issues."

T O M M.

Early drinking set the pattern

Tom M., 34, started drinking at age 12.

"It's been a long battle," he says wearily. "My father was alcoholic, and even though I promised myself as a kid that I would never turn out to be like him, I experimented with it. I found out with the first drink that it did something for me that I enjoyed — it gave me courage."

Tom M. drank for eight years without seeing a glimmer of the truth about alcohol. "But about the age of 20 I got my first DWI and that's when I started to take a real look at the problem."

Born and raised in Alaska, Tom M. joined the Navy in 1977, and with that came his first bout with treatment. "That dried me out for a month. I wasn't ready to accept that I had a disease, and thought I could handle it and drink socially. But with my first drink, it started the ball rolling again."

Tom M. gave in to the bottle: "I decided to just keep drinking until I died. Then there were numerous trips out to detox and other treatment centers. It wasn't until I was ready to admit within myself that there was no way that I could handle any alcohol that I got serious about staying sober."

His last massive bender reformed Tom M. "I ended up in a motel room alone with five prescriptions and two bottles of vodka. The prescriptions were tranquilizers, medication for depression, sleeping pills and a mood elevator. I decided to commit suicide. I was about halfway through one bottle of vodka and took some of my drugs. The next thing I remember, I was at detox, not knowing how I got there.

"I was upset that I was still alive, but I decided God would not let me die. I didn't want to hurt any more, so I decided to go into long-term treatment."

Treatment at Clitheroe, an alcohol treatment center run by the Salvation Army, is "going real well. I've been here four months now. The honesty is what turned it around — when I got honest with myself, with my counselors and my peers. I see myself sober now one day at a time."

Next he goes to Clitheroe's halfway house for three months "to kind of get my feet back into the community. If I can make it, anybody can," he says.

Andrew Weil, M.D.
& Winifred Rosen

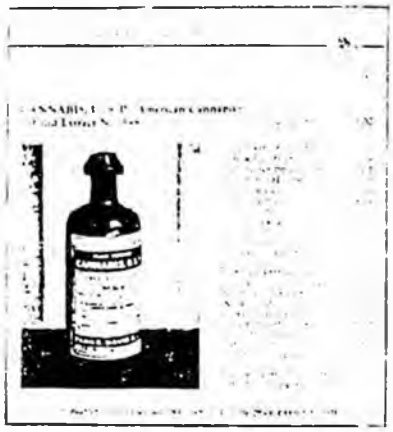
CHOCOLATE TO MORPHINE

UNDERSTANDING MIND-ACTIVE DRUGS

9

Marijuana

MARIJUANA is an ancient drug, used since prehistoric times in parts of the Old World. It is a product of the hemp plant, *Cannabis sativa*, a species that also provides a useful fiber, an edible seed, an oil, and a medicine. That is a lot for one plant to do, which explains why it has always been an important cultivated crop. Cannabis is probably native to central Asia. It tends to grow in waste places around camps and settlements and has been associated with human beings for so long that it is unknown in a truly wild state.



Tincture of marijuana (cannabis) was still listed in the Parke, Davis & Co. pharmaceutical catalog of 1929. (Courtesy of Tod H. Mikuriya, M.D.)

The intoxicating properties of hemp reside in an aromatic, sticky resin exuded by the flowering tops, especially the tops of female plants. The strength of a preparation of hemp depends on the resin content; some strains produce a great deal of resin, others little. If whole plants are chopped up, leaves, stalks, and all, the resin-rich tops will be diluted by much inert material. Carefully cultivated female tops, gathered before the seeds form, are sticky to the touch with resin, highly aromatic, and very potent. The resin itself can be collected and pressed into cakes or lumps; this is hashish. Also, the resin can be extracted with solvents and concentrated into a thick, oily liquid called hash oil. Any of these preparations can be either smoked or eaten.

Marijuana is unique among the psychoactive drugs, in a class by itself. The chemicals it contains resemble no other drug

molecules. Unlike most of the substances discussed in this book, they are insoluble in water but very soluble in oil. Therefore, they are absorbed unevenly when eaten, and they stay in the body for a long time because they accumulate in body fat. Marijuana is neither a stimulant nor a depressant, but has some features of both. Many people regard it as a mild psychedelic, but its effects are different from those of the true hallucinogens, and it is not necessarily mild. Moreover, the abuse potential of marijuana is considerably higher than that of psychedelics, because it can be used frequently or continually in combination with everyday activities.

As a psychoactive drug, cannabis has a much longer history in other parts of the world than it does in Western countries. Europeans and Americans grew the plant exclusively for its fiber for many years, and even when tincture of cannabis was widely used in Western medicine in the 1800s, few people took it to get high or reported that they felt high when they did take it. The knowledge of how to smoke hemp was probably brought to Brazil by black slaves who used the plant in Africa; the practice traveled north to Mexico and, finally, reached the United States.

Marijuana smoking began in the United States after World War I. Introduced by Mexican migrant workers, it caught on first among black people in southern cities. Many of its early users were musicians. Over the years, it spread to other subgroups, but was rarely associated with the white middle class

Marijuana growing on the United States government's experimental farm at the University of Mississippi. (Timothy Plowman)

until the 1960s, when it became a prominent symbol of the youth movement on college campuses. Since then, it has grown steadily more popular and today is the most widely used of all the illegal drugs.

From the very first, marijuana — which is known by many slang names, including pot, grass, and smoke — provoked a great deal of contention, mostly as a result of its associations. It was the drug of deviant subcultures and minority races even before it got mixed up with hippies and revolutionaries. Despite its growing acceptance today, the dominant culture still views it as a dangerous drug, worse than alcohol and tobacco, likely to lead to heroin.

In this highly charged atmosphere, arguments about marijuana tend to be more political than factual. And because pharmacologists and medical doctors are just as caught up in the politics of marijuana as other people, it's difficult to get neutral information about the drug. Much marijuana research sets out to prove preconceived ideas, and much of it is not worth reading.

Politics aside, the effects of marijuana are hard to describe, because they are so variable — more so than those of other drugs. Some of this variation has to do with set and setting, but some is inherent in the drug.

People who smoke marijuana for the first time often feel nothing at all, even if they take high doses of strong pot. As with other psychoactive substances, people have to learn to associate changes of consciousness with the physical effects of the drug. Compared to other drugs, however, the physical effects of marijuana are not spectacular. It makes the heart beat somewhat faster, causes the mouth and eyes to become dry, and reddens the whites of the eyes. Of these, the most noticeable change is the dryness of the mouth. Only people who wear contact lenses are likely to notice the dryness of the eyes. Increased heart rate is easily ignored, although it can become the basis of a panic reaction in anxious first-time users, who may interpret it to mean they are having heart attacks.

When people learn to get high on marijuana, their early experiences with it are often quite lively. Everything may strike them funny, and all sensory experiences become novel and interesting. Listening to music, eating, and making love can become more than usually absorbing. Time seems long and drawn out. People sometimes have strange illusions, such as seeing a room expand or feeling as though their legs have become enormously long.

Charles Baudelaire (1821–1867): a self-portrait by the French poet from 1844, drawn under the influence of hashish. (Fitz Hugh Ludlow Memorial Library)

(From *The Further Adventures of the Fabulous Furry Freak Brothers* by Gilbert Shelton. Copyright © 1979 Rip Off Press, Inc.)

With repeated use, these remarkable effects tend to fade away. Regular users may find that pot makes them relaxed or more sociable without greatly affecting their perceptions or moods. Very heavy users usually feel little from the drug, often smoking it simply out of habit.

Bad reactions to marijuana are more likely when high doses of strong material are taken in bad settings, especially by inexperienced users. Most are simple panic reactions, easily treated with reassurance that everything will be all right as soon as the drug wears off. The effects of smoking marijuana usually diminish after an hour and disappear after two or three hours. Some people, if they have smoked a lot of pot, feel tired or "fuzzy" the next morning.

Some users find that marijuana stimulates them and keeps them awake at night; others use it to help them fall asleep. It

... some people depressed and irritable, and others groggy ... several hours. Possibly, some kinds of pot are more sedative ... ners. In recent years, stronger and stronger marijuana ... become available. Some of the very potent sinsemilla ("without seed") from California is as potent as hashish and can ... disorienting to people who are not used to it.

Taken by mouth, rather than smoked, marijuana is a ... er drug, slower to come on, with longer-lasting effects. Because the resin is insoluble in water, marijuana tea is not very effective. But the crude drug can be added to food, and the active principles are easily extracted in alcohol or fat. Although some users like to eat cannabis, most prefer to smoke it because it's less trouble, and the effect comes on very fast. The main problem with oral use is the risk of overdosage. Since the stomach absorbs the drug unevenly, the right dosage is hard to estimate, and it's easy to take too much. Overdoses of cannabis are unpleasant, though not dangerous. They can make people extremely disoriented and delirious, as if suffering from a high fever, and are often followed by stupor and hangover. Perhaps because oral use requires more preparation and produces stronger effects, people who eat marijuana are less likely to become dependent on it than people who smoke it.

Whether they eat it or smoke it, users frequently combine marijuana with other drugs, such as alcohol, downers, stimulants, and even psychedelics. The effects of these combinations are not predictable, depending more on the individual than on the drugs. Because marijuana is not as powerful or as toxic as most of the other drugs, there is no special pharmacological danger in mixing it (as there is, say, in mixing alcohol with downers). Still, users should be aware that combinations they are not used to may disagree with them and may produce unexpectedly strong effects.

The medical safety of marijuana is great. It does not kill people in overdose or produce other symptoms of obvious toxicity. Used occasionally, it is no more of a health problem than the occasional use of coffee or tea, and certainly it is less toxic than alcohol and tobacco.

Long-term, regular marijuana smoking can, however, significantly irritate the respiratory tract, causing chronic, dry coughs that resemble the coughs of some cigarette smokers. Further, marijuana smoke may contain more tars than tobacco smoke, and can probably produce lung and bronchial disease in susceptible individuals. The risk depends on how much users smoke over how long a time.

Aside from respiratory irritation, heavy marijuana use does not seem to cause other medical problems. Of course, warnings of the medical dangers of cannabis have been well publicized, with reports of everything from brain damage to injury of the immune and reproductive systems, but these are based on poor research, often conducted by passionate foes of the drug. Studies of populations that have smoked cannabis for many years do not reveal obvious illnesses that can be linked to marijuana.

Much has been made of the fact that tetrahydrocannabinol, or THC, the most active chemical in cannabis resin, accumulates in body fat, staying around for weeks after the last dose of marijuana is smoked. Although this is true, and it is very different from the pattern of quick elimination of water-soluble drugs, it is not a problem in itself. If THC were a very toxic drug, its persistence in body fat would be cause for concern, but, THC and marijuana are less toxic than most of the drugs discussed in this book.*

I started dealing dope 'cause it was the only way I could afford to buy dope. Now I do it for the money.
— sixteen-year-old boy

Psychological problems related to regular use of marijuana are also subjects of controversy. Opponents of the drug charge that it interferes with memory and intellectual functioning and leads to an amotivational syndrome in which people lose their initiative and will to work. There is no question that young people who lack motivation often smoke a lot of pot and do very little else, but it is doubtful that marijuana made them that way. Heavy pot smoking is more likely to be a symptom of amotivation than a cause of it, and those same young people would probably be wasting their time in other ways or with other drugs if pot were not available.

*Marijuana may be quite toxic if it is contaminated with paraquat, a very poisonous chemical herbicide used to kill unwanted plants. In 1975 American drug enforcement authorities began encouraging officials in Mexico to spray this poison from helicopters on the illegal marijuana fields of that country. The growers soon learned that if they harvested their pot immediately after it was sprayed, it would still look healthy and could be sold to dealers as usual. In this way, paraquat-contaminated Mexican marijuana began to find its way to users in the United States.

The exact dangers of smoking paraquat are unclear, but it is certain that it cannot be good for you; the only question is how bad it is. Apparently it can cause serious lung damage over time and may affect other organs as well. There is no easy way to spot paraquat on a sample of pot, but some drug testing labs can analyze for it. Although public outcry put an end to American support for the Mexican program, the drug enforcement authorities are again pressing for use of paraquat on marijuana fields, both in other countries and in the major producing states, such as California and Florida. If they have their way, paraquat contamination will again be a risk to all users who do not grow their own pot or know who grew it. Some thoughtful legislators have urged that paraquat be mixed with some distinctive odor or color that would warn users of contaminated material, but so far that is just a suggestion.

As for its effects on memory and intellect, heavy users sometimes say that marijuana makes their minds fuzzy and can interfere with memory. These effects seem to disappear when people cut down on their use of the drug or stop using it altogether.

Although dependence on marijuana certainly occurs and has become more common as use of the drug has increased, it does not exactly resemble dependence on any other psychoactive drug. At its worst, marijuana dependence consists of chain smoking, from the moment of getting up in the morning to the time of falling asleep — a pattern similar to that of many cigarette smokers. But dramatic withdrawal syndromes don't occur when people suddenly stop using marijuana, and craving for the drug is not nearly as intense as for tobacco, alcohol, or narcotics.

Tolerance to marijuana also occurs. Even the strongest varieties seem to lose their power if people smoke them day in and day out. This leads heavy users to keep searching for more potent pot so they can feel stoned again. In fact, all they really need to do is cut back on their frequency of use; even a twenty-four-hour break from the routine of smoking all day long will allow a heavy user to become sensitive again to the psychoactive properties of marijuana.

Although dependence on marijuana has fewer physical components than dependence on more toxic drugs, it can still be very hard to break and very upsetting to people who find themselves caught up in it. Some heavy users are unable to stop smoking even though they no longer get useful effects from pot and, in fact, get effects they actively dislike, such as strong sedation and chronic coughs. Recently, self-help groups modeled on Alcoholics Anonymous have sprung up for people with unwanted marijuana habits.

Marijuana dependence can be sneaky in its development. It doesn't appear overnight like cigarette addiction, or in a matter of weeks like heroin addiction, but rather builds up over a long time. In most cases, people begin smoking pot only in special, usually social, situations. At first, because the drug causes such strong effects, they cannot imagine smoking it at other times. With increasing use, however, tolerance develops, and also people learn to adapt to being high. Soon they can perform normal activities while under the influence of marijuana. Users may then begin to smoke during the day, perhaps by themselves. With time, and unless precautions are taken, marijuana smoke can gradually pervade all their waking hours. At that point, the habit is not easy to break.

Eventually I became a daily pot smoker, sometimes starting in the morning. It was my main way of relating to other people. However, I started getting less and less effect from it that I liked. In fact, it began to make me groggy and sleepy most of the time and also gave me a cough. These unwelcome effects got worse and worse until I realized I would have to stop using pot. So I made a resolution to quit completely.

Well, it surprised me to find that wasn't so easy. It took me three years of trying before I really gave up smoking marijuana, even though I no longer got pleasant effects from it. I never realized how much of a habit I had and how hooked I was on it . . .

— forty-one-year-old man, lawyer

Even in heaviest usage marijuana does not lead to heroin or any other drug. Many junkies smoked marijuana before they tried opiates, but few marijuana users take narcotics. Many junkies also drank alcohol heavily before they discovered heroin, sometimes at very young ages, yet no one argues that alcohol leads to heroin. The reason, of course, is that alcohol enjoys general social approval, while marijuana is a "bad" drug and so invites false attributions of causality. Possibly, marijuana users are more likely than nonusers to try psychedelics and cocaine, because the distribution networks of these drugs overlap somewhat, but there is no quality of marijuana that induces its users to become consumers of other substances.

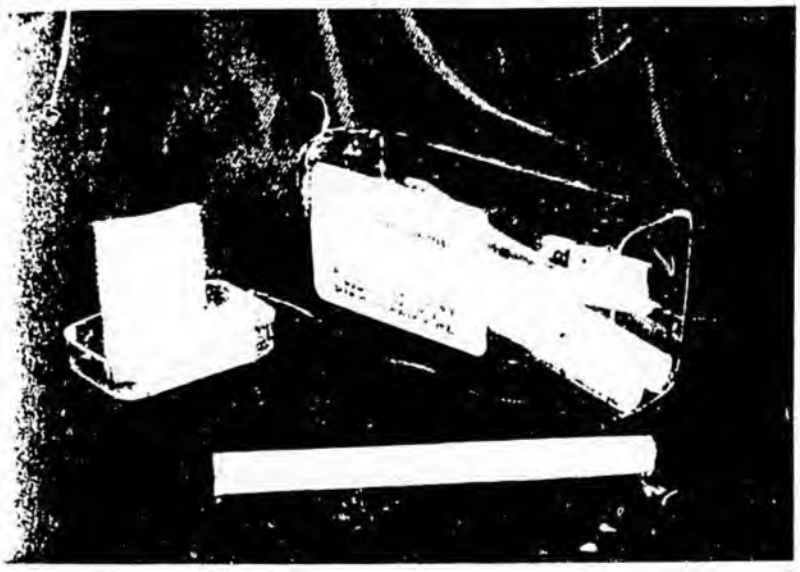
Adaptation to marijuana enables users to learn to perform well under its influence. Unlike alcohol, it does not invariably depress reflexes and reaction times. People who aren't used to its effects will not be able to drive cars well or do any number of other routine tasks well while stoned. Even experienced users need time to practice a given task under the influence of marijuana in order to bring performance up to normal. Some users feel that marijuana helps them concentrate and enables them to work better, but even they have to learn to adapt to its effects. Most scientific tests show that marijuana impairs performance of all sorts. It is easy to come up with such results if you give marijuana to people who are not used to it, give it in much higher doses than they are used to, or give them hard tasks to perform, especially tasks they have never done while stoned.

I have multiple sclerosis. About three years after it was diagnosed I discovered marijuana. A friend told me it was relaxing. My main problem then, aside from partial blindness, was tenseness and tremors in my muscles. Pot cured it, and I've smoked regularly ever since, about four to five times a week. If I go without it for a week, the muscle tremors come back . . . Most people with MS have repeated attacks and keep losing body function. I'm convinced that pot has kept me in remission all these years.
— forty-one-year-old man, part-time roofer

Many marijuana smokers drive cars, fly airplanes, ski, scuba dive, and engage in other hazardous activities after smoking. Many of them get away with it because they are experienced users with practice. This does not change the fact that marijuana can drastically interfere with performance in some circumstances. Pot and driving may not be as bad a combination for everyone as drinking and driving, but it is certainly not a good one. For teen-agers who drive recklessly to begin with, it can be especially dangerous.

Devotees of marijuana like to argue its merits, trying to persuade others that it is really a beneficial drug. In fact, cannabis was used in medicine in the past, and some doctors today feel that it is still a valuable remedy for some ailments. Current federal laws prohibit all uses of marijuana, but synthetic THC is available for research, and many states have now legalized marijuana for specific therapeutic uses.

Both THC and marijuana are good treatments for nausea and vomiting. Doctors have used them successfully with cancer



Government-manufactured marijuana cigarettes. A few patients with glaucoma have been able to obtain them legally for the treatment of that eye disease. (Jeremy Bigwood)

patients receiving chemotherapy, which involves very toxic drugs that often cause intense stomach upsets. This effect was first discovered by teen-agers with leukemia who happened to be pot heads. Cannabis may also help asthma patients breathe easier, but not in the form of joints because the smoke may make them cough. It also is a specific treatment for glaucoma, a serious eye disease in which fluid pressure builds up in the eyeball, causing losses of vision. Marijuana reduces this pressure. Finally, it relaxes stiff muscles in a condition called spastic paralysis that results from brain injuries and diseases such as multiple sclerosis.

Although many patients prefer the effect of marijuana to that of pure THC, federal agencies won't permit doctors to prescribe the natural plant. Yet THC is not the same as whole marijuana and may not be as safe. Recently, several pharmaceutical companies have come up with synthetic drugs related to THC and have tried to market them as antinausea remedies. In general, they are much more toxic than marijuana.

Aside from these specific uses, many people find that pot relieves the symptoms of various mild ailments, from headaches to menstrual cramps. Probably, they use the marijuana to get high and use the high as a way of taking their minds off discomfort. Sometimes taking your attention away from the symptoms of a n inor ailment will allow it to subside. The less frequently you smoke marijuana, the more likely it is to work for you as a medicine.

Of course, the same principle applies to getting high from pot. The less frequently you use it, the better and more intense will be your experiences with it. The main danger of smoking marijuana is simply that it will get away from you, becoming more and more of a repetitive habit and less and less of a useful way of changing consciousness. The ease of integrating marijuana smoking with all activities, from parties to sports to watching television, favors habitual use. Also, tolerance to the interesting effects of the drug often encourages users to smoke more of it, when in fact they should be cutting down to increase their sensitivity. The absence of dramatic negative effects, such as hangovers, further encourages overuse. Unless you set rules for when and where you will smoke, you are likely to find yourself using pot more than you should — to the point where all the interesting and useful effects of the drug disappear and you are left with a stubborn, unproductive habit.

(Michael R. Aldrich)

Some Suggestions for Using Marijuana Wisely

1. Define what benefits you want from pot. Do not use it just because other people do or because it is available. Be aware of the dangers associated with acquiring an illegal drug.*
2. If you get effects you like from marijuana, you will have to take precautions if you want to keep enjoying them.
3. Set limits on usage. For example, you may want to use pot only with certain friends, only on weekends, or only when you have no work to do. Such rules are necessary if you want to prevent your use from turning into a habit that gives you little satisfaction.
4. Remember that it can be dangerous to drive, operate machinery, or engage in hazardous activities under the influence of marijuana. The drug can cause illusions of time and space and always takes getting used to.
5. If you find the effects you like from marijuana becoming less intense or disappearing altogether, *stop using it.* You can resume after a break and get them back. The trick is to keep frequency of use below the level where you become insensitive to marijuana's interesting effects on consciousness. Odd as it may sound, less is more, and you can easily prove that to yourself.

*See pages 163-

9. If you find that the effects you like are disappearing, the worst things you can do are smoke more or look for stronger pot. Those actions will just increase the problem.
10. Consider using marijuana by eating it in some form rather than smoking it. It is more trouble to take by mouth and the effects are different, but the risk of dependence is less.
11. Be careful about combining marijuana with other psychoactive drugs.
12. Be careful about set and setting, especially if trying marijuana for the first time.
13. Do not use marijuana on the job or at school. Most people would not drink alcohol in those situations, and just because pot is less detectable is no reason to use it. The more situations in which you allow yourself to smoke, the more likely you are to become dependent.
14. If you develop a cough or wheeze, or become more susceptible to chest colds, marijuana may be doing harm to your respiratory tract. Stop using it, cut down on use, or switch to eating it.
15. If you find that you are using marijuana more than you want and are not getting useful effects from it, consider the possibility that it is controlling you more than you are controlling it. Try to do without it for a while. If you cannot, you may need outside help in breaking the habit.

Suggested Reading

Much has been published about marijuana in recent years, but few books worth reading exist.

The best general history of marijuana is *Marihuana: The First Twelve Thousand Years* by Ernest L. Abel (London: Plenum Press, 1980). *Marijuana Botany* by Robert Connell Clarke (Berkeley, California: And/Or Press, 1981) is about the plant itself. It is lavishly illustrated.

The Marijuana Papers, edited by David Solomon (New York: Bobbs-Merrill, 1966), is an anthology of historical, literary, sociological, and medical articles that is still valuable reading. *Marihuana Reconsidered* by Lester Grinspoon (Cambridge, Massachusetts: Harvard University Press, 1971) is a comprehensive overview of the drug by a psychiatrist. The origins and development of marijuana prohibition in America are discussed in Richard J. Bonnie and Charles H. Whitebread's *Marihuana Conviction: A History of Marihuana Prohibition in the United States* (Charlottesville, Virginia: University Press of Virginia, 1974).

One of the most readable and informative books on effects and uses of pot is *High Culture: Marijuana in the Lives of Americans* by William Novak (New York: Knopf, 1980). One example of a crusading antimarijuana book is *Keep Off the Grass* by Gabriel G. Nahas (New York: Pergamon Press, 1979). One example of a promarijuana book, written for users, is *A Child's Garden of Grass* by Jack S. Margolis and Richard Clorfene (New York: Ballantine, 1978).

Louisa May Alcott wrote a short story about hashish in 1865. Titled "Perilous Play," it is reprinted in *Plots and Counterplots: More Unknown Thrillers of Louisa May Alcott*, edited by Madeleine Stern (New York: William Morrow, 1976). A modern comic novel filled with references to marijuana is *The Fan Man* by William Kotzwinkle (New York: Avon Books, 1974). Its hero, a delightful character named Horse Badorties, is never without pot.

Although teen-agers make up the bulk of the movie-going public, few films have capitalized on the popularity of marijuana among young people. Three notable exceptions are *Up in Smoke* and *Nice Dreams* with Cheech and Chong, and Peter Fonda's classic from the 1960s, *Easy Rider*. An outrageous antimarijuana propaganda film from the 1930s, *Reefer Madness*, now plays on college campuses and in "art" movie houses, usually to the delight of mostly stoned audiences.

other points - effect on fetus — contact Div. Public Health - Testimony from NIH that 21.7% of low birth weight infants due to tobacco alone (nicotine is a vasoconstrictor which prevents blood from reaching placenta adequately)
- Fetal Alcohol Syndrome + Fetal Alcohol Effect (FSA + FAE) children often show incomplete development of brain, nervous system, lungs etc - extreme handicaps if they survive birth

A4 Anchorage Daily News Sunday, March 27, 1988

New evidence may burn cigarette makers

By JOHN KING
The Associated Press

BOSTON — Evidence presented in a New Jersey court that cigarette makers were aware up to 40 years ago that smoking might cause cancer and other ailments will lead to a flood of tobacco-liability cases, attorneys said Saturday.

The attorneys, including one involved in the New Jersey trial, said they expected the documents would lead to the first verdict against a tobacco company in a product-liability case. And now that the documents are a matter of public record, their availability will substantially reduce the cost of pretrial proceedings in other cases, the attorneys said.

"This is a product that is as dangerous as alcohol and as addictive as heroin," said Professor Richard Daynard of the Tobacco Products Liability Project at Northeastern University. "The evidence shows that."

The project, which assists attorneys involved in suits against tobacco companies, brought together lawyers involved in more than 100 tobacco liability cases nationwide as part of its fourth anniversary conference.

A lawyer for cigarette maker Philip Morris Cos., one of the defendants in the New Jersey case, said Daynard and other attorneys at the conference were taking the documents out of context. The attorney, Charles R. Wall, also criticized the group for discussing them while the New Jersey case was still under way.

"These issues will be decided in the courtroom where they should be decided," Wall said. "We disagree that there has been proof that cigarette smoking causes lung cancer."

Daynard and others at a Northeastern news conference said past cases blaming smoking for deaths have failed because of insufficient evidence that tobacco companies knew smoking was or possibly was a health hazard.

The documents gathered for the New Jersey trial include internal tobacco industry memos dating back to 1946 in which researchers for cigarette makers discuss growing evidence of a link between smoking and lung cancer and heart and respiratory problems.

They also include verification that cigarette makers developed less dangerous cigarettes, and memos in which the companies are advised that marketing those products would amount to an admission that other cigarettes were dangerous.

Rep. Nils Kippenan

Reagan Aide: Pot Can Make You Gay

Senior presidential aides looked on White House drug adviser Carlton E. Turner as a nattily dressed functionary with zero clout. He spent his time grinding out reports that nobody in the White House, save Nancy Reagan, cared much about. But suddenly that changed. Drug abuse became a hot issue, and Turner was in the spotlight. Now, Turner's views are making a few waves. He believes that pot smoking may lead to homosexuality; at the very least, he says, gays who use marijuana are risking damage to their immune system and vulnerability to AIDS.

Turner offers scant scientific backing for his claims. But he says that when he visits drug-treatment centers for patients under 18, he finds that roughly 40 percent of them have also engaged in homosexual activity. "It seems to be something that follows along from their marijuana use," says Turner, who is convinced that the drugs come first, the homosexuality second. "My concern is, how is the biological system affected by heavy marijuana use? The public needs to be thinking about how drugs alter people's lifestyles."

Turner also holds firmly to his belief that marijuana makes users more susceptible to AIDS, a disease that destroys the immune system. "No one is saying that marijuana will *cause* AIDS," he says, but he argues that marijuana suppresses the immune system and "if you're in a high-risk category, you certainly don't want to use something that will impair your immunological system." Turner, who holds a doctorate in organic chemistry from the University of Southern Mississippi, says that people who have contracted the AIDS virus certainly should not smoke pot, and he wants the Centers for Disease Control to investigate whether it is a cofactor in the progression of the disease.

Making waves: *Turner*
KEN HEINEN

Turner's assertions befuddle drug experts and gay-rights activists alike. Stephen Morin, a San Francisco psychologist whose patients include gay men, says there is no evidence that drugs play a role in the formation of sexual identity. Dr. Marvin Snyder of the National Institute on Drug Abuse says tests have shown that THC, the active ingredient in marijuana, does weaken the immune system in animals. But he says the immune system is fragile and many things, including some chemicals found in drinking water, can do the same thing. Meanwhile, Dr. Stanley Weiss of the National Cancer Institute says that a preliminary study found no causative link between pot and AIDS.

'Crazy ideas': One White House official said Reagan aides had been pleasantly surprised to find that Turner "wasn't a zealot who'd try to plant crazy ideas in Reagan's head." When asked about Turner's assertions concerning pot and homosexuality, however, one aide groaned and said the White House didn't want to get involved.

TERRY E. JOHNSON *with* MARGARET GARRARD WARNER *in Washington and* GEORGE RAINE *in San Francisco*

[illegible] TO KNOW YOU–Dr. Halfdan Mahler, [illegible] Director [illegible] with children in north-east Thailand at a tree [illegible] a recent 5-day field mission.

[illegible] in an evaluation of primary health care [illegible] by a joint WHO-Royal Thai government team [illegible] Khon Kaen and Sisaket.

[illegible] is the first country to carry out such a programme [illegible] to determine the effectiveness of [illegible] the village level. The second part of the exercise is [illegible] for 1985.

[illegible] according to officials, is to "ensure optimal support [illegible] member states." ■

[illegible]ited Nations, [illegible]g 40, Seeks [illegible]thing But [illegible]e Truth

[illegible] a truthful account of what the United Nations can and cannot do, of its successes and failures, of its means and limitations, of its dreams and realities. [illegible]

The Chronology Of U.S. Warning Against Cigarettes

[illegible] on cigarettes packages and advertising, required under U.S. law, have [illegible] in the last [illegible] years. From 1965 to 1970 [illegible] Cigarette Smoking May Be Hazardous to Your Health [illegible] Dangerous to Your Health [illegible] the link between cigarettes and ill health became [illegible] established.

Now, [illegible] in the 1983 Surgeon General's report showing [illegible] deaths from chronic lung disease such as emphysema, the U.S. Congress is studying even stronger words. Proposed are four labels to be rotated on packages and advertising. (See box below for chronology of warnings.)

> **Adopted 1965**
>
> Caution: Cigarette Smoking May Be Hazardous to Your Health.
>
> **Adopted 1970**
>
> Warning: The Surgeon General Has Determined That Cigarette Smoking is Dangerous to Your Health.
>
> **Proposed 1983**
>
> Surgeon General's Warning: Smoking by Pregnant Women May Result in Fetal Injury, Premature and Low Birth Weight.
>
> Surgeon General's Warning: Cigarette Smoke Contains Carbon Monoxide.
>
> Surgeon General's Warning: Smoking Causes [illegible] Heart Disease, Emphysema, and May Complicate Pregnancy.
>
> Surgeon General's Warning: Quitting Smoking Now Greatly Reduces [illegible]

We estimate that 80 and 90 per cent of chronic lung disease in this country is directly attributed to cigarette smoking, and that over [illegible] of these deaths could have been prevented," Dr. C. Everett Koop, the Surgeon General, says. He has called for a smoke-free society by the year 2000.

In addition, his report cites [illegible] solid evidence that [illegible] smoking poses a health problem to non-smokers, and especially to children. [illegible] more susceptible to [illegible] diseases than those whose parents are non-smokers, the report [illegible] Surgeon General [illegible] ■

[illegible] October 1983

Newsbrief

● **AGFUND Contributes to Afghan Refugees.** [illegible] Arab Gulf Programme for United Nations Development Organizations [illegible] programme to combat [illegible] among Afghan refugees in Pakistan.

The disease [illegible] between 20 and 25 per cent of [illegible] among the school children.

[illegible] Pakistan [illegible] some [illegible] refugees are crowded [illegible] of the disease.

● **Attacking Non-Communicable Diseases.** [illegible] Office for Europe have signed an agreement for the control of non-communicable diseases, such as accidents, cancer, cardiovascular diseases, diabetes and mental disorders.

Signing were Dr. [illegible] Chief Medical Officer, and Dr. [illegible] Regional Director.

● **October 16 is World Food Day.** In a typical working day during the planting season, a Zambian woman spends 3 hours 20 minutes a day in the field, [illegible] 15 minutes walking to the field and back home, 1 hour 20 minutes pounding or grinding grain or legumes, [illegible] collecting fire wood, 45 minutes fetching water from one to two kilometers away, 1 hour cooking, [illegible] preparing meals, and 45 minutes washing [illegible] the clothes of the family. Hers is a day that begins at 5 a.m. and ends at 9 p.m.

[illegible] are being highlighted by the U.N. Food and Agriculture Organization, Rome, under the theme "Women and Agriculture" [illegible] to needs of women in rural areas [illegible] produces at least 50 per cent of the world's food.

● **Walking for Water.** With a jug of water balanced precariously on his head, the young man [illegible] turned out in dark suit and tight tie, walked for five miles through London streets—the distance millions in the developing world have to trudge daily for water. His final stop at No. 10 Downing Street where he presented the Prime Minister, Margaret Thatcher, with a mug of clear water from the pot.

The idea to present a symbolic gift of water to world leaders in order to highlight the plight of people in the Third World came to him as a way of raising money for a British charity, Action Aid [illegible] a 21-year-old law student born in [illegible] who also met leaders of Britain's three other major political parties on his walk for water.

● **WHO's New Western Pacific Mem[illegible]**

No. 163, formerly a British Protectorate and then part of New Zealand, Cook Islands became independent in 1965.

It is made up of two island groups [illegible] Rarotonga [illegible] population is about 19,000.

No. 164, formerly the Gilbert Islands but since independence in 1979 the Republic of Kiribati.

The Republic [illegible]

[illegible]

In the next issue

The [illegible] issue of World Health has no single theme but will [illegible] with a wide variety of basic public health problems [illegible] [illegible] ■

Authors of the Month

Dr [illegible] Nutrition unit at WHO headquarters in Geneva.

Dr [illegible] working at the University of Connecticut, USA, and Mary [illegible] student in the Department of Nutritional Sciences at the same University.

Dr [illegible] to the Minister of Health of [illegible] working for the [illegible] Management Sciences for Health.

Dr [illegible] Department of Paediatrics, and Director of the Nutrition Section of the Universidad del Valle, [illegible] Colombia.

Dr Elisabet Helsing is a [illegible] nutrition with WHO's Regional Office for Europe in Copenhagen.

Mr Pape Marcel Sene is a journalist working with the Secretariat of the Presidential Office for Senegambia, in Dakar.

Mr David W. [illegible] is Chief of the Situation and Outlook Service, Policy Analysis Division, Food and Agriculture Organization of the United Nations (FAO) in Rome.

Dr Edouard M. DeMaeyer is working as a Consultant for WHO's Nutrition unit in Geneva.

Dr Philip Musgrove is Regional Adviser on Health Economics to the WHO Regional Office for the Americas/Pan American Sanitary Bureau (PAHO) in Washington, D.C.

Drugs are big business

Any nation will drink more alcohol, smoke more cigarettes or abuse more opiates if the relevant drug is made more *available*. The key to reducing drug–and alcohol–related problems lies in controlling production, marketing, retailing and distribution

by Anthony W. Clare

Confronted by the deluge of statistics relating to the international epidemic of cigarette smoking, the inexorable rise in alcohol production and consumption, the proliferation of opiate dependence and the remorseless growth of the psychotropic drug market, it is hard to resist adopting one of two attitudes. The first, a resolutely pessimistic approach, is to conclude that societies in every quarter of the globe are hell-bent on drugging themselves into a terminal state of euphoria and malaise. The second, ruggedly optimistic, is to draw comfort from the fact that there has never been a society on this earth which has not experimented with, habitually relied upon and occasionally abused some mind-altering substance.

Which of these two positions the average individual adopts depends as much on his or her temperament as on the state of our contemporary and historical knowledge.

Professionals working in the health field–doctors, nurses, primary health care workers, lay healers–all occupy an uneasy position within the drugs debate. They feel, and indeed are, morally obliged to document and publicise the extent to which we all ingest, smoke, drink and inject nicotine, alcohol and drugs; yet in carrying out such a valuable task they find themselves slipping into or being pushed to adopt the role of moralisers, priests and social engineers. For while such drugs have profound biological consequences, the factors that primarily influence their use are psychological, social and cultural. Our understanding of a person's propensity to alter his or her mind with various chemical substances will not be advanced by way of a narrow medical perspective. The medical profession ought not to deduce that, because a certain drug behaviour in a certain individual can legitimately be construed as an illness, the general use of such a drug in some way reflects a pathological society.

Drugs destroy families

An English couple, both aged 37, have been jailed for ten and seven years respectively for the manslaughter of their 15-month-old daughter by giving her an overdose of a heroin substitute. Both had been medically prescribed the drug Methadone in an attempt to wean them off taking heroin. They told a London court that they gave the drug to the baby "to quieten her down."

The fact is that drugs–all kinds of drugs–constitute very big business throughout the world. In Zimbabwe, tobacco production is the nation's largest industry. In Malawi, 100,000 families rely on cash from tobacco, while in the Indian state of Andhra Pradesh, tobacco provides a living for 75,000 farmers and about two million other workers are engaged in curing, packing and processing. The soaring consumption of alcoholic drinks in Third World countries has just begun to worry health care workers at a time when it is taken by some economists as a sign of improving living standards and growing industrialisation. Spectacular growth rates in beer production have been achieved in countries as varied as Japan and Bulgaria, the Netherlands and Yugoslavia. In the past 20 years, Nigeria, Mexico and Brazil have become major beer producers by world standards and have joined such traditional producers as the Federal Republic of Germany and the United Kingdom at the top of the league.

The situation is little different when it comes to illicit drugs. Ever since a fully fledged opium market was opened up in South-East Asia in the nineteenth century by the United Kingdom and other European imperial powers, there has been a massive

Drugs are big business

Left:
Opium-smoking in South-East Asia. Commercial motives among the European imperial powers in the nineteenth century encouraged the opium trade.
Photo CIRIC ©

Right:
Why the insatiable need for drugs such as alcohol? Does it reflect the growing self-assertion of youth–since drug use and abuse is primarily an activity of the young?
Photo CIRIC © and WHO/P. Hendricks

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The situation is little different when it comes to illicit drugs. Ever since a fully fledged opium market was opened up in South-East Asia in the nineteenth century by the United Kingdom and other European imperial powers, there has been a massive international trade in the cultivation and distribution of opiates and related substances. Opium in the East, like rum and guns elsewhere, was offered by European traders in return for spices, silk and tea from China and the East. Now developed and developing countries alike are struggling to contain what has been termed "the global heroin economy," which includes street dealing in Manhattan, the problems of opium farmers in India, Pakistan, Sri Lanka and Thailand, and smuggling networks which criss-cross the world's airways and oceans. Heroin use is spreading in poppy-growing countries themselves.

While alcohol and nicotine tend to be regarded as licit drugs and the opiates in general are under elaborate international controls, other mind-altering substances, such as cannabis and industrially produced psychotropic drugs, occupy a sort of no-man's land. One popular Jamaican rhyme reverses the usual image of alcohol as the superior, status-related drug and ganja (marijuana) as the inferior, down-market product:

You drink white, rum you tumble down;
You smoke kali weed, you succeed.

The dramatic expansion of psychotropic drug prescribing in Scandinavia, the UK and North America in the 1960s and 1970s was largely sanctioned by the medical profession. Only recently has it begun to provoke alarm, and there is evidence that a similar epidemic of drug use is spreading to the Third World.

So why is there this seemingly insatiable need for drugs? Is it a reflection of the growing self-assertion of youth throughout the world, given that drug use and abuse, particularly of the illicit kind, is primarily an activity of the young? Does it reflect a world-wide loss of confidence, an international epidemic of anxiety and demoralisation that is being "treated" by a wholesale recourse to intoxication? Is it a quirk of statistics? After all, it is often pointed out that no reliable statistics have ever been kept of the amounts consumed in Africa, Asia and Latin America of traditional fruit- or cereal-based alcoholic drinks.

There is hardly an expert in this area who does not believe that many factors play their part in drug use. But most would agree that the strongest single cause of the high levels of consumption is the rate of production and the energy and enthusiasm with which the product is marketed. Any nation will drink more alcohol, smoke more cigarettes or abuse more opiates if the relevant drug is made more *available*.

Not surprisingly, doctors and nurses, primary health care workers and interested members of the public are beginning to realise that the key to reducing drug- and alcohol-related problems lies in controlling production, marketing, retailing and distribution. And this realisation, in turn, sets the stage for a difficult confrontation between those anxious to reduce the negative impact of drugs on society and those for whom the production and distribution of such drugs represents a livelihood.

To paraphrase Sir William Osler, the desire to take drugs is one feature which distinguishes man, the animal, from his fellow creatures. It is, as that wise Canadian physician observed, one of the most serious difficulties with which we have to contend. He foresaw in the success of the pharmacists in producing remarkable remedies the danger that we would become used to assuming that for every ill there is a pill. That danger, if international statistics do indeed mean what they appear to mean, is already upon us. A Pandora's box has been opened, and a host of evils have been poured on the world. But let us not forget that, in the ancient Greek legend of Pandora, it was said that hope alone remained at the bottom of her box as a comfort to mankind. ■

How one family is fighting the cigarette industry in a small Southern town

Taking on Big Tobacco in Dixie

Nathan Horton, right, died addicted to the weed. His widow Ella and stepson, Nathan, aim to send a message with their suit

■ Late last month, a gray tornado blew up out of the board-flat cotton country of the Mississippi Delta and spun into the rolling hills around the county seat of Lexington, missing the town by a whisker. In the local courthouse, a judge suspended proceedings for a few hours. And as the storm blew by, the defense in this evolving courtroom drama hoped only that it would dodge disaster as neatly as the citizenry of Lexington. After all, there was an awful lot at stake. Money, for one thing. And a winning streak unlike any other in the annals of big business.

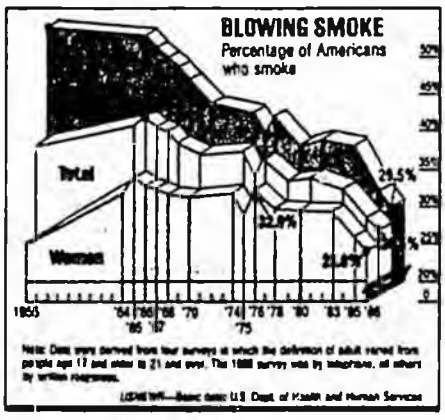
The *Nathan Henry Horton family v. the American Tobacco Company* is a case that is something of a humdinger. The facts are fairly straightforward, the implications anything but. The background: Nathan Horton, carpenter and ex-Navy seaman, smoked two packs of unfiltered Pall Malls a day. He did that for more than 35 years, right up until he died last year. He was 50. Horton's family—alleging that smoking causes cancer and that, in addition, the Pall Malls were contaminated with cancer-causing insecticides—has sued. They want $17 million. And according to some lawyers and tobacco-industry experts, they just might get it. A mistrial at week's end clouded the picture. But if the Hortons prevail when the case is retried, it'll reverse an extraordinary record for Big Tobacco, which has seen some 200 product-liability cases resolved in its favor over the years.

Peculiarities, plaintiffs' rights

For the $33.7 billion industry, it would be a particularly irksome development. Just last week, as the jury in the Horton case broke off deliberations, proceedings in another high-profile liability case against the tobacco industry were getting under way in New Jersey. And while the Horton case turns, in part, on a peculiarity of Mississippi law (jurors there may award a percentage of damages to a plaintiff even if they find a defendant only partially at fault), the determinative facts concern claims that, by the time warning labels were mandated on cigarette packages in 1966, many smokers were addicted and could not stop.

Win or lose, cases like the Horton family's spotlight increasing uneasiness about the industry. Since December, stock prices have dipped about 10 percent, on average, below the market—perhaps in anticipation of the coming lawsuits. And if the industry loses in Lexington, stock prices will drop further, though probably not to catastrophic levels because of the diversity of its holdings. American Brands, for instance, derives 50 percent of its profits from cigarette sales. But it also owns Masterlock, Jim Beam and Franklin Life Insurance. Franklin, by the way, offers discounts to nonsmokers.

The cumulative effect of the lawsuits is to fuel public debate over the dangers of smoking. There is also a more practical side, one that can only cause more uneasiness in the tobacco industry. With each new case, plaintiffs learn new legal stratagems while their lawyers uncover more and more about the tobacco industry through discovery proceedings. Richard Daynard, chairman of the 3-year-old Tobacco Products Liability Project at Northeastern University Law School, is encouraging plaintiffs' attorneys to share information as they explore new arguments. "I think there will be a large number of cases brought," says Daynard, "and many able and well-paid lawyers becoming involved."



And this, ultimately, is the significance of the trial in the little courthouse in Lexington. It is here, in this turn-of-the-century courtroom with the hard wooden seats, that the case of Nathan Horton may, better than any surgeon general's warning, finally give the lie to the tobacco industry's oft heard refrain that there is nothing to prove that cigarette smoking causes cancer. It's a message that seems to be getting through. While 350,000 smokers die in the U.S. of smoke-related illnesses each year, an additional 1.5 million stop puffing. At the same time, according to the Smoking Policy Institute, about 50 percent of U.S. businesses have instituted some sort of antismoking policy. And because of publicity surrounding cases like the Horton family's, those instances are increasing in number and severity. ■

by Sandra R. Gregg in Lexington

Lung study: 1 joint of pot as bad as 4-5 tobacco cigarettes

BOSTON (AP) — One marijuana cigarette is as bad for the body as four or five ordinary cigarettes, and regular pot users may face the same lung cancer risk as pack-a-day smokers, says the author of a new study.

"Our study deflates somewhat the myth that smoking just a little bit of marijuana can't be that bad for you compared with tobacco, since tobacco smokers generally smoke far more," said Dr. Donald P. Tashkin.

The reason is the way pot users smoke, tending to take deep puffs and hold them in.

The new study found that this style of smoking means one joint, or marijuana cigarette, deposits four times as much tar in the lungs as one tobacco cigarette. And it results in five times as much carbon monoxide in the bloodstream.

"The smokers of only a few joints of marijuana a day may have at least as great a risk of developing lung cancer, if not a greater risk, as the average tobacco smoker," said Tashkin, a researcher at the University of California at Los Angeles.

He estimates that three or four joints a day could pose about the same lung cancer risk as three-quarters of a pack or a full pack of cigarettes. There are 20 cigarettes to a pack.

Tashkin said his research suggests that pot smokers may also face an elevated risk of heart attacks.

His latest study was published in today's New England Journal of Medicine.

Experts have long suspected that marijuana smoke is harmful to the lungs, but there has been little hard evidence of this. Six years ago, a panel of the National Academy of Sciences concluded that pot smoking probably has similar effects as tobacco, and heavy prolonged use may lead to cancer.

Surgeon General C. Everett Koop has called marijuana "a major public health problem in the United States."

An estimated 25 percent of the population has tried marijuana, and millions are thought to use it regularly.

In earlier studies, Tashkin found that those who smoke three or four joints a day have as much bronchitis and damage to the major airways of the lungs as do pack-a-day cigerette smokers.

The researchers recruited 15 men who had smoked both marijuana and cigarettes for at least five years and looked for differences in how the men smoked them.

They found that the smokers inhaled three times more smoke from one joint than one cigarette. And a third more tar was retained from each puff of marijuana.

Alcohol and the Family

The children of problem drinkers are coming to grips with their feelings of fear, guilt and rage

Believe it or not, there are still people who think that the worst thing about drinking is a hangover.

Oh, yeah, on New Year's Day I had a hangover that . . .

No. Forget hangovers.

Huh? So what should we talk about? Cirrhosis?

If you wish, but the liver, with its amazing powers of regeneration, usually lasts longer than the spouse, who tends to fall apart relatively early in the drinker's decline.

You're making it hard for a man to drink in peace.

Sorry, but even if spouses do not abuse alcohol, they can come to resemble drunks, since their anger and fear are enormous: way beyond what you'd find in a truly sober person.

I know, I know, it's terrible what goes on behind closed doors.

You make it sound like there are no witnesses. You're forgetting the children. They grow up watching one out-of-control person trying to control another, and they don't know what "normal" is.

I suppose it's hard for the kids, until they move out.

They may move out, but they never leave their parents behind.

Hmm. Listen, can we talk?

We already are. A lot of people already are.

We are, just now, learning more about heavy drinking, and, simultaneously, putting behind us the notion that what alcoholism amounts to is just odd intervals of strange, and sometimes comic, behavior: W. C. Fields, Dean Martin, Foster Brooks. Since 1935 the members of Alcoholics Anonymous have been telling us, with awesome simplicity, that drinking made their lives unmanageable; Al-Anon brought us the news that relatives and friends of drinkers can suffer in harmony; and then came Alateen and even Alatot, where one picture of a stick person holding a beer can is worth a thousand slurred words. The Children of Alcoholics (COAs)—loosely organized but rapidly growing throughout the United States—reaffirm all of the previous grass-roots movements and bring us new insight into alcoholism's effects on the more than 28 million Americans who have seen at least one parent in the throes of the affliction. The bad news from COAs: alcohol is even more insidious than previously thought. The good news: with the right kind of help, the terrible damage it does to nonalcohol-

Exercising old demons: *Gill treat undergoes g*

ics need not be permanent.

Imagine a child who lives in a chaotic house, rides around with a drunk driver and has no one to talk to about the terror. Don't think it doesn't happen: more than 10 million people in the United States are addicted to alcohol, and most of them have children. "I grew up in a little Vietnam," says one child of an alcoholic. "I didn't know why I was there; I didn't know who the enemy was." Decades after their parents die, children of alcoholics can find it difficult to have intimate relationships ("You learn to trust no one") or experience joy ("I hid in the closet"). They are haunted—sometimes despite worldwide acclaim, as in the case of artist Eric Fischl—by a sense of failure for not having saved Mommy or Daddy from drink. And they are prone to marry alcoholics or other severely troubled people because, for one reason, they're willing to accept unacceptable behavior. Many, indeed, have become addicted to domestic turmoil.

"Hurting so bad": Children of alcoholics are people who've been robbed of their childhood—"I've seen five-year-olds running entire families," says Janet Geringer Woititz, one of the movement's founding mothers. Nevertheless, the children of alcoholics often display a kind of childish loyalty even when such loyalty is clearly undeserved. They have a nagging feeling that they are different from other people, Woititz points out, and that may be because, as some recent scientific studies show, they are. Brain scans done by Dr. Henri Begleiter of the State University of New York College of Medicine in Brooklyn reveal that COAs often have deficiencies in the areas of the brain associated with emotion and memory. In this sense and in several other ways—their often obsessive personalities, their tendency to have a poor self-image—the children of alcoholics closely resemble alcoholics. In fact, one in four becomes an alcoholic, as compared with one in 10 out of the general population.

The anger of a COA cannot be seen by brain scans. But at a therapy session at Caron Family Services in Wernersville, Pa., Ken Gill, a 49-year-old IBM salesman, recently took a padded bat and walloped a couch cushion hard enough to wake up sleeping demons. "I came because I was hurting so bad and I didn't know why," he says. "A lot of things were going wrong. I

There's a Problem in the House

In "Adult Children of Alcoholics," Janet Geringer Woititz discusses 13 traits that most children from alcoholic households experience to some degree. These symptoms, she says, can pose lifelong problems.

Adult children of alcoholics . . .

- guess what normal behavior is.
- have difficulty following a project from beginning to end.
- lie when it would be just as easy to tell the truth.
- judge themselves without mercy.
- have difficulty having fun.
- take themselves very seriously.
- have difficulty with intimate relationships.
- overreact to changes over which they have no control.
- constantly seek approval and affirmation.
- feel that they are different from other people.
- are super-responsible or super-irresponsible.
- are extremely loyal, even in the face of evidence that the loyalty is undeserved.
- tend to lock themselves into a course of action without giving consideration to consequences.

was a workaholic, and I neglected my family." It took Gill only a few hours of exposure to the idea that he might be an "adult child," he says, to realize that his failings as a parent may be if not excused, then at least explained. Like a lot of kids who grew up in an alcoholic household, Gill, who is also a recovering alcoholic, never got what even rats and monkeys get: exposure, at an impressionable age, to the sight and sound of functioning parents. Suzanne Somers, the actress and singer, spent years working out her anger in the form of a just published book called "Keeping Secrets." "I decided that this disease took the first half of my life, and goddam it," she says, "it wasn't going to take the second half of it."

'Control freak': Not every COA has all of the 13 traits (chart, page 63) ascribed to them by Woititz in her landmark work, "Adult Children of Alcoholics" (*1983, Health Communications, Inc.*), and not all have been scarred (President Reagan, who has written of sometimes finding his father passed out drunk on the front porch, does not appear, from his famous management style, to suffer from any tendency to be a "control freak," a most common COA complaint). Some children of alcoholics are grossly overweight from compulsive eating while others are as dressed for success as, well, Somers. A few COAs are immobilized by depression. Another runs TV's "Old Time Gospel Hour." What these people *do* have in common is a basic agreement with George Vaillant, a Dartmouth Medical School professor who says that it is important to think of alcoholism not as an illness that affects bodily organs but as "an illness that affects families. Perhaps the worst single feature of alcoholism," Vaillant adds, "is that it causes people to be unreasonably angry at the people that they most love."

The movement is only about six years old, but expanding so rapidly that figures, could they be gathered for such a basically unstructured and anonymous group, would be outdated as soon as they appeared. We do know, though, that five years ago there were 21 people in an organization called the National Association for Children of Alcoholics; today there are more than 7,000. The 14 Al-Anon-affiliated children-of-alcoholics groups meeting in the early '80s have increased to 1,100. With only word-of-mouth advertising, Woititz's book has sold about a million copies; indeed, "Adult Children of Alcoholics" reached the number-three spot on The New York Times paperback best-seller list long before it was available in any bookstore—at a time, in other words, when getting a copy meant collaring a clerk to put in an order and *saying the title out loud*.

"We turned on the phones in 1982," says Migs Woodside, founder and president of the Children of Alcoholics Foundation in New York, "and the calls are still coming in 24 hours a day." The COAs Foundation sponsors a traveling art show that features the work of young and adult COAs; often, says Woodside, an attendee will stand mesmerized before a crude depiction of domestic violence or parental apathy ("Mom at noon," it says beneath the picture of someone huddling beneath the bedcovers)—and will then go directly to a pay phone to find help. "The newcomers all tend to say the same thing," says Woodside. "'Wait a minute—that's my story, that's *me*!'"

"It's private pain transformed into a public statement," says James Garbarino, president of the Erikson Institute for Advanced Study in Child Development, in Chicago, "a fascinating movement." But when you consider that denial is the primary symptom of alcoholism and that COAs tend by nature to take on more than their share of blame for whatever mess they happen to find themselves in, the rapid growth of the COAs movement seems just short of miraculous—something akin to a drunken stockbroker named Bill Wilson cofounding AA, now *the* model for a vast majority of self-help programs throughout the United States. After all, who would want to spill the family's darkest secret after years of telling teachers, employers and friends that everything was fine? ("A child of an alcoholic will always say 'Fine'," says Rokelle Lerner, a counselor who specializes in young COAs. "They get punished if they say otherwise.") Who would voluntarily identify themselves with a group whose female members, according to some reports, have an above-average number of gynecological problems, possibly due to stress—and whose men are prone to frequent surgery for problems, doctors say, that may be basically psychosomatic?

The answer is, only someone who had, in some sense, bottomed out, just the way a drinker does before he turns to AA.

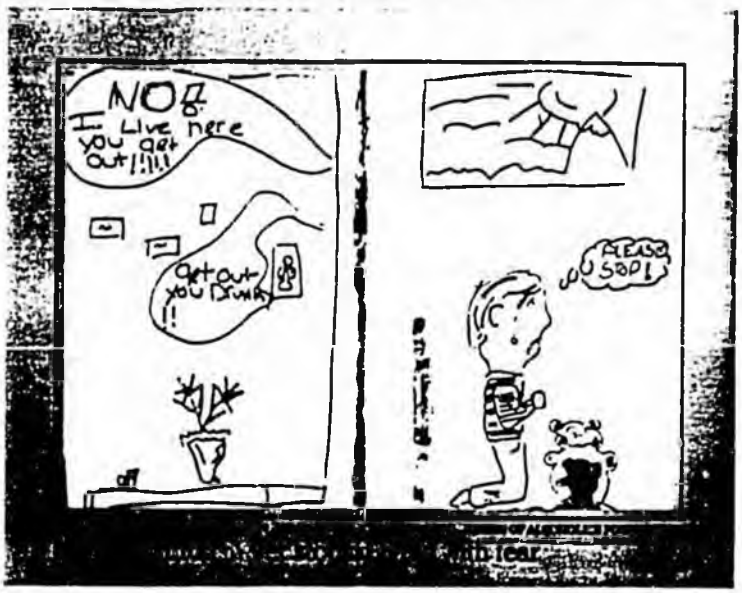
The concept of codependency is at the center of the COAs movement. Eleanor Williams, who works with COAs at the Charter Peachford Hospital in Atlanta, defines codependency as "unconscious addiction to another person's dysfunctional behavior." Woititz, in a recent Changes magazine interview, referred to it more simply as a tendency to "put other people's

Talking and playing their way to a healthy state of mind: *The*

needs before my own." A codependent family member may suspect that he has driven the alcoholic to drink (though that is impossible, according to virtually all experts in the field); he almost certainly thinks that he can cure or at least control the drinker's troublesome behavior. "I actually thought that I could make a difference by cooking my husband better meals and by taking the kids out for drives on weekends [so he could rest]," says Ella S., a Westchester, N.Y., woman. "For all I know, it's a deeply ingrained psychological, and possibly genetic, disease, and here I am going at it with a lamb chop."

Mental movies: Obsessed with her husband's increasingly self-destructive behavior, Ella's next step, in typical codependent fashion, was to hide Bob's six-packs, which made him, to put it mildly, angry. Soon they were fighting almost daily and Ella was running mental movies of their scenes from a marriage all night long. "I was wasting a lot of time and energy trying to change the past, while he kept getting worse," she says. "There was a kind of awkward violence between him and me all the time; our hearts weren't really in it, but it wasn't until he had an affair with an alcoholism counselor *that I got him to* that I left." If you're wondering about children, Ella has a seven-year-old daughter, Ann. Her omission is significant. If life were a horse race, then Ann has been, as they say on the past performance charts, "shuffled back" among the also-rans.

What COAs—all people affected by alcohol—need to learn is that the race is fixed: when there is no program of recovery—either through the support of a group or the self-imposed abstinence of an individual—the abused substance will always win, handily, no matter what the competition. The first step of AA begins, "We admitted we were powerless . . ." But what will become of Ann, who is codependent on *two* people? Perhaps, sensing that she is not exactly the center of attention, she will reach adulthood with a need for constant approval, a common COA symptom. Or maybe she will, even as a child, react to the chaos by trying to keep everything in her life under control, and thus give the impression that she is, despite everything, quite a trouper, a golden child.

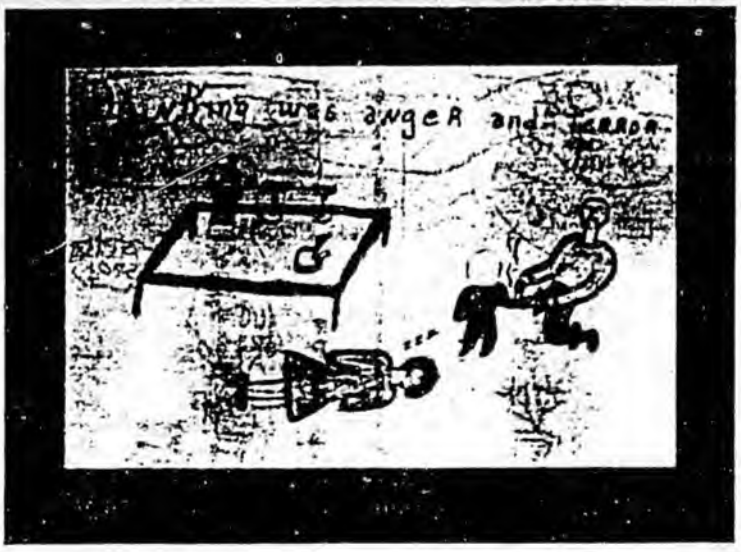


"[Some] don't fall apart until they're in their 20s or 30s," says Woititz, and in some cases, especially those marked by violence or incest and sexual abuse (three times more common in alcoholic households than in the general population), that's the wonder of it all. One eight-year-old patient at Woititz's Verona, N.J., counseling center woke up in the middle of the night to see her alcoholic mother shoot herself in the head. "The child called the 911 emergency number, got her mother to the hospital and basically saved her mother's life," says Woititz. "When I saw her she was having

f mind: *The board game Sobriety (left). Brooks with a father and son at her California counseling center*

TOM IVES

RICK RICKMAN



nightmares—that she wouldn't wake up and witness this suicide attempt. This is not a normal nightmare. The child had become mother to her own mother."

Each unhappy family, as Tolstoy said, is unhappy in its own way. Artist Eric Fischl, 39, in a short videotape he made for the COAs Foundation called "Trying to Find Normal," speaks of stepping over his passed-out mother, in their comfortable-looking (from the outside) Port Washington, N.Y., home and seeing her "lying in her own piss." His work, which has been the subject of a one-man show at the Whitney Museum in New York, is not autobiographical, he says, and yet "the tone [of it] has everything to do with my childhood." His painting "Time for Bed" (page 63) "relates to my memory of all hell breaking loose," he says. "I guess you could say the boy is me and his shame, embarrassment and sadness is mine as well. The little boy's Superman pajamas are on backwards, so it's like looking in a mirror. I painted the woman standing on a glass table with spiked heels on to give it a sense of fragility and danger. The man only has one arm because I wanted a sense of impotence."

Alcohol leaves every alcoholic and codependent who does not admit his powerlessness over the substance in a constant state of longing. Fischl didn't realize how sad he'd been until his mother died, in an alcohol-related car accident, in 1970. "The thing about having a sick parent is that you think it's your problem," he says. "You feel like a failure because you can't save her." Even when there is no incest, there is seduction. Fischl's mother kept "signaling," he says, "that if you could just come a little bit further with me in this, you can save me."

Some of the other things that alcohol ruins, before it gets to the liver: family meals ("Alcohol fills you up. My father was never interested in eating with us"); gloriously run-of-the-mill evenings around the hearth ("Alcohol makes you tired. My father was in bed most nights at 8"). When enough C_2H_5HO is added to a home, vases may start to fly across the room and crash

Heredity and Drinking: How Strong Is the Link?

Research on the genetics of alcoholism took a curious turn a few weeks ago when Lawrence Lumeng analyzed his DNA to demonstrate why he can't tolerate liquor. Lumeng, a biochemist at the Indiana University School of Medicine, is among the 30 to 45 percent of Asians whose response to spirited beverages is a reddened face, headaches or nausea. This "Oriental flush," past studies have shown, arises in those who have an inefficient version of a liver enzyme that is crucial to the body's breakdown of alcohol; this "lazy" enzyme allows the buildup of an alcohol product, acetaldehyde, which is sickening and leads many Asians to shun alcohol. Working with biochemist Ting-Kai Li, Lumeng says that he pinpointed the gene that instructs cells to make the odd enzyme. The experiment offers dramatic evidence that a bodily response to alcohol is genetically dictated—and is thus inherited as surely as eye color.

There is no evidence for the opposite proposition: that a specific gene makes a person *crave* alcohol. Considering the wide variety of reasons why people consume the stuff, it seems unlikely that a "drinking gene" exists. But researchers have firmly established that, compared with other children, an alcoholic's offspring are around four times more likely to develop the problem, even if they were raised by other, nonalcoholic parents. In families with a history of alcoholism, explains C. Robert Cloninger, a psychiatrist and geneticist at Washington University in St. Louis, "what is inherited is not the fact that you are destined to become an alcoholic but varying degrees of susceptibility" to the disorder. So real is the predisposition that many researchers advise adult children of alcoholics (COAs) to drink no alcohol whatsoever.

Even the brains of COAs show faint signs of unusual activity, according to controversial studies by psychiatrist Henri Begleiter of the State University of New York in Brooklyn. Begleiter has found that young boys who have never consumed alcohol produce the slightly distorted brain-wave patterns typical of their alcoholic fathers. Such signature brain waves, he says, may mark the son of an alcoholic as likely to develop a drinking problem and perhaps alert him to the risk. However, it

MARY ANN SARTER

Probing for genes: *Lumeng*

into walls. All kinds of paper—court-issued Orders of Protection, divorce decrees, bounced checks—come fluttering down. The lights go on and off. Does that mean Daddy's forgotten to pay the bill again, or that the second act is starting?

Every alcoholic household is, in fact, a pathetic little play in which each of the members takes on a role. This is not an idea that arrived with the COAs movement; a 17-page booklet called "Alcoholism: A Merry-Go-Round Named Denial" has been distributed free of charge by Al-Anon for almost 20 years. Written by the Rev. Joseph L. Kellerman, the former director of the Charlotte, N.C., Council on Alcoholism, "Merry-Go-Round" takes note of the uncanny consistency with which certain characters appear in alcoholic situations. These include the Enabler ("a 'helpful' Mr. Clean . . . [who] conditions [the drinker] to believe there will always be a protector who will come to his rescue"); the Victim ("the person who is responsible for getting the work done if the alcoholic is absent") and the Provoker (usually the spouse or parent of the alcoholic, this is "the key person . . . who is hurt and upset by repeated drinking episodes, but she holds the family together . . . In turn, she feeds back into the marriage her bitterness, resentment, fear and hurt . . . She controls, she tries to force the changes she wants; she sacrifices, adjusts, never gives up, never gives in, but never forgets").

Some of the earliest books in the COAs movement explored the drama metaphor more deeply and defined the roles that children play. Sharon Wegscheider-Cruse, in her 1981 book, "Another Chance" (*Science and Behavior Books, Inc. Palo Alto, Calif.*), wrote about the Family Hero, who is usually the firstborn. A high achiever in school, the Hero always does what's right, often discounting himself by putting others first. The Last Child, meanwhile, is withdrawn, a loner on his way to a joyless adulthood, and thus, in some ways, very different from the Scapegoat, who appears hostile and defiant but inside feels hurt and angry. (It is the Scapegoat, says Wegscheider-Cruse, who gets attention through "negative behavior" and is likely to be involved in alcohol or other drugs later.) Last and least—in his own mind—is the Mascot, fragile and immature yet charming: the family clown.

'Good-looking' kids: Virtually no one was publishing those kinds of thoughts when Claudia Black, a Laguna Beach, Calif., therapist, began searching for literature on the subject of the alcohol-affected family in the late '70s. "Half of my adult [alcoholic] patients had kids my age and older," she remembers, "but all I found was stuff on fetal alcohol syndrome and kids prone to juvenile delinquency." One thing that fascinated her about young COAs, she says, was that despite their developmental problems "they were all 'good-looking' kids"—presentable and responsible albeit

remains to be seen whether such brain scans are sufficiently reliable and informative to distinguish potential social drinkers from future alcoholics. The technique, comments psychologist Robert Pandina, scientific director of the Center of Alcohol Studies at Rutgers University, is "at this time not any more valuable" as a predictor of future drinking behavior "than collecting a good family history on an individual."

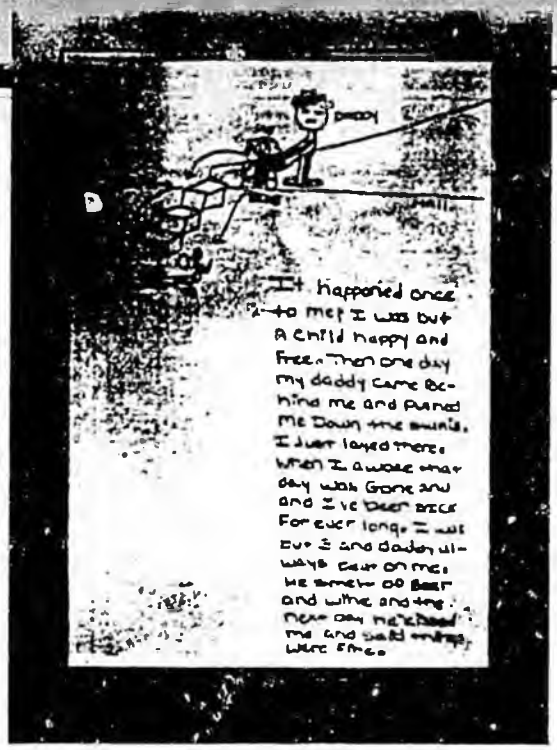
Other studies show that many COAs respond uniquely to booze. Marc Schuckit, a psychiatrist at the Veterans Administration Hospital in San Diego, has found that college-age sons of alcoholics often react less to a few drinks than other college men; in his studies, the drinkers' sons were generally not as euphoric or tipsy after three to five cocktails. Schuckit believes that this lower sensitivity makes it harder for the alcoholics' sons to know when to stop drinking, starting them down the road to alcohol problems. Preliminary experiments by Barbara Lex of McLean Hospital in Belmont, Mass., confirm that daughters of alcoholics respond similarly. Women from families with a history of alcohol abuse tend to keep their balance better on a wobbly platform after having a drink. Apparently women, too, can inherit traits that might predispose them to addiction, although there are far fewer females than male alcoholics.

Half a beer: The key unresolved issue, of course, is why some individuals from alcohol-scarred families succumb to alcoholism while others don't. Genes play some role in the development, most notably in abstinence. "People say that whether you drink or not has to do only with willpower," explains Indiana's Lumeng, "but the reason I can drink only half a beer is biological."

Yet heredity alone obviously isn't to blame for alcoholism's appalling toll. In fact, about 60 percent of the nation's alcohol abusers are from families with no history of the disorder. How much people drink is influenced by factors as prosaic as cost; partly to curb consumption, the National Council on Alcoholism is lobbying to raise federal excise taxes on beer and wine, which haven't changed since 1951. Social influences like cost and peer pressure "are just as important as genes," says Dartmouth psychiatrist George Vaillant. "All the genes do is make it easier for you to become an alcoholic." For now, the value of genetic studies is to warn COAs that they may well have a real handicap in the struggle against the family trouble.

TERENCE MONMANEY with KAREN SPRINGEN in New York and MARY HAGER in Washington

Tipsy? *Lab demonstration*



not terribly verbal. "They had friends but weren't honest with them. Everything was 'fine and dandy'."

The title of Black's important 1981 book, "It Will Never Happen to Me" *(M.A.C. Denver, Colo.)*, reflects the typical codependent's mix of denial and false bravado. In it, she makes the point that the children in an alcoholic household never have an environment that is consistent and structured, two of the things they need most—and she, too, talks of such stock juvenile "roles" as the Responsible One and the Adjuster. Her unique warning was that children who survive a parent's alcoholism by displaying unusual coping behavior often experience "emotional and psychological deficits" later on. They are also likely to become alcoholics, says Black, because "alcohol helps these persons become less rigid, loosen up and relax. When they drink, they aren't quite so serious." Though those things happen to almost everyone who imbibes, Black says that "for those who are stuck in unhealthy patterns, alcohol may be the *only* thing that can provide relief."

Well, she guessed wrong there: a movement, manifested by often joyous meetings, has come along in the interim. At hundreds of COAs gatherings around the country tonight, people will talk and listen to each other's stories, to cry, to laugh and generally, as Ken Gill says, "recharge their batteries." "This program kept me from being an alcoholic myself," said a woman named Heather at a gathering in an affluent section of San Francisco last week. "Because I was the oldest, everything was always my fault. It's like when you make your parents breakfast and you bring them one scrambled egg and one fried egg—in my house I always scrambled the wrong egg." Heads bobbed in agreement. Who else but COAs could identify with a story about what happens when kids cook for their own mother and father?

Discovering self-esteem: Talking and listening: this is the way we've learned to deal with problem drinking. And though it sounds wimpy, don't knock it; it's the surest way to alleviate not just the imbibing but the whole range of symptoms we call alcoholism. A woman named Nina stood up at a meeting in Boston last week, practically glossed over the fact that both her parents were alcoholics—and proceeded to speak about how well she was feeling and doing. COAs meetings and literature, she said, had allowed her to discover self-esteem. At another meeting, Carolyn told a story of complaining to her doctor about depression—and hearing the doctor shoot back a question about whether one of her parents was an alcoholic. "I was shocked," she said, and well she might be. Doctors, as a group, have yet to play a major role in helping mitigate the effects of alcohol, perhaps because the average medical-school student spends a grand total of between zero and 10 hours studying the affliction that kills 100,000 people annually.

An avalanche of information is coming, nevertheless, from another kind of M.D.—call them the Masters of Disaster, the people who've lived with alcoholism or worked with alcoholics so closely that they might as well be the victim. Robert Ackerman, a professor of sociology at Indiana University of Pennsylvania, has been studying the children of alcoholics for an exceedingly long time by the standards of the movement—since the early '70s. In his recent book "Let Go and Grow" *(Health Communications, Inc.)*, he reports on a survey he took to test the validity of Woititz's 13 generalizations about COAs, as well as seven more observations of his own. What he found was that "adult children of alcoholics identified about 20 percent more with these characteristics" than did the general population. Other professionals are reporting success with therapies involving hugging, acting out unresolved scenes from long ago and even playing one of several board games for children of alcoholics called Family Happenings and Sobriety. Cathleen Brooks, executive director of a program called Next Step in San Diego, reports that her clients often make life-changing strides after six to 18 months of primary treatment and make the decision never to drink or take drugs.

A founding mother of the movement: *Woititz*

The 7 million COAs who are under the age of 18 are harder to help, if only because their parents' denial tends to keep them out of treatment. For these children who never know what to expect when they come home from school each day, life, says Woititz, "is a state of constant anxiety." Some pediatricians think there is a link between such anxiety and childhood ulcers, chronic nausea, sleeping problems, eating disorders and dermatitis. Migs Woodside, from the COAs Foundation, says that the trained teacher can pick the child of an alcoholic out of a crowded classroom. "Sometimes you can tell by the way they are dressed or by the fact that they never have their lunch money," she says. "Sometimes you can tell by the way they suddenly pay attention when the teacher talks about drinking, and sometimes you can tell by their pictures."

Someday, 20 or 30 years from now, those children may feel a vague sense of failure or depression and be hard pressed to explain why. In the meantime, it's their Crayolas that are hard pressed. Beer cans—and not liquor or wine bottles—form a leitmotif in the work of young children of alcoholics. Occasionally, Woodside says, looking a little sad, the big stick figures can be seen tipping the cans into the mouths of the little stick figures.

CHARLES LEERHSEN with TESSA NAMUTH and bureau reports

MARIJUANA:

A SECOND LOOK AT HEALTH HAZARDS.

Every Child Must Make a Decision about Marijuana.

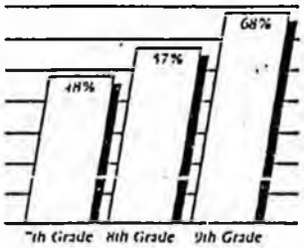
More than two and a half million adolescents smoke marijuana regularly. This includes one in twenty American high school seniors who smoke marijuana daily. Of greater concern is that one-third of high school seniors who smoke marijuana started in 9th grade or before. An increasing number first tried it in the 6th grade. These facts show that marijuana use is widespread among American youth and that the age at first use is declining. It is clear that every child will have to make a decision about marijuana. In order to help children make the smart decision, preventive measures must be taken early. This means teaching children the facts about marijuana and arming them with the skills to say "no" to pot.

Kids face a lot of peer pressure.

According to a 1983 survey by *Weekly Reader* magazine of over 100,000 students in grades 4 through 12, the main reason cited by students for smoking marijuana is to "fit in with other kids." In addition, this survey reported that more than one-quarter (28%) of 4th graders believe that kids their age feel "some" or "a lot" of pressure to use marijuana. These children face increasing peer pressure as they get older; see the bar graph above.

WHAT IS THE PROBLEM?

How much do kids push each other to smoke pot?



The Weekly Reader survey demonstrates increasing peer pressure among school children. A critical period, 7th-9th grades, is shown here.

Marijuana Isn't Kid Stuff.

Today's marijuana is often ten times stronger than the pot of the 1960's and 70's. Marijuana's potency is measured by the concentration of THC, the drug's principal intoxicating chemical. The average increase in THC from 0.5% to 4.5% makes today's marijuana more powerful and much more hazardous.

Kids are vulnerable. Smoking marijuana is especially dangerous during adolescence. Physical, psychological and sexual changes are rapid and complex. Any disruption of the normal processes due to marijuana smoking at this critical stage in development may have harmful and lasting effects. In particular, the THC in marijuana inhibits the hormone which sets adolescent development in motion.

What Makes Pot So Bad? Marijuana consists of the dried flowers, leaves and leaf stems of the plant *Cannabis sativa*. It is composed of over 400 substances which convert to over 2000 chemical compounds when marijuana is smoked or burned. The smoke contains a greater concentration of some of the cancer-causing substances (benzpyrene and benzanthracene) and lung irritants (acetone, acetaldehyde, and hydrocyanic acid) than those found in tobacco smoke. THC (delta-9-tetrahydrocannabinol) is the main psychoactive, or mind-altering, substance; it produces the marijuana "high." THC is fat-soluble and therefore is retained by the tissues of the lungs, liver, reproductive organs, and brain for up to one month after one marijuana cigarette has been smoked. Alcohol and nicotine, on the other hand, are water-soluble and leave the body in a few hours.

Marijuana Is a Gateway Drug.

The peer pressure that leads young people to try pot often leads them to try other, even more hazardous drugs. Half of daily marijuana smokers use amphetamines and one-third use cocaine.

The tobacco connection. An incredible *81%* of tobacco smokers have tried marijuana, compared with *17%* of non-smokers. Further, tobacco smokers are *14 times* more likely to use cocaine, amphetamines, and heroin.

A dangerous combination. The many users who smoke marijuana and tobacco subject themselves to a double hazard. The combined effects of these substances pose a far greater threat of lung disease.

Marijuana Causes Lung Disease.

There can be little doubt. Marijuana smoke has greater concentrations of the cancer-causing substances found in tobacco smoke. It has 12 times the "tar" and 10 to 20 times as much carbon monoxide. The lung's delicate tissues get greater exposure to these harmful chemicals because marijuana smokers inhale deeply and hold the smoke in their lungs to get the greatest "high". Smoking marijuana daily for 5 years or more produces the kinds of changes in lung tissue seen in people who have been smoking for 10 to 15 years. These changes are the same as those in people who develop chronic bronchitis, emphysema and lung cancer.

Reduced lung function. Marijuana irritates the lung's air passages making

Normal Lung Cells — *Cells Damaged by Marijuana*

AMERICAN LUNG ASSOCIATION
The Christmas Seal People

FACTS AND FIGURES FROM THE ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATIC

alcamhi update

ALCOHOL AND DRUG ABUSE AMONG ADOLESCENTS

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No. 1, April 1986

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES • Public Health Service

CORRECTION

THIS DOCUMENT
HAS BEEN REPHOTOGRAPHED
TO ASSURE LEGIBILITY

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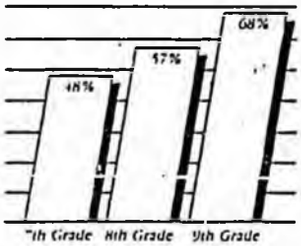

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breathing more difficult. Further, it impairs the special lung cells that fight infection.

Because marijuana smoking is a recent phenomenon, the long-term effects of its use are not yet documented. It is likely, however, that as pot-smokers age, the continuous assault on the delicate tissue of the lungs will cause debilitating lung disease.

Pot Smoking Doesn't Just Hurt the Lungs.

Marijuana also interferes with normal functioning of the cardiovascular, nervous, and reproductive systems.

The heart and cardiovascular system. Marijuana can increase heart rate by as much as fifty percent, depending on the THC concentration of the particular marijuana cigarette. At the same time, oxygen supply to the heart is reduced, causing chest pain and other harmful consequences in people with underlying cardiovascular problems.

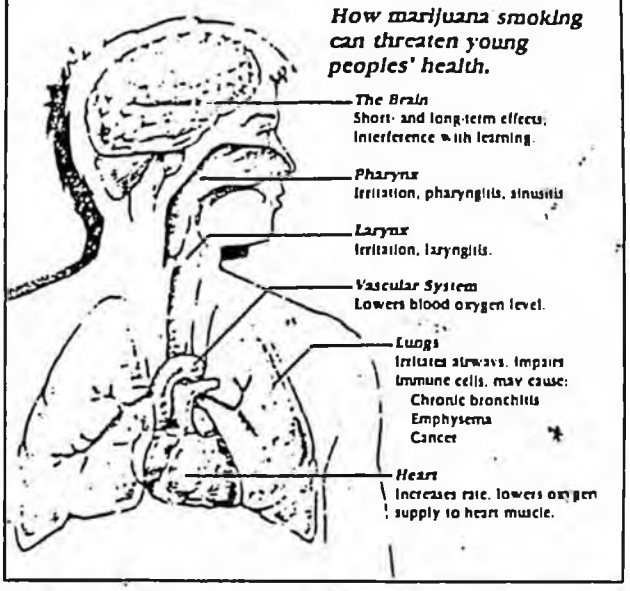
The brain and central nervous system. Marijuana use can result in both short-term and long-term effects on the brain. The short term effects include distortion of time and space perception and interference with thinking and learning. Some marijuana smokers experience "acute panic anxiety reactions" which include paranoia, abnormal fears, and extreme anxiety. Long-term regular users are often dependent on the drug and can experience "burn-out", a feeling of energy loss and apathy.

Sexual development and the reproductive system. In both males and females, marijuana causes impairment of normal sexual development. Marijuana smokers can develop tolerance to the drug but the sperm or eggs they carry inside can be adversely affected by marijuana's toxic chemicals.

Specifically, marijuana causes increased menstrual cycle abnormalities and interference with ovulation. When a pregnant woman smokes marijuana, the drug's chemicals enter her bloodstream, travel through the placenta, and enter the bloodstream of her fetus.

INSIDE STORY

How marijuana smoking can threaten young peoples' health.



In addition, marijuana increases the incidence of abnormal sperm cells (see photograph) and decreases sperm production, sperm motility and male hormone levels.

Healthy vs. Unhealthy Sperm

On the left is a healthy sperm, on the right the sperm of a chronic hashish smoker. Hashish is a stronger form of marijuana.

Other Consequences: Social and Psychological.

Children who smoke marijuana often exhibit a behavior pattern that includes: energy loss, diminished school performance, low motivation, absenteeism, difficult peer and parental relations and low self-esteem. Emotional and psychological development is interrupted when marijuana is used to avoid confronting normal adolescent "growing pains" and problems.

Parents Can Help.

Young children want the opinions and advice of their parents and other adults. They look to them for direction and guidance. Parents and teachers are vital role models during a child's social and psychological development.

Parents must be informed. It is important for parents to learn about the health hazards of marijuana so they can be confident that they are relaying relevant and up-to-date information to their children. As children get older and peer pressures mount throughout junior and senior high school, it becomes more difficult for parents to influence their children's behavior. Children accustomed to discussing the problems of drugs with their parents are more likely to continue this communication when they become teenagers. They will be better equipped to resist peer pressure and to say "no" to marijuana.

Driving High—A Deadly Road Hazard.

Marijuana impairs many driving skills including coordination, reaction time, and perception. Pot smoking can create the false impression that the user is driving capably, when in fact his or her critical driving abilities are badly impaired. Marijuana has been detected in the blood and urine of a disproportionately large number of highway accident victims. This finding indicates that a significant number of highway accidents and deaths are due to "drug driving".

Drugged, drunk and driving. Statistics show that teenagers frequently use marijuana and alcohol together. Since alcohol and marijuana affect the central nervous system in different ways, their combined use doubly impairs the user's ability to drive; and greatly increases the risk of tragedy on the highway.

AMERICAN LUNG ASSOCIATION

alcohol update
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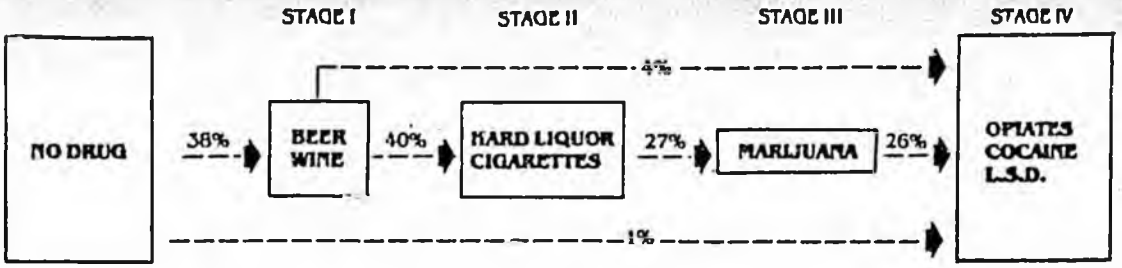


STAGES OF DRUG USE

This diagram illustrates the successive stages in adolescent drug use observed in two follow-up surveys ("longitudinal") of 5,468 New York State High School students between fall 1971 and spring 1972, and 985 seniors 5 months after graduation. Students start using legal drugs, beer or wine, and go on to smoking cigarettes and drinking hard liquor. While 27% of students who smoke and drink progress to marijuana within a 5 to 6 month follow-up period, only 2% of those who did not drink or smoke previously, do so. **Marijuana is turn is a critical step on the way to other illicit drugs.** While 26% of marijuana users will experiment with L.S.D., amphetamines and opiates, only 1% of non-drug users and 4% of legal drug users do so. This sequence is found in each of the 4 years in high school and in the year after graduation (Kandel, D., Stages in Adolescent Involvement in Drug Use. Science, 190:912, 1975).

A 1980 study confirmed the statistical progression of marijuana to heroin and cocaine. "The linkage between marijuana use and later heroin or cocaine use is **10 times** greater than the evidence of linkage between cigarette smoking and lung cancer." (Clayton, R. and Voss, H. U.S. Jour. of Drug and Alcohol Dependence, Jan. 1982).

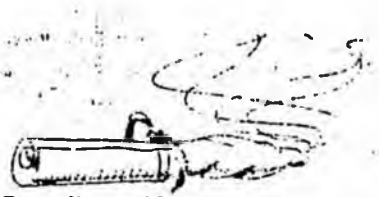
—Excerpted from "Keep off the Grass" Third Edition, Futura-McDonald, 1983

The Evidence Builds

School and Drugs Do Not Mix

Many times in this publication we have described the connection between drug use and school problems. A recent study in Clinical Pediatrics adds to the accumulating evidence that student drug use has a direct, negative effect on education.[1]

The sample for the study consisted of 35 adolescents in a drug treatment program who had smoked marijuana at least four days a week, every week, for at least four continuous months.



Regarding problems in school, the researchers found that:

- 31 percent reported having had serious academic problems—two or more D or F grades on their sixth grade report card—before marijuana use began.
- 60 percent reported at least three D or F grades per marking period after marijuana use became frequent.
- 51 percent said that they either skipped school or some classes every day.
- 71 percent had been suspended, 9 percent had been expelled, and 11 percent had dropped out of school.

The study also found relationships between the onset of heavy marijuana use and family problems, suicide attempts, and automobile accidents.

1. R.H. Schwartz, N.G. Hoffman, R. Jones. Behavioral, Psychosocial, and Academic Correlates of Marijuana Usage in Adolescence. May 1987: pp. 264-70.

Essay

Charles Krauthammer

The Ginsburg Test: Bad Logic

Did F.D.R. have a drink during Prohibition? (He did.) Douglas Ginsburg, nominated for the Supreme Court, did the '60s' equivalent, and within two days of the revelation was crushed in a political avalanche. Most Americans tell pollsters they don't think past marijuana use should be a disqualification for high office, but polls don't make politics. Not many Americans would disqualify a presidential candidate for a bit of plagiarism either. That didn't help Joe Biden. It remains to be seen how much damage the marijuana issue will do to presidential candidates like Albert Gore and Bruce Babbitt. But there is no doubt what would happen to the latest Supreme Court nominee if a joint or two turned up in his background. He'd be finished.

Polls or no polls, the fact is that marijuana use can jeopardize one's chance for high office. We are stuck with the Ginsburg test, so we might as well think it through.

▸ Is marijuana use wrong? Most of the penitents who have rushed to confess to smoking dope have agreed that it is. "It was a mistake," said Babbitt. "I wish I hadn't," said Gore. "I hope that the young people of this country, including my own daughters, will learn from my mistake," said Ginsburg, withdrawing. Conversely, Columnist Tom Wicker, in a biting critique of the phony moralism and "sudden piety" of Ginsburg's attackers, felt compelled to preface his remarks about marijuana smokers by assuring his readers that "I am not now and never have been one of them." An odd credential to flash. It undermines Wicker's premise that in the conduct of public affairs (which includes public debate) one's marijuana history is an irrelevancy.

In the '70s the hysterically antimarijuana film *Reefer Madness* was a camp classic to be mocked by stoned viewers at the midnight show in the local art house. The Zeitgeist of that generation is now wildly reversed. Public figures who used pot at that time express regret for the transgression. Political survival demands that they not offend the new cultural norm. Marijuana use now carries a moral taint.

▸ Why? In what way did Ginsburg or Gore or Claiborne Pell (a one-time, four-puff penitent) do wrong? The most obvious answer is that they willfully broke a law. True. But if what is at stake is respect for law, why the agitation about this particular law out of the thousands on the books, out of the dozens that every non-monastic citizen has broken at one time or another. If law is the issue, then the press ought to be asking public figures not "Have you ever smoked marijuana?" but "Have you ever broken the law, any law?" We could start with "Do you speed?" Or "Have you ever driven drunk?" Or "Did you ever read pornography before the relevant Supreme Court rulings that made it legal?" And, for the bolder reporter, "Have you ever engaged in any variety of carnality prohibited by state law at the time?" If lawbreaking is really the issue, then focusing on marijuana use seems to be a peculiarly narrow way to approach the question.

▸ And not just narrow, but unconvincing. What if it had turned out that Ginsburg smoked dope only on camping trips to Alaska, where marijuana possession for private use is, under state law, entirely legal? Would Ginsburg still be a candidate for the Supreme Court? Not a chance.

▸ Ginsburg's marijuana use was greeted with revulsion not because of its illegality, but because of its perceived intrinsic moral taint. Even without law, it is something that demands contrition. Why? Because, to summarize much that has been said on the subject, it is a decadent, nihilistic, frivolous giving over of one's consciousness and self-control to the pleasures of a waking stupor. Fine. But any moral reasoning that leads you to call immoral that kind of self-surrender must lead you to conclude the same about drinking, which can get you to a stretch of Lethe-land right next door to marijuana's.

This is not to imply, as pot propagandists do, that marijuana should be legalized. If you were inventing a new society, perhaps. You might prefer the intoxicant of choice to be marijuana, since alcohol can be more physically damaging and addicting. But such considerations are irrelevant to deciding what society ought to do about marijuana today. We are not inventing a new society. There is such a thing as history. We have millenniums of experience with alcohol. It is ineradicably part of our culture. The question today is not Will it be alcohol or marijuana? The only relevant question is Will it be alcohol and marijuana? Do we need to legitimize more intoxicants?

The answer is no. Which is why it makes sense for society to discourage marijuana use. Not because it is immoral—it is no more so than alcohol—but because it is destructive and society has the right to legislate self-protection.

▸ Marijuana is destructive in two ways. First, you can't learn on marijuana, and marijuana attracts the young. It kills their time, robs their attention and stunts their development. Use it often enough in your teen years, and you get to adulthood having lost crucial months, years, of emotional and intellectual growth. Second, marijuana is a gateway to harder drugs, the stuff like cocaine and heroin that can destroy people in very short order.

What, then, to do about the use of a substance that is not intrinsically immoral but that society wants to discourage because of its potential for harm? We have muddled through to a fairly good compromise: make the use illegal, but be extremely circumspect about enforcing the law. Illegality is important to prevent the predictably vast increase in use that would occur if you could get a pack of Acapulco Gold out of the machine that now gives you Kools. And non-prosecution is important because you don't persecute people for behavior that you find impossible to argue is morally wrong.

▸ Which makes the Ginsburg test so hard to justify. Did a few encounters with marijuana really make him morally unfit for the Supreme Court? Six out of ten Americans born in the '50s and '60s tried pot by age 25. A test that has the potential for disqualifying almost two-thirds of the population from high public service needs a compelling logic. The Ginsburg test doesn't have one. That won't save poor Ginsburg. But it might save a few others down the road. ■

TODAY'S DRUG SCENE

. . . . The Facts, The Choices . . . .

ESSEX SOUTH DISTRICT
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COMMITTEE OF CORRESPONDENCE, INC.
DRUG AWARENESS
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A HANDBOOK of DRUG FACTS and INFORMATION

People who didn't say no

Hospital emergency rooms are the MASH units of the drug wars, places where rhetoric is irrelevant and "cool" turns deadly. In 1986, for the first time, the number of cocaine-related visits passed those from any other cause.

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Boston	2,757	Up 7%
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Chicago	6,873	Up 40%
Cleveland	2,143	Down 8%
Dallas	3,037	Up 106%
Denver	3,164	Up 19%
Detroit	11,865	Up 21%
Indianapolis	1,114	Down 24%
Kansas City	1,940	Up 32%
Los Angeles	10,694	Down 5%
Miami	4,616	Down 1%
Minneapolis	2,373	Up 39%
New Orleans	2,552	Up 11%
New York	15,484	Down 31%
Norfolk	796	Up 20%
Oklahoma City	934	Up 23%
Philadelphia	7,178	Up 20%
Phoenix	3,305	Up 52%
St. Louis	2,276	Down 2%
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Note: A sampling of 744 hospital emergency rooms reported in 1986 and 780 in 1983. Figures for individual drugs include those used in combination with other drugs. Visits due to alcohol alone are not available.

USNEWS—Basic data: National Institute on Drug Abuse

CORRECTION

THIS DOCUMENT
HAS BEEN REPHOTOGRAPHED
TO ASSURE LEGIBILITY

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Marijuana potency increases

By MIKE ADAMS
The Baltimore Sun

Thousands of Americans are getting hooked on superpotent marijuana that is up to 40 times stronger than varieties of the plant that were available just a decade ago.

Some of the superpotent marijuana contains as much as 20 percent THC, a psychoactive compound that causes intoxication. Ten years ago, the THC content of marijuana generally ranged from one-half percent to about 5 percent. The new superpotent marijuana was developed by growers who have used the basics of genetic engineering to produce a more powerful plant.

Michael Leeds, an addictions specialist from Ukiah, Calif., said he has treated marijuana smokers who meet the criteria set for addiction. Leeds said he believes that the patients were addicted because they smoked marijuana compulsively, they couldn't stop using the drug and they continued to abuse marijuana in the "face of adverse consequences."

Leeds was one of several drug experts who spoke at the Maryland Drug Abuse Administration's conference on drug epidemics. About 100 people, many of whom are involved in the treatment of addicts, attended the session in Baltimore.

"Ten years ago, I would have had a lot of difficulty even talking about marijuana as an addictive drug," Leeds said. "Have you ever, and I'm sure you have, treated someone who's obsessed by pot? People who wouldn't go home if they didn't have marijuana or who wouldn't go in a party without pot or wouldn't travel, walk, talk or go to the show or go to school without marijuana.

"There are some adults and some children in our society who use marijuana compulsively," he continued. "In the 1970s we considered heavy users anyone who smoked pot more than once a week. In 1985, we call a heavy abuser anyone who smokes from three to five joints a day. Now that is a substantial change."

Leeds said very little is known about the health effects of prolonged use of the superpotent marijuana. Since the drug is relatively new, he said it will take about 20 years before its effects will show up.

Leeds said marijuana smoking is rampant among children and teenagers. He said continued use of the drug stunts the intellectual and emotional growth at a critical time during the users' development.

Leeds said many youths are using marijuana along with other drugs and alcohol. He said many of them do not understand the dangers inherent to this pattern of drug abuse.

"Getting high is relative to not being high," he said. "If you smoke pot daily, then you're high most of the time and that becomes a normal waking state for you. If you start using at 12 and smoke regularly until you're 16 then your friend says it's your birthday, let's party. What would you party on? Pot? Maybe, but pot is like air to some adolescents. It wouldn't be thrilling enough or breathtaking enough, so that opens the door to LSD, cocaine or opium."

Leeds said that the use of tobacco and alcohol are often the precursors to drug abuse.

"If children don't smoke any other thing, if they don't do any other smoking behaviors, then smoking that joint is an enormous risk," Leeds said. "On the other hand, if they have already experimented with tobacco products, and are smoking cigarettes, then the step to smoking a joint is a lot smaller. The same model holds true for the use of intoxicating beverages like alcohol."

Meanwhile, an underground chemist has produced a drug so powerful that an amount the weight of a postage stamp will keep 1,000 people high for a month. The drug is an analog of fentanyl, a legal drug that is used as a pain killer. Robert Roberton, the chief of California's division of drug programs, said the drug has killed more than 100 persons in that state. There are unconfirmed reports that the drug has turned up in Florida, New York and Detroit.

Another underground chemist turned out a bad batch of drugs that crippled people in California. The drug attacks the portion of the brain that controls motor skills, and its effects are irreversible. Its side effects are similar to Parkinson's disease.

"They were trying to make synthetic Demerol, but they heated the chemical too much and made MPTP instead," Roberton explained. "MPTP is a neu. otoxin. We estimate that 500 people got his bad batch and we're evaluating them now."

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USN&WR—Basic data: National Institute on Drug Abuse

KAPPAN SPECIAL REPORT

Schoolchildren and Drugs:
The Fancy That Has Not Passed

BY RICHARD A. HAWLEY

I. BACKGROUND

COME NOW, haven't we schoolpeople heard *enough* about drugs? The question is more than fair. Stories about drugs in the print media — big busts, latest threats to health, controversial testing programs, involvement of celebrities — are so ubiquitous that each new one raises little more interest than the daily weather report. And most televiewers would agree that, if Geraldo Rivera made only one documentary on the subject, it would be one too many.

But while drug-related journalism may have lost the power to engage us, the issue of school-age children altering the course of development of their central nervous systems with toxic chemicals continues to command our immediate attention. However inured to it we have become, the "drug problem" has not gone away. In many regions and in whole school systems, student drug use is virulent. Nationwide it continues to be — and this is the technically correct word — epidemic.

According to the best and most far-reaching survey, Lloyd Johnston, Patrick O'Malley, and Jerald Bachman's *Drugs and the Nation's High School Students*, more than nine out of 10 members of the high school class of 1985 had used alcohol, more than half had tried marijuana (more than a quarter reported using it in the past month), one in six had used cocaine, and one in eight had used hal-

RICHARD A. HAWLEY is director of the Upper School at University School/Hunting Valley Campus, Chagrin Falls, O. He has written frequently on drug-related issues. His latest book, to be released this month, is Drugs and Society: Responding to an Epidemic (Walker).

Illustrations by Joe Lee

DUE TO A LACK OF PHOTOGRAPHIC CONTRAST BETWEEN TEXT AND BACKGROUND, THIS PAGE DID NOT REPRODUCE WELL.

lucinogens, such as LSD. The great majority of drug-using children in the U.S. make their initial decision to try a drug between their 12th and 16th years — or between seventh and 10th grades.

When we consider that the metabolites of some commonly abused drugs, such as marijuana, remain active in the user's system for weeks, the implications for in-school behavior and performance grow ominous. In fact, in light of the figures for "recent heavy drinking" reported by the class of 1985 (45% of boys, 25% of girls), it seems statistically unlikely that on any given day there would be many American classrooms without *several* drug-altered students glassily meeting their teachers' expectant gazes.

Educationally and developmentally, this matters. It matters even more than whether students come to school underfed and underloved. For it is easier — much easier — to feed and to love and to teach a child than it is to reverse a pattern of drug abuse once it has begun. The most toxic effects of drug use have nothing to do with short-term stupefaction, nothing to do with "being high." The most toxic effects are not felt at all. The lodging of THC from marijuana in the fatty lining of a neuron is not felt by the user, nor is a teenager's passage from "experimental" drug use to "social" use, or from "social" use to chemical dependency.

Drugs are taken for the pleasurable feelings they produce — or are rumored to produce. A drug cannot create or alter feelings without chemically altering the functioning of the brain. Unfortunately, every external chemical known to produce changes in the nervous system also *damages* that system. There are no exceptions. There are no consequence-free drugs.

But while the brain is the principal organ affected by mind-altering drugs, it is an organ ill-equipped to register its own immediate impairment. The brain has no pain receptors. poke it, squeeze it, cut it, pound it, and it will not "hurt" (although the consequences will be otherwise dramatic). Because the brain doesn't hurt when it is injured, brain damage, whether caused by tumor growth, concussion, stroke, or drug abuse, often remains undetected until brain *function* is lost: speech, memory, movement, and so on. In the case of serious stroke, head trauma, or Alzheimer's disease, such losses are dramatic, but we should be no less attentive to losses caused by the use of alcohol and other drugs, even when those losses are subtler and are distributed over a longer period of time.

Most of us have observed a person in the process of getting drunk — a progressive pickling of the cortical functions. The subtlest and most elegant functions are the first to go: awareness of nuance, appraisal of consequences, responsiveness to time, place, and circumstance. A drink or two can reduce inhibitions. A few drinks in rapid succession knock out more basic functions: judgment, speech, motor coordination. Ultimately, consciousness itself is lost in the nervous system's last-ditch effort to preserve life. Occasionally, an impulsive or inexperienced drinker will take a fatal dose before losing consciousness. Yet, despite this progressive, easily observable impairment of brain function, the brain never once says ouch.

Herein, probably, lies the tenacity of the "drug problem." The impairment caused by many widely used drugs does not become obvious until an individual has become a confirmed user. Next to inhalable solvents, alcohol is probably the crudest of the nervous system depressants; its abuse is often followed by hangover — actually an indication of a healthy system working to expel poisons. But with more complex mind-altering drugs, such as marijuana, the hangover may be gradually distributed over days and weeks. The user may not link the uneasy, irritable feeling to marijuana at all, but rather to surrounding circumstances: family life, perhaps, or school.

Only when drug use has progressed to the point where a person's disposition and behavior are noticeably altered — to the "wasted" or "burned-out" condition — is it typically classified as a problem. And for more than a decade after the initial surge of illegal drug use in the Sixties, even the most dramatically and, as it happened, irreversibly "burned-out" individuals were often extolled for having *chosen* an alternative approach to life.

Tens of thousands of youthful chemical dependencies later, we know better — or we should know better. We should also know that, from an educational standpoint, the most abusive, dependent users are not the sole manifestation of the drug problem. The drug problem includes everything along the way. It includes the once-bright

suburban pot-smoker who, in an underchallenging high school program, is "doing fine." I have met, spoken with, and observed hundreds of such students in such unchallenging programs. I have seen high school juniors showing "no academic deficit" due to occasional marijuana use, as long as nothing new — nothing beyond a healthy seventh-grader's range — is required of them.

THE DESTRUCTIVE effects of student drug use on learning and on the conduct of schooling in general are by no means limited to the users themselves. Even a few drug-enervated students in a classroom will change the learning climate for everyone. Drug-altered children are largely impervious to classroom business: teachers are apt to see them as unprepared, preoccupied, hostile. Such students -- and again, it only takes a few — tend to shut teachers down and push them toward less-effective teaching. Teaching drugged children is like acting or singing in the presence of hecklers or hosting a party at which a few of the guests are bent on having a bad time.

A competent teacher who works hard trying to engage chemically impaired nervous systems is working against the grain. It is no coincidence that "teacher burnout" — the term itself is derived from the drug culture — should have surfaced as a national issue directly in the wake of epidemic student drug use. It is instructive that in the mid-Seventies, when the phenomenon of "teacher burnout" emerged so explosively, teachers' salaries (adjusted for inflation) were higher, class sizes and student loads were generally smaller, and school programs were overall less routinized and rigid than they were in the relatively drug-free years before the mid-Sixties.

Drugs change the people who use them, and when the users are students or teachers, drugs change schools. The use of drugs, including alcohol, is illegal for almost all school-age children. The use of drugs also violates school rules and most household policies. Drug use and exchange is therefore always a furtive business. As such, it is an inherently divisive force in school life. It divides straight groups from using groups, divides students from the faculty and the administration, divides strict from permissive faculty members. Especially in the aftermath of an embarrassing bust, a drunk-driving death, or the publication of poor scholastic performance, drug use causes people to point fingers of accusation. School boards find principals and faculty members lax. Teachers label whole classes or whole generations hopeless. Students find the new school drug policy or newly formed parent network reactionary and repressive.

At the heart of such divisions is illegal drug use. A nearby public high school

DUE TO A LACK OF

asked me to advise on a drug-related problem that had lowered student and faculty morale to the point that the continuation of the daily school program was in some doubt.

The basic problem in this school was as follows. Considerable community, school board, and administration concern had been raised about the extent of drug use and drug dealing taking place on school grounds during school hours. A student-conducted survey confirmed that more than 50% of the students used illegal drugs to some degree and that a majority of those who used drugs did so during school hours.

Administrators, counselors, and faculty members reflected on the problem and decided that the bulk of the drug traffic taking place during school hours was happening in unsupervised places, both on and off the school grounds. Thus it was decided that the school's relatively relaxed "open campus" policy, which allowed most students to study and socialize wherever they pleased — and even allowed some of them to leave campus during their unscheduled time — had to go. Supervised study halls were instituted, many of them housed in the student cafeteria and containing hundreds of students whose seats were assigned. Trips to the bathroom or to the library required a special pass. The students, as one might imagine, reacted angrily to what they perceived as "Gestapo" tactics. And the non-using students, who had enjoyed their former liberties without breaking the rules, were the angriest. In this way the new policy united the "straights" and the "heads" in anti-authoritarian indignation.

With hindsight, it is easy to see what went wrong. The "blanket" solution of enforced study halls might have been improved had the student government or an open student forum been asked to propose a solution that would 1) stop illicit drug use *and* 2) preserve appropriate student liberty. The school administration could have taken this step without in any way compromising its resolve to eliminate drug use. The students needed help in seeing that student drug use, not their repressive elders, had caused the curtailment of their liberties. And while students were rather more comfortable reviling the administration than confronting one another about drug use, it was the latter, less comfortable process that eventually improved the climate of the school.

Apart from its general effects on a school's tone and quality, drug use has particularly demoralizing effects on particular organizations and activities. Quite recently I was asked to appraise a new athletic policy being tried out by a football coach at a prestigious independent school. The coach had read about drug-related effects on student performance, had attended drug education conferences, had weighed his own recent experiences with drug-using students, and had decided that he would like to take the firmest possible stand against drugs. With approval from the administration and the athletic department, the coach explained his feelings to his players and announced the new policy: his players were to be drug-free. No compromises. Each player was to sign a pledge, indicating that he would not use alcohol or other drugs for the duration of the season and that he would remove himself, or consent to be removed, from the team if he did.

The policy sparked some controversy and also a good deal of interest and support. The coach was generally admired for his stand.

But by the time I visited the school and talked to the team, it was mid-season, and the players seemed troubled. When they were comfortable enough to speak confidentially, it was clear that the policy was not the problem, but what had happened to it. Because they liked the coach, the players had stuck to the pledge for the opening weeks of the season. Then parties and other tempting situations combined to break the resolve of some of the players. They waited to see what happened. And nothing happened. Before long, more than half of the team had broken the pledge. Students began calling the new policy a "farce." The coach himself suspected from his players' attitudes that they had broken the pledge, but he did not know for certain. Everyone was demoralized.

The coach's stand and the drug-free pledge were not the problems. The players' subsequent violations merely pointed up the real problem: the players drank and smoked pot. They either could not or would not stop — not for their coach, not for team solidarity, perhaps not for anything.

IN THE TWO decades that drug use has been a central factor in the lives of school-age children, the phenomenon has changed and "matured" in some particularly unattractive ways. Much wishful thinking and misguided editorial writing to the contrary, no healing "decline" in student drug use has taken place. But that statement needs some explaining.

Student use of illegal drugs increased steadily through the Sixties and Seventies and reached a peak for most categories of drugs in 1979-80. At that point, more than one in 10 high school students reported smoking marijuana *daily*. In the following five years, 1981 through 1985, the use of drugs by students gradually fell off — with the exception of cocaine, the use of which continues to rise.

But this recent decline should occasion only guarded optimism, at best. The real statistical story is that students in 1985 are using drugs (again, with the exception of cocaine) at about the same rate as in 1975. For example, 47% of the high school class of 1975 indicated that they had "ever used" pot; 54% of the class of 1985 indicated the same. The numbers reporting recent marijuana use (27% of the class of 1975, 26% of the class of 1985) have remained fairly constant over the past decade. It is hard to be encouraged by reported declines in drug use when the levels remain so high.

There are other general features of

TABLE 1.
Percentages of High School Seniors Saying They Had Ever Used Certain Drugs

	Ever Used										
	Class of										
	'75 %	'76 %	'77 %	'78 %	'79 %	'80 %	'81 %	'82 %	'83 %	'84 %	'85 %
Marijuana/Hashish	47	53	56	59	60	60	60	59	57	55	54
Inhalants	NA	NA	NA	NA	19	18	17	18	19	18	18
Amyl & Butyl Nitrites	NA	NA	NA	NA	11	11	10	10	8	8	8
Hallucinogens	NA	NA	NA	NA	19	16	16	15	15	13	12
LSD	11	11	10	10	10	9	10	10	9	8	8
PCP	NA	NA	NA	NA	10	10	8	6	6	5	5
Cocaine	9	10	11	13	15	16	17	16	16	16	17
Heroin	2	2	2	2	1	1	1	1	1	1	1
Other Opiates	9	10	10	10	10	10	10	10	9	10	10
Stimulants	NA	NA	NA	NA	NA	NA	NA	28	27	28	26
Sedatives	18	18	17	16	15	15	16	15	14	13	12
Barbiturates	17	16	16	14	12	11	11	10	10	10	9
Methaqualone	8	8	9	8	8	10	11	11	10	8	7
Tranquilizers	17	17	18	17	16	15	15	14	13	[illegible]	12
Alcohol	90	92	93	93	93	93	93	93	93	93	92
Cigarettes	74	75	76	75	74	71	71	70	71	70	69

Source: National Institute on Drug Abuse, Monitoring the Future Study, 1985

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the drug epidemic that educators should note. One is a peculiar sort of Law of Unlimited Inclusion, according to which new drugs tend to be added to the illicit pharmacopoeia, but none is ever replaced. Thus pot and LSD, two of the most commonly used novelty drugs of the psychedelic Sixties, did not replace or even diminish the use of "established," legally available drugs, such as tobacco and alcohol. Nor has the more recent boom in the use of cocaine and "designer drugs" replaced pot or LSD.

This is not to say that, regionally and even nationally, the demand for particular drugs does not vary. It does. But the preference for individual drugs does not so much come and go, as it comes and goes and comes again. Two years ago streetwise kids in the city where I live were saying that "psychedelics" (read LSD) were out. But in the wake of a single sell-out Grateful Dead concert in the area, psychedelics have come back. This isn't a street rumor; this is the report of the families, schools, and treatment centers that have had to tend this newest crop of "Dead-heads."

None of this is meant to indict or belittle the efforts to fight drug abuse made by legislators, communities, schools, and parent organizations over the past decade. What declines have occurred in certain forms of drug use are almost certainly due to a growing consensus that drug use has no part to play in healthy child development. The consensus has expressed itself in a growing resolve to confront drug use, unpleasantness and all. The job, however, is barely begun.

II. HEALTHY CHILD DEVELOPMENT

TO THOSE with a vested interest in the physical, emotional, and intellectual development of children, the drug epidemic appears to have been designed with diabolical precision. Drugs block, retard, or distort the most crucial human capacities — perception, cognition, planning, physical coordination — and the loss of function is rewarded by surpassingly pleasurable sensations.

I noted above that American children are most likely to make their initial decision to try an intoxicating drug between the ages of 12 and 16, during the peak years of adolescent growth. During these years, every cell and tissue of the body is either altered or replaced altogether. Sexual potency, nearly all of one's adult skeletal stature, and the capacity for higher-order mental functions are produced during this developmental surge. The new mental attainments include the capacity to think abstractly, to interpret elaborate symbol systems (whether poetic or algebraic), and to decide the present behavior needed to achieve a variety of future possibilities. With the exception of the first 18 months of life, adolescence is the most accelerated period of human growth. Unlike preverbal infants, however, adolescents are conscious — indeed, acutely and exquisitely *self*-conscious — of the changes they are undergoing.

Adolescents regard their new size, new sensations, and new capacities with a good deal of positive anticipation, but these same developments are also occasions for unexpected awkwardness, worry, and loss of personal control. Both the drama and the awkwardness of adolescence are developmentally necessary. Adolescents must define a new relationship to younger children and come to see themselves as former children. They must forge new relationships with their parents and with other adults in authority. There must also be an intensified relationship with the opposite sex.

So many changes would be challenging enough to manage if the onset and rate of adolescent development were uniform and predictable. In reality, though, adolescent growth is a capriciously uneven process. The appearance — seemingly always too early or too late — of adult stature, a croaking voice, a beard, breasts, or body hair can be the source of devastating self-doubt. All such changes are unbidden, and some seem revolt-

The long-term answer is to prevent drug abuse before it begins. This means placing programs in elementary schools.

Building Drug-Free Schools

TO ADDRESS the need to bring together all the important elements of school-based drug prevention (policy, curriculum, and working with the community), the American Council for Drug Education has developed *Building Drug-Free Schools*. This four-part drug-prevention program for grades K-12 consists of three written guides and a film. It is designed to provide school administrators, teachers, counselors, parents, and other community members with detailed information and suggestions for developing a new school-based drug- and alcohol-prevention program or for augmenting an existing program. The four parts of the program are outlined below.

I. Policy. This part of the program details why drug and alcohol use is a serious detriment to education and spells out specifically which policies have proven effective in reducing drug use. It addresses curricular requirements, the role of law enforcement, and suspension, expulsion, and intervention procedures.

II. Curriculum. This part of the program provides a unique K-12 curriculum with easy-to-use and age-appropriate learning activities. It includes essential information for teachers, such as the effects of drugs on health, the "high-risk" child, and the developmental basis for a drug-prevention curriculum. The curriculum shows the importance of avoiding dangerous "responsible use" messages, and it integrates the cognitive and affective dimensions of learning.

III. Community. This part of the program outlines specific techniques for enlisting the support of parents, businesses, religious groups, the media, medical professionals, fraternal organizations, and other community groups in reinforcing the drug-free message.

IV. Three Schools: Drug-Free. This part of the program is the film that accompanies the written guides. It features the principals of three schools, who describe how a clear and consistently enforced policy, an age-appropriate curriculum, and the involvement of the community have enabled them to significantly reduce drug and alcohol problems in their schools. The 29-minute film demonstrates for administrators, teachers, counselors, school board members, parents, and other community members that the goal of a drug-free school can be achieved.

The three guides that make up *Building Drug-Free Schools* are available for $50 a set. The film is available for purchase at $275 (16mm) or $225 (videotape) or for rental at $35. For more information or to place an order, contact the American Council for Drug Education, Department K, 5820 Hubbard Dr., Rockville, MD 20852. Ph. 301/984-5700.

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ing new smells, regular eruptions of skin blemishes, oily hair, the onset of menstruation, the annoyance of irrelevant erections.

Developments that seem trivial from an adult perspective — for example, having the wrong kind of shoes — can imperil an adolescent's basic sense of well-being. Life itself has been known to hang on only slightly weightier issues: being in or out of the group, being on or off the team, being datable or not. Steering a survivable course through first love, first intimacy, finding oneself *adequate* — these are momentous challenges in adolescence. Each will arouse terrific stress, and the adaptive management of that stress is maturation. The only way out of adolescence is through it. Chemically anesthetizing oneself with drugs serves only to delay this maturation — or in some cases to replace it altogether — often with lifelong consequences.

ALONG WITH THE rapidly unfolding physical development in adolescence comes the capacity for new forms of thought. Measured on an electroencephalograph, an adolescent brain can put out faster, more "adult" brain waves than that of a preadolescent. Adolescents can perceive new gradations of color and musical pitch. They can see allegories in stories that were once understood only as literal narratives. Adolescents can understand whole systems (cellular systems, body systems, political systems, solar systems), make predictions about them, and draw inferences from them. Adolescents are able to pursue higher mathematics, advanced physics, and other sciences that proceed deductively from their own axioms; these theoretical disciplines need not bear any demonstrable relationship to observable reality.

The most profound capacity for moral thinking can emerge during adolescence. Cognitively, this amounts to projecting oneself imaginatively forward and backward in time, plotting hypothetical actions and their potential outcomes, referring the outcomes to feeling centers for evaluation, formulating plans, and then executing reasoned, purposeful actions.

All this staggering complexity and elegance comes into play only if adolescent development is healthy, not polluted and impaired by drugs. If we step back and take a long look, we can see child development as a continuous process in which 1) simple mental structures are superseded by complex ones; 2) exclusively self-directed motivation and behavior becomes, at least in part, other directed; and 3) utter dependence on nurturers develops into personal autonomy and one's own capacity for nurturing. Again, this is the direction of *healthy*, not necessarily typical, development.

Healthy maturation requires a capacity for managing pleasure. In other words, pleasure must be understood as a consequence of a good, not as an unqualified good in itself. The most reinforcing sensual pleasures — such as eating and sex — have evolved, I suspect, to promote such essential human purposes as survival, reproduction, and pair bonding. The non-sensual pleasures — such as pride, elation, and joy — have no doubt evolved to promote essential personal and social goods. But when pleasure is abstracted and pursued as an end in itself, people encounter such troubles of self-indulgence as obesity, promiscuity, emotional instability, and addiction.

Aristotle addressed the role of pleasure management in child development with remarkable clarity. His prescription has been revived intermittently through the centuries, most forcefully by Montessori and Dewey. Aristotle's point was that children must be "habituated" to desirable behavior — attending to tasks, sharing, telling the truth — before they can understand theoretically the benefit of doing so. By the time a developing child is able to understand why, theoretically, "honesty is the best policy," he or she may have internalized a pattern of truthfulness or deceit that is impervious to the more recently acquired, higher-order "theory." The standard educational rewards for desirable behavior are mastery, recognition, and praise. These rewards *follow* and thus reinforce the desired behavior.

Drug use inverts the healthy model. Complex thinking becomes simpler, distorted, even pathological — and not just while the user is high. Awareness of others and of the environment is replaced by euphoric, stupefied self-centeredness. Stress management is replaced by anesthetizing bad feelings or by chemically triggering good ones. Natural controls on pleasure are circumvented by chemicals that create rewarding sensations. In this way, essential developmental processes are not only reversed, but the *loss* is rewarded by indescribably compelling pleasure.

This is the real drug problem. It is also a disease and a sure sign of cultural deterioration. Because drug use runs so directly against the aims of education, school communities should not be reluctant to reestablish controls over the environment in which developing children make decisions. As current analysts have pointed out repeatedly, we are not enjoying a scholastic Golden Age.

III. HISTORICAL PERSPECTIVE

THE USE of alcohol and other intoxicating drugs in America extends back past the European settlement of the New World. Native Americans in the Southwest used naturally occurring hallucinogens in religious rites. The earliest dwellers in the high country of the Andes used coca leaves as a medicine and to achieve religious trances. The peoples of ancient China and India used cannabis (marijuana) for similar purposes. Down through the modern centuries, neither "white drugs" (those derived from opium) nor "brown drugs" (those derived from cannabis) made much of an impact on the culture of the West, where the preferred intoxicant was alcohol in either distilled or fermented form.

The opiates, cannabis, and after it was chemically extracted from the coca leaf in 1859, cocaine were contained in prescription and patent medicines in the 1800s. Cocaine was tried and found wanting as a local anesthetic. Freud initially used cocaine to relieve nervous disorders, but he later vilified the drug as a destroyer of health. It is also true that small amounts of cocaine were included in the original formula for Coca-Cola, but the drug was removed shortly after the turn of the century when cocaine was identified as a threat to health. The use of alcohol has also been intermittently accepted, regulated, deregulated, prohibited, and tolerated.

So drug use itself is not a late 20th-century novelty. The novelty is the *number* of people — especially young people — who are involved. There is no historical precedent for such phenomena as millions of school-age children using cannabis, cocaine, LSD, and other mind-altering drugs.

The reason the drug epidemic erupted in the mid-Sixties probably had less to do with the contemporary issues with which it is most often linked — protest over the Vietnam war, agitation for civil rights, and frustration with a repressively structured society — than it did with the fact that millions of baby boomers were coming of age at the same time. As the Sixties turned uneasily into the Seventies, for the

first time in American history there were more people under than over 25. An unprecedented proportion of them were clustered on college campuses, where adult presence was so minimal as to be unfelt, where a world of radical brotherhood and sisterhood was less rhetoric than daily reality.

A recurrent theme of the youth culture of the Sixties was a plea to sustain adolescence, not to complete the compromising passage into adulthood. In *Do It!*, his manifesto of the counter-culture, Jerry Rubin boldly stated the general aim: "When we're thirty-five, our ambition is to act like we're fifteen." In the Sixties, to act like a 15-year-old obliged one to defy standard conventions of dress, grooming, language, and public deportment. It also obliged one, perhaps most enduringly, to flout the conventional taboos against illicit drugs, especially pot and LSD. The older, pre-Sixties beats and hipsters became models for throngs of hippies, and within a year or two the long-standing barriers that had separated drug users from straight society had broken down.

> **Even the best programs can be subverted by the absence of strong, clear institutional policies forbidding drug use.**

From the standpoint of public health, the American drug epidemic has caused such severe problems because it had a decade's head start on any sustained, informed attempts to check it. Drugs were not merely used; they were extolled enthusiastically by the people and through music, the medium closest to the heart of the youth culture. The Beatles sang cheerily of "getting high with a little help from my friends," while the cast of *Hair* proclaimed the drug-lit profundity of "walking in space, explaining, 'in this way we rediscover sensation.'"

Meanwhile, in 1965 a team of Israeli scientists investigating the 420-plus chemicals composing marijuana isolated the one, delta-9 tetrahydrocannabinol (THC), that is most responsible for making users high. THC was further found to have some worrisome features. It lodged itself in fatty tissues all over the body, including the brain. It blocked healthy cell function and, over time, destroyed cells. It was a poison.

By the early Seventies, a federally funded project at the University of Mississippi was growing, under government supervision, a uniform grade of marijuana (about 2% THC) to be used in animal and human tests. With uniform marijuana available for tests, reliable, replicable studies could be made of the drug's effects on behavior and on cells, tissue, and vital human systems. Beginning in the mid-Seventies, improved and more persuasive studies were available, and important research is still under way.

But by the time the scientific and medical communities had begun to voice concerns about the health effects of marijuana and other drugs, patterns of drug use and supply were already deeply entrenched. Old, discredited research claiming the relative mildness or harmlessness of marijuana clashed with claims of its dangerous toxicity. Findings from casually conducted surveys were opposed to findings about cell metabolism. Small, dubious samples of ganja-smoking Jamaican cane farmers were used to suggest the relative safety of pot smoking among North American high school students. "Experts" appeared to disagree. Confusion reigned, and under the umbrella of so much confusion and controversy, drug use continued apace, reaching peak levels among high school students by 1980.

Slowly, however, a broadly based coalition of those opposed to illegal drug use began to make itself heard nationwide. The first people to organize and to articulate an anti-drug stand have been, appropriately, the ones among whom drug use has come inescapably to rest: families, schools, the staffs of drug treatment centers. National organizations, such as the Parents Resource Institute for Drug Education (PRIDE) and the National Federation of Parents (NFP), as well as regional movements, such as the Texans' War on Drugs, have made impressive progress in making freedom from drugs a goal for families, schools, and whole communities.

Yet even so agreeable-sounding a goal as "drug-free youth" is not as easy to sell as it may seem, particularly if "drug-free" is taken to mean "alcohol-free." There are handsomely printed books and curricular programs aimed not at "drug-free youth" but rather at the "responsible use" of drugs. Indeed, even as I write, the most widely distributed curricula for drug education in the country stress making considered responses to drugs. But these programs do not come out in favor of refusing to use drugs altogether.

LET ME PAUSE for a moment. For there is perhaps no greater indication of the inroads drug use has made on contemporary thinking than the fact that authoritative voices on the national education scene are endorsing *responsible levels* of criminal, not to mention health-endangering, activity. How does this reasoning translate into other areas of problem behavior for adolescents? Why not responsible levels of vandalism, assault, or reckless driving? Teenagers have problems with these behaviors, too, though they claim far fewer lives and sacrifice far fewer futures than drug abuse does.

Am I exaggerating? Readers who feel that I'm merely knocking down a straw man should consider the following. In Ruth Eng's 1979 book for teens, *Responsible Drug and Alcohol Use*, the chapter titled "Hints for the Responsible Use of Marijuana" cautions readers to smoke with friends, to sort the seeds out of their stash, to use clean smoking paraphernalia, and to avoid burning lips or carpets.

Andrew Weil, whose 1972 paean to drug-enhanced consciousness, *The Natural Mind*, was reissued last year, also collaborated with children's book author Winifred Rosen in 1983 to produce another drug book pitched to children: *Chocolate to Morphine: Understanding Mind-Active Drugs*. The first chapter, titled "Straight Talk," begins arrestingly: "Drugs are here to stay." The authors continue, "Drug education as it now exists is, at best, a thinly disguised attempt to scare people away from disapproved substances by greatly exaggerating the dangers of these substances." Young readers are advised to "question your parents about the drugs they use. Maybe they will agree to give up theirs if you will give up yours. If you can convince them that your

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gration into family, school, and community is not easy. Moreover, a newly described clinical syndrome, PDIS (Post-Dependence Impairment Syndrome), suggests that recovering dependents show abnormally high tendencies to chronic illness, injuries, learning difficulties, and depression.

The long-term answer is to prevent drug abuse before it begins. Schools are most likely to succeed in achieving this aim if they allot more and better instructional time to drug education *before* children confront the choice of whether or not to use a threshold drug. This means installing programs in elementary schools. Some exercises in such programs will be very basic and prescriptive: saying no. Some exercises will be affective: how to say no and how to avoid drug use and other harmful situations. Some lessons will be informational: what is safe and what is dangerous, what are the effects on the human system of various legal and illegal drugs. Special emphasis should be given to cigarettes, alcohol, marijuana, and inhalants, because these are the most prevalent threshold drugs.

However, even the best educational programs can be subverted by the absence of strong, clear institutional policies forbidding drug use. For the great majority of school-age children, adherence to the "rules" and observance of the law are the highest categories of ethical thought. Schools tend to stress the enforcement of those policies about which they care most strongly. Drug education must go hand in hand with an anti-drug policy.

Weary voices stating that "drug education" and "information" have proved ineffectual as ways of preventing drug abuse are misinformed and mistaken. A systematic prevention-based program of drug education has barely begun nationwide. The drug epidemic arose in the absence of such educational measures, not despite them.

• Changing the drug climate of a school begins with building a consensus among members of the faculty and staff. School staffs whose members are divided among themselves cannot stand firm against student drug use. They will be divided in the same way inconsistent parents are divided. Building a durable consensus is apt to require some learning on the part of faculty members about the biomedical effects of drugs and about their special effects on developing children. This learning may require some high-quality inservice training. The trainers and the materials they use should endorse the goal of a drug-free school. The entire faculty and staff (K-12) of a school system should be included in policy making and program building. Drug education is not the special business of health teachers and science teachers. The support of [illegible] and aides, especially [illegible]

• Faculty members and staff members must limit their own drug use to what is lawful and consistent with effective performance. Employee Assistance Programs (EAPs) for faculty and staff members with drinking and other drug problems are increasingly common in both public and private schools. Adults who have been treated through EAPs and who have remained in their posts tend to bolster rather than undermine the overall morale of a school. At the same time, their presence underscores the school's commitment to be drug-free.

• Drug-free means alcohol-free. Alcohol is the principal drug of abuse among U.S. schoolchildren. It is the preferred drug of the majority of chemical dependents, and its use is more likely than any other disease, accident, or activity to lead to the violent death of young people. School faculty members must be educated to respond to the standard defenses for and denials of underage drinking. How much harm is there in a little? I don't want my son or daughter going off to college inexperienced. Well, if they're going to drink, I at least want them to do it here where I can watch them. Hell, I used to throw back a few myself. At least it's only alcohol. At least it's only beer.

Alcohol is the problem, not the form in which it is taken. A can of beer, a typical glass of wine, and a Scotch and soda served at a bar each contains about an ounce of alcohol. Two consecutive ounces of alcohol consumed by a 5-year-old can kill the child. The same dose is highly toxic to a middle-schooler. Growing children are in the process of developing controls that might allow them to drink moderately as adults. Alcohol and other drugs *replace* these controls. The loss of performance, health, and life of young drinkers is well-documented and obvious. Against these losses, no positive benefits have been adduced. Camaraderie? Fellowship? Go *observe* the middle-schoolers in the basement rec room or the high school crowd at the rumored three-kegger at the home of a student whose parents are out of town. Observe, and perhaps clean up.

V. A PERSONAL NOTE

ALTHOUGH MY professional responsibilities are to direct a high school and my out-of-school preoccupations tend to be literary and musical, over the past 10 years I have done a good deal of writing, speaking, and conferring about drug-related issues. I never intended to do this, but, given my involvement with young people, I suppose an immersion in drug issues was inevitable. Sometimes I do wonder, though, whether I am coming to see this world through a drug-clouded lens. I have met some people who, it seems to me, have reduced all the world's problems to the drug abuse of American teenagers.

I don't want to become this way, and I try hard to maintain my balance. But I do read the paper. And on the morning that I wrote this paragraph, these were the headline stories in the *Cleveland Plain Dealer*.

The leading national news was the revelation that the crew members of the Conrail train that collided disastrously with an Amtrak passenger train were under the influence of marijuana. Locally, the dominant story was the continuing investigation of a convicted drug dealer and police informant who apparently received protection from the Cleveland police force to sell cocaine in the inner city, provided he turned the profits over to the department, which then used the funds to pay for the biggest drug bust in the city's history. A curious sort of ethic at work here.

The sports coverage was replete with Brian Bosworth's indignation that his use of steroids had barred him from NCAA football competition. He claimed that pot-smoking athletes got away with murder because their positive drug tests could be interpreted as "passive inhalation" of other people's smoke.

As I said, I was pressed for time and had to get moving, but I glanced at one more story, one that was given less prominence. It summarized a survey of internationally prominent education experts who were asked to appraise the relative effectiveness of the teaching in six nations of math, science, social studies, foreign language, and each nation's own language. Japan and West Germany were rated highest, the U.S. fared poorly. In math and science we were ranked second to last, and in the teaching of our own language we ranked last.

Hmm. Television? Affluence? Poverty? Permissiveness? Restrictiveness? Out-moded pedagogy and curricula? Existential ennui? Angst? Ask on. K

drug use is responsible, you may be able to allay their anxiety."

Parents, too, are given counsel by Weil and Rosen. "Don't make your child feel it is wrong to get high," they argue, because "there are no bad drugs, only bad relationships with drugs." The authors look forward to the day when drug use will be woven comfortably and continuously into the fabric of ordinary life: "We have seen parents in good relationships with marijuana let their children take occasional puffs of joints in much the same way that some Jewish parents allow their children ceremonial sips of wine."

In 1986 Susan and David Cohen, another team of writers for teenagers, wrote an accessible guide to teen drinking called *A Six Pack and a Fake I.D.* The authors make some clear attempts at fair-mindedness, and they offer some informed cautions about alcohol abuse. But they couldn't quite bring themselves to advise their readers to obey drinking laws. Of drinking parties, they write:

> If you're planning a drinking party, and your parents accept the idea, then at least try to make your party a safe, pleasant, and interesting one, instead of a drunken bash. Don't overdo the amount of alcohol in the punch and don't let anyone else add to it.

If the party doesn't run too long and if provisions are made to get drunken guests home, "so far so good. You have behaved responsibly." In the book's final chapter, titled "Summing Up," there appears the incongruous caveat, "Adults who knowingly supply alcohol to minors may be liable to criminal penalties." (No doubt the publisher's legal counsel is responsible for this terse warning.)

There is a little craziness in these discussions of "responsible" law-breaking. I suspect that Weil would be both vocal and indignant if the teens (and their parents) in his neighborhood were exhorted to curtail his right of free speech or to threaten his person. Yet why, from the standpoint of those who genuinely feel that Weil is a social menace, should the laws respecting his welfare be taken more seriously than the drug laws he so energetically maligns?

It would be a mistake to dismiss the "do it anyway" drug message as a feeble cry of left-over voices from the Sixties. These books and similar school curricula continue to appear in the mid-Eighties. Nor are they the products of dingy underground presses. Macmillan brought out *Responsible Drug and Alcohol Use*, and Houghton Mifflin published both *The Natural Mind* and *Chocolate to Morphine*.

There is considerable optimism in drug education circles today about the anticipated gains to be made as a consequence of the Reagan Administration's Anti-Drug Abuse Act of 1986. If funded, this act is supposed to provide millions of dollars to schools for drug-related programs and materials.

But what materials? Very few comprehensive K-12 curricula come out clearly against the recreational use of drugs. Most of them aim to boost self-esteem and clarify values and decision making. Their stated goal is typically that students will learn to make informed, responsible choices about drugs. Most of them do not suggest that the informed, responsible thing for a child to do is to say no to drug use. In other words, there is nothing built into the new Anti-Drug Abuse Act to insure that existing patterns of drug use will not be reinforced by federal funds. It will take alert, informed school boards, principals, curriculum coordinators, and faculty members to prevent such a development.

IV. SCHOOL STRATEGIES THAT WORK

ONCE AGAIN I must stress that American education is not in the midst of a Golden Age. Schools are drug-ridden, and this is exacting an educational toll. Daunting though it may be, drug use by young people is a problem that can be beaten. Schools have been drug-free in the still-recollectable past; they can be again. Indeed, many have already begun.

Some prescriptions follow for changing the drug climate in the schools. Let me say at the outset that the policies I propose are my own passionate preferences, but they also happen to coincide with the positions of the American Council for Drug Education, the National Federation of Parents, the Parents Resource Institute for Drug Education, and the Texans' War on Drugs, among other national and regional organizations.

• The school's commitment must be

to become drug-free. This is a basic premise and a value-laden choice. It generates one kind of policy and program; other premises — to cut down on the levels of drug use or to help students make responsible drug choices — lead to different policies and programs. Robert DuPont, one of the clearest voices in the field of drug abuse prevention, likes to tell school faculties, "Every school will have precisely the amount of drug use that it tolerates."

It is only a sign of the times that the goal of maintaining drug-free schools is sometimes challenged as "unrealistic." The very mission of universal education requires a drug-free atmosphere for learning. Schools mobilize their energies and their money impressively to remove asbestos from the learning environment. And if the lives of a student or two were threatened by toxic shock, the suspected brand of tampons and the machines that vend them would be cleared out of the schools at once. But such threats will not take even a statistically measurable toll in student health and life. Drug use, by contrast, is taking a ghastly toll right now. Practically every reader of this article is acquainted personally with a casualty, if not a fatality, resulting from drug use. Allowing such a state of affairs to exist is inhumane — and "unrealistic."

• Leaders must endorse, articulate, and stand by a school's commitment to be drug-free. The responsibility for changing a school's drug climate should be widely shared, but it cannot be delegated. Especially in the early stages, a tough stand on drugs will involve confrontations, dispensing bad news, and taking criticism. If the "drug problem" becomes the special assignment of an assistant district superintendent or of a school's dean of students or of a special faculty task force, those people are likely to be seen as the district's or the school's drug fanatics, and school leaders will be asked to mitigate and temper drug policies that some may find uncomfortable. Maintaining a disinterested stance and keeping a reasonable distance from the problem by delegating the making of drug policy to others will seem the easier course to a school leader. But doing so is almost certain to impede the process of ridding the schools of drugs.

• Preventing drug abuse is easier, more educational, and more fun than remediating drug problems once they exist. Prevention, intervention, and treatment are all essential ingredients of anti-drug abuse policies, but prevention is by far the most promising approach. Unlike older, more stable drug abusers, adolescents pass from experimental drinking bouts to full-blown chemical dependencies in a matter of months. The news from the facilities that treat young drug dependents is frankly discouraging. The majority of those who have been treated lapse back into drug abuse. Even among those who persevere and remain drug-free, the reinte-

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Marijuana: Gateway to Drug Abuse

By Mark S. Gold, M.D.

This article was adapted from *The Facts About Drugs and Alcohol* published by Bantam Books and used by permission of the author.

Cannabis sativa, or marijuana (a.k.a. pot, dope, grass, marvjane, and a hundred other nicknames), grows wild throughout most of the tropical areas of the world. Historically, its seeds were used for animal feed, its stem as a tough fiber in hemp rope, and its oil as an ingredient in paint. But its biologically active ingredient, THC (delta-9-tetrahydrocannabinol), has made it a potent drug of abuse.

A general lack of credible evidence about marijuana's effects helped make it the number one illicit drug, tried by an estimated 35 to 60 million Americans, and used regularly by at least one-third of that number. Although 85 percent of high school seniors said they disapproved of regular marijuana use, and 71 percent attribute great risk to such use, 4 percent of users continued to do so on a daily basis in 1986.

The latest results show that long-term use of marijuana can be as hazardous as any other form of drug abuse. Its use is especially detrimental, both medically and psychiatrically, for the very group that uses it the most—adolescents.

How is Marijuana Used?

Marijuana is almost always smoked. The dried leaves are crumpled, cleansed of seeds, and rolled into the shape of a cigarette—the classic "reefer" or "joint." Pot also can be smoked in a water pipe, known as a "bong," for a stronger effect. Hashish, another by-product of the cannabis plant, is also smoked. Derived from the resinous secretions of the plant, "hash" is mainly produced in the Middle East. Its oils are collected, dried, and then pressed into balls or flat slabs for transport.

How Potent are the Different Forms?

The effects of the different strains of marijuana are directly related to the amount of THC present. On a scale of one to 10, marijuana imported from South America in the 1960s had a potency rating of one to two, while current forms of sensimilla grown here or in Asia (Thai sticks, for example) are ranked above seven. Smoking a marijuana cigarette today is like smoking three to seven 1960 "joints" at once!

Physiological Effects

The more marijuana you use, the more you need each time to recreate the high. This is because marijuana's active ingredients accumulate rapidly in the body, building tolerance. This causes a decrease in the effect with each repeated dose. Since the active amount of THC in marijuana is uncontrolled, unlike alcohol or pills, each dose is different. Thus, it is very hard to gauge exactly how much will cause tolerance and dependence. Some studies have demonstrated that tolerance can develop even after low doses.

THC is absorbed through the lungs into the bloodstream almost immediately after smoking. It clings to the fatty linings of the cells. It is then released back into the bloodstream over a period of time, usually a week or so. Some drugs are soluble in water, such as alcohol and cocaine, and are rapidly expelled from the body, but THC residue remains attached to fat cells, and unless no more marijuana is ingested before the system is cleared, there is a cumulative effect. Anyone smoking marijuana about once a week may actually never rid his body of the drug's effects.

What are the Adverse Physical Effects?

The downside effects of marijuana can occur after any amount of use. These can include: impairment of eye-hand coordination, making driving unsafe; infertility; increased heart rate leading to panic attacks; and distorted visual and time perceptions leading to anxiety, paranoia, and worst of all, drug dependence. Overdose of marijuana can also result in a trance-like state.

Three body systems—the endocrine system, the respiratory system, and the immune system—seem to bear the brunt of marijuana's effect with chronic use. Sore throats upper respiratory problems such as bronchitis are common. The tar contained in marijuana is five to 10 times greater than that in cigarettes, thus increasing the already dangerous risk of cancer for marijuana smokers who also smoke cigarettes.

The Marijuana-Cocaine Connection

- 98 percent of all people who have tried cocaine have used marijuana.
- 93 percent of all people who have tried cocaine used marijuana first.
- 84 percent of adolescent current cocaine users are also current marijuana users.
- 60 percent of marijuana users have their first experience between the sixth and ninth grades.
- 56 percent of 1986 cocaine users have used cocaine and marijuana together.

Source:
National High School Study
National Survey on Drug Abuse
1986

Cannabis' effect on the reproductive system is now certain. Marijuana diminishes both male and female reproductive hormones, which will cause a reduction in fertility by lowering sperm count and disrupting ovulation and the menstrual cycle. Marijuana is attached to high fat-containing areas in the body. The brain is one, but so are the ovaries and testicles.

Overall Psychological Effects

Does smoking marijuana make you stupid? This question is often asked by teenagers and adults alike, because it is one of the beliefs held by many high school students and researchers. There are certain patterns of behavior and memory among marijuana users, especially adolescents, that actually show a loss of intelligence.

Several studies have shown that marijuana *does* affect thought patterns, slows the formation of new learning, reduces the ability to remember simple things after a short period of time, and reduces concentration and the ability to handle complex intellectual tasks. As bad as this would be for an adult, it is far more serious in the adolescent, who is supposed to be retaining new information learned each day in school.

Is Marijuana Addicting?

Marijuana is an addicting drug, especially if addiction is defined by compulsive, repeated use in spite of adverse consequences. Marijuana's effects include tolerance leading to dependence, and then an inability to cease use. These properties are no different from any other drug whose patterns of use produce addictive disease.

The Gateway Effect

Marijuana use causes problems for the user in other ways: Marijuana is a gateway drug, a drug which predisposes adolescents to use additional illicit drugs. While the dependent user may believe he can stop smoking at any time, this is often not the case. Tolerance, withdrawal signs and symptoms are now being reported by patients. The heavy user, in particular, may experience distress (e.g., irritability, nausea, sleeplessness) when attempting to stop smoking, and this tends to perpetuate continued use. For example, five years after graduation from high school, only 15 percent of daily marijuana smokers had stopped, and more than half were still using the drug on a daily basis.

The use of drugs by adolescents is a progressive illness from adolescence through young adulthood. The exact sequence of substances involved is becoming more obvious. Adolescent drug use progresses from the use of at least one legal drug (alcohol and/or cigarettes) to marijuana and from marijuana to other illicit drugs, and/or to prescribed psychoactive drugs. This progression is the rule rather than the exception.

Gateway thinking can help clinicians, parents, and teachers. Family and school efforts to stop cigarette, alcohol and marijuana use appear to have the most promise. Early education, helping parents to give a coherent anti-drug message, and reducing the media's role in promoting drug solutions to life's problems are easy to write about and hard to implement. However, prevention is possible and has worked once a strategy is adopted and all efforts are coordinated.

Specific Effects on Adolescents

As young people go through puberty; a healthy balance of male and female hormones is essential to

Apart from the tragedies that result from teenagers overdosing or injuring themselves, adolescence is the worst time, from a developmental standpoint, to engage in drug use.

Mark S. Gold, M.D.

natural maturation. Marijuana disrupts this process in adolescents just as it affects the reproductive systems of adults.

Young boys must have a normal amount of testosterone—a male hormone—during adolescence to transform their bones, bodies, facial hair, genitals, and voices to those of men. Marijuana seems to decrease this hormone in teenage boys. On the other hand, it increases testosterone in young girls, which can affect the normal functioning of the menstrual cycle and can provoke skin problems.

Apart from the tragedies that result from teenagers overdosing or injuring themselves, adolescence is the worst time, from a developmental standpoint, to engage in drug use. Physiologically, marijuana can be very damaging to the natural growth cycles, and any departures from the norm in this area may be disastrous, just when a rapidly growing teenager needs the reassurance of being "normal." The physiological changes that take place in puberty are disruptive enough, without the added effects of drugs.

Psychologically, this is a period in life to develop self-awareness and a healthy sense of identity. A teenager who deals with the uncertainties of adolescence by "zonking out," simply avoids the whole process. If anxieties about intimacy or personal interactions exist and are avoided by use of marijuana, the teen fails to learn important life skills. And, even more fundamental, the adolescent will fail to attain a sound identity and fail to master the self-confidence that is essential as people slide into their twenties and early adulthood, where these qualities are needed for success.

But, the most dangerous psychological effect on teenagers is the so-called "amotivational syndrome," which has been linked to heavy use. The symptoms are sluggish mental response, slovenly appearance and attitude, and lack of ambition and motivation, accompanied by poor grades and poor school attendance.

A major problem in treatment of teenage marijuana smokers is that most teens don't recognize that the use of marijuana—and other drugs—is changing their behavior. Thus, while a teenager is smoking marijuana, it is almost impossible to correct the teen's behavior.

Needless to say, teenagers are at far more risk for traffic accidents, and a large percentage of all teen auto accidents involve both marijuana and alcohol. ★

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The Economist

Getting gangsters out of drugs

YOUNG men in the ghettoes and millionaires' daughters up at Oxford die horribly of it. Wherever it spreads, crime rates soar. Policemen are murdered for it, politicians suborned for it. Central Americans buy whole governments through it. Lebanese and Afghans nourish their feuds with it. The traffic in illegal drugs—partly in mildish marijuana and worse cocaine, but most dreadful in heroin— has become a main tragedy of this age. The trade was created in its present worst-possible form because democratic politicians fell into a well-meant confusion of policy 20 years ago.

Governments decided then to threaten long terms of imprisonment against the suppliers and pushers who were making your daughter a junkie, but to treat her possession of a little marijuana and cocaine as much less of an offence. Supply was made highly illegal, some demand was not—exactly as during America's prohibition of alcohol in the 1920s, and thus with the same results. Gangsters market the stuff to people who feel no guilt about buying from them. The expert criminal organisations that were so enriched by the attempts of earlier American governments to prohibit alcohol and gambling (another addictive practice) are applying Capone's old murderous skills to the international narcotics business.

Subsistence peasants in wretched places are glad to take cash for poppies and coca leaves which, after simple processing, are marked up by 5,000 times for sale to final consumers. This distributors' margin—turning $1m of raw material into $5 billion of revenue—makes drug smuggling the world's most profitable business. Drugs are very-high-price and light goods, easily transported in hand-baggage or even inside people. The most prudent smugglers get big organisations to launder the money and make unrefusable offers to politicians and policemen and rival salesmen in the way. A small group of criminals now probably launders tax-free sums of over $100 billion a year, more than the GNPs of 150 of the 170 nations of the world. If these huge mark-ups went to governments in tax, as a big slice of profits from drugs like alcohol and tobacco does, they would use it for better purposes, including reducing addiction. Is that the right way?

There have been escapes from tragedies as great as today's narcotics trade, significantly almost all along this same road. America's effective answer to Capone's bootleg gangs was not gang-busting but the legalised, taxed and regulated sale of quality-controlled liquor. The best enemy of the numbers racket is the state lottery and the off-course, licensed, taxed betting shop. The British coped similarly with the main drug scourge of the first industrial revolution. Gin Lane sold cheap rot-gut to the not-quite-destitute, who drank themselves out of misery into inefficiency. So the government brought the sale of spirits under local licensing courts, forced the distillers to sell only liquor of approved quality and strength, and raised prices by excise duties as high as the market would bear without driving drinkers to poisonous cheap intoxicants like methylated spirits. People got less drunk less damagingly, initially on untaxed beer (the brewers were delighted). The distillers, forced to sell better hooch, grew rich and respectable on exports of Scotch whisky and London and Plymouth gin.

Drugs are not a "disease of affluence", or any such glib slogan. Some big British companies founded their fortunes on the officially sponsored sale of Indian dope to the poorest people the world has ever known, the Victorian Chinese. Bhang and hashish and coca and kola-nuts and qat are the opiums of their respective poor peoples. None is good for them, but nor is alcohol for rich countries.

Legalise, control, discourage

Today there are four big recreational drugs on the market in most of the world's big cities. Two of them (alcohol and tobacco) are legal, two (marijuana and cocaine) illegal. People have been attacking their brains with the first of these poisonous chemicals since Noah had vines (Genesis ch 9, 20). Christianity uses alcohol in its central rite, as does most of mankind (outside the strict Muslim nations) in its social relations. Yet in countries like Britain lawful alcohol directly kills some 10,000 people a year, and is instrumental in about half of the country's violent crime. Cigarettes in Britain kill 100,000 a year. Marijuana, one of the illegals, has hardly killed anybody yet; but the toll from it will rise because it is a poison with the defects of both the legal drugs. Tobacco and marijuana give you lung cancer; alcohol and marijuana make you run over pedestrians in your car.

In the United States marijuana is now virtually tolerated, because tens of millions of Americans have smoked it or eaten it in cookies. They think it about as befuddling per dollar as alcohol, as bad for their health as cigarettes, and less habit-forming than either. The great extra worry about marijuana is that, while the addict gets his tobacco and whisky from a law-abiding and taxpaying publican, he gets his joint from a sinner who sometimes sells adulterated poison, pays no tax and—this is important—is often keen to lead his customers on to much more harmful drugs.

A sensible public policy might be to treat all three—alcohol, tobacco, marijuana— the same, with licensing, taxes and

quality control. Since all are bad for you, it may be right to plaster them with larger health warnings than those that are at last helping to cut smoking. Wary governments might stop the pub culture spreading to the communal joint culture by restricting marijuana sales to boringly uncongenial premises, like the glum state liquor-stores of Sweden or New Hampshire; or give monopolies to state shops like the post office, which has perfected the art of driving customers away. But a main weapon should be tax: high enough to deter consumption, and varied enough to move people from the worst drugs. Today's worst are possibly cocaine and certainly heroin.

Cocaine came back into high fashion only recently. It is more stimulating than alcohol, less addictive than tobacco. It may be worse for you than either, including being eventually more likely to poison you. What is certain is that it is causing more murders than any commodity ever before. Because it is newish and illegal, its supply is in the hands of the worst illegals. About 80% of American supply is channelled through one group of Colombian gangsters (see page 62) who kill the law-enforcers whom they cannot suborn. Cocaine most needs to be brought under the aegis of controlled and thus legal suppliers, either by treating it like alcohol, tobacco and marijuana (see above) or like heroin (see below), depending on how statistically awful it proves to be.

How present law hooks people on heroin

Heroin is different. It is more addictive than tobacco, and damages the health far more rapidly. It can enslave the mind, so addicts want more to satisfy a craving that obsesses them so that they cannot work. Without work, they have two ways of affording more: stealing or, more easily, dealing. Encouraged by their supplier, they buy a little more than they want, and sell it on at a profit by recruiting new users, whose supplier they become. The furtive illegality of this trade increases its danger, since by the time an addict realises that he needs help he is likely to have started supplying others, so that he cannot seek outside help without risking big trouble with the law. Illegality locks people into addiction.

Legislation pretends that heroin is not significantly more dangerous than marijuana or cocaine. Since dealing in all three is a crime, the same criminal gangs handle them all. Customers for the milder drugs are therefore exposed to salesmen of the really dangerous one. So marijuana (but not alcohol) gets blamed for leading its users on to hard stuff.

Recent developments in the market for heroin give c to how its use might eventually be curbed. Increased dem in the early 1980s led to increased production (in, am other places, lawless Burma and Afghanistan), just as the p licity about AIDS began to deter new users from experim with sticking filthy needles into themselves. Demand prices are falling. The evidence, scant as it is in this myster world, is that most long-term heroin users want to break t addiction, although probably then to destroy themselves w some other drug, usually alcohol. Since alcoholics do not cruit fresh heroin users, this is sadly to be encouraged.

So the best policy towards existing heroin users might to bring them within the law, allowing them to register for right to buy strictly limited doses. Taxes should be h enough to help deter consumption, but low enough to illicit dealers our of business. To get addicted to heroin have to be crazy, or weak-willed, or young and foolish. It problem of mental health, treated as one of crime and the fore made worse. If some extra stick is wanted, then in Am ica registered heroin and cocaine users could be disqualif from driving cars. They might then have an incentive to listed as cured.

Even if the present narcotics trade could be beaten, s destroyers will seek other ways to bend their minds. Calm pills from respected multinational companies produce dop up addicts when doctors prescribe them for non-medical such as poverty or unhappiness. Backroom chemists find a market new drugs. The LSD of the "psychedelic" 1960s w followed in the violent early 1980s by PCP, or angel-du There will be more nasty successors. But these drugs, chea produced close to their markets, do not spawn the sort of ternational racketeering that today's narcotics do. They through brief cycles of fashion, newspaper scares and obl ion. They are destructive teenage fashions, rather than soc menaces, which might also be reduced by discriminatory ta

If there were a lasting answer to drug abuse, it would beyond all this, in the chemists' dream of the good drug, t soma, driving out bad poisons by its controllable merits. may lie close in the future, if research for it can be broug into the open. That is another reason why the worst policy the present one of making the supply of noxious drugs illeg so that only dreadful illegals engage in their supply.

Jackson power

Jesse Jackson's success mainly reflects the narrowing base of the Democratic party

ANDREW JACKSON occupied the White House from 1829 to 1837, and conventional wisdom says he is the only man Americans will refer to as President Jackson for a long time to come. The Rev Jesse Jackson does not believe in conventional wisdom. Nor do the blacks who have been voting for him in large numbers in Democratic primary elections and caucuses across America this year, most recently in Michigan on March 26th. They think he can be president. Few whites do, but some have been voting for him because th like what he says, and the way he says it. As a result, with mo than half the delegates to the Democratic convention n selected, Mr Jackson has about as many as Mr Michael Duk kis, hitherto the front-runner. Mr Dukakis has yet to win in large industrial state. And the Democratic party faces t choice of either giving Mr Jackson his due, and thus losing t presidential election in November, or denying him his du

Forests go to pot

EUREKA, CALIFORNIA

THANKS to the efforts of the Drug Enforcement Administration, the marijuana flow from Mexico and South America is not what it was. With cheer and alacrity, American growers are stepping into the breach. But rather than grow marijuana on their own land, which runs the risk of confiscation, they are planting it on other people's. The Forest Service admits that nearly 1m acres of the 191m it administers has been taken over by marijuana growers. The land has been closed and pronounced "unmanageable", mostly because the Forest Service cannot protect the public from armed marijuana growers. Timber cutting and mining permits are being denied; signs keep walkers away.

Although marijuana is grown in national forests in North and South Carolina, Arkansas, Oregon and Florida, the heartland of the enterprise is California, in particular the "Emerald Triangle", a 10,000-square-mile stretch of national forest lying in Humboldt, Trinity and Mendocino counties in the northern part of the state. Californian growers specialise in sinsemilla, a premium, seedless marijuana noted for its potency.

Methods of cultivation vary. Some pot-patches have 5,000 plants; some have two. Some growers stick a few seeds in the ground and come back occasionally to look at them; others pamper their plants with fertiliser and complicated irrigation systems. A healthy plant, it is said, can produce up to a pound of sinsemilla, worth between $2,000 and $7,000. Small wonder that marijuana, rather than oranges, cotton, lettuce, wheat or almonds, is California's leading cash crop.

The precious plants are fiercely protected. Pot farmers have been known to use land mines, hand grenades, AK-47 assault rifles, machineguns, guard dogs and pits set with sharpened sticks to deter intruders. Local officials cannot offer much of a response. Until recently the average Forest Service employee was not allowed to carry firearms. Now, under recent legislation, they are allowed to carry guns. The Forest Service has also been allowed to train 850 agents to carry out full-scale investigations into the marijuana industry alongside the Drug Enforcement Administration, which can investigate the drug barons in the cities.

California's leading cash crop

The new laws also give more power to controversial paramilitary marijuana-eradication teams. One such is the Campaign Against Marijuana Planting (CAMP), which is run jointly by the Forest Service and 102 other local, state and federal agencies. CAMP sprang out of the frustrations of local police forces, which had too few men to deal with the marijuana growers. It has been going for six years, and has spent $10m of public money to destroy 650,000 plants worth around $1.6 billion. After complaints in 1985, a retired judge was appointed to monitor CAMP's raids. One of the most common grievances was the buzzing of property with helicopters. They are now obliged to fly at least 500 feet above the ground.

Local people are often reluctant to help clean out the growers. Despite the hazards that mass marijuana cultivation creates, the revenues help to offset low returns from timber. The growers, too, are becoming more discreet. Drug-related violence is down, at least locally (there were 13 drug-related deaths in Humboldt County in 1981, perhaps none in 1987), and land mines and booby traps have become rarer. Some "gardeners" are moving out to less well patrolled places, such as Oregon. Those who remain in California are increasingly using indoor gardens, camouflage netting and plants in movable sacks in order to avoid detection. In the words of a weary sheriff in Humboldt County, "We still have a big problem."

IRS itself. Nonetheless, transition difficulties aside, the professionals are reporting that many of their clients now have far more complex returns than before.

Not everyone. Tax reform took several million low-income taxpayers off the income-tax rolls altogether: simplification at its utmost. Millions of others, particularly those earning $15,000-20,000 a year, have found that they are no longer allowed to deduct many of the expenses they once could (sales tax, for example) and that they now do better opting for the increased standard deduction. For them, filling out the "short form" is simpler.

The hair-pulling begins with the richer taxpayers. They are finding a series of new complications. Many of the deductions they took before are still allowed (professional dues, subscriptions and so on), but only on amounts greater than 2% of their adjusted gross income. Some, but not all, interest paid on loans remains deductible, in some instances, depending on what the loan is used for. Some of the interest that is deductible (that paid to credit-card companies, for example) is being phased out over a number of years, meaning that the proportion that may be deducted this year is not the same as that allowed next year. Better records must be kept to prove that the deductions are legitimate. Businesses face as many as five different depreciation rules and a set of new inventory regulations.

The government is apparently adding to the confusion. The General Accounting Office reported in February that the IRS (which expects 26m telephone calls asking for help) was answering 39% of the questions posed to it about the new tax law incorrectly (the agency's own estimate of inaccuracy is lower). And it was not until February 22nd that the Treasury released its 266-page guide on how to deal with "passive income", income arising from limited partnerships, rental property and so on. As for Congress, it still has not passed legislation dealing with the 500-odd technical errors that have come to light in the 1986 law.

Tax accountants say they are overworked and getting little official guidance. They complain too much. Most of them are paid by the hour, so a 10-50% increase in the time they take to fill out their clients' tax returns means a 10-50% increase in their charges. The rub is that for most taxpayers the cost is no longer deductible.

Food stamps

Not for strikers

THE wives and children of men who are on strike lost one of their rights on March 23rd, when the Supreme Court upheld, by five votes to three, Congress's decision in 1981 that they could be denied food stamps. These are vouchers which enable poor people to obtain food in the shops; 20m Americans benefit from them. A fed-

MARIJUANA MORE POTENT -- STILL HARMFUL

Advanced growing techniques and marijuana hybrids are now yielding not only a more potent form of pot, but also new types of the drug that can produce specific effects on the user. The National Institute on Drug Abuse (NIDA) has been monitoring the Tetrahydrocannabionl (THC) content of marijuana through the School of Pharmacology, University of Mississippi, and have found contemporary marijuana to be four times the strength of pot available in the mid 1970's.

In 1976 the monitoring project showed an average THC content of 1%. The potency of marijuana then climbed steadily to an average of 5.5% in 1985. Some of the more specific marijuana types such as Sensimilla averaged a higher TCH content, ranging from 6 to 7%. Some of the Sensimilla samples tested out as high as 14%.

Marijuana has become a more socially acceptable drug of use over the years, particularly with adolescents and young adults. Comedian, George Carlin, said, "Grass doesn't make you sick, your breath doesn't stink, and you don't puke on your shoes." Unfortunately, the high level of social acceptance ignores the inherent problems found in any mood-altering drug usage. Like alcohol, marijuana use can cause multiple problems for the user and those around him/her. With more potent marijuana available it might be accurate to assume the problems experienced by the marijuana user will also be compounded.

Community Update, November 1987
New Connection Programs, Inc.
73 Leech Street
St. Paul, MN 55102

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Youth who begin using drugs before age 18 are more likely to develop severe drug abuse or dependence than those who start later, according to Dr. Lee Robbins, a researcher. As first drug use was delayed, the risk of developing a drug problem decreased, she noted. Her study found that sex, race and education were less significant predictors of drug problems in later life than was the age at first drug use, although there were slightly higher rates for males, whites, and inner-city residents. Dr. Robbins found that the leading predictors of drug use problems are early drunkenness, school discipline problems, depression, stealing, vandalism, and truancy.

--Communique, March 1987

Marijuana Legalization Flouts U.N. Treaty

By Gabriel G. Nahas

Next month, the people of Oregon will vote on an initiative that would legalize the cultivation and possession of marijuana for personal use by anyone over age 17. While polls show the initiative is likely to lose, Americans also should be aware of the national and international implications of the vote. The Oregon initiative runs counter to a major treaty signed by the U.S. that attempts to control the traffic of illicit dependence-producing drugs: The Single Convention of the United Nations.

In 1975, the Oregon legislature eliminated criminal penalties for possession of marijuana for personal use. Within a few years similar "decriminalization" measures were adopted by 12 additional states. This trend was slowed and then halted by a mounting pile of scientific and medical evidence that marijuana is a serious health hazard.

This message has not seemed to have had sufficient impact in Oregon, which is a major domestic marijuana producer. With the help of the National Organization for the Reform of Marijuana Laws (NORML), over 87,000 signatures were collected to place a marijuana-legalization initiative on the November ballot. Because of the treaty commitments mentioned earlier, its passage would be a major international embarrassment for the U.S.

Twenty-five years ago, acting on the recommendation of a World Health Organization expert committee, the U.N. recommended that member nations adopt a single convention that would supersede all of the multilateral treaties negotiated since the turn of the century to control the illicit traffic of dependence-producing drugs (mainly opium, cocaine and cannabis). These conventions included the First Opium Conference of The Hague, called in 1913 at the initiative of Theodore Roosevelt, and the Second Opium Conference of Geneva of the League of Nations, held in 1924. These conferences had been organized by enlightened statesmen who were convinced that the gradual suppression of drugs that enslave the mind and body of men would be beneficial to mankind.

The Single Convention on Narcotic Drugs of the United Nations was drafted and approved by 500 delegates from 74 nations, all of whom assembled in New York in 1961. It obligates the parties to "limit exclusively to medical and scientific purposes, the production, manufacture, export, import, distribution of, trade in, use and possession of drugs covered by the Convention." These drugs include, in addition to opium, coca leaves, and all of their known derivatives, "the flowering or fruiting tops of the cannabis plant, marijuana, excluding the seeds and leaves when not accompanied by the tops, from which the resin has not been extracted, by whatever name they may be designated."

The leaves of the plant were excluded from the convention as a compromise gesture to the delegates from India and Pakistan, where bhang, a concoction made of cannabis leaves, was still widely used. However, in order to limit the use of cannabis leaves, the following article was added: "The parties shall adopt such measures as may be necessary to prevent the misuse of, and illicit traffic in, the leaves of the Cannabis plant."

Finally, the convention recognized the need for transitional reservations in countries where cannabis preparations had been used for centuries. "The use of Cannabis for other than medical and scientific purposes must be discontinued as soon as possible, but in any case within 25 years from the coming into force of this Convention." However, countries where cannabis had never been cultivated for its intoxicating properties were requested to make a special pledge: "Whenever the prevailing conditions in the country or a territory of a Party render the prohibition of the cultivation of opium poppy, the coca bush or the cannabis plant, the most suitable measure in its opinion for protecting the public health and welfare and preventing the diversion of drugs into the illicit traffic, the Party concerned shall prohibit cultivation." This convention, ratified by the U.S. in 1967, has become the law of the land.

Approval of the Oregon initiative would not only violate the Single Convention but also hinder the efforts of the U.S. to curtail the traffic of illicit drugs entering the U.S. from abroad. The U.S. has frequently requested that producing countries comply with the terms of the Single Convention and prohibit the growing of the opium poppy, coca bush or the cannabis plant. U.S. support for the marijuana-eradication programs carried out by Jamaica, Colombia and Mexico could hardly be justified if a U.S. state voted for the legalization of marijuana.

Approval of the Oregon initiative would also impede efforts to limit the social acceptance of "recreational" intoxication through the use of marijuana and other dependence-producing drugs. It also would be more difficult for parents to persuade their children to say "no to drugs," a message endorsed by President and Mrs. Reagan in a recent television address.

Whatever the fate of the Oregon initiative, it is indicative of the cultural revolution that has swept the U.S. since World War II—a revolution that has set self-gratification as its primary goal. It is time to turn back that revolution, beginning in Oregon. Surely we all should be committed to the American dream of building a country in which children may grow up in a drug-free environment.

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The initiative failed.

Check on vote

The Harvard Medical School
Mental Health Letter

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Marijuana

The present generation of young people cannot remember when marijuana was an exotic weed with an aura of mythical power and mysterious danger. Although still illegal, it has become a commonplace part of the American social scene, used regularly by millions and occasionally by millions more. A realistic view of this drug is now both more important and easier to achieve.

The use of marijuana reached a high point in the late 1970s and early 1980s, and has been declining ever since. In a 1978 survey, 37 percent of high school seniors said they had smoked marijuana in the last 30 days, and 11 percent said they used it daily. By 1986 the number who said they had smoked it in the last 30 days had fallen to 23 percent—lower than in 1975—and the proportion of daily users had dropped steadily to 4 percent. The trend among people aged 18 to 25 is similar. On the other hand, more people over 25 may be using marijuana occasionally, and young people are still experimenting with it. In 1969, 20 percent of high school seniors had used marijuana at least once; in 1979, 60 percent had; and in 1985, 54 percent. The attitudes expressed in surveys show why habitual marijuana use is in decline. In 1978, 65 percent of high school students said they disapproved of it; in 1985, 85 percent disapproved. In 1978, 35 percent said it was very risky, and in 1985, 70 percent said it was.

The main active ingredient of marijuana is delta-9-tetrahydrocannabinol (THC), one of more than 60 related chemicals found in the resin that covers the flowers and top leaves of the cannabis (hemp) plant. The leaves and flowers can be ground up in drinks or food, but more often they are dried and smoked in a cigarette or pipe. The pure resin, known as hashish, can also be smoked, eaten, or drunk. New breeding and cultivation techniques have raised the THC content of marijuana smoked in the United States as much as ten times over the last 20 years, from an average of 0.4 percent to 4 percent. Some varieties now contain as much as 10 percent.

The effects last two to four hours when marijuana is smoked and five to twelve hours when it is taken by mouth. Although the intoxication varies with psychological set and social setting, the most common response is a calm, mildly euphoric state in which time slows and sensitivity to sights, sounds, and touch is enhanced. The smoker may feel exhilaration or hilarity and notice a rapid flow of ideas with a reduction in short-term memory. Images sometimes appear before closed eyes; visual perception and body image may undergo subtle changes. It is dangerous to operate complex machinery, including automobiles, under the influence of marijuana, because it slows reaction time and impairs attention and coordination. This impairment persists for at least several hours after the feeling of intoxication has passed.

The main physiological effects of cannabis are increased appetite, a faster heartbeat, and slightly bloodshot eyes. Although the increased heart rate

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constantly thinking about the drug, or intoxicated, or recovering from its effects. The habit impairs their mental and physical health and hurts their work, family life, and friendships. They often know that they are using too much and repeatedly make unsuccessful attempts to cut down or stop. These problems seem to afflict proportionately fewer marijuana smokers than users of alcohol, tobacco, heroin, or cocaine. Even heavy users in places like Jamaica and Costa Rica do not seem to be dependent in this damaging sense.

Cause or Effect

It is often difficult to distinguish between drug use as a cause of problems and drug use as an effect; this is especially true in the case of marijuana. Most people who develop a dependency on marijuana would also be likely to develop other dependencies because of anxiety, depression, or feelings of inadequacy. The original condition is likely to matter more than the attempt to relieve it by means of the drug. The troubled teenager who smokes cannabis throughout the school day certainly has a problem, and excessive use of marijuana may be one of its symptoms.

The idea has persisted that in the long run smoking marijuana causes some sort of mental or emotional deterioration. In three major studies conducted in Jamaica, Costa Rica, and Greece, researchers have compared heavy long-term cannabis users with non-users and found no evidence of intellectual or neurological damage, no changes in personality, and no loss of the will to work or participate in society. The Costa Rican study showed no difference between heavy users (seven or more marijuana cigarettes a day) and lighter users (six or fewer cigarettes a day). Experiments in the United States show no effects of fairly heavy marijuana use on learning, perception, or motivation over periods as long as a year.

On the other side are clinical reports of a personality change called the amotivational syndrome. Its symptoms are said to be passivity, aimlessness, apathy, uncommunicativeness, and lack of ambition. Some proposed explanations are hormone changes, brain damage, sedation, and depression. Since the amotivational syndrome does not seem to occur in Greek or Caribbean farm laborers, some writers suggest that it affects only skilled and educated people who need to do more complex thinking.

The problem of distinguishing causes from symptoms is particularly acute here. Heavy drug users in our society are often bored, depressed, and listless, or alienated, cynical, and rebellious. Sometimes the drugs cause these states of mind and sometimes they result from personality characteristics that lead to drug abuse. Drug abuse can be an excuse for failure or a form of self-medication. Because of these complications and the absence of confirmation from controlled studies, the existence of an amotivational syndrome caused by cannabis use has to be regarded as unproven.

Stepping Stone Hypothesis

Much attention has also been devoted to the idea that marijuana smoking leads to the use of opiates and other illicit drugs: the stepping stone hypothesis. In this country, almost everyone who uses any other illicit drug has smoked marijuana first, just as almost everyone who smokes marijuana has drunk alcohol first. Anyone who uses any given drug is more likely to be interested in others, for some of the same reasons. People who use illicit drugs, in particular, are somewhat more likely to find themselves in company where other illicit drugs are available. None of this proves that using one drug leads to or causes the use of another. Most marijuana smokers do not use heroin or cocaine, just as most alcohol drinkers do not use marijuana. The metaphor of a stepping stone suggests that if no one smoked marijuana it would be more difficult for anyone to develop an interest in opiates or cocaine. There is no convincing evidence for or against this. What is clear is that at many times and places marijuana has been used without these drugs, or these drugs have been used without marijuana.

It is hard to generalize about abuse or define specific treatments, because the problems associated with marijuana are so vague, and cause and effect so hard to determine. Marijuana smokers may be using the drug to demonstrate rebelliousness, cope with anxiety, or medicate themselves for early symptoms of mental illness. People with serious problems who have been smoking marijuana heavily should be persuaded to stop so that their problems can be more effectively dealt with by psychotherapy or other means.

Health Hazards

Most recent research on the health hazards of marijuana concerns its long-term effects on the body. Studies have examined the brain, the immune system, the reproductive system, and the lungs. Suggestions of long-term damage come almost exclusively from animal experiments and other laboratory work. Observations of marijuana users and the Caribbean, Greek, and other studies reveal little disease or organic pathology associated with the drug.

For example, there are several reports of damaged brain cells and changes in brain-wave readings in monkeys smoking marijuana, but neurological and neuropsychological tests in Greece, Jamaica, and Costa Rica found no evidence of functional brain damage. Damage to white blood cells has also been observed in the laboratory, but again, its practical importance is unclear. Whatever temporary changes marijuana may produce in the immune system, they have not been found to increase the danger of

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