

Marijuana

Patient Education Module

What is marijuana, and how is it abused?

Marijuana is a plant whose scientific name is *Cannabis sativa*. Its leaves, seeds, stems, and/or roots are consumed by marijuana users for the purpose of feeling intoxicated ("high"). Although the plant contains hundreds of compounds, the one that has major intoxicating effects is called tetrahydrocannabinol (THC). Marijuana is the most commonly abused illegal substance worldwide. While the number of people who use marijuana at any one time does not seem to have increased in the past decade, the number of people who have a marijuana-related disorder has increased significantly.

Is marijuana addictive?

Numerous research studies show that marijuana is indeed an addictive substance. The rate of addiction to marijuana has increased for all age groups. Teens are using the drug at younger ages. About one out of every six adolescents who use marijuana develop addiction to it, and half the people who receive treatment for marijuana use are under the age of 25. Adults are becoming dependent on marijuana more often. Theories about potential reasons for that increase include increased access to marijuana that is of higher potency, as well as a lower age at which many individuals first use this drug. The symptoms of addiction to marijuana are similar to those of any other addictive substance. As with any other drug, in order to qualify for the diagnosis of marijuana addiction, the individual must suffer from a negative pattern of use of this drug, which results in significant problems or suffering, with at least three of the following symptoms occurring at the same time in the same one year period:

- Tolerance (decreased effects of marijuana over time or needing to increase the amount used to achieve the desired effect)
- Withdrawal (characteristic symptoms that occur when the individual abstains from using marijuana for some days)
- Often taking marijuana in larger amounts or over a longer period of time than planned
- Persistent desire to use marijuana or trouble decreasing or controlling its use
- Spending significant time either obtaining marijuana (for example, buying, growing), using it, or recovering from its effects
- Significant social, educational, occupational, or leisure activities are either abandoned or significantly decreased as a result of marijuana's use
- Marijuana use continues despite being aware of or experiencing persistent or repeated physical or psychological problems as a result of its use

The symptoms of marijuana withdrawal are similar to those of other drugs, especially tobacco. Those symptoms usually start one to two days after last using marijuana and include irritability, anger, depression, insomnia, drug craving, and decreased appetite. These symptoms tend to interfere with the individual's attempts to stop using marijuana and can motivate the use of both marijuana and other drugs for relief.

What are the psychological and social effects of abusing marijuana?

The bad effects of marijuana are numerous. For example, it can impair thinking, as in learning, and memory for several days after each time it is used. That risk seems to be even higher for people who score lower on IQ tests compared to those who score higher.

The social effects of smoking marijuana can be quite detrimental as well. Adolescents who use the substance are at higher risk of pregnancy, dropping out of school, delinquency, legal problems, and achieving less educationally and occupationally. Individuals who become dependent on marijuana tend to be less motivated, less happy, or satisfied with their life. They are also at risk for depression and for using larger amounts of alcohol and other drugs.

What are the physical effects of abusing marijuana?

In terms of how long marijuana tends to stay in your system, it can be detected on drug tests from anywhere from weeks to months. Like many other chemicals that are ingested, marijuana can affect your body in many ways:

- 1. Marijuana has been associated with an increased occurrence of certain cancers.* Marijuana, just like tobacco, is an initiator of many types of cancer.
- 2. Marijuana may also increase the risk of sexual dysfunction;* statistics indicate that men who smoke or otherwise consume marijuana regularly are at higher risk of either having premature ejaculation or trouble reaching orgasm. Men and women who use this substance on a regular basis seem to have more sexual partners and to be more at risk for contracting sexually transmitted diseases compared to those who do not use marijuana.
- 3. Marijuana makes you sick.* Individuals who use marijuana regularly develop a chronic cough, frequent respiratory infections, and are more prone to develop potentially life threatening illnesses such as pneumonia.
- 4. Marijuana's effects on the body and brain of a developing fetus are clearly negative.* Exposure to this substance before birth (prenatally) is associated with negative effects on fetal growth and body weight, as well as on the impulse control, focusing ability, learning, memory, and decision making in the child who was exposed to marijuana before birth. These negative effects by no means only affect babies who are exposed to marijuana before birth (in utero).
- 5. Marijuana causes dementia and lowers your IQ.* Marijuana tends to negatively affect learning, judgment, and muscle skills in people who use marijuana by their own volition. *Recent studies have shown that long term use of marijuana decreases an individual's IQ by an average of 8 points.*
- 6. Marijuana increases the risk of suicide in adolescents.* Individuals who begin smoking marijuana before 17 years of age seem to be more than three times more likely to attempt suicide than those who either never use the substance or do so after the age of 17. That risk goes the other way as well, in that people who develop depression or have thoughts of suicide before the age of 17 seem to be at a much higher risk of developing an addiction to marijuana.
- 7. Marijuana increases the likelihood of mental illness.* People who are vulnerable to developing psychosis (for example, having hallucinations like seeing things or hearing voices that aren't there; or delusions, like unfounded beliefs that others are trying to harm him or her) may be more likely to do so if marijuana is used, even on a medicinal basis.

8. *Marijuana leads to abusing other substances.* Marijuana abuse or addiction is also associated with a much higher risk of developing a dependence on other drugs.

9. *Marijuana causes panic and anxiety.* The most common reported side effect of marijuana use is a feeling of panic and/or anxiety.

10. *Marijuana can cause seizures.* Marijuana use is associated with an increased risk of seizures, which can cause death or serious injury.

What are the treatments for marijuana abuse and addiction?

Behavioral treatments, like motivational enhancement therapy (MET), cognitive-behavioral therapy (CBT), and contingency management (CM), as well as family based treatments have been found to be effective treatments for marijuana abuse and addiction.

Although there is no medication that has yet been shown to be a clearly effective treatment of marijuana-use disorders, research shows that antidepressant medications like fluoxetine (Prozac) and neurologics like gabapentin (Neurontin) may help some individuals manage marijuana withdrawal and to avoid relapse, respectively. Successful psychotherapeutic approaches to treatment of marijuana abuse or addiction include motivational approaches with coping skills development.