

ALS WWW

focus

Medical Marijuana

Medical marijuana, also known as medical cannabis, refers to the parts of the cannabis herb used as a type of medicine or herbal therapy. (The term also may include certain synthetic versions of the plant.) It has been used throughout the world and across time for various medical ailments, and it is one of the 50 fundamental herbs of Traditional Chinese Medicine. Research and anecdotal evidence has made healthcare professionals, patients and caregivers more aware of the therapeutic potential for a range of diseases and disorders. These include ALS/MND, as well as pain, gastrointestinal illness, HIV/AIDS (especially the side effects caused by chemotherapy), breast cancer, brain cancer, and Alzheimer's disease. Cannabis may be particularly useful in treating ALS/MND symptoms such as appetite loss, depression, pain, muscular spasticity, drooling and weakness.

An article titled "[Cannabis Use in Palliative Care](#)", published in the *Journal of Clinical Nursing*, recounts studies that have explored cannabis as a therapy of ALS/MND patients. Carter and Rosen (2001) and Amtmann et al. (2004) suggested that it may be of use in ALS/MND based on studies of

other patient groups, particularly those with MS, for whom cannabis acted as an analgesic, muscle relaxant, bronchodilator, saliva reducer, appetite stimulant, sleep inducer and antidepressant. Carter and Rosen also made the point that emerging evidence suggests cannabis has strong antioxidant and neuroprotective benefits, which may prolong cell survival—a key issue for ALS/MND patients, who suffer from the death of motor neuron cells. Amtmann et al. conducted an anonymous online survey that found cannabis was moderately effective in reducing appetite loss, depression, pain, muscular spasticity, drooling and weakness for ALS/MND patients, with the longest relief reported for depression.

In 2003, [a study led by Mary E. Aboud, PhD](#), at California Pacific Medical Center found that both plant-derived and synthetic THC counteracted neurodegeneration in the SOD1 mouse model. A study was then undertaken with human patients at the Forbes Norris MDA/ALS Center in San Francisco, CA using synthetic Marinol pills. Preliminary results were encouraging and safety was demonstrated. Although the study couldn't prove that efficacy was statistically significant, symptomatic benefits were observed in insomnia,

appetite, and spasticity.

Though cannabis has been politically contentious in the U.S. due to lack of FDA approval, the use of medical marijuana has been legalized or decriminalized in 19 states, with still more allowing the use of the drug under certain provisions. Theoretically, it is still illegal on a national level, but it is our belief that the Justice Department is no longer pursuing violations in regards to medical marijuana.

Keep in mind that there are health risks associated with marijuana use. As discussed on [Cancer.org](#), The plant contains many compounds that have different actions in the human body, and the amount of these compounds can vary from strain to strain. This frequently makes it difficult to know exactly what you're getting. Studies have shown that THC can raise anxiety and cause paranoia, which may be frightening for some. Generally, though, the side effects of the purified extracts are mild and can be managed with careful dosing. As with all medications and supplements, the benefits of THC must be carefully weighed against its potential risks and discussed with a medical professional.

LEGALIZATION IN THE U.S.

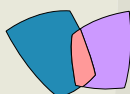
- As of late 2013, the following states have legalized or decriminalized medical marijuana use, with more expected to follow suit:
 - Alaska, Arizona, California, Colorado, Connecticut, Delaware, Hawaii, Maine, Maryland, Massachusetts, Michigan, Montana, Nevada, New Hampshire, New Jersey, New Mexico, Oregon, Rhode Island, Vermont, Washington, and Washington D.C.
- Despite legalization of marijuana in Washington and Colorado, an employee may still be fired if they test positive on a drug test, although this is very unlikely.
- States that utilize dispensaries to sell medical marijuana include the following:
 - California, Colorado, New Mexico, Maine, Rhode Island, Montana and Michigan
 - Connecticut and Massachusetts are planning to do so.
- Other countries in which medical marijuana has been decriminalized, to varying degrees, are Canada, Austria, Germany, Switzerland, the Netherlands, Czech Republic, Spain, Israel, Italy, Finland and Portugal.

SYNTHETIC ALTERNATIVES VS. NATURAL CANNABIS

- Marinol pills (synthetic THC, one compound found in natural marijuana) have been FDA-approved.
 - They are currently available in 2.5 mg, 5 mg, and 10 mg doses
 - However, they have been [shown to be less effective](#) than natural cannabis, as they lack several important chemical compounds, such as cannabidiol (CBD), which has shown analgesic, antispasmodic and other properties. For this reason, we suggest using the herb if possible.
- UK-based GW Pharmaceuticals has developed a treatment for MS called [Sativex](#), which is the first natural marijuana derivative to attain market approval in any country. It was designed to treat spasticity and neuropathic (nerve-derived) pain.
 - In October 2013, the results of a [2,000-person study](#) were released, showing that Sativex was proven safe and effective for MS patients. However, pure marijuana may be more effective for the ALS/MND population until specific studies have proven otherwise.

VARIETIES OF CANNABIS

- There are two major types of cannabis plants used for medicinal purposes: [sativa](#) and [indica](#). Each has its own range of effects on the body and mind. There are also hybrid strains consisting of both plants.
- *Indica* plants are better suited for indoor growth because of their short stature, while *sativa* plants are better for outdoor growth because they can reach over 25 ft.
- *Indica* is known for producing greater feelings of relaxation and can be helpful in treating anxiety, body pain, muscular spasms, seizures, headaches, and sleep disorders. For this reason, indica buds are generally smoked by medical marijuana patients in the late evening or right before bed.
- *Sativa* is known to be more energizing and is therefore better suited for daytime use. Sativa use can foster feelings of creativity, focus and well-being. As a result, it is effective in fighting depression.
- Given these factors, the ideal product for an ALS/MND patient might be a hybrid that primarily contains *indica*, while still offering some of the benefits of *sativa*.
- When determining dosage, consult a physician. We generally recommend the equivalent of one dose daily.



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