



Podcast Session #18

The Medical Benefits of Cannabis and CBD

with Dr. Mary Clifton

Dr. Schaffner speaks with Dr. Mary Clifton about the medical benefits of cannabis, where the research is leading us, and what the future holds.

To learn more about Dr. Clifton,
please visit www.drmaryjanemd.com

00:07 Christine Schaffner: Welcome to the Spectrum of Health Podcast. I'm Dr. Christine Schaffner and today I'm speaking with Dr. Mary Clifton. Dr. Mary Clifton is an Internal Medicine doctor in New York City with 20 years of experience in both the hospital and private practice and is also licensed by the New York State Department of Health to provide medical marijuana. Dr. Clifton is a recognized expert in CBD, cannabis and medical marijuana. She's a published researcher and national speaker on women's health and osteoporosis, and author of four books and two new soon-to-be-released books on CBD and cannabis--What you need to know, how to use them and a cook book to support ease of use. I really feel that this is powerful information to share and I think I couldn't have thought of a better person to ask than Dr. Mary Clifton, who has such a wealth of information and is really grounded in the research to share the health benefits of medical cannabis. I hope you enjoy our conversation today.

01:03 CS: Welcome everyone, I'm so excited to welcome Dr. Mary Clifton to our podcast today. I met Dr. Mary Clifton at a recent summit in Arizona, and I was so excited to learn that she's an expert on CBD and medical cannabis. There's so much that we're going to learn from her today.

01:23 Dr. Mary Clifton: Thank you so much for having me, Christine. I'm so excited to be invited.

01:27 CS: I always like to start our podcast by sharing with our listeners your journey and how you became an expert in CBD and medical cannabis. How did you jump from your conventional medical training to delving into this important topic?

01:48 DC: Well, I'm an internal medicine doctor by training, from Michigan State University. I love practicing internal medicine. I've been in practice full-time for 22 years, and went through a few unfortunate events that sort of diverted my attention. I love to think about nutrition and wellness and lifestyle and wellness, and have written a few books on that topic. But then a few years ago, I lost my brother to colon cancer. My mother and I were just talking a few days ago about how between my brother and

between my father we really saw the two extremes of somebody dying. My father had a very peaceful death and my brother had a very stressful, obviously uncomfortable experience. Sometimes people have uncomfortable deaths. It's not the first time I've seen a patient go through that process, but it was different to have my brother experience that right before my eyes.

02:49 DC: Right on the heels of that we lost a girlfriend in New York. Our mutual friend, Mary Agnes and I have a friend in New York, Fran, who's just the most wonderful soul, and she was taken early with ovarian cancer. But her death was so utterly different from my brothers. She had so much control over things and really relied heavily on medical marijuana to get stabilization of all of her symptoms, not only the pain, but it also really improved her outlook on the whole process, and she remained very calm throughout the process. That may again just be different for different people, but it got me thinking, "Is this just hocus pocus or is there something to this medical marijuana?" Then as I started to review it, I realized there's a lot of research that nobody knows about.

03:41 DC: I've been working on creating three-minute videos that allow people to learn the information they need to learn in order to make great decisions around medical marijuana. It turns out that the majority of people get their advice from the bud master behind the counter at the dispensary. And it turns out, that the bud master has an average of one year of experience and got about an hour's worth of training, most of which is in customer care. So we're really choosing the wrong person to get great advice from. If people can spend a half an hour doing a little research, and then walk in and say, "This is exactly what I need, this is the mode of administration I need and this is how much I think I'm going to need to get through the month," that's my goal.

04:30 CS: I knew Fran as well, so I'm so glad you had that connection and that she taught us even through her death. That is quite a powerful connection. Thank you for sharing that, Mary. I am a naturopathic doctor as many of my audience knows, and I live in the State of Washington. And Washington is a state where we actually have recreational marijuana, so there's a lot of access to marijuana in the state, but I actually

see a lot of patients from all over the country, and so I know the state laws are very different. Before we get into the nitty-gritty of all of that, I would love to take a step back. You made a great point that when people think about marijuana, there's a lot of stigma and thinking about this as more of a recreational drug, and not as a powerful medicine. Can you just share with our audience how we have this whole endogenous system that really responds well to cannabis, and help us understand what that means, how we are really set up to accept this medicine?

05:35 DC: People don't want to be viewed as a drug user. It has this stigma as an illicit drug, they don't want the legal trouble around it. People have concerns that they're going to have ongoing mental or physical damage from the drug, or lose control and become dependent on it. So, in states where it's available recreationally that really eases people's anxiety around this situation. But it is also helpful to remember that there's an endogenous endocannabinoid system in our bodies. That all throughout your body, there are CB1 and CB2 receptors. These receptors are stimulated by cannabis by THC and CBD, the predominant cannabinoids found in marijuana. But we also have endogenous cannabinoids, endogenous meaning from within, and cannabinoids representing that chemical compound. Within our own bodies, we have anandamide, that is a cannabinoid that stimulates the CB1 and CB2 receptors throughout your body naturally.

06:47 DC: These receptors, the CB1 and CB2 receptors, are found in different areas. CB1 is very richly represented in the central nervous system in the brain and spinal cord, and seem to be very much associated with management of pain, movement disorders, muscle spasm, and relaxation. CB2 receptors are located in the immune system, and seem to have the effects that occur across the immune system for good health and cancer data. The receptors have been very well studied, and it's good to know that there's this endogenous cannabinoid that your body is already using. For example, if you burn a finger or cut your arm in the process of cooking, and there's pain and inflammation in that site, your body actually releases more anandamide in that area to try to reduce the pain and inflammation by stimulating the CB1 receptors.

07:53 CS: That's a great overview. I think, again, as you pointed to, with my patient population, I see a lot of neurological illness, and a lot of people who actually have a lot of immune dysfunction, as well. And so, we're looking at this as a powerful medicine, not only for our brain and our nervous system, but for our immune system, as well. I think it must be fun, in some perspective from your vantage point, that we're pioneering this whole other use of this medicine that has a lot of traditional roots. I think it comes at a really important time, especially, I'm sure, as you experience with your patients, just with the over-prescription of opioid medicine, and the addictions that we're seeing in this country, that we have another alternative that's safer, and more powerful, and doesn't have this addictive quality as well.

08:51 DC: Oh, absolutely. It's exciting, and it's always fun when a medication that you're prescribing has the side effects of making you feel good and sleep better, in addition to controlling your disease, instead of the crazy list of side effects that you see all day long on the direct-to-consumer marketing commercials on the TV--especially as it relates to neurodegenerative disease. Multiple sclerosis is probably the best-studied disease related to treatment with cannabis. MS affects 2.3 million people worldwide with muscle pain and spasticity, but also depression and cognitive dysfunction. The National Multiple Sclerosis Society reports that 66% of patients with MS use cannabis for symptom treatment in a one-to-one CBD to THC ratio. They get reductions in muscle spasticity and pain. And as you said regarding opiates, a reduction in the use of benzodiazepines like Valium and Ativan, and their opiates, and their anti-depressants, reductions in prescriptions by 77% in patients. So many, many patients get a significant reduction in the prescription medications they need with the addition of cannabis.

10:09 CS: That's huge. That's so encouraging. One of the things I'm sure some of our audience is still wanting to learn more about is the difference between CBD and medical cannabis? Can you explain the use of our language here?

10:24 DC: Sure. CBD is a distillation from the cannabis plant. Both of them are the Cannabis sativa, a marijuana plant. But the CBD is distilled off, so it's just that particular CBD molecule, just that one particular cannabinoid. There's, perhaps, 80 different cannabinoids that have a chemical structure known as atropine. And many of them have different effects, smaller effects in different systems, but the predominant ones are the CBD and the THC. The CBD is doing all the heavy-lifting for medical cannabis. It does all of the relaxation and the reduction in muscle spasticity. It's the power horse of the entire plant, but it can be distilled off into a pure form. And then the CBD itself can be taken in the CBD oil. It's legal across all 50 states, although there's still a few states out West that have some trouble in pockets, and different regions and different states have various levels of support. But this is a medication that you can take without a prescription; you just have to watch which product you're choosing because there are a lot of CBDs on the market.

11:47 DC: The THC is the other major cannabinoid that you can manipulate in its percentage in your cannabis, in more of a medical marijuana. THC is the cannabinoid that gets you high. It has the psychoactive effect. So some people like a very pure CBD to just get the calming effects without the psychoactive effect. But some people think that there is an entourage effect where using the whole product, the combination of all of the different cannabidiols has a better effect because they're sort of additive to each other. It just depends on what works for you, and what makes you feel best, and how much you want to avoid that sensation, the feeling of getting high, that psychoactive side effect.

12:36 CS: That's such a great point. What I'm hearing, and this is my understanding too, is that no matter what state you are in in the US, you can purchase a CBD product. It's just if it has the THC, that's where it's more regulated state-to-state. Does the CBD have to be derived from hemp in all 50 states, or is cannabis derived CBD, is that legal around 50 states? I know there's a lot of questions and misconceptions around what people can take depending on where they live.

13:11 DC: Yes, the CBD can be taken in all 50 states. There's just concerns surrounding the CBD because when there was a study published in 2017 in JAMA that following testing products, they found ranges of up to 26% less CBD than was actually on the label. And in some cases, the distillation of the CBD is not perfectly effective. They can say that they are free of THC and still have a tiny amount of THC in the product. And in the same study, they found that out of 84 samples, 18 samples had THC detected within the sample. So to some degree you might still get a little trace of THC, which may or may not be a problem, depending on your risk aversion, if you're a person who undergoes drug testing for example. It's just important to know that in some CBDs, the distillation process does allow a bit of THC to persist.

14:13 CS: That's a great point. If someone is struggling with pain or some of the conditions that we have listed, how would one go about trying a CBD product, what should they look for, and how should they enter into trying this as a therapy?

14:33 DC: That's a great question because there are a lot of CBD products on the market. I just attended a great conference in New York City at the Javits Center and there were possibly 25 different CBDs represented, and I really researched all of them like a scientist, in trying to figure out what was going on. Different CBDs are using different modes of delivery, like they may be putting it into a patch or they're adding a liposomal product to speed up the absorption even more. But CBDs when taken orally via drops and in the mouth, exert their effects in around eight minutes. So it doesn't appear that these modes of delivery make a massive difference. The people that seem to be very innovative in the CBD market are the ones that are combining it with other things like herbal adaptogens to help with stress and anxiety in general, or some people are combining CBD with Skullcap to improve insomnia. So those are some very interesting new ways to manage them.

15:41 DC: The other way to really try to differentiate the CBD is to make sure that the distillation process is very, very clean and chemical residues are kept to a minimum.

15:53 CS: With my patient population a lot of patients are all over the country, and so they have access to different things. I think you made a great point because some of my patients will say, "Oh I've tried it, and it didn't work." Here we have this great research, we know the power of this medicine, so if someone tries something and maybe are not getting the therapeutic effect that we want, what are some things to troubleshoot? I mean, is it a cumulative effect? Obviously there's different products to try out there, but I just believe so much in this medicine as an option, and I think it's such a great alternative to so many of the prescriptions out there that I want people to really give this a good chance before saying something didn't work. I would love to hear your expert advice around that.

16:42 DC: Boy, almost every time people are having trouble with the product not working... The products aren't for everyone. We really have to start by saying that it's not a panacea, there's research surrounding Parkinsonian tremor that is positive and negative. And there are some people that benefit from their PTSD getting treated with cannabis chronically and some people that only use it to sort of open up their ability to appropriately squelch fear response right before a treatment session. So it's somewhat patient-specific in how it's being used.

17:23 DC: In that case it's important to be working with an expert and really trying to think about how to position it and to get the right product. I think a lot of times, the issue is that people don't titrate, they start at a low dose, they don't feel a result and they go, "Huh, that isn't going to work for me." But the titration often can take up to two weeks, starting with one dropper full, and then going up to two and three and assessing how it's working. And for some people, this entourage effect is very potent. If the CBDs don't work, then getting your medical marijuana certification card, and getting a safe a form of medical marijuana and then playing with the THC concentration a bit may give you a benefit where the CBD didn't.

18:09 CS: I know that we're talking about products that we can use that are in the tincture form, but are there more of these, such as edibles or vaporizing products? Do

you feel like that impacts how people respond at all, or what has been your thought around that?

18:47 DC: I think that whole area of edibles and different modes of administration is so exciting. If you're technologically inclined, I know a company who's creating a patch and you can administer the CBD via bluetooth through your phone.

[chuckle]

19:06 CS: Oh wow!

19:07 DC: Yes, which is just so remarkable. I don't know exactly how it's helping because basically everybody can put a tincture in their mouth, so I don't know what the value of that is, but it's exciting. And I've seen all the gummy bears. In states where there's legalization, the edibles are hugely interesting, there's I think CBD and cannabis-infused dried fruit, and fizzy drinks, and of course the brownies obviously, but all kinds of other baked goods. It's exciting.

19:43 DC: In New York we're limited to medical cannabis and we can get it in the form of a vape, you know, a vape pen or hard press tablets basically that look like a Tylenol, or in a tincture, which is usually the cannabis or CBD-infused oils, and it just depends on state to state. If your state has looked at cannabis and determines something about the legality, they've also made a decision on what kind of products they're going to allow you to access. I do like all of those choices, just because for some people it's more palatable. I'll give somebody a product and they'll go, "It just doesn't taste that good." And if they're having to take it three times a day to stabilize mood or manage PTSD symptoms, that's a lot of bad flavor. So to some degree, if that's a real turn off to treatment, it's nice to have some gummy bears.

20:42 CS: Yes, options right? I mean, patient compliance. I know we could have the best medicine in the world, but if it tastes bad to somebody and they don't want to take it, hey, it's no good, right?

20:53 DC: Right, I mean people have to want to take the medicine, that's for sure. And if that really is a significant stopping point, the thing about the tinctures is they're just so easy to titrate, one dropperful, two dropperfuls and when you start to take something as an edible, the onset of action is changed from eight minutes to 60-90 minutes. The duration of effect is possibly a bit longer, but it may be a little lower in terms of the intensity. In most studies, when people didn't like the results they got, they were almost all taking an edible. They selected an edible and then they didn't like it because you're 60-90 minutes out and you're still not feeling anything and that's frustrating for people. That takes too long.

21:48 DC: I would recommend when people are starting, for sure, to start with a tincture, and titrate a bit, figure it out, and then if you want to switch to an edible and see how that works, the time to do it is after you've titrated on a tincture.

22:03 CS: It sounds like you have a lot of experience in a lot of different disease conditions, but have you, with the people that you're gravitating towards, found a specific niche to serve? I know that you mentioned cancer, and your personal stories with your brother and with Fran, and this is such a need, there's so many tools needed for cancer therapy. Have you found that you've gravitated to serving a patient population or a disease condition, just for the listeners out there to feel supported or hopeful about what you've seen?

22:40 DC: Well, my background is really in understanding one particular drug. For a long time, for eight or nine years, I worked for Eli Lilly, and Amgen and Forest in osteoporosis and knew all of the osteoporosis drugs upside down. So that, for your particular patient, I could say, I know how to apply those drugs in those places. So that really is my area of expertise, to know the drug. Not necessarily in particular to medical

cannabis and CBD and neurologic disease, or chronic pain or cancer, but really to understand the application of that drug in all of those arenas. I can recommend what type of ratio of THC to CBD you should consider in your particular disease state, what's been studied, and what's worked, or a lot of times the difference is in the mode of administration. Do you need something urgent? If you have panic or anxiety attacks and you need to be immediately treated, that's a vape pen as opposed to an edible. So, I know the drug very well. And then its application across all disease states. That's the way that my brain works most effectively.

24:04 CS: That's great. I think it's powerful. And you made a good point before we started recording, about how a lot of people who have access to marijuana, they'll just go to their local store, where they can purchase and then they're relying on the person who's at the store rather than an expert. I want people to learn about where to find you and just how to navigate, how they can get an expert opinion and really make sure that they are getting the best advice and the best access while they're trying this therapy.

24:44 DC: I think a lot of times the person who is giving you your certification card, if you're only approved for medical marijuana and you're stating you can't pick it up recreationally, then you need to get a card, and that person is often pretty knowledgeable in how to help you with which product makes the most sense. The research is hard to comb through completely, and I hope that I can have a video for something that you have a specific concern about.

25:16 DC: My goal is to shoot a video every day of the year this year to launch for the medical marijuana and CBD community. And then hopefully, you can search that data bank and get great information. But you don't want to totally discount the value of your bud master even though they don't get a lot of experience. They learn quickly on the job, they don't get a lot of training, but they do get a lot of training in their day-to-day experience and by talking to other people on the job, and reading, and they end up being able to offer some pretty good valuable data surrounding medical marijuana and

CBD products. They're just often pretty busy. But working with your bud master is often times not a bad place to start if you can't find any other resource nearby.

26:17 CS: I know we can flesh some of these topics out on video, I think that's such a great goal. You could have 365 videos pretty soon, that's amazing. I admire that determination there. I know that it's not only in my patient population, it's really kind of an epidemic of Americans suffering from insomnia. What have you seen with cannabis and CBD with insomnia?

26:52 DC: You know, I just went through the most interesting study. In fact, this was my video today. [laughter]

26:58 CS: Oh, ESP, you know? [laughter]

27:01 DC: It was on Parkinson's Disease and insomnia. There's great data on cannabis and insomnia, but particularly, with Parkinson's, there's a parasomnia where people have very active dreams, kicking and punching and yelling. There was a case study, it's called REM Behavior Disorder, RBD, where people go into dreams, and they can have these very physically active dreams, and they've actually injured bed partners. It's a very serious parasomnia that's associated with Parkinson's. Actually, oftentimes, it precedes Parkinson's by a couple of years. All six patients in this case study had very severe REM Sleep Disorder had complete resolution of their symptoms with the administration of CBD.

27:55 CS: Wow.

27:55 DC: So it was amazing. One fellow actually injured his wife. He had four episodes per week, lasting two minutes per episode, where he would be fighting with an animal, or being attacked, or in an argument at work, just really vivid dreams, and all of that went away for him. Just a really remarkable outcome. People subjectively report that they sleep better, and they have decreased dream recall, where they're not able to

recall their dreams, as well as if they weren't on CBD or cannabis. That appears to be not specific to CBD or THC. I think if you're working specifically on insomnia, you could start with the CBD, and avoid having to get into the medical marijuana boondoggle of getting certified, and getting your card, and all of that nonsense. But you could start with CBD for insomnia and get, I think, really terrific results in a sense of a deeper sleep, and also in an attenuation if you have very vivid dreams.

29:01 CS: That's really remarkable. I know that, from my perspective, there's a lot of research now on traumatic brain injury, and I know that I've seen some research around cannabis and recovering the brain. Are you up to speed with any of that? Or do you have anything to share around traumatic brain injury and cannabis?

29:24 DC: Well, cannabis does appear to have a neuroprotective effect, and we're not exactly sure why. They initially thought it had to do with antioxidant effect because it is a potent antioxidant and perhaps, that was making a difference. But other studies that have looked at the application of Coenzyme Q10 and high-dose vitamin E combined with Coenzyme Q10 haven't shown a benefit. So it seems to possibly be operating through an attenuation of glial cell activation, or some changes to protein breakdown to the glutamate system. We really don't know. The short story is we really don't know, but there does seem to be a neuroprotective effect surrounding multiple sclerosis. We have great data. And one of the few diseases that has an approval and allowing to be used for medical cannabis, one of the few neurologic diseases; there's great data on that. And again, we don't exactly know why, but there does appear to be this neuroprotective effect with using cannabis that's independent of manipulating neurotransmitter levels, or it might be the immune system. I'm not sure.

30:49 DC: I think in a lot of cases, if you think back, cannabis has been under a prohibition since the 1940s. But our bodies, there's research, there's documents from ancient Chinese literature, ancient Southern Indian literature from 4000 years ago, from 2000 BC when they were using cannabis to manage appetite issues...

31:13 CS: Oh, wow.

31:13 DC: And nausea pain. Before there was a prohibition, this is a hardy weed, basically. You would probably have seen it in the ditch, driving through the country, and you probably inhaled a bit of the pollen twice a year during pollen season. So we may have, all of us, a bit of a cannabinoid deficiency just because of the prohibition, because we don't have access to just a usual concentration of a naturally-occurring weed.

31:51 CS: Wow! And when you think about the history from 2000 BC, that's a lot longer than any of these drugs have been around.

32:01 DC: I know when we're saying, "No, we need to study this in rats, we need to get more data," we don't need to get more data. We're talking about a 4000-year-old drug. It's probably fine to look at 2000 people who have this disease and follow a group of people and see how they respond. It seems unnecessary to circle back to rat models at this point.

32:23 CS: Absolutely, absolutely. I know it's something that a lot of people are struggling with...I'm sure you've seen this a ton with your expertise, but I know a lot of Americans are now struggling with anxiety and depression, that spectrum of emotional stress. What kind of tools have you seen, or how have you seen CBD and cannabis really being a helpful tool for anxiety and depression?

32:54 DC: I love CBD and cannabis in those environments, they are very helpful at helping to release good levels of serotonin at the neurotransmitter junctions and function in a similar way to the anti-depressants but with a different side effect profile. So I love them in those locations. The only caveat being that you have to be really careful with the administration of a lot of THC in the setting of a person with anxiety because that can really trigger an anxiety reaction in predisposed patients, and then you've caused more problems. The CBD in the case of anxiety is really the workhorse.

33:38 DC: So with anxiety, trying to limit the exposure to a high dose THC in that setting. Although some people will say that in severe PTSD, there's some research in using high concentrations of THC especially in the setting of treatment to try to make a treatment function more effectively. I think it just depends on the individual, and how they're going to respond. But I would start in that group with a CBD product, exclusive of the THC, or with a very, very limited THC product. If you were hooked on the entourage effect and you want a little bit to perhaps potentiate the whole process, then it's worth a try.

34:24 CS: Absolutely, and then you had mentioned that you work with some products that have adaptogenic herbs. I feel like that could be a good support for people who have anxiety and depression just because of the stress on their whole hormonal system. What herbs have you found or that are you exploring with cannabis? Do you have any that you think really works synergistically with them?

34:48 DC: Well, the adaptogenic herbs that I'm interested in or the people that are using them that are the experts in that area are combining these proprietary combinations of multiple different herbs that have this capacity to help you handle stress and anxiety and pressure a little bit better than you ordinarily do. For people who are trying to manage stress and anxiety, those adaptogenic herbs added to the CBD at least have an additive effect, and in my mind have the potential to have a synergistic effect, they could really improve the value of the CBD and help the product to work very effectively for people.

35:37 CS: I think that's a really great use of plant medicine, the combination. And typically I see people who are pretty sick, so usually a combination of things is what's needed to get them feeling better. Mary, you're the front line of sharing cannabis with the medical community, how do you see it from a political standpoint? Do you think that we're going to see more access in more states? I know it's still probably a fight in a lot of ways to get access, but what is your perspective? Not to get political, but I think just to help, for us to all understand where we're at with cannabis.

36:20 DC: I think everything moves through cycles, and I think we have great research that the whole cannabis use disorders, risks of dependence is very, very low. The lethal dose of cannabis, the amount that you have to smoke to die from cannabis administration is just not measurable. You really cannot overdose on cannabis. And in states where laws have been enacted that allowed people to use cannabis, there's been at least a stabilization in opioid-related deaths and in some cases, a small decline starting to be identified.

37:04 DC: People who use cannabis in chronic diseases similar to the MS we talked about earlier see reductions in their anti-depressants and their opioids and their benzodiazepines. So, there's a lot of people who don't want cannabis laws to move forward. The alcohol industry will often market aggressively against it, and of course the pharmaceutical industry because they don't want to see 77% reductions in pill administration, of course. So there's a lot of power against it, but there's quite a bit of energy and power mounting behind legalizing it across the country and making it available.

37:50 DC: With kids, our friend, Mary Agnes, she always says, "Please be a pothead.," so we don't have to worry about finding you dead from an opioid or a heroin epidemic issue. So in terms of something that's safe and has a really terrific side effect profile, and very low risk, it's a nice addition to so many different disease management protocols. It's a great product.

38:22 CS: Yes, when you just look at the risk versus benefit compared to a lot of the pharmaceuticals out there, it really is a no-brainer in so many ways. I wanted to do this session to obviously share your knowledge base, but also for people to really understand...Our system and our brains and our immune systems are set up to respond to this medicine, and if you're struggling, this is a really, really safe with little downside option to feel better. I'm so happy that there is more and more awareness and I agree with Mary Agnes in the sense that I'd rather my patients take marijuana than sleeping

drugs and pain meds, and all of these things so I think we're getting there. The message is getting out.

39:15 DC: Absolutely. I think all of those things myself and it's just worth a try. It seems expensive, I think, when you first look at it, it's a bit of an eye popper on how much these products can cost, but I'm also shocked at how much it costs to go see the doctor, and get your prescriptions. It's such an expensive process, western medicine, and if you can, to some degree, reduce the intensity of that expense with medical marijuana, I think that's possible, it is possible in a lot of cases.

39:55 CS: And people don't always see the cost of their side effects too from the drug...there might be a little bit more upfront expense to using CBD or cannabis but it's really negligible when you think about the cost of these other interventions.

40:13 DC: You're so right. The side effects of the sedation and the cognitive effects of so many of these medicines are more profound in more patients than we really give credit for. And trying to limit your exposure to some of these western medicine products... It's such a funny trajectory in your own career. When I graduated from medical school we were really taught that all of this was genetic, that people didn't have a choice, you developed heart disease, you developed cancer, a lot of it had to do with what your grand-daddy died of. I got to where I didn't believe that at all. There's so much that you can do with your own lifestyle, with your diet and exercise to shift the trajectory of your life. And then with time, I think it's a combination, I think that you can make some changes in your lifestyle that lead to better outcomes, but bad things can happen anyway. Regardless of all of the hard work that you do, sometimes bad things happen to people.

41:19 DC: And in that setting, being able to reach for something that is safe and effective, that has been around for a very long time, and is well tolerated and has a side effect of possibly making you feel good and sleep better, I mean, you've got to try. What would it hurt?

41:38 CS: Absolutely. Well, Mary, I feel like I could pick your brain all day and ask you a ton of questions, but I think you've given an excellent overview. To our listeners, I really would encourage everyone to dive deeper if this is of interest, and if this information resonates with you. Mary, how can people learn more about you and your work, and about these 365 videos that you're creating? How can people learn more about you?

42:06 DC: Well, you can go to my website, it's www.drmaryjanemd.com. You will have access to all the videos there and any other great goodies that I can share.

42:35 DC: It's funny because people think my name is Mary Jane, and no, I'm Dr. Mary, but I thought that Mary Jane just sounded so fun and then it turned out that that was available.

42:52 CS: Awesome, great. We'll put that in the show notes. I just can't thank you enough for your time and I'm really excited to get to know you more and learn more about your work, and really work together so we can help more people.

43:05 DC: Absolutely, thank you so much.

43:07 CS: Thank you Mary.

43:10 CS: Thank you for listening to The Spectrum of Health Podcast, I hope you enjoyed my conversation today with Dr. Mary Clifton. If you want to learn more about

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