



MGFA STATEMENT ON MARIJUANA AND MG

Several states have legalized the use of marijuana for medical and/or recreational use. Can marijuana or chemicals extracted or based upon components of marijuana help people with MG? Let's consider what is currently known about medical benefits of marijuana.

In researching this topic, members of the MGFA Medical and Scientific Advisory Board (MSAB), reviewed the scientific literature and the information available from reputable sources such as the National Institutes of Health, the American Academy of Neurology, the American Neurological Association and the American Medical Association.

What is marijuana and what are the known medically active components? Marijuana is a plant-related to hemp. Hemp has been used for centuries to make cloth and rope. The two most commonly recognized active chemicals in marijuana, called cannabinoids, are delta-9-tetrahydrocannabinol (THC), marijuana's main mind-altering ingredient responsible for the "high" associated with using marijuana and cannabidiol (CBD). CBD does not usually produce a "high" and has shown promise for helping some people with multiple sclerosis (MS) and some children and adults with seizures. The body produces its own cannabinoid chemicals. They play a role in regulating pleasure, memory, thinking, concentration, body movement, awareness of time, appetite, pain, and the senses (taste, touch, smell, hearing, and sight). Just as people differ in many characteristics such as pain threshold, people vary in their sensitivity to marijuana, THC and CBD.

What marijuana-related or derived substances are currently approved by the FDA? In June 2018, the U.S. Food & Drug Administration (FDA) approved Epidiolex (cannabidiol) [CBD] oil solution for the treatment of seizures associated with two rare forms of epilepsy, Lennox-Gastaut syndrome and Dravet syndrome, in patients 2 years of age or older.

In April 2016, the FDA approved Marinol (dronabinol) and Cesamet (nabilone) [THC], both used to treat nausea and boost appetite. These agents are particularly useful for people with cancer who have nausea and poor appetite due to cancer or as a side effect of cancer treatment. Marijuana has been used by patients with cancer for pain and to enhance appetite for many years. The laws passed in several states permitting the use of marijuana have enabled people who benefit from marijuana to be able to use the agent without fear of prosecution.

For which conditions has marijuana shown promise? Basic science and clinical researchers are conducting preclinical and clinical trials with marijuana and its extracts to treat numerous diseases and conditions, such as the following:

- Autoimmune diseases: To date, no studies have shown benefit for people with MG, but research is ongoing.
- HIV/AIDS: To date, no studies have shown benefit for people with HIV/AIDS, but research is ongoing.
- Multiple sclerosis (MS): CBD has shown some promise for reducing muscle spasms and abnormally increased muscle tone that patients with MS may experience.
- Alzheimer's disease: To date, no studies have shown benefit for people with Alzheimer's, but research is ongoing.
- Inflammation: Studies are evaluating the ability of marijuana-derived agents to reduce inflammation. To date, no clear results have emerged.
- Pain: Marijuana and its derivatives, such as THC, are being studied to reduce cancer-related pain. Some people appear to benefit more from marijuana for pain reduction than others do.
- Seizures: For a small group of patients, often children, seizure control has improved in response to CBD. In 2018, the FDA approved CBD oil for the treatment of seizures in two rare forms of epilepsy, Lennox-Gastaut syndrome and Dravet syndrome, in patients 2 years of age or older.
- Substance use disorders: Research is in a very early stage.
- Mental disorders: Research on mood disorders such as depression and anxiety are in the early stages with no clear results.

Research on the therapeutic benefits of marijuana and its components are ongoing. To date, there are no studies showing therapeutic benefits from using marijuana for people with MG. The MGFA will maintain an open mind and continue to monitor research in MG to keep people with MG aware of advances in medical research that may affect their lives. As people with MG can react differently to different medications, MGFA advises those planning to try marijuana or any related substances to consult with their physician.

As the legality of marijuana and its derivatives vary by state, we encourage you to research your state's laws around its use. State-approved medicinal use of marijuana is a fairly new practice. For that reason, marijuana's effects on people who are weakened because of age or illness are still relatively unknown. Older people and those suffering from diseases could be more vulnerable to the drug's harmful effects, but more research is needed.

The MGFA mission is to facilitate the timely diagnosis and optimal care of individuals affected by myasthenia gravis and closely related disorders. Our goal is to improve lives through programs of patient services, public information, medical research, professional education, advocacy and patient care.

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