

Fact sheet on effects of marijuana on the body

[Literature](#), [Russian Literature](#)



MEMORY/PERCEPTION/BEHAVIOR 1. Attention, memory and learning are impaired among heavy marijuana users, even after users discontinued its use for at least 24 hours. Heavy marijuana use is associated with residual neuropsychological effects even after a day of supervised abstinence from the drug. Heavy users displayed significantly greater impairment than light users on attention/executive functions, as evidenced particularly by greater errors on card sorting and reduced learning of word lists.

These differences remained after controlling for potential confounding variables, such as estimated levels of premorbid cognitive functioning, and for use of alcohol and other substances in the two groups. However, the question remains open as to whether this impairment is due to a residue of drug in the brain, a withdrawal effect from the drug, or a frank neurotoxic effect of the drug. ("The Residual Cognitive Effects of Heavy Marijuana Use in College Students," Pope, HG Jr., Yurgelun-Todd, D., Biological Psychiatry Laboratory, McLean Hospital, Belmont, MA, JAMA February 21, 1996. 2. Impaired memory for recent events, difficulty concentrating, dreamlike states, impaired motor coordination, impaired driving and other psychomotor skills, slowed reaction time, impaired goal-directed mental activity, and altered peripheral vision are common associated effects. (Adams and Martin 1996; Fehr and Kalant 1983; Hollister 1988a; Institute of Medicine 1982; Tart 1971) 3. A roadside study of reckless drivers who were not impaired by alcohol, showed that 45% of these drivers tested positive for marijuana. Dr. Dan Brookoff, published in the New England Journal of Medicine) 4. Marijuana smoking affects the brain and leads to impaired short-term memory, perception, judgment and motor skills. (Marijuana Facts: Parents

Need to Know, National Institute on Drug Abuse) 5. In a survey of 150 marijuana using students, 59% surveyed report they sometimes forget what a conversation is about before it has ended. 41% report if they read while stoned they remembered less of what they had read hours later. (Dr.

Richard Schwartz, Vienna Pediatric Associates in Psychiatric Annals as reported in NIDA Capsules) NEUROBIOLOGICAL EFFECTS 6. Marijuana activates the same pleasure centers in the brain that are targeted by heroin, cocaine and alcohol. (Dr. Gaetano Di Chiara, University of Cagliari, Italy)

CARDIOVASCULAR EFFECTS 7. Physiological effects of marijuana include an alteration of heart rate. Use of marijuana may result in intense anxiety, panic attacks or paranoia. (National Institute of Drug Abuse) CHRONIC EFFECTS

RESPIRATORY SYSTEM EFFECTS . The daily use of 1 to 3 marijuana joints appears to produce approximately the same lung damage and potential cancer risk as smoking 5 times as many cigarettes. (UCLA) The study results suggest that the way smokers inhale marijuana, in addition to its chemical composition, increases the adverse physical effects. The same lung cancer risks associated with tobacco also apply to marijuana users, even though they smoke far less. (reported in NIDA Capsules) 9. Benzopyrene is the chemical in tobacco that causes lung cancer.

An average marijuana cigarette contains nearly 50% more benzopyrene than a tobacco cigarette. An average marijuana cigarette contains 30 nanograms of this carcinogen compared to 21 nanograms in an average tobacco cigarette (Marijuana and Health, National Academy of Sciences, Institute of Medicine Report, 1982) Benzopyrene suppresses a gene that controls growth of cells. When this gene is damaged the body becomes more susceptible to

cancer. This gene is related to half of all human cancers and as many as 70% of lung cancers. 10.

Marijuana users may have many of the same respiratory problems that tobacco smokers have, such as chronic bronchitis and inflamed sinuses. (Marijuana Facts: Parents Need to Know, National Institute on Drug Abuse)

11. Marijuana smokers, when compared to non marijuana smokers, have more respiratory illness. (Polen et al. 1993). 12. Marijuana smoke produces airway injury, acute and chronic bronchitis, lung inflammation, and decreased pulmonary defenses against infection. Smoking one marijuana cigarette leads to air deposition of four times as much cancer-causing tar as does tobacco smoke (Dr.

D. Tashkin, Western Journal of Medicine) ENDOCRINE SYSTEM EFFECTS 13. Heavy marijuana use can affect hormones in both males and females. Heavy doses of the drugs may delay the onset of puberty in young men. Marijuana also can have adverse effects on sperm production. Among women, regular marijuana use can disrupt the normal monthly menstrual cycle and inhibit the discharge of eggs from the ovaries. (Marijuana Facts: Parents Need to know, National Institute on Drug Abuse) ADVERSE MENTAL EFFECTS 14. An " amotivational syndrome" can develop in heavy, chronic marijuana users.

It is characterized by decreased drive and ambition, shortened attention p, poor judgment, high distractibility, impaired communicationskills, and diminished effectiveness in interpersonal situations. (National Institute of Drug Abuse) 15. Adults who smoked marijuana daily believed it helped them function better, improved self-awareness and improved relationships with others. However, researchers found that users were more willing to tolerate <https://assignbuster.com/fact-sheet-on-effects-of-marijuana-on-the-body/>

problems, suggesting that the drug served as a buffer for those who would rather avoid confronting problems than make changes that might increase their satisfaction with life.

The study indicated that these subjects used marijuana to avoid dealing with their difficulties and the avoidance inevitably made their problems worse. Although users believed the drug enhanced understanding of themselves, it actually served as a barrier against self-awareness. (case studies by research team from Center for Psychosocial Studies in New York.) IMMUNE SYSTEM EFFECTS 16. Marijuana and some of its compounds influence the immune system and affect the body's ability to resist viruses, bacteria, fungi and protozoa, and decreases the body's anti tumor activities.

Marijuana has the potential to alter the backup safeguards of the immune system because it affects diverse types of cells in the body. This could compromise the immune system's ability to screen out cancer cells and eliminate infection. (Dr. Guy A. Cabral, Professor, Medical College of Virginia, speaking at NIDA's National Conference on Marijuana Use: Prevention, Treatment and Research.) Limitations of Marijuana Research " Unfortunately, much of what is known about the human pharmacology of smoked marijuana comes from experiments with plant material containing about 2% THC or less, or occasionally up to 4% THC.

In addition, human experiments typically are done in laboratory settings where only one or two smoked doses were administered to relatively young, medically screened, healthy male volunteers well experienced with the effects of marijuana. Females rarely participated in past marijuana research because of prohibitions (now removed) against their inclusion. Thus the <https://assignbuster.com/fact-sheet-on-effects-of-marijuana-on-the-body/>

clinical pharmacology of single or repeated smoked marijuana doses given to older people or to people with serious diseases has hardly been researched at all in a controlled laboratory or clinic setting.

Some of the very few reports of experiments that have included older or sicker people, particularly patients less experienced in using marijuana suggest the profile of adverse effects may differ from healthy student volunteers smoking in a laboratory experiment (Hollister, 1986a, 1988a) THC administered alone in its pure form is the most thoroughly researched cannabinoid. Much of what has been written has been inferred from the results of experiments using only pure THC.

Generally, in experiments actually using marijuana, the assumed dose of marijuana was based only on the concentration of THC in the plant material. The amounts of cannabidiol and other cannabinoids in the plant also vary so that pharmacological interactions modifying the effects THC may occur when marijuana is used instead of pure THC. The result of this research strategy is that a good deal is known about the pharmacology of THC, but experimental confirmation that the pharmacology of a marijuana cigarette is indeed entirely or mainly determined by the amount of THC it contains remains to be completed.

The scientific literature contains occasional hints that the pharmacology of pure THC, although similar, is not always the same as the clinical pharmacology of smoked marijuana containing the same amount of THC (Graham 1976, Harvey 1985, Institute of Medicine 1982)" (Report to the Director, National Institutes of Health, by the Ad-Hoc Group of Experts, "Workshop on the Medical Utility of Marijuana. ")

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