



# The Phyllis Schlafly Report



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## Is Marijuana Safe?

The human body has been called "the incredible machine" and the brain is its master control. It governs sensations, moods, thoughts, and actions by a complex series of chemically-related controls. Would you willingly upset this delicate balance by throwing a monkey-wrench in it? Many people do by smoking marijuana.

In a recent book called *Sensual Drugs*, Dr. Hardin B. Jones, Professor of Medical Physics at the University of California, describes how marijuana impacts on the synapses of the brain, throwing mental function and bodily responses out of kilter. He has collected and added to the mounting evidence that marijuana is one of our country's most serious public health problems.

Dr. Jones says that many marijuana users in executive offices and factories suffer chronically from an altered judgment that may affect the quality of their work. We would all be endangered if airline pilots, air traffic controllers, train motormen, firemen, policemen, surgeons, or automobile drivers use the drug.

Marijuana is an unusual drug in that its active ingredient, tetra hydrocannabinol (THC), is retained in the body for long periods of time. A study conducted by Louis Lemberger of the Indiana University School of Medicine indicates that 30 percent of the THC is retained in the body at the end of the week, and this 30 percent is then eliminated more slowly than the first 70 percent.

This study was confirmed by Gabriel G. Nahas, a Columbia University anesthesiologist, who concluded that THC accumulates in the fatty tissues such as the liver, brain, bone marrow, and adrenal glands, and is not eliminated rapidly. Marijuana is not water-soluble like alcohol.

W.D.M. Paton, Professor of Pharmacology at Oxford, and Robert Heath, Chairman of the Department of Psychiatry and Neurology at Tulane University, have reported the profound changes that occur in the membranes of brain cells, red and white blood cells, liver and lung cells, and sperm. Marijuana appears to injure the fine, hairlike extensions of the brain cell membranes that communicate with other brain cells.

Drs. Harold Kolansky and William T. Moore, psychiatrists associated with the University of Pennsylvania, concluded from their study that marijuana has "a corroding effect on the will power of the individual, as well as on his emotions and on his ability to think. Of particular concern was the pro-

nounced impairment of the intellectual and emotional maturation in many of the younger patients. . . . Mental confusion, poor concentration, and a difficulty with concept formation and recent memory were also common symptoms."

Robert J. Staab and Vincent de P. Lynch of St. John's University College of Pharmacy warn pregnant women against smoking marijuana in the light of the "high incidence" of kidney malformation as well as death and stunted growth in the offspring of mice exposed to low doses of cannabis during pregnancy. Other studies indicate that the genetic risks involved with "normal" use of marijuana probably exceed that of exposure to sublethal levels of radiation.

On April 12, 1967, David H. Powelson, M.D., the chief of psychiatry, Cowell Hospital, University of California at Berkeley, was quoted in the campus newspaper as saying: "Marijuana is harmless. There is no evidence that it does anything except make people feel good. It has never made anyone into a criminal or a narcotics addict. It should be legalized." Dr. Powelson now admits that he made that statement without any direct experience as a physician with marijuana users.

Five years later, after examining two to three thousand students a year, he admitted that he was wrong. Today he says: "I now believe that marijuana is the most dangerous drug we must contend with." His reasons are (1) its early use is beguiling and the user cannot detect his mental deterioration, (2) continued use leads to delusional thinking, and (3) users display a strong need to seduce others into using drugs.

Ten states have decriminalized marijuana, reducing the offense to a civil violation or misdemeanor with maximum fines of from \$100 to \$250. Evidence is mounting that, contrary to predictions by drug-use proponents, marijuana use significantly increases after decriminalization. In Oregon there has been a 35 percent increase in usage in the 18-to-29 age group, and a 255 percent increase in marijuana seizures.

No statistics have been collected on the 14-to-18 age group where the most dramatic increase is believed to have taken place. Decriminalizing marijuana conveys the powerful message that our society has accepted the use of marijuana as respectable and safe. It is neither. Our laws should encourage the protection not the abuse of "the incredible machine."

# Problems Executives Must Anticipate With The Growth of Marijuana Smoking

by **Hardin B. Jones, Ph.D.**

For more than a decade, we have been subjected to a flood of articles, books, and reports supporting the idea that smoking marijuana is simple fun and has no serious consequences. Earlier observations that marijuana was linked to mental disorders, to the use of narcotics, and to personality changes have been declared "obsolete" or "exaggerated." *That these early observations are now supported by scientific studies and that many of the early studies were carefully conducted have been ignored.*

There are problems with many of the reports supporting the harmlessness of marijuana. First, examinations of marijuana smokers early in their use do not reveal the long-range effects. Second, as marijuana causes adverse behavioral changes that the user cannot recognize in himself, some investigators may have been deceived by their own experiences with the drug. . . .

Marijuana is an unusual drug in that the active ingredient, *tetra hydrocannabinol* (THC), is retained in the body for long periods of time. One study, conducted by Louis Lemberger of the Indiana University School of Medicine, has indicated that 30 percent of the THC is retained in the body at the end of a week. Similar retention occurs whether the users are heavily or lightly exposed to marijuana. From animal studies it appears that the 30 percent retained at the end of a week is eliminated much more slowly than the first 70 percent. Therefore, with repeated exposure, THC accumulates in the body.

THC is changed only slightly by metabolism. In this process, some is converted to a more psychoactive form. . . . THC is highly fat soluble and is, therefore, deposited in the fatty outer membrane of cells. THC appears to have adverse effects on all body cells, but there is reason to be especially concerned about its effects on brain cells and on the reproductive process.

## **On Damage to the Cell Membrane ...**

An important source for information on the toxic effects of THC on cells is the report of a symposium on marijuana presented at the Sixth International Congress of Pharmacology held in Helsinki in 1975.

More recently W.D.M. Paton, professor of pharmacology at Oxford, and Robert Heath, chairman of the Department of Psychiatry and Neurology at Tulane University, and their colleagues have shown the profound changes that occur in the surface membranes of brain cells in animals exposed to doses of marijuana within the range of typical human doses. Changes have been found to occur in the membrane of brain cells, red and white blood cells, liver and lung cells, and sperm.

## **On Brain Damage ...**

Marijuana appears to injure the fine, hairlike extensions of the brain cell membranes that communicate with the other brain cells. Such damage is critical, for although each cell has tens of thousands of these connectors, the brain needs them all. *They are the mechanisms of the mind.*

One important study on the damage caused to the brain by marijuana has received too little attention.

The late A. M. G. Campbell of the Department of Neurology, Bristol University, conducted a study of ten consecutive cases of young marijuana users who showed marked behavioral changes. X-ray examinations of their brains revealed that they all suffered from cerebral atrophy. The degree of atrophy correlated with the duration of marijuana use.

In the United States, Harold Kolansky and William Moore, professors of psychiatry at the University of Pennsylvania, were able to correlate the appearance of the symptoms of organic brain disease with marijuana use. In the *Journal of the American Medical Association* (June 2, 1975), they stated: "In our reports, we detailed the toxic psychological effects of cannabis use in 51 of our patients, all of whom demonstrated symptoms that simultaneously began with cannabis use and disappeared within 3 to 24 months after cessation of drug use. Moreover, a correlation of the symptoms to the duration and frequency of smoking was established. When these observations were coupled with the stereotyped nature of the symptoms seen, regardless of psychological predisposition, we presumed that with intensive cannabis use, biochemical and structural changes occurred in the central nervous system."

That marijuana can cause brain damage has recently been confirmed by Robert G. Heath. In his study, Heath exposed monkeys for six months to doses of marijuana corresponding to moderate and heavy human doses. Before the brains of the monkeys were examined, they were taken off marijuana for eight months. The site and degree of brain atrophy in the monkeys were similar to those in the young men in the Campbell study. Heath also examined the hair-like extensions of the brain cell membranes and found that these synaptic structures were also altered.

The findings of the Heath study were important confirmations of the Campbell study. The brain damage associated with marijuana observed in these two studies appears to account for the behavioral changes often observed in marijuana users.

## **On Genetic and Embryologic Damage ...**

THC has been associated with genetic changes through the suppression of cell division and the alteration of protein synthesis. E. Sassenrath (in the *8th Technical Review of Genetics and Drug Abuse*, August 1976) has reported recent findings on the increase in malformations in the offspring of monkeys exposed to marijuana. These results, the first definitive findings on primate malformation associated with marijuana, confirm the results of earlier studies involving laboratory rodents. As many developmental abnormalities were found in the offspring when the father monkey alone was exposed to marijuana as when the mother was.

Even before Sassenrath's study was published, there was reason to suspect an association between malformation in human offspring and exposure to marijuana. Statistical tabulations on the number of malformed infants born in the United States over the past decade are now available. Although malformations had been on the decline in the United States for thirty

years, since 1970 (coincident with the rise in marijuana use) there have been striking increases in malformations of the hip joint and of the cardiovascular system. It will take several years to compile more complete data, but it seems probable that marijuana use is the cause of this epidemic of malformation.

Two major studies have shown genetic and developmental damage in laboratory rodents after exposure to marijuana. One unpublished study, conducted by Vincent Lynch of Saint John's University, New York, examined the transmission of defects to succeeding generations. Excessive abnormalities appeared in two generations after exposure to the original animals. In this instance only two generations were studied. The other study conducted by Peter Fried of Carlton University, Canada, establishes a variety of genetic changes in offspring of rats exposed to marijuana. Developmental abnormalities were found to be equally frequent after the exposure of either male or female parents.

There are indications that *the risks involved with "normal" marijuana use probably exceed the genetic risks associated with exposure to sublethal levels of radiation.*

#### **On Damage to the Respiratory System . . .**

The correlation between cigarette smoking and lung cancer, emphysema, and other respiratory problems is well known. . . . With marijuana, because fewer cigarettes are smoked, less carbon monoxide is taken up in the blood. However, the lungs of the marijuana smoker become more irritated than those of the tobacco smoker. The irritation is greater because THC is more tightly bound to the carbon particles in the smoke than nicotine is, and, in order to get an effect, the marijuana smoker must inhale deeply and hold the smoke in his lungs. After even a short period of exposure, as the carbon particles accumulate, the lungs of the marijuana smoker change permanently from pink to black.

According to the Leuchtenbergers, working at the Institute of Experimental Cancer Research in Lausanne, Switzerland, *marijuana smoke causes a greater range and degree of damage to lung cells than tobacco smoke.* Studies by the U.S. Army indicate that lung impairment occurs more rapidly with marijuana. Precancerous lesions have been observed in the air passages of the lungs of marijuana smokers, and autopsy examinations of the lungs of heavy marijuana smokers have revealed severe breakdowns in the lung structure.

#### **On Marijuana vs. Alcohol ...**

Marijuana is often said to be like alcohol, but the two drugs are not at all alike. THC, the principal active ingredient in marijuana is highly soluble in fat and insoluble in water. THC remains in the fatty structures of cells for long periods and, with repeated use, accumulates there. Alcohol is a water-soluble food and is metabolized to provide cell energy. It leaves the body rapidly and completely. There is no residue.

Molecule for molecule, THC is *10,000 times stronger* than alcohol in its ability to produce mild intoxication. For example, one drink containing 10 grams of ethyl alcohol is metabolized in an average-sized person in about one hour into carbon dioxide, water, and acetone; 50 grams of alcohol produces mild intoxication and is metabolized in about five hours. Only 5 milligrams (0.005 gram) of THC are required to produce

the same degree of intoxication. THC is removed slowly from the body, and many months are required to recover from its effects. *The marijuana user is under the influence of the drug even between highs.*

Marijuana is a complex mixture of many cannabinoids, each of which may have different effects on the body. In addition, the retention of the cannabinoids in the body means that even small doses may have adverse effects. Many of the adverse effects correlate with the duration of use rather than with the size of the dose, and there may be no truly safe range of exposure. With alcohol the adverse effects are brought about by the larger doses.

It takes decades for irreversible brain damage to appear in the heavy drinker. In the marijuana smoker, irreversible brain damage changes may appear within three years. . . . The problem is increased when marijuana is used with alcohol, as it often is. The two drugs *in combination* have a greater effect than the sum of their individual effects. . . .

#### **On Addiction ...**

Much debate over the dangers of specific drugs centers on the question of chemical or psychological addiction. A purely psychological addiction is usually considered controllable through conscious effort. Chemical addiction is considered less susceptible to mental control. Drugs thought to be *merely* psychologically addictive are considered relatively harmless; those that are chemically addictive are thought to have more serious consequences. *Actually, there is an inseparable relationship between chemical and psychological addiction, and the two forms coincide when the addictive substance is a pleasure-giving drug.*

The sensual drugs give pleasure *chemically* by stimulating the pleasure centers below the conscious level. The brain produces psychological responses to the chemical stimulation of its pleasure mechanisms. The brain's controls then become adjusted so that unmistakable discomfort results if the chemical is not supplied. Thus, chemical and psychological addictions are developed at the same time. Breaking a chemical addiction may be simple compared with breaking the psychological addiction. In fact, a psychological need for chemically induced pleasure drives even occasional users to repeat drug use.

#### **On Marijuana and Sex . . .**

Some adults begin to use marijuana in an attempt to revive their failing sexual powers. They say marijuana does this by expanding the sense of time and by increasing the senses of touch, sight, and hearing. The aphrodesiac effect some users claim marijuana has can also be explained through the power of suggestion. Because the user believes in the effect, he actually feels the effect, at least for a time.

If the user, however, becomes tolerant of the drug and begins to take larger doses or more potent kinds of marijuana, he may find that he is decreasing the amount of sensory information his brain interprets as pleasurable. The magnification effect fails, and the sensory endings become anesthetized. The sense of touch diminishes. As a result, although marijuana may seem to enhance sex at the beginning when taken in small doses, it becomes progressively less satisfying as a sexual stimulant. . . .

Many separate brain functions are involved in the sexual cycle, including the functions of both divisions

of the autonomic nervous system (the divisions of the brain below the level of consciousness that rule over the vegetative functions of the body and also regulate mood). The norms for the balance of the functional divisions of the brain necessary for sexual activity are probably narrower than for other types of responses. In the young and healthy person, the brain is able to compensate for much disturbance of the balance of the divisions of the autonomic nervous system brought on by alcohol, marijuana, or more powerful drugs. Thus, in the young, the sexual functions may not show many signs of disturbance. With age, the automatic nerve centers lose their capacity to adjust, and the sexual response mechanisms are much more likely to be severely affected.

#### **On Other Mental Functions ...**

We have all seen examples of the tragic effects of marijuana on the mind. Marijuana smokers seem to suffer from distorted emotional responses, disordered thinking, dullness, and slothfulness. Early in the use of the drug, these behavioral changes appear to be reversible, but as exposure continues, recovery is less and less complete. Those most severely affected are usually not employed. *There are, however, many marijuana users in factories and offices who appear to be normal but who suffer chronically from an altered judgment that may affect the quality of their work.*

The most extensive study of the lingering effect of the hemp drugs was conducted at the request of the Egyptian government by Professor Soueif. Over a period of twenty-five years, he observed 850 cases of hemp-drug users, which he matched against control cases. Both the users and the controls were given standardized tests of mental function. *The tests showed that "those with a higher level of education - and/or intelligence - show the largest amount of deterioration from marijuana use."* It appears that the cumulative detrimental changes induced by marijuana result in impaired judgment and a diminished capacity to take responsibility.

*Marijuana has an adverse effect on the performance of high-level jobs. The user is frequently lethargic, lacks motivation, is prone to error, has trouble remembering important details, and cannot think practically about the future. These transformations are gradual and are not marked by the obvious signs of impaired ability; it is easy to spot the alcoholic, but not so easy to spot the marijuana user.*

The dullness of the marijuana user appears long before he can actually be called *amotivated*. Although there have been no proper quantitative studies of the degree to which marijuana use induces carelessness, lack of attention, or failure to achieve the highest job performance level, the cost of marijuana use to the individual and to society appears to be high. *In industry there appears to be as much reason to limit the job responsibilities of the marijuana user as to limit those of the alcoholic.*

*Studies of the influence of marijuana on drivers have shown that marijuana impairs judgment and reduces the driver's ability to gauge distance, speed, and road conditions. The severely altered behavior typical of the chronic marijuana user suggests that driving performance would be impaired even between uses; the user is never free from the burden of the active material. ...*

#### **"Why haven't we been told this before ..."**

*The belief that marijuana is safe has become so entrenched that the steadily mounting proofs of its dangers are ignored. The political movement to "decriminalize" (legalize) marijuana has distracted attention from the health hazards. There are those in government, education, and science who have chosen to cope with the marijuana problem by making light of it or by condoning the use of the drug. For example, the following statement was treated merely as a footnote in the 1976 Annual Report to the President by the Domestic Council Drug Abuse Task Force: "Recent research indicated that marijuana is far from harmless, and . . . chronic use can produce adverse psychological and physiological effects. Therefore, its use should be strongly discouraged as a matter of national policy." When such statements as this are buried in footnotes, it is easy to see why people become confused.*

This situation must change, for, in my experience, people are eager to know the facts. When I explain the effects of marijuana to audiences, someone always asks, "Why haven't we been told this before?" . . .

To sum up: The risk is great for the persistent marijuana user, and part of the risk is that he may harm himself before he can recognize the warning symptoms. In the long run, executives who deal with life's situations through perseverance, self-discipline, and effort will be in a better position physically and mentally than those who depend on drugs to solve their problems. The pleasure of sensual drugs may be immediate, but they are not gratifying or sustained, and they are not greater than the naturally-induced pleasures. Natural stimulation through the senses, thought, and communication can expand the mind to give pleasure and gratification that do not fade.

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**Phyllis Schlafly** is the co-author of five books on defense and foreign policy: *Kissinger on the Couch* (1975) and *Ambush at Vladivostok* (1976) covering the Kissinger years, and *The Gravediggers* (1964), *Strike From Space* (1965), and *The Betrayers* (1968) covering the McNamara years. Her first book, *A Choice Not An Echo* (1964), sold three million copies without a single advertisement. Her other books are *Safe Not Sorry* (1967), *Mindszenty the Man* (1972), and *The Power of the Positive Woman* (1977).

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