

Marijuana:

What you need to know

Marijuana has become somewhat of a hot topic in the past year with states like Washington and Colorado legalizing both medical and recreational use of the drug. Currently, there are several states that are proposing legislation to legalize Medical Marijuana – New York is one of them. Whether or not legalization happens, individuals will need the most current and accurate information on today's marijuana.

What is it?

Marijuana, which is indigenous to Central and Southern Asia, comes from the hemp plant named Cannabis Sativa. Even though it's native to Central and Southern Asia, plants are being grown in almost any climate. Depending on soil and climate, the potency of Marijuana may be increased or decreased.

Marijuana's main psychoactive ingredient, delta-9 Tetrahydrocannabinol also known as "THC", is what affects the user and causes the "high" sensation.

The amount of THC in marijuana determines its strength or potency – levels of THC in marijuana today are reported to be up to 10 times stronger than that of the marijuana in the 1970's. Even though the *effects* of THC may wear off after a few hours, residual traces of THC can remain in the body up to nearly 40 days after the user's last use.

Long term or chronic use of Marijuana has been reported to reduce the amount of Cannabinoid receptors in the brain; most notably the CB1 receptor. The main molecule that naturally binds with the CB1 receptor is called **Anandamide** which is responsible in regulating mood, appetite, memory, cognition, pain and emotions. When THC rather than Anandamide attaches to those receptors, the user may have mood swings, increased appetite, acute memory loss, learning impairment and erratic emotions. The sensations of slight euphoria, relaxation, and amplified auditory and visual perceptions are due almost entirely to marijuana's effect on the cannabinoid receptors in the brain.

Other than THC, Marijuana contains more than 400 chemical compounds; 60 of which are unique to marijuana and are subsequently called cannabinoids. Some of the 400 chemicals have been identified as carcinogens (chemicals known to be a cause of cancer), however studies are still limited. When information becomes more evident and studies are conclusive, this article will reflect those changes.

How is it Used

Marijuana is usually ingested by smoking often in joints, a water pipe, vaporizer or a bong. It can also be ingested orally, either mixed with other foods or brewed as a tea.

Effects of Marijuana

Short Term Effects

- Increased heart rate & Blood Pressure
- Anxiety
- Sensory Distortion
- Panic
- Poor coordination of movement
- Lowered Reaction Time
- Sleepiness and/or a depressed feeling

Long Term Effects

- Dependence/Tolerance
- Reduced Resistance to common illnesses (Colds, Bronchitis)
- Suppression of the immune system
- Reduced ability to learn and retain information/Short-term memory
- Apathy- lack of motivation
- Personality and Mood Changes
- Growth Disorders
- Inability to understand things clearly

Current Research is being done to determine if there is a link between marijuana use and mental illness. "A series of large prospective studies that followed a group of people over time showed a relationship between marijuana use and later development of psychosis. Marijuana use also worsens the course of illness in patients with schizophrenia and can produce a brief

psychotic reaction in some users that fades as the drug wears off. The amount of drug used, the age at first use, and genetic vulnerability can all influence this relationship." (NIDA, 2012)

Is Marijuana Addictive?

Long term regular users of marijuana may become psychologically dependent. They may have a hard time limiting their use, need more of the drug to get the same effect, and develop problems with their jobs and personal relationships.

Marijuana addiction is also linked to a withdrawal syndrome similar to that of nicotine withdrawal, which can make it hard to quit. People trying to quit report irritability, sleeping difficulties, craving, and anxiety. They also show increased aggression on psychological tests, peaking approximately 1 week after they last used the drug.

Concerns about the effects of marijuana for adolescents: marijuana may be the gateway to other drug use, as well as lack of motivation and impaired thinking. Research indicates that students do not remember what they have learned when they are "high". "It is estimated that 9 percent of people who use marijuana will become dependent on it. The number goes up to about 1 in 6 in those who start using young (in their teens) and to 25-50 percent among daily users". (NIDA, 2012)

Can Marijuana be Used as Medicine?

In considering possible medical uses of marijuana, it is important to distinguish between whole marijuana and pure THC or other specific chemicals derived from cannabis. Marijuana contains hundreds of chemicals –some of which may be harmful to health. THC in pill form, can be used for treating nausea and vomiting that go along with certain cancer treatments and is available by prescription. Research is continuing on the possible medical uses of marijuana, THC, and other cannabinoids, while understanding its side effects.