

Cannabis for the Treatment of Epilepsy:

A Special Interview with Dr. Margaret Gedde

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Q: Please give us some background about what you do.

MG: Hello, Dr. Mercola. Thanks so much for having me. I am Dr. Margaret Gedde. I am the owner and founder of Gedde Whole Health, my private practice, and also of the Clinicians' Institute of Cannabis Medicine. I actually never imagined that I'd be in this field. My medical training was originally in pathology and research, and I spent many years in the research lab. My PhD is in biophysical chemistry along with my MD. I did my training at Stanford, and then I worked in the pharmaceutical industry.

I had no idea that cannabis actually was medicine. I did realize that a lot of the pharmaceuticals aren't developed necessarily because there are things that people need, but because, of course, they're going to make money for the company doing it. I realized that there are other therapies that exist, which are more holistic and supportive of patients, that aren't really appreciated by conventional medicine.

In fact, I did, about 10 years ago, open my medical practice to focus on alternative therapies – non-pharmaceutical. But it wasn't until four years ago that I actually discovered cannabis as a medicine. That was when really this whole topic came up in 2009, in Colorado. I started to look at the possibility of including recommendations for this in my practice. What I started hearing from my patients really amazed me. I started hearing all the benefits and the lack of toxicity of cannabis. I learned about the endocannabinoid system, which helped me understand how it could possibly be true that it could do all these things without being toxic.

Actually about four years ago or over four years ago, I changed my practice to focus completely on cannabis and have seen a number of medical marijuana patients in Colorado since then. It was about two years ago that I got the first request from a parent of a child who did want to use cannabis, especially the high-cannabidiol (CBD), low-tetrahydrocannabinol (THC) form for her child's epileptic seizures. I went ahead with that and started to learn about what this could do. Now, two years later, really the news that cannabis is a therapy for epilepsy has reached the world I think.

We're very committed to gather ongoing information about what's happening with these children and to get this information out to other physicians in a way that they can use and understand. We want to generate high-quality, publishable data from practice and our experience. We do want to help people understand the background and the scientific basis of what cannabis can do and really start to understand that it's a medicine, and bring it into what we have as medicine.

Q: How can we educate ourselves more about the medicinal uses of cannabis?

MG: Many people ask how they can educate themselves about cannabis, and it is a difficult proposition despite the fact that there are numerous peer-reviewed publications about the benefits of cannabis. The reason why it's difficult is that the preponderance of research funds has been to show harms related to

cannabis as a drug of abuse. There certainly has been a perspective and laws have been geared toward cannabis as a drug of abuse. It becomes necessary to actually look for the real research that's there on the endocannabinoid system and the ways that marijuana cannabis has been helping people for centuries. And to look into the history of medical practice, that's where the information starts to come out.

Another area certainly is the current clinical practice, which is possible in a few states. One of them being Colorado, where I am able to see patients daily in my practice, who have access to safe, legal cannabis. We can learn the dosing and the methods of use that work for a whole range of different conditions. We're doing this ongoing research through our clinical experience.

People can perhaps talk to friends and neighbors, if anyone is using cannabis as medicine – whether you're in a state with a developed medical marijuana program or not – and really start perhaps to consider that the story about marijuana and cannabis that we've been told has been very one-sided, and there's a lot more to the story. There's a lot of potential benefit there.

Q: How does cannabis compare to other prescribed medicines on the market right now?

MG: Numerous prescribed medications are well known to be dangerous. We don't have enough detailed information about cannabis, but we have enough information to stack it up against the known toxicities to organs like liver and kidneys, the gastrointestinal damage, and the nerve damage of many medications that are currently being used.

Pain medications based on opiate mechanisms are known to be highly dangerous, and they kill people every day. There's an ongoing death rate from overuse – actually, there's an ongoing death rate from use of pain medications as prescribed. So, even as prescribed, they're highly dangerous and they are open to abuse.

As far as medications used in the pediatric population to control seizures, there are also severe toxicities to organs. Many of them are very sedating. The children become unable to function or really to interact because of the sedating effects. Other medications have a side effect of rage and behavioral problems. Unprovoked rage is actually a known side effect of some of the anti-seizure medications.

Cannabis and in particular cannabidiol has none of these issues. No toxicities. The main side effect of cannabidiol is sleepiness. As a child is getting accustomed to it, that does wear off and the child can be very alert and functional on the cannabis oil once they have worked into the dosing. Once you put them against each other, there really is no comparison in terms of safety.

Then when you look at the fact that cannabidiol and other cannabis products very often work when other medications do not, you actually not only have better safety, but you also have better efficacy in our clinical experience and in documented studies. You see, certainly any patient who with their doctor, has looked at their information and who would like to make the decision that it's worth a therapeutic trial given their own overall circumstance, I do believe that it's medically appropriate for that doctor and patient to look at using cannabis in their situation.

Q: What are the side effects of medicinal cannabis?

MG: The main side effect that everyone needs to watch out for is the well-known psychoactivity of THC. THC is a very important component in cannabis. THC has a long list of medical benefits, but it does have the side effect of psychoactivity. I will note that the psychoactivity can be a very important part of the medical benefit.

For example, in severe pain where the perception of pain is a great part of the distress of it. Cannabis, that psychoactivity of THC, allows people to shift their perception of the pain in their mind and their body.

That's an example where the psychoactivity is needed, but there are other areas where it's not. Selection of the type of product, the actual cannabinoids in it, and the mode of using it is very helpful for dealing with that side effect.

Beyond that and the kind of distress that cannabis accompanies with excessive psychoactivity if somebody gets too much, cannabis is very safe. There are no known deaths linked with it. That cannot be said about virtually anything else on the planet, including water. You can overdose on water and die. You can't get enough cannabis in your body to kill you.

Q: Can you describe some of your experiences administering medicinal cannabis to your patients?

MG: What we see in my clinical practice are a range of responses. Not every child does well immediately on the cannabis oil. There is a good solid percent – I would say about 25 percent – that actually do get very quick reduction in seizures; very quickly on the order of days to weeks experience other positive benefits, such as more alertness, more function, and interaction; and then they to continue experience ongoing benefits.

Some children are so sensitized to all manner of medications that they need to start at a very low dose and give it plenty of time. We are working out in the clinical practice the protocols that seem to give the best benefit the most quickly to the most children, but we do find that some children get results very quickly. For others, it takes more time, up to a number of months.

Q: Does the US government really hold a patent on cannabis?

MG: Yes. It's a very interesting thing that our own US federal government through the Department of Health and Human Services (HHS) actually holds a patent on cannabis, specifically on cannabidiol, the CBD we've been talking about, as a neuroprotectant and an antioxidant. This patent was filed well over 10 years ago and was approved by our US Patent and Trademark Office (USPTO) in 2003. It's over 10 years ago since federal government patented cannabidiol as a neuroprotectant. The information's there. The patent was based on the studies done with the support of the National Institutes of Health (NIH).

You know, it certainly is a paradox where the federal government stands through the Drug Enforcement Administration (DEA) with the stance that marijuana has no medical value and it's highly dangerous, whereas we have in fact scientific evidence that it is useful as a medicine, and that far from being dangerous, it's actually quite non-toxic and supportive certainly in comparison to other medications. I think we do have to ask why we have the split. It really seems like a policy, especially in certain areas of the federal government, that would encompass the drug war and drug laws. That type of policy certainly is not consistent with our medical knowledge and scientific knowledge.

What people can do actually is to start to question these things and to do their own research at verifiable and reputable places, including Cancer.gov, which is our US federal government's site on cancer. You'll find information on cannabis there. People have access to the medical literature through the public resource, PubMed. You can search cannabis and find the many, many studies that come up showing benefit.

Actually if people are interested in advocacy, the place to advocate, in my opinion, would be on the federal level. Advocate for the rescheduling of cannabis. It's currently listed as a Schedule I very dangerous substance. To match its actual safety and toxicity profile, it should be at a much lower

schedule. If this were moved – and again advocacy, I do believe it can make a difference – three major things would happen:

(1) Physicians would be able to prescribe cannabis. Doctors could actually help their patients to get the exact thing that they need without the sort of situation where patients are required to find their own source essentially.

(2) Physicians can do actual clinical research. You can't do an approved human study with a substance that the federal government says is highly dangerous. It's not permitted. If it's rescheduled, doctors can now do actual clinical research, which has been prohibited.

(3) We could potentially then get insurance coverage for cannabis, which would be very important for people to be able to really benefit from it.

The rescheduling I think is a key point of advocacy. Also in various state legislatures, that's a great place to bring the facts forward and talk to your legislators. Because I think what we're seeing is a shift in awareness about cannabis. What has been there all this time is finally becoming known and uncovered. It's a time to ask questions and to perhaps look at a new way of thinking about this plant.

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