

marijuana – What is it good for? June 3, 2014 by J

Medical marijuana is growing steadily, fanned by legislation that aims to increase its availability and legality. But what is it good for? Inaccurate, uncited memes claiming its benefits for everything from cancer to epilepsy travel on social media. So what does the science actually say?

The plant *Cannabis sativa*, is an annual plant originally from Central Asia. It has been used for medicinal purposes for at least 2,000 years. The two main active compounds found in the plant are cannabidiol (CBD) and tetrahydrocannabinol (THC); at least 66 have been identified so far. These include the [cannabinoid receptor](#); CB1 receptors which are found predominantly in the brain and spinal cord, and CB2 which are found in the immune system. The most [potent cannabinoid](#) is thought to be tetrahydrocannabinol (THC).

(THC) drug dronabinol in HIV/AIDS patients proved that those taking THC ate more than controls and gained weight. However, in a [study](#) comparing dronabinol with a placebo (control) in cancer patients presenting loss of appetite, dronabinol was not as effective as megestrol in promoting weight gain.

As seen here, but a [study](#) in healthy people found that those inhaling THC consumed more calories (had “the munchies”), especially sugary snacks, than those inhaling a placebo.

[stimulate appetite](#)? The CB1 receptor is active in parts of the body that are known to stimulate eating behavior, such as the hypothalamus and limbic forebrain, and also certain areas of the brain. THC can exert effects by [mimicking](#) endogenous cannabinoids (endocannabinoids) that are naturally found in the body.

and Vomiting

...can now access studies investigating the ability

olved in [chemotherapy induced nausea and vomiting](#) in the hypothalamus and limbic regions that can influence the stimulation of nausea and vomiting. CB1 receptors are found in these areas, and drugs such as nabilone can act on these receptors.

Effect

Neither nabilone nor dronabinol are FDA approved for the treatment of chemotherapy-induced nausea and vomiting. However, a few studies have shown that they may be effective. A small [2010 study](#) carried out by McGill University involved 21 adults with post-traumatic or postsurgical nausea. Participants were randomly assigned to receive cannabidiol (0%, 2.5%, 6% or 9.4% THC) which was smoked. All participants used all four potencies, which was done over the duration of the study. Participants recorded their mood, sleep and quality of life. They found that cannabidiol (0% THC) moderately reduced pain and nausea with few side-effects. Larger studies are needed to evaluate the effectiveness of nabilone and dronabinol.

For example, an early and small trial in [1971](#) demonstrated that marijuana reduced IOP but the effects only lasted a short time. The usefulness when taken in this manner. However, the side effects of marijuana while marijuana may temporarily reduce IOP, it also causes a decrease in pressure throughout the body, canceling out the benefit.

A [report](#) by the Institute of Medicine concluded that the reduction in IOP by cannabinoids and marijuana, while effective, was limited and required too high doses, and there are no studies that recommend lifelong use in the treatment of glaucoma. The report also noted the harmful effects of chronic marijuana smoking outweigh the potential benefits for the treatment of glaucoma.”

Epilepsy is a neurological disorder characterized by recurrent seizures that affects around 2.3 million Americans, almost half of whom have uncontrolled seizures. The use of marijuana to treat epilepsy is still under study. [Some animal studies](#) have demonstrated

the cannabinoid called GWP42006 in the treatment of multiple sclerosis. The evidence for the success of marijuana in controlling spasticity in multiple sclerosis sufferers also spurred a senator in the U.S. to pass a bill that allows people in South Carolina to use CBD oil to treat multiple sclerosis. [The bill was passed into law](#) two days ago.

Tension and Spasm

Research has suggested that marijuana may be able to help control muscle tension and spasms, but the results are conflicting.

A [large placebo-controlled trial](#) was initiated in Britain to investigate marijuana in the treatment of multiple sclerosis. Patients with different forms of MS were enrolled, and although cannabinoids or derivatives or marijuana did not provide objective improvements in spasticity (as measured by physicians), there were some improvements in spasticity and pain. Based on these results, a further study was initiated to investigate whether cannabinoids could improve the quality of life of patients with MS. The study, which was published

DNA sequence), raising the possibility that it could contribute to autoimmune diseases such as arthritis and multiple sclerosis. This is certainly early days yet and further investigation is clearly needed. The study left many questions unanswered, for example, how long THC last for. Furthermore, their results also hinted that the PARGA2 gene may be suppressed by THC. This transcription factor encodes a protein involved in DNA repair, so we certainly need to be assessing its activities as this can lead to cancer.

Anticancer Properties

There have been numerous laboratory and animal-based studies that have examined the anticancer properties of cannabis, or more specifically the cannabinoids. Several studies have shown that cannabinoid administration can inhibit the growth of cultured brain cancer cells and tumor growth in animal models (or tissue transplanted into animals) in rodents, dogs, and humans (in cancers derived from glial cells). One [study](#) on glioblastoma, glioblastoma multiforme (GBM), which is highly resistant to anticancer therapies, found that TH

[ard study](#) investigating THC also found that noid inhibited the growth and spread of lung tuuced tumor size in mice with human lung canared with a control group. However, the researI not know the exact mechanisms behind this a is needed since some studies have actually s e some cancers. For example, a [2000 study](#) pu *immunology* found that THC promoted lung tum eding the body's antitumor system.

any websites which state that "*cannabis cures* demonstrated, cannabis may have many poter and laboratory and animal studies have yelde results with regards to cancer. But cancer is *not* se, and saying it is a "cure" is wrong, especially results and the fact that studies so far regarding ave not been conducted in humans.

to find out more, check out this great [review](#) of eated for a variety of medical conditions