

# Medical Marijuana

**Brandy L. Johnson**

Marijuana refers to a preparation of the flowering plant from a genus called *Cannabis*. Cannabis, which includes several different species, has harvested and utilized throughout history for fiber, oil, seeds, medicine, and recreational drugs. *Cannabis Sativa*, for example, is one species of cannabis and is utilized, among other things, for medical purposes.

There are more than 60 cannabinoids, or chemical compounds that are psychoactive substances, found in cannabis. When utilized for medicinal purposes, delta-9-tetrahydrocannabinol (THC), delta-8-tetrahydrocannabinol, cannabidiol (CBD), cannabinol (CBN),  $\beta$ -caryophyllene, and cannabigerol (CBG) are some of the more important cannabinoids. THC is the primary compound responsible for cannabis' psychoactive effect. The highest amount of THC can be found in the flowers of the plant, with a lesser amount found in the stems, seeds, and leaves.

Cannabis has been used for medicinal purposes since ancient times. The Chinese Emperor, Chen Nung is thought to have discovered the healing properties of cannabis around the twenty-eighth century B.C. Cannabis was also used, among other places, in ancient India, Persia, Egypt, Greece, the Middle East, and South East Asia.

In the early nineteenth century, William O'Shaughnessy, a British doctor, introduced cannabis to Western Medicine. He used cannabis for the treatment of rheumatism, convulsions, and muscle spasms from tetanus and rabies. By 1854, cannabis was recognized in the US Dispensary for the treatment of neurologia, gout, tetanus, hydrophobia, cholera, convulsions, spasticity, hysteria, depression, insanity, uterine hemorrhage, and contractions during childbirth delivery. During the mid- to late 1800s and early 1900s, cannabis was also used to treat symptoms of dysmenorrhea (painful menstruation), insomnia, gonorrhoea, stomach pain, loss of appetite, migraines, withdrawal, excessive coughing, and the plague and typhoid fever.

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B.L. Johnson (✉)

Rynearson, Suess, Schnurbusch & Champion, L.L.C, St. Louis, MO, USA

e-mail: [bjohnson@rssclaw.com](mailto:bjohnson@rssclaw.com)

In the USA, cannabis preparations were widely available until the Marihuana Tax Act of 1937. The tax of \$1.00 per ounce when used for medicinal purposes had a prohibitory effect. The *National Formulary and Pharmacopoeia* then removed cannabis in 1942. Subsequent legislation, such as the Narcotics Control Act and the Controlled Substances Act, further penalized the use of cannabis. Cannabis, or marijuana, remained completely banned until 1996, when California passed legislation permitting the use of proscribed medical marijuana. Since 1996, 15 other states have followed California's lead and legalized marijuana for medicinal purposes. The federal government, however, has not legalized the use of medical marijuana. Therefore, both medical marijuana distributors and its users could face federal charges if caught with the drug.

The US history with medical marijuana is not unique. Cannabis was outlawed in many countries after the 1971 Convention on Psychotropic Substances instituted by the United Nations. Nonetheless, countries such as the UK and Canada now recognize the therapeutic use of medical marijuana. As in the USA, before the use of medical marijuana is permitted, specific conditions must be met. The conditions vary from jurisdiction to jurisdiction, but usually include the involvement of a physician.

Medical marijuana has been found to help with symptom management for diseases including, but not limited to, cancer, multiple sclerosis, HIV/AIDS, spinal cord injuries, glaucoma, amyotrophic lateral sclerosis (also known as ALS or Lou Gehrig's disease), and Parkinson disease. Medical marijuana has been reported as helping individuals with nausea, vomiting, appetite stimulation, pain reduction, spasticity control, improved sleep, bladder spasms, inflammation, and mood disturbances. It should be noted further studies are needed to determine all of medical marijuana's therapeutic uses, benefits, and effectiveness.

With regard to HIV/AIDS, medical marijuana may help with nausea, anorexia, cachexia, the reduction of pain associated with peripheral neuropathy, and distal sensory predominant polyneuropathy. As it has been estimated that 30% or more individuals with HIV will experience neuropathic pain, the ability to successfully use medical marijuana instead of, or in conjunction with, other pain management measures could significantly improve the quality of life for many.

In the early nineteenth century, the ability to deliver opiates by injection was one of the reasons marijuana began to fall out of favor. Ironically, opiate dependence is now one of the concerns that are helping medical marijuana regain support and legitimization. Marijuana has been found to be far less addictive than opiates. According to a 2009 CBS News report, 14–23% of prescription drug abusers either cannot stop using the medication or experience withdrawal when they want to stop. Only 9% of marijuana users, on the other hand, develop problems. The same news report indicated that medication that had been approved by the US Food and Drug Administration (FDA) was suspected as the primary cause of 10,008 deaths and a secondary cause in another 1,679 deaths. Conversely, there were no deaths in which marijuana was the primary suspect and it was a suspected secondary cause in 279 deaths. As the number of individuals dependent on prescription drugs is now greater

than the number of those who are dependent on marijuana, marijuana is becoming seen, more and more, as the lesser threat for some conditions.

The criminalization of cannabis/marijuana in the USA and abroad has limited the extent to which testing and studies have been conducted. This is starting to change. The exploration and recognition of the benefits of medical marijuana could potentially help to improve the lives of millions of people, including those with HIV/AIDS, who are suffering from painful, debilitating, and/or chronic conditions. As further study is conducted, it is also possible that scientists will develop delivery systems that are more expedient, effective, longer lasting, and without side-effects.

*Related Topics:* Substance use

## Suggested Reading

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