

## Radical Remedy - Michael Max Transcript

This is a re release of Dr Chloe on Qiological - hosted by Michael Max

0:00:01 - Chloe

Hey guys, it's Dr Chloe and you're listening to the Radical Remedy Podcast, so today's episode is going to be a little bit different. Instead of me interviewing somebody, I'm re-releasing this episode of Qiological, where my friend Michael Max was interviewing me on the benefits of CBD, and it's really a conversation that's geared more towards practitioners. So I am not going light on the science in this one, but I really think that you'll all be able to get a strong sense of how essential CBD and hemp is in order to potentiate your brain and your body, reduce inflammation, support immune health all of the incredible things that it does. I mean truly. I have been nerding out on this science for years now and it just continues to blow me away.

Let me know what you guys think and if you want to learn more about Chinese medicine, check out Michael's podcast, geological. A lot of the things may be sort of over your head, but you'll also just gain such an incredible insight. He is such a wonderful podcaster and interviewer and I hope to have him on the show very soon as well. Sending you all so much love, please like, follow and share if this is helpful for you. Thanks so much.

0:01:10 - Michael

I'm Michael Max and this is Qiological. In the past few years, CBD has burst onto the scene and is touted as everything from a cure offer anxiety to a regulatory substance that holds the potential to help in the treatment of a vast array of modern illness. In a moment we're going to get into a discussion of CBD with Chloe Weber and tease out what acupuncturists need to know about this medicinal. Chloe brings the perspective of a Chinese medicine herbalist as well as that of a concerned mother looking to help her child with a rare neurological condition. I so appreciated this opportunity to take my vast ignorance about CBD and be able to ask some questions and better understand this particular medicinal, its effect on our nervous system and how we can think about it from the Chinese medicine perspective. Chloe Weber, the radical roots lady, welcome back to Qiological.

0:02:06 - Chloe

It's my pleasure to be here. Thanks for having me, Michael.

0:02:09 - Michael

It's always so much fun. Hey, today our topic is CBD. Now CBD, holy smokes. It seems to me that CBD is everywhere. Everyone kind of knows about it. It's like a big thing. It seemed to come out of the blue just a couple of few years ago. When you say CBD, everybody kind of like sagely nods their head. How do we know that people know what they're talking about with this CBD stuff?

0:02:36 - Chloe

Well, we're learning. Cannabis obviously has been a plant that's been around for millions of years, and so much so that we actually have receptors for it in our body. Research found out about the endocannabinoid system about 20 years ago, 25 years ago. Who was doing that research, do you know? I do not know Offhand, Michael, though I did research some of it last night, but I don't know where it came from actually, but it was early 90s and I can send you a link to one of the research studies.

0:03:05 - Michael

That'd be great. We can put it on the show notes.

0:03:07 - Chloe

Totally, but they found that we have different receptors throughout our body and mainly in the endocannabinoid system. The receptors are CB1 and CB2 receptors. The CB1 receptors are primarily found throughout the brain and the nervous system, whereas the CB2 receptors are found throughout the rest of the body and especially within the immune system. It's pretty cool how these two work together. We actually make our own endogenous cannabinoids. Those cannabinoids are called anandamide and 2AG, which is a very long technical term. We're just going to stick with the 2AG. These cannabinoids that we make endogenously are used in order to regulate our system. It's fun when you look at it. I was reading a study talking about the Goldilocks zone. I'm not all I could think about.

0:03:54 - Michael

Yeah, I'm a fan of the Goldilocks zone.

0:03:56 - Chloe

Exactly, but it's really again the middle way. We bring it back to Chinese medicine we're talking about. We're trying to find the balance within the body, we're trying to find homeostasis. We're trying to keep things, whether it's the immune system and the immune response. We want to activate the immune response but we don't want a hyper response. There's a lot of research coming out that CBD might be able to modulate the cytokine storm with the rona or with autoimmune disorders. That's pretty cool and really interesting. It's bringing the body back into balance.

What we're finding with cannabis and with hemp is that these exogenous cannabinoids, which are from plants, are able to activate the CB1 and CB2 receptors in different ways. The THC actually works directly on the CB1 and CB2 receptors, which is why you get the psychotropic effect, whereas CBD what it does is, it seems, to break down this enzyme called the FAAH enzyme, which is involved in breaking down anandamide in the brain. By breaking down this enzyme, it allows there to be more anandamide in the brain. You have these other downstream effects from having the anandamide more available in the brain, in the body and in the nervous system and in the immune system. It's pretty interesting. Yes, we're learning what there is.

There's lots more research that's coming out. It's really really cool and exciting, although one thing that was pretty disheartening is that I've been doing more research and a lot of the research that's been coming out has now been on some of the pharmacological derivatives of cannabis. There's a drug called epilodex by GW Pharma, which is a CBD derivative. It's just an isolate of CBD. Then there's the TVACS, which is a nose spray which is used more for neurological conditions Well, not that epilepsy is not a neurological condition, but for more like MS and Parkinson's and that has THC in it also. A lot of the research that I saw that's more recent has been focused on these two pharmacological drugs, which we can get into. The difference between all of that.

0:06:06 - Michael

Yes, I want to get into those differences. We're going to do that a little later in the conversation. Of course, it's not surprising that the pharmaceutical industry we try to find the magic molecule. It's their business, it's what they do. They do it pretty well. Then it's patentable so they can make themselves some money.

The thing about the natural medicines, these full spectrum things that we do whether it's with an herbal decoction or the CBD that you're using, or people sitting back and smoking a joint, for that matter is that you're getting this whole symphony of constituent substances. Like you were saying, they might have one effect in the brain, but then there's downstream effects. It's like everything interacts with everything. Of course, it makes it very hard to study in some ways, but we know that, human beings being the complex organisms that we are and nature being the amazing complexity that it is, that there's all these different ways that we can find out how things interact with each other. Like you were saying, we have this endogenous cannabinoid system.

How did that get there? If it didn't have a purpose, it wouldn't be there. Of course, we can make these endogenously ourselves, because if you got receptors for something as close as you need it for a reason. The amazing thing about the natural world is there's all these substances. They're in resonance with us, so to speak. By ingesting them, it up regulates something in us. It's not that it's putting something in us that's separate from us, but it's up regulating something that's all ready there. It's like it interacts with our junkie.

0:07:52 - Chloe

Totally. I've read a lot about the idea that we have an endocannabinoid tone and that our society is living in an endocannabinoid deficiency state. Basically, we used to have hemp in almost all of our food. This one study showed that chickens used to eat hemp for their feed and then in every egg that was laid, there would be 500 milligrams of CBD in there, and then it would be decarboxylated when you cooked it.

0:08:21 - Michael

No, wait a minute. What does it mean that it's decarboxylated? So this is actually that sounds illegal.

0:08:28 - Chloe

No, this is actually interesting in terms of pausure for Chinese herbs With hemp or cannabis. Basically, we have all of these cannabinoids and they're normally in one state. It's like THCA and CBDA and whatnot. What you do is you heat it up to a certain temperature for a certain amount of time. They call that decarboxylating. It creates this chemical reaction and changes these chemicals into different chemicals, makes them differently bioavailable and have different actions in the body. I always think that's so funny and I've always really wanted to play around with pausuring the hemp before we extracted it, but I just haven't gotten around to doing it yet. Maybe that'll be a weekend experiment next week. Basically, since our cannabinoid system is used to bring our body back into homeostasis, we create more endocannabinoids when we're stressed or when we're under stress, which clearly our society is slightly stressed these days particularly.

0:09:31 - Michael

Particularly here. Covid, in an election about to hit as we record this.

0:09:37 - Chloe

Oh yeah, so everybody is using all their endocannabinoids, but that enzyme that I mentioned before, the FAAH, and another enzyme called MAGL break down the anandamide and the 2AG. So instead of like with hormones or with neurotransmitters, those chemicals stay around. With endocannabinoid system, we have the receptors, we have the endocannabinoids and then we have enzymes that break them down, so they don't actually stay in our system for a long time. They're broken down after they're used.

0:10:09 - Michael

So, once they're broken down, that's it, darn. You need a new supply.

0:10:13 - Chloe

Exactly so then when you're super stressed you're sort of running through those stores, those endogenous cannabinoids, and that's why we're seeing such remarkable results with so many of the CBD products and with so many patients who we have who are being put on CBD because they're actually at this deficient state. Though it's new research and it's interesting to quantify and all sorts of challenges with that but it does make a lot of sense when you sort of look at the chemical reactions within the body.

0:10:45 - Michael

I got a question how does our body make those endogenous cannabinoids? Do we know the mechanism for that?

0:10:53 - Chloe

Not that I know of. I have no idea how we make them.

0:10:58 - Michael

I hear you talk about it, that we have them, and it makes sense to me that we would be able to naturally generate them, again because we have the receptors. If you have a receptor, it means that there's a use for it, it means that there's a way the body interacts with itself. But I was just wondering, yeah, how is it that the body makes that stuff?

0:11:18 - Chloe

It's a really interesting question. I honestly haven't come across anything about it. They're just chemical receptors that lock and key fit in with these receptors, so I'm not sure how we make them.

0:11:33 - Michael

I don't either, but I was just thinking if we knew that? I don't know, I'm supposed to pull something out of my head. Meditation, it's like if you quiet down, you had a certain kind of nervous tone. Maybe the body secretes things that it can't secrete when your cortisol is higher, or something. I don't know. I'm just talking off the top of my head here, but yeah, so it's a question that I've got.

0:11:55 - Chloe

I do know that there are various things that affect the amount of endocannabinoids that we're making and how we're activating the endocannabinoid system. So actually I don't know if you've had Aela. I love Wolf on your show.

0:12:10 - Michael

No, I don't think so no she's awesome.

0:12:14 - Chloe

So she does a lot of functional neurology and she recently did a course on using electrostim at PC6 in order to activate the endocannabinoid system in order to alleviate pain. So that's really interesting and makes a lot of sense in terms of when we're putting needles in the body, we're calming down the nervous system and I feel like that sort of thing also allows the endocannabinoid system to get its bearings and start regulating itself a little bit. I feel like, intuitively, as we're in this go, go, go society, the more that we can slow down. I also just heard Wim Hof. I don't know if you know of him. He's like the weird.

0:12:56 - Michael

Oh the Ice man.

0:12:57 - Chloe

The Ice man breathing guy. So he was talking recently on a podcast I was listening to about how his breathing techniques activate the endocannabinoid system and he didn't go into how or why and I didn't look into it quite yet. But it would make sense to me again that the more we can sort of regulate our nervous systems and tap into that, the more our body has the ability and the chi in order to regulate our systems in that way. And it makes sense that the endocannabinoid system is sort of that bridge.

0:13:28 - Michael

Yeah, I can see that, but today we're mostly going to focus on these endogenous ways of getting these substances into our body, and thank goodness we can do it these days. So you live in a state where if you want to smoke dope for recreation, great, go down the street, you buy it. There's a number of states like that. I don't live in one of those. It's unfortunate.

Well, but Illinois has a recreational marijuana line you can like go across the river. When I was a kid, we used to go to Illinois because the drinking age was 18. You know now we go to Illinois for that if we want it. It's a good thing. Illinois is there, but increasingly these things are available, but in many places they're not, and so, like here in the state of Missouri, for example, we can get CBD from hemp but we can't get it from cannabis. So these two things are super similar, but they're also different enough to like get your butt thrown in jail, you know, in the wrong circumstances. So what is the difference between hemp and cannabis, and does the CBD from these two plants differ in any way?

0:14:42 - Chloe

No, so the thing with cannabis versus hemp is really just the percentage of THC that's in the plant. So I remember somebody explaining it to me. As they're all dogs, like you know, it's all the same family of cannabis, but the THC is sort of just bred out. So we're getting rid of the pit bull or whatever the psychotropic effects. But so hemp is technically and legally classified as hemp as long as it has less than 0.3% THC in it. It's the same plant, it's the same family, it's just one has less THC and more cannabinoids. The other one's going to be bred more for THC.

There are different breeding techniques and it's interesting because Eric Brand, his article on the history of Chinese medicine and cannabis, does show that Chinese medicine back in the day was differentiating between the male and the female strains of cannabis, which traditionally or you know when you do growing techniques the female plants are typically higher in CBD. When they're fertilized by the male plants, their CBD counts go lower and there's more THC versus the male plants are often higher in THC, and so there are different growing techniques to do.

0:15:57 - Michael

Male plants are higher in THC.

0:15:59 - Chloe

Yeah, typically males are higher in THC, I believe, and the females are higher in CBD, but there's all. They're fertilized, yeah. So it can get sort of tricky. I'm definitely not a farmer. I would kill them all. I've got two cats, a dog and a kid, and I can't keep a damn plant alive for longer than literally a day. So that's definitely not my level of expertise. But it is cool to know that in Chinese medicine we were looking at all parts of the plant as we would, because that's our expertise. And so we had mabo, which was the marijuana plant, I believe Ma-fah, which was the no, ma-fah, which is the flower, and then ma-fen. I think ma-fah was the CBD, ma-fen was the marijuana, and then ma-fah.

0:16:50 - Michael

Ma-fah would be the flower.

0:16:51 - Chloe

Ma-fah must have been the marijuana flower. Ma-fah must have been the hemp as an industrial plant which we can use for clothes.

0:17:01 - Michael

I wonder if it might have been the no that would have been ma-gun, maybe for the root. I think it is.

0:17:06 - Chloe

Yeah well, and then we obviously have homo-ren for laxative purposes.

0:17:11 - Michael

And then there's the seed. So how does the seed play into this CBD world, if it plays at all?

0:17:17 - Chloe

So the seed is what we make hemp oil from. So a lot of times it can be really confusing because, due to the FDA regulations, CBD companies like Radical Roots we can't say CBD anywhere on our labels, anywhere, because there are pharmacological drugs that are being made specifically from CBD. We cannot make supplements around that same constituent. So it's this weird I wouldn't say loophole it's potentially discriminatory process in which the government provides preferential treatment to farm companies in order to sort of make more money off of these patents on these things. So we can't say CBD on our bottles because then we can get dinged from the FDA or confiscated or whatever. So on all of our bottles it says 500 milligrams of complete spectrum cannabinoid rich hemp or some sort of variation of that you're going to see on really high quality products, especially with people who are concerned about getting their stuff confiscated. If you have a big enough company, a lot of them don't care, but I do care about my products. I do want to keep the company.

So when you see hemp oil, a lot of times people think that it's just hemp oil that you're getting to cook with. But that's different. So hemp oil that you're cooking with or hemp oil that you're using topically, say for eczema, or you can use it for acne. That's mainly made from the seed, as far as I know. But I don't think that the seeds are used in terms of the extraction very much whatsoever. We'll leave some of the stems in some of our extraction techniques so that we can get more of the minerals and other phyto cannabinoids and stuff out of the stems, but the seeds we don't really use.

0:19:10 - Michael

This is exactly the kind of stuff I want to talk about because, like I said at the very beginning, CBD is a very popular thing these days. You mention it and everybody shakes their head like they know what it is. If you really begin to scratch below the surface, it's like well, I actually don't know much about this, other than some things that the industry has been telling me. But how do I know I can trust that? Because it's just stuff that I've heard from the industry. Just because it's an industry made by people who I happen to be in alignment with, why should I trust them any more than any other industry that's putting out their information? I think it's really helpful to have these kind of conversations, like you are having today, where we can really dig into it a bit, because I think people think they understand a lot when they actually don't.

0:20:03 - Chloe

I also think that, as herbalists and practitioners of traditional Chinese medicine, we are the experts in herbal medicine. I can't think of any other field that has as much herbal training as we do when people are taking these plants and taking these herbs. We are the people that should be leading this revolution, because it is a plant that's really phenomenal. It's really

helpful, it's really versatile and really really incredibly safe, but there are circumstances in which it's not safe. There are ways to potentiate it, there are ways to down-regulate it. There are ways to do it responsibly. I think that that's part of what I hope to do in terms of helping other herbalists realize not only the power of this plant, but the ways that it can help your patients and the ways that it can also harm them. I'm really happy that we're having this conversation too.

0:20:56 - Michael

Yeah Well, speaking of contra-intocations, again, I don't hear too many out there in any of the I was going to say literature, but again, most of the literature is advertising. What are some of the possible downsides of CBD? Where would you not use it? Where do you want to be cautious in using it?

0:21:19 - Chloe

So CBD acts on the cytochrome P450 enzyme in the liver, which is how about a quarter of our pharmacological drugs are broken down, so it can increase serum amounts of multiple drugs. This I've found to be incredibly helpful, actually, when working with patients and in conjunction with their doctors, ideally to reduce the amounts of the meds that they're on. So it's going to potentially increase the serum concentrations of calcium channel blockers, benzodiazepines, antihistamines, antiretroviral, some statins, but not all, which is very interesting. It depends on how they're being metabolized. But also the one that I found to be most helpful is that it does increase serum levels of most SSRIs and antidepressants. So, particularly since CBD works on the 5-HT<sub>1A</sub> axis in the brain 5-HT<sub>1A</sub> pathway, which is the same pathway that SSRIs work on, it's a really phenomenal way to help wound patients off of those antidepressants and really help support them in a more natural way, because most of those meds are not meant to be taken long term and we all know many people are on them not only long term but are on multiple variations of them. So you do want to look into the herb drug interactions.

Generally it's very well tolerated and complete spectrum hemp has been shown in many research studies to be much safer and much better tolerated than the isolates again. So, especially when I'm looking at seizure disorders for Remy, for my son who has a seizure disorder, for anybody who doesn't know if that's why I started the company, when I'm looking at Epilodex and talking to other families about their experiences with Epilodex, which is the isolate derivative, the studies are just really night and day when you see how much more effective, how much safer and how much less complete spectrum hemp extract you need versus the isolate. I looked at a meta-analysis that showed that comparing Epilodex to complete spectrum hemp extract for intractable seizures, and the kids on Epilodex were on 25.3 milligrams per kilogram per day versus the CBD extract, which was 6 milligrams per kilogram per day, the side effects and the serious adverse side effects were in proportion to that also. So I think it was, let's see. So the CBD had 33% of the patients had mild side effects and 7% had severe side effects, versus Epilodex. Isolate had 76% mild side effects and 26% had severe side effects. A lot of that has to do with liver and kidney function.

Again, it's that entourage effect which is always so funny that everybody's so excited about the entourage effect with hemp, whereas obviously, as Chinese herbalists, we're always talking about the entourage effect, not only within one plant, but within the whole formula. It's really the whole is so much safer and so much more effective than the parts. That's being shown in a lot of research. Although apparently some people don't care, doctors still typically prefer to prescribe the Epilodex just because they feel like it's a more regulated product, which is true and is an issue with CBD companies, because FDA does not regulate them in a way that they're necessarily consistent, which is pretty essential, especially for epilepsy.

0:25:02 - Michael

Yes, well, especially for something like epilepsy or other very severe conditions. This really raises the point as well how do you know that you're getting a good product, that you're getting a good, clean product? How do you know? I think every company says ours is the best, we're, we got high potency. I mean everyone, when I don't think anyone's gonna say, well, you know, we kind of cut some corners, but we're gonna sell it to you for half the price, so you want that. Right now no one sells their stuff. All right, everybody says I've got this great product is high quality.

So a couple questions. Number one how do you know what high quality is? How can you actually assess a company and know that it's high quality? And the second is there are different methods of extraction. I suspect they all have their pluses and their minuses. So could you speak to us a bit about how the CBD is taken from the plant, the different methods, the, the things that you know maybe are more natural or more safe, and the things that might be. You know maybe have some issues want to watch for?

0:26:10 - Chloe

in terms of extraction, there are a couple of different main. You know main ways that you're gonna find CBD. So CO2 extraction is one of the most popular ones out there. So that's using carbon dioxide, which is a liquid gas, and it extracts not only but it only extracts the non-polar chemicals, so it's not water soluble and that technique is really. It's very clean, it's very efficient. You get a high cannabinoid Account. They get really consistent results from doing the CO2 extraction and it's very clean. So that's used very commonly and a lot of people tout that as sort of the gold standard.

0:26:48 - Michael

And that's for the fat soluble. Those are that, that's for the lipid.

0:26:51 - Chloe

Yeah, that's where you're getting the lipids, but I'm not getting the water soluble, so you're not getting all the aspects of the plant and Some of the terpenes are lost in there, and so it's really you know that's. That's really unfortunate. Although there are there are clean products, they're typically well regulated. It's a very expensive process. So you know, there are people who are investing a good amount of money into their product mine, although, you know again, I think I think I saw a study that said that about 70%, if not more, of CBD products on the market are white-labeled. So at this point there's just a bunch of really big companies that are just mass producing a bunch of CBD and selling it out.

And you know, I remember, even when I was starting radical rudes, I had so many people just be like, just get it from here and slap your label on it, you'll be good, and I was like no, the whole point is like I want to see the dirt, but I want to know the farm. I want to be a part of every step of this Herbalist. Yeah, I'm a big nerd and a little crazy, but, um, but yeah. So then the other Extraction. So ethanol is also another common one, um, and that does get both the polar and the nonpolar Aspects of the hemp out, so that can be really, really effective and really beneficial. But you've got to make sure that you're doing you working with somebody who's doing it very cleanly, so that there are no residual solvents at the end. You know radical roots. We take a different technique and we use an alchemical spajeric extraction which is, if used by many wait a minute, say that again.

0:28:24 - Michael

I missed that word.

0:28:24 - Chloe

I'll chemical spajeric extraction.



0:28:28 - Michael  
How do you say it again?

0:28:29 - Chloe  
spajeric sp. Why er I see?

0:28:34 - Michael  
okay, spajeric, I'll chemical spajeric. All right, now you got my attention. What the heck is that?

0:28:40 - Chloe  
It's used actually in Germany a decent amount. I had a couple of of Of my teachers would talk about it for herbal extractions back in the day when I was in school. But basically I have this brilliant chemist business who lives up in the mountains in Colorado and so with spajeric extractions it's the spiritual but also all chemical techniques. So they take the herbs and they tincture it in a organic ray bath and all. So we're extracting all of the what they consider the spirits, but basically the, the polar and the nonpolar aspects of the plant, and then they burn the plants for six to eight hours from the ashes he uses water to reconstitute all the salts and minerals and puts it back into the tincture. And so when you put the salts and minerals back into the tincture, you know spiritually it's combining them, the body and the soul, back together to create sort of this perfect, magical, uh herbal remedy. But also there are these crazy chemical reactions. So you can watch it when it's happening. It's really cool. You see all these like bubble, it like starts bubbling and boiling and and to me, since hemp is such a mineral rich Plant, it's really, really essential to me to have the minerals in there as cofactors in order to potentiate the actions of the Hemp, because, as an herbalist, I really feel, like you know, those minerals wouldn't be there if they weren't a part of the healing Properties, especially with a plant with such a long and beautiful tradition of healing. So so I love the spajeric extraction.

I'm obviously biased, but I'm really, really proud of our products and, you know, as an herbalist who's tried 20 to 30 other other brands, I really definitely stand behind ours. But there are other I'd like to shout out. Stacy Donaldson is another practitioner, a really brilliant herbalist, and she's in longmont and she has A good life botanicals, which is a really wonderful topical product. I think she combined forces with mark Benson Bryson I forget his name who has the evil bone water, and they did a collaboration. I need to get that guy on the show.

Yeah, yeah, he's a riot, but yeah, so there there are other practitioners out there who are doing some really, really great stuff, and you know other companies that I really like are Haley's, hope and uh, Paul Metal, harmony, cw. But so the extractions one thing that's important to look at. The other main thing that you always want to look at is that the company is transparent when it comes to their certificates of analysis. So With hemp, as I was saying, since it's a mineral dense plant, is a Super accumulator, so it pulls up toxins from the earth. I was wondering about that.

0:31:27 - Michael  
Yeah, right, as I was listening to you talk About this fantastic alchemical I still can't pronounce the word, but I'll learn it later Process. I was thinking, okay, you're extracting some very important constituents. I could see them being okay. You got the polar, non polar. They're going to be very bio available. But now you're bringing in this other piece. If that thing grew up like by the side of a road, versed like out in some really clean area, you're probably getting all that Stuff from the highway, all of it.

0:32:00 - Chloe  
Yeah it's terrifying. I mean, that's that's my main fear with the mass produced subid is that it's not being tested and many people are taking this, as you know, sort of a self medication, a last resort or for neurological conditions. And adding heavy metals, adding glyphosate, adding all

of that stuff is Is really just going to compound the issue and a lot of you know CBD is not a cheap supplement and if it is cheap it's probably not worth buying. It's cheap. You probably want to give it a pass, but it's.

It's non cheap supplement and you know a lot of these patients are really desperately looking for, for help and support, and so the the idea of them getting further chemicals to to pollute their system makes me very concerned. But so we can, basically every every time that you make a CBD product, just you have to get some testing done. So I have to prove, you know, I have to make sure that there's, you know, in our bottles that have 500 milligrams. I have, but I have to prove that there's 500 milligrams of temper within 5% or 10% of that number. My extractor is very OCD, so he makes sure that it's within a very, very small margin of that. He's always like way beyond any expectations. And then you also have to show that the THC is less than 0.3%, is it? Is it 0.3 or 0.03?

0:33:20 - Michael

Yeah, it's less than 0.3.

0:33:24 - Chloe

So it's less than 0.3 percent. Okay, that's that's what I was thinking.

0:33:28 - Michael

Hey, when maybe my math brains better than I thought it was I um. Anyway. So it's a very, very tiny amount. It's a very tiny amount.

0:33:38 - Chloe

Oh, so we have to do the test to make sure we don't have too much THC in there. Otherwise we obviously can't do that. So that's another thing to look out for. Also, if you have A hemp extract that has a tremendously high amount of CBD in it, they're probably dumping a bunch isolate into the full spectrum hemp extract, so they're saying it's full spectrum. It's probably like partially full spectrum and then a bunch of CBD in it Partially full spectrum and then a bunch of CBD isolate on top of that, because that's going to make it really cheap and you can really say like I have 1500 milligrams there was.

0:34:17 - Michael

There was a glass blower in the Seattle area. They actually did very, very, very well for themselves after Mount St Helens blew up Because they put a little bit of them out. They put some Mount St Helens ash in their glass. Then they sold it as oh, this is made from Mount St Helens ash. Well, the ash from Mount St Helens made really ugly glass. So they put in just like a tiny little, like. It's just enough to say it was in there, right.

0:34:40 - Chloe

Exactly.

0:34:41 - Michael

Um, which is brilliant marketing. It's very good marketing, it's brilliant marketing. And they did blow some very pretty class. So they're. You know they had, they had that going for them. But back to your thing here. So there's full spectrum and there's isolate. Isolate is where they're just pulling out. It's just CBD, yeah, just the CBD. And then the full spectrum is where they're like tincturing the entire plant.

0:35:06 - Chloe

Yes, exactly. So there's CBD and THC are two of it's unclear, but somewhere around 115 different cannabinoids that are in the plant. So you know, along with the terpenes, which are sort of the essential oils that are in the plant, that gives it all that smell, um, and the variation in

the effect. So you know, you can, there's significant variation in the effects of the different types of plants and a lot of that has to do with the, the terpene profile of each plant. Full spectrum is the whole plant and has all the cannabinoids, terpenes, phytochemicals, all of that Um, and then the isolate is just the CBD extract. You can buy that, you can put it in water, you can, you know, modify your products. Uh, it's sort of a cheap and dirty way In my estimation.

0:35:56 - Michael

Yeah, well, it's like okay, so there's some toothpaste and it's got CBD. They're probably they're they're using the isolate.

0:36:01 - Chloe

Exactly yeah.

0:36:02 - Michael

Yeah, they can. A soft drink? Oh, it's root beer with CBD.

0:36:07 - Chloe

It's the isolate dude, I went to a CBD convention in New York like last year and I was I was super daunted by how much money all these companies had, because people are just Pounding money into CBD and then being so disturbed by the products they had, like CBD slushies and I'm like, so you're putting in CBD into this? Like literally like blue, bright blue Slushy filled with sugar. I'm pretending that this is a health product, like it's just, it's absolutely, absolutely insane.

0:36:39 - Michael

These are funny, aren't they?

0:36:40 - Chloe

Oh my god, the marketing thing it's. It's very hard for me to comprehend.

0:36:45 - Michael

Actually, I'm not sure it's the marketing thing that's hard to comprehend. People's Greed, I think, can be hard to comprehend and and I don't think marketing necessarily equals greed, although in many people's mind it does oh, marketing, you can't trust them. Well, many times you can't, but many times marketing is really about Like getting a clear message out to the people that you want to help. That is also marketing. Oh, totally, we really need to differentiate there.

0:37:11 - Chloe

Well, I think marketing, marketing is massively important but, like you know, if you're marketing a slushie as a health drink, it's a little bit disturbing.

0:37:21 - Michael

I would call that delusion. You're like you can. You can keep this very unhealthy lifestyle that you've had, but now you can feel better about it because we just put an isolate in here that is supposedly good for you.

0:37:35 - Chloe

Well, and that's. I mean, that's so much of what our society is doing in terms of health fixes. It's just looking for that quick fix, which I do think that CBD, as a trend and as a Supplement, can be used to help support the body Very quickly and very efficiently in order to help give people the space in order to heal and to take those next steps, but I obviously don't think that CBD is a one-size-fits-all Heal everything type of plan. I think it's very supportive and very

helpful and very safe for for most people, as long as it's a high quality product. Um, but it's not this. You know, you know this quick fix that people are always after. You know a lot of people. You know, you know how it is with acupuncture herbs. You know you put needles in somebody and they'll say, well, you know it helped this, this and this, but I still. You know, I still get my period and you're like, well, cool, you're still gonna get your period, or Question is are you getting it on time and is it comfortable?

Or you know, I still have allergies and you're like well, I never said I could get rid of your allergies, but I said I could support your body and, you know, help with other things. So I'm back to the COA is? I just want to point out that, like you, should be able to go to every website and Look of the certificates of analysis.

0:38:57 - Michael

So it should be on the website and should be visible on the website.

0:39:00 - Chloe

You should be able to find it like if you go to not.

0:39:02 - Michael

You should question that company.

0:39:04 - Chloe

Yeah, or you should email them and say, hey, I'd like to see your COA is, especially if you're an herbalist and you're recommending this to your patients. You know I take it very seriously what we do with our products in a because I care and be because a lot of acupuncturists prescribe our formulas and there's no greater honor to me than to have my colleagues prescribe herbs that I've created and that I've put together. So I would never, ever, put them in a position of giving out to their patients anything that was less than as Immaculate as I could make it. But on the C ways, you should be able to see testing for heavy metals, which is really important again, because hemp is going to bio accumulate any of the heavy metals in the areas pesticides, molds, mycotoxins, like all of it. So. So if you want to look at a good example, you can check out radical roots.

Again, there are other great products out there. I'm not just trying to plug mine, but but you can see a COA on our website and you can sort of get an idea. It shows which terpenes are in which formula, which it's fun because the herbs are in those formulas. So the Chinese herbs that we have in the formulas also have terpenes in there, so that's cool to see how that modifies some of the different formulas. But you can just see a good example of you know what you do when you're testing for everything what you should be looking for.

0:40:23 - Michael

You're trying great Terpenes. I've heard this term. Isn't that where, like a lot of the sort of fragrance comes from, almost like that perfumey aspect?

0:40:33 - Chloe

Mm-hmm.

0:40:35 - Michael

Certain plants really have it in them, other plants not so much. Obviously Cannabis, you know, it's incredibly fragrant, it's quite fragrant. Yeah, it's incredibly fragrant. So, Biochemically, bio functionally, why are these things important?

0:40:55 - Chloe

Well, terpenes have, so they have their own mechanisms of action also. So you know we can find terpenes in almost all plants. Pineal is one of the ones that you're commonly going to see in CBD and that's in pine trees also. A lot of these are sort of what we think of as essential oils or volatile oils. You know, again, if we bring them back to Chinese medicine, we think of these as the type of things that we want to cook in last. So, like the mint, you know, like we want to make sure that works, we're very careful and delicate and extracting these oils and doing it the right way. Otherwise they're not done right, which you know brings it back to the CO2 extraction, which doesn't do a great job of preserving these particular parts of the plant. But so these terpenes can really help potentiate the different actions of the hemp. And so you know, if anybody who's listening, or if you've, you know, maybe smoked Per se marijuana at some point in your life and Smoke different types of it, you're gonna notice that it's gonna have different effects. That's mainly based on the terpene quality. So, say, I have One terpene mix might have, you know, herbs that are really antiviral and also really calming of the mind and calming of the Shen.

Other ones might be really, you know, uplifting and might really affect the immune system and be more of a cheat on it. So it's really trying to find the balance and that's been something that's been fun is Trying to find different formulas to potentiate the actions of the Chinese herbs and make sure that the the terpene profiles Match. What we're doing but it's, you know, as I said, we have terpenes in our Chinese herbs. Also, we have terpenes in a lot of our our vegetables and foods that we're eating. So it's it's cool.

0:42:39 - Michael

So certain terpene profiles Will have like a spirit awakening effect, mm-hmm, I'll have more of a calming effect and I Mean has this been researched or are there ways of knowing? Oh, this profile Tends to bring this interaction in people.

0:42:57 - Chloe

That profile tends to create this interaction of people so each terpene has been studied sort of more individually. So like Mercy, and is one of the most abundant terpenes in cannabis and it's musky and it's sort of got that like clovey smell. And this one's been studied to reduce inflammation and chronic pain. So mercene is in a lot of hemp plants and that's one of the ways that it helps with inflammation. Limonene, which is, you know, obviously has a citrusy smell that one's used often to boost the mood, which you know if you think in essential oils and like if you smell lemon, it's gonna boost the mood either way and helps with stress. It also has antifungal and antibacterial properties. So a lot of them go in alignment with sort of what we know about the, the reactions of the plants that these Terpenes are found in. So like lemons with antibacterial and with the antifungal and also boosting the mood. So it's you know they're. They're studied more separately but then you can see them in in the COA is and sort of get an idea Of what's going on.

It's not something that we've gotten really specific with as a as an industry like. I don't think that many Companies are able to really potentiate those quite the way that we want. We're starting to see more companies like radical roots, where they're adding different phytochemicals and different Vitamins and supplements to the head to potentiate the actions, but I hadn't seen many that have really done much work in terms of potentially any specific Terpenes, although there are some supplements where they'll have CBD with Extra terpenes added in. So that's the people can look into. I think Chad Connors might have some. I might be making that up, though, with his Pure ratios.

0:44:44 - Michael

He might. I mean, I know he's all he's, he's also gone deep into it. Mm-hmm. You were talking a bit earlier about Potentiating effects, how to potentiate CBD. I've heard that a little THC will very much help potentiate CBD, but I'm in just Hearing you talk about the terpenes and you're

gonna talk about Chinese herbs for that matter. It sounds like there are other ways of potentiating the effect of CBD.

0:45:12 - Chloe

The thing with adding THC is that the THC actually acts directly on those CB1 receptors we talked about earlier, whereas CBD doesn't. So having even just a small amount of THC in a product really helps increase the effect. So I think that that's part of the reason why, especially in epilepsy, that we need a significantly amount of Significant lead less of the full hemp extract than we do of the isolate. So THC is really important for that, particularly for neurological conditions and particularly for pain. That being said, it's been interesting seeing how CBD seems to potentiate the actions of Chinese herbs. So it's unclear sort of what the mechanism of action of that is. I mean, obviously we like to use herbs as a polypharmacy. We're using herbs together to potentiate the actions of one another and balance them all out, so that we don't know anything except polypharmacy exactly.

So we love using these together. But what I found clinically and what a lot of these other practitioners who are going pretty deep into the hemp medicine world have been saying and have been finding, is that even just a small amount of CBD is able to strongly Potentiate the actions of CBD, sometimes, you know, two to three fold from what we typically see With our herbal patients just on straight Chinese herbal formulas. So it's unclear whether, you know, through activating the endocannabinoid system we're able to, you know, metabolize the herbs in a different way. Possibly it's increasing the serum levels of the herbs for longer through its activation of the liver enzymes, or it's, you know, to me how I sort of personally envision it, whether the sister or not again, is allowing that body to get into that rest and relax state and sort of Calm down enough in order to accept the healing potential of the Chinese herbs. But it is really interesting how much more effective my patients report their Chinese herbs to be when they're in conjunction with with complete spectrum hemp as well.

0:47:18 - Michael

I Find this with acupuncture you just said the words calm down enough to accept the healing effect, and I think that the reason acupuncture works so well In white people love it so much is because they do find this moment when they can just kind of let things be. Just let it be, I Think the body response, I think there are things in us that can come forth when we're in that state that cannot come forth when we're not in that state. It's not that we can't do it, but you need to be in a certain frame of mind. You need to have your nervous system, in your spirit and your body in a certain state of receptivity. I could call that a more in-state, I guess, but it but a certain state of receptivity. And then and then things. It's not that things from the outside come in and change you, but that what is already inside Can come forth.

0:48:26 - Chloe

Exactly. I love listening to you talk because you always bring out such incredible insights.

0:48:31 - Michael

I mean, this is what we see in clinic. This isn't an insight. This is what we see every day in our work.

0:48:37 - Chloe

And that's what I keep on just tapping into. A, it does tap into the endocannabinoid system, but B is tapping into our innate healing ability. It's not, you know, it's not like we're doing anything. We're reminding the body what it already knows, and like giving it that ability to, to see how it's supposed to move and how it's supposed to flow. And you know, and there's so many different things in our society that are, you know, stealing away our chi and stagnating

our chi, and rousing up our chi you know, like all of it, and and so it's interesting, especially right now, as we said, with 2020,.

You know, I think that Chinese medicine, in so many ways, just has such an incredible opportunity right now to really show the world what we have, not only in terms of our acupuncture, but in terms of our herbs, in terms of our lifestyle coaching and in terms of just helping people. Take that breath, take that time, take that space to try and, you know, recalibrate and to figure out what's going on and to make decisions as to how we want to live our lives as a society and move forward and a more productive, hopefully joyful and help the healthy way. But I am an eternal optimist, so we'll see. I.

0:49:56 - Michael

I tend to be an optimist as well, and here's something I've noticed about being an optimist gets me in lots of trouble. It really does. I mean I will push boundaries because I don't see the gotchas. I'm only looking at the potentials, like whoa there could be something really good here and not realizing that. Well, there's also drawbacks. Definitely as well, so my optimism tends to get me in hot water on a fairly regular basis. I would still rather be optimistic than pessimistic.

0:50:28 - Chloe

I always say I'd rather fall on my face than miss out on an opportunity or something that could help people or it could be great. You know, like I've fallen enough times that I know I'll get back up, so I think that's. You know. There's there's a bit of resilience there, but yes, there is resilience.

0:50:48 - Michael

I think falling on our face builds that resilience. I was just thinking I'd rather fall on my face and live on my knees.

0:50:55 - Chloe

Yes, that's a good term, I like it.

0:50:57 - Michael

You don't fall as far. If you live it on your knees probably won't hurt when you face plant. But man, I don't want to be living on my knees.

0:51:05 - Chloe

No, well, there's, you know, again, there's just so much need for help in our society and you know we are so fortunate as practitioners of this incredible, incredible medical system that has been passed down for for so many generations. And you know, now is a time where I really think that we can thrive and where we can really really help make systemic change in our society. But again, I dream really big when it comes to our medicine and you know I always hope that other people will as well. What's?

0:51:42 - Michael

just wondering if every generation is looking to make systemic change. Is there any generation that's come along who hasn't looked and gone? You know it's kind of a mess here. We need to fix this shit. Has there ever been a generation that that didn't have that in them?

0:51:57 - Chloe

I don't know, I'm not much of a historian.

0:52:02 - Michael

I wonder what you're historian but? But it seems like I mean, if you just look at history you know it's a constant like well, we don't like what's going on, we're gonna try to do something better now. A lot of times those things don't work out so well now. But that impulse to I'm not satisfied with the world, I want to see it be different.

0:52:25 - Chloe

I suspect that drives a lot of us as a Practitioner, I see so much disconnect in our world. I mean, you know, disconnect from from one another. I feel like our society has gone to such a place where it's just it's really hard. And you know again, in 2020, we're physically disconnected, but then also, you know, if you look at, you know, the social media World, and if you look at everything we've, we've been put into this tribalism of us, first them and you know again, I, as a Chinese medicine practitioner, I'm just Desperate for people to see the middle way and remember that we can have Conversations and that you know, yes, technology is an incredible gift that gives us the ability to to research all of this stuff, the nerd out and have these wonderful conversations, but also that there's so many gifts and lessons from nature that if we don't get out there and touch them and feel them and smell them, then we're we're missing out on a whole huge part of life.

0:53:24 - Michael

Yes, thank goodness for the technology. It can be very helpful. Thank goodness for those moments where there is zero technology and we're letting our nervous systems, like re-regulate, resonate, re-regulate, readjust, readapt to the natural rhythms of the world, right? So it's natural rhythms of the world that we evolved in, right? All this electronic stuff is pretty new.

I I was listening to a podcast the other day. Man, it's blew me. This blew me away to such a degree that I had to stop listening and I had it just like Sit with what was just said. I mean just like hang out and just like let it echo. This is what I heard.

This is a social media expert and this guy said the problem with social media is that we think it's a dialogue, but it's not. It's a soliloquy. It's just me singing my song and people either applauding me or throwing tomatoes. All right, so, like, what you and I are doing with the technology at this moment is we're using it for a dialogue, we're using it to try to understand each other. We're using it to, in this case, go deeper. You know the CBD thing, right?

I got lots of questions. There's a part of me that's like yeah, this is great. There's this part of me. That's like I don't know. There's a lot of hype. I need to talk to someone who knows a lot more about it than I do, and so I'm super grateful that we have the technology, that you're willing to sit down with me right, I can show up with my ignorance and Maybe I can learn something, and then I can share all of this with all y'all that are listening right now. Maybe we can all learn something. But the problem with a lot of the social media and we're gonna make this part real short, because we're here to talk about CBD, not social media but I think this is really important in this moment we think it's a dialogue. You looking in Instagram, you look at our Facebook post we think it's a dialogue, but it's not a dialogue, it's a soliloquy, and that might explain why there's so much disconnection.

0:55:24 - Chloe

Yeah, it's. It's really profound and it's really terrifying. I don't know if you've seen that it's the only movie I've watched in years. But the social dilemma.

0:55:33 - Michael

Yeah, well, you know, when the people that make the technology don't want their children using it. You better listen up.



0:55:38 - Chloe

Exactly so I I like immediately like blocked all my Facebook. I actually deleted my email from my phone so I can only access my email on my computer now, so that I just don't have that urge should like pick it up and check my email. Because I was, like you know, I run a small business, I do it all by myself and like so it's always did somebody you know need anything like that? You know like check my email, check my email, check my email, and I was just like I can delete this. That is an option and I'm gonna do it. It's been like a week or two and it's really good yeah okay, I'm gonna check back with you in a month or so.

0:56:13 - Michael

Yeah, that sounds brilliant. I mean, I hear you say it and I go, oh.

0:56:19 - Chloe

It was amazing.

0:56:21 - Michael

What's been amazing for you.

0:56:23 - Chloe

Well, just like I'll leave my phone somewhere and I you just leave it there, I don't feel like it has to be right next to me, I don't have to like that's my compulsion, more than the social media, is just checking the email. Do I need to respond to somebody? And it's like no, you don't need to hear a response within five minutes. I can check my email plenty Like it does not have you do. 24 hours is a perfectly reasonable amount of time for somebody to get a response back. I don't need this attached to me and it alleviates a significant amount of anxiety for me. But I think we all have our triggers and our patterns in terms of our cell phones and technology, and so you know, whatever it is, that's, you know, the biggest bore for you. You know, maybe try and get rid of it for a couple of weeks and see how you feel.

0:57:11 - Michael

Well, I don't really do much, so I mean I've really stepped away from it.

0:57:14 - Chloe

Yeah.

0:57:14 - Michael

I stopped. I went on a little sabbatical-ish kind of thing at the end of summer, just got off of Facebook, just like I've been thinking about doing it. It doesn't feel really good. I got tired of being blamed for mansplaining. I was like you know what? I'm just going to put it down. Life's been a lot better. My nervous system has been more down-regulated and when I hear you speak about what you're doing with your email, I just kind of take that inside and I go oh man, I bet my nervous system would just unwind itself. That'd be like going for a walk by itself and all I'd be doing is not checking my email, and that would already bring much more of a state of equanimity, not being constantly worried about that.

0:57:56 - Chloe

Exactly, and it's really been a dramatic shift for me. I still have work to do when it comes to my phone. I've got to find somebody who wants to do my social media for radical roots or something, so I don't have to deal with that.

0:58:09 - Michael

There's someone listening right now who's probably going to call you. Please, I'll be happy to do her social media.

I'll give you all the CBD. There you go. Well, we were talking earlier. I asked you the question, which is still a question, which is how our body naturally produces these substances, and you were like, well, I'm not really sure. We're kind of noodling on it. Maybe it's not about what we do, it's what we don't do, and it sounds like when we can help to down-regulate the anxiety, down-regulate the nervous system, we know that good stuff comes out of that. We have more patience, we have more love, we sleep better, we're kinder to the people around us, it's easier to listen to other people, we're not in this super hyperarous state. And CBD can help, herbs can help, Acupuncture can help, but wow, I'm just thinking about not having email on my phone as a therapeutic intervention. I'm going to try it.

0:59:09 - Chloe  
Try it.

0:59:10 - Michael  
I'm going to do it, you're doing it.

0:59:12 - Chloe  
I thought of it on the phone with one of my friends and I was like I can do this and then I just deleted it immediately after getting off the phone. It's been two weeks, I think, and I don't think I'm putting it back on that joy and the regulation and the connectivity. So much of that. So anandamine, one of the endogenous cannabinoids, is known as the bliss molecule, so you can sort of just think of it as that's one of the chemicals that's really helping us find that joy, find that balance, and then when you're stressed out, you're just pulling that and sucking it up and breaking it down through this FAA-H enzyme. So that's why CBD can be so helpful and that's why sometimes you need more than other times.

So if I'm super stressed, I'll take more CBD. Or if I know I'm not going to sleep well, I'll take a ton before bed. Like, if I know that I have a podcast or something that I'm recording the next day and that I'm nervous about, then I'll take a ton of CBD. But if I'm actually out playing in nature and getting to enjoy life in ways that are unfortunately much more rare than I wish, then I'm making enough endogenous cannabinoids and my system's not pulling them and breaking them down as quickly, because I'm not stressed out and I think that, again, our connection with nature is really helpful for that. And I think that the connection to whole plant medicine is again something that a lot of people's nervous systems and a lot of people are really responding to when it comes to really high quality cannabis products, because you're really getting back to nature with these products when they're extracted well and when the plants are grown really lovingly and they're done in a really beautiful way.

1:01:01 - Michael  
Now you have, we're not plugging your product line. Oh, you got a great product line. I will say that.

I do. One of the things I really love about what you're doing is that you're doing this first of all, you're doing this fantastic alchemical thing with the CBD by itself, but you're also bringing in Chinese herbal formulas. So for those of us that are like herbal geeks and we're thinking of, like well, I got this patient, they're like, really, they're wound up, I want to give them some Tiananmen Bushin Don, because I know that's going to chill them out and they're kind of inefficient. They kind of got that flush in the afternoon because they're all that heat going up. Could I give them their herbs in their granulated form, give them a bottle of CBD and say squirt this many squirts into your herbs and work that way. And then the next follow-up piece of that is what are some of the formulations that you think seem to work particularly synergistically with the CBD?

1:02:04 - Chloe

Yes, you can totally, and that was something that I was trying to figure out for a long time was whether or not we could do a complete spectrum granule. But we haven't figured out how to do that yet. But you can take your granules or your raw herbs and put the complete spectrum oil in there and potentially, if you wanted to blend that up like bulletproof coffee, it's going to enhance mitochondrial function and improve easy water structured water in your mitochondria, which is an interesting byproduct, but that's a whole different topic. But, yeah, you can totally add the complete spectrum to the herbal formulas that you want, and obviously I love herbs. To me, raw custom herbs done the traditional way is my go-to. I have a ton of raw herbs in my house and I'm constantly cooking them up, so I wanted to have the complete spectrum to make sure that people had that option, and that does seem to really potentiate the actions also. So just be aware of that and know that you might have to do lower doses of the herbs. So maybe start your patients on half the amount of Chinese herbs that you normally would and see how they respond to that. As far as potentiating formulas, so it's interesting how much research is coming out on CBD and we might want to do another show where we sort of break down a bunch of the different research and how it's working on different parts of the body.

But the main things that CBD is sold for and that people are looking for are stress and anxiety. Obviously it has many ways in which it affects that, including regulating the vagus nerve again the SSRI, the 5-HT1A pathway in the brain. So that works really great with both Xiaoyiao San in terms of helping move that livered she and calm the blind, Since Xiaoyiao San has angiolidic and neuroprotective properties. So I really love that with CBD swan-zell-ren-tongue putting those together for sleep tonic obviously super beautiful, really complementary, Even a good GuiPi, since CBD has a lot of actions in terms of supporting the gut as well. So that's a really nice one because it's getting the spleen and the heart, which CBD goes to both the spleen and the heart and the liver. Pain is another thing that people use CBD quite a lot for, especially neuropathic pain. So anything that's going to be a really strong blood mover.

1:04:35 - Michael

So maybe like Shreyfujutang.

1:04:38 - Chloe

And there's more research coming out. I haven't looked into it yet, but I was reading about it yesterday. There's some more research coming out on CBD and its effects on the heart, so I think that that's going to be something that's going to be coming out really soon also.

1:04:50 - Michael

You could do like Danshen with some CBD, just a little to a yowl there.

1:04:55 - Chloe

Exactly. It's really, really fun to play around with and it's really something that I encourage everybody to do. You can buy raw hemp like cannabis flower. You can buy hemp flower and you can decarb it in your kitchen. It's going to smell a lot like weed, obviously, so just beware that your neighbors are going to think you're smoking all the pot. But you can throw it in the oven, decarb it for half an hour. There's charts you can look up. I'll send them to you for the show notes or whatever. But you can buy it, you can do it and you can extract it in your slow cooker. That's what I used to do before we started the company. I'd throw it in my slow cooker with Remy's herbs. See what happened. It's really fun to play around with.

1:05:37 - Michael

How did you start this company? Well, I was going around in my kitchen.

1:05:41 - Chloe

Dude and I was in like a massive apartment complex in Brooklyn and I was like, oh my god, these people just think I'm the biggest pothead in the world, like a temp, whatever. Also, again,

the immune modulation effect is really interesting as well. That's something that I've been wanting to dive really deep into is immune modulation. I've done a pretty deep dive into the GI effects and that's really fun and really really interesting into how much it potentiates specific bacteria. Tell us a little bit about that.

So, in terms of the gut, which I am a student of the School of Swain and Stomach and very much believe that that's the root of all wellness and disease CBD has been shown to help close tight junctions. It moderates inflammation in the gut by activating the immune system in the GI, so it also helps regulate that immune response. So not only will it sort of activate the immune system there, but it'll sort of give you the we're all a good signal and fit in that sort of middle path, because a lot of times what we're seeing with our GI patients is that hyper reactivity of the immune system in the gut causing IBS, which interestingly sorry now I'm just getting really nerdy there is also a study on rats. That showed that trauma in the rats causing IBS was passed down internally through the endocannabinoid system.

1:07:07 - Michael

So Really, how do they, how do they figure that kind of thing out? You know, I don't know what kind of person does it take to sit down and make that kind of a hypothesis? That's fascinating.

1:07:20 - Chloe

And so that's what's so fun about going into the CBD research. You're like what is it a fact? And then like, it'll you find these weird studies? Trauma within the endocannabinoid system can cause epigenetic shifts in later generations and it's sort of that generational trauma that we see. And we do see that I can't tell you. I'm a half Jew from Brooklyn, so all of my friends, you know, talk about, you know, the, the itis, the Jewish itis, and I'm like, well, no, it's, it's a trauma and B it's. You know, we've got to potentially your your bacteria and probably get rid of the bagels, unfortunately.

That was a really, really interesting study. It also, as I said it, there cannabinoid receptors along the vagus nerve. That seems to be one of the ways that it really affects motility. It potentiates this one bacteria, monka-filia acrimansia, which has been studied for MS and epilepsy. So it's really great for neurological health. And then there's a lot of research showing that it can help with colorectal cancer. So it's really I mean it's fun once you start diving into different parts of the body when it comes to CBD and seeing how many different ways it really just has this beautiful regulatory effect. You know, even with appetite, you know. So typically people think of THC. You think of the munchies. Right, you're going to smoke a little weed, you're going to eat everything in your house. THC can increase your, your appetite, whereas CBD tends to have more of a regulatory effect on it. So through that vagus nerve, it's sort of telling you yeah, I'm full, no, I'm not, like.

1:08:54 - Michael

I'm satisfied, I'm safe, it's okay.

1:08:57 - Chloe

I'm safe. Yes, I'm safe.

1:08:58 - Michael

I mean, that's the big thing about the Vegas nerve in so many ways.

1:09:03 - Chloe

Well, and it's the biggest nerve is so interesting to me.

You know, again, when you're looking at intractable epilepsy, one of the main ways that we treat I intractable epilepsy is they do the Vable nerve stimulator where they do a implant. So

there's another nerdy and research study is that there was a research study using electrical stimulation on the Vegas nerve point in the year that showed that that had Comfortable efficacy to the surgery. So it was a small study and I'm curious to see where that plays out. But I think that you know, again, in my passion in terms of Chinese medicine for public health intervention, that's the type of thing that we can do. That can, you know, really help people and help you know, like, so say, I was considering getting runnia, a vagal nerve implant. You know we can stimulate the Vegas nerve through the ear and see if he's gonna be a good candidate before we sign up for a whole surgical intervention. So you know again, I just encourage all practitioners out there to use their curiosity and follow their passion To use our medicine and really innovative ways.

1:10:11 - Michael

That's such good advice and it's endless right, the tools that we have can be applied in so many different ways and and and one of the things I love Well about the Chinese herbs in particular is how we do get to craft these sort of symphonies. Right, it is an entourage, you know. It's this, it's this group that goes and gets a job done. Right, it's like this project team that you know, the a, the, a team right that go out and they get stuff done. And I Love the idea that there's also this kind of great harmonizer you know, we think about Gonzal as like this great harmonizer that really potentiates the effect of things and it mediates the, the interaction of the herbs and this kind of smooths everything over, and it seems that CBD could really be thought of in that, in that way. So that kind of messenger harmonizer sort of substance.

1:11:10 - Chloe

Yeah, exactly, it's sort of sort of like the harmonizer, sort of like the on voice, you know, kind of bringing it to the different places and then Letting it in and sneak it in and through the back door, letting you, you know, like getting into knowing what the back channels are.

1:11:24 - Michael

Right, I mean good communication. Sometimes if you can't go through the front door, we all know that a good back channel is Super helpful to have. Totally right, I mean sometimes we see this in families all the time. Right, like you know, this sister can't talk to that brother, so you know you got to send a message. You know through the cousin right.

1:11:44 - Chloe

Writing Chinese herbal formulas is literally just my one of my very favorite things. It's just so much fun when you, when you craft a formula that's really beautifully balanced and you can see how they all, all the herbs, are working together. And CBD has just been an incredible herb to add to that toolkit. You know it's, it's not a one-size-fits-all and it's, you know it is one of our herbs. We have hundreds of them and you know, I think, that, as herbalists, we, you know, have such an ability to, to help people through herbal medicine. I think that CBD is a really great addition to our regular toolkit in terms of helping people and in terms of giving you know again giving people that breath, giving people that space and Helping potentiate the actions of the work that we're already doing with all of the herbs that we've already studied so extensively and built upon. You know, I'm building upon the, the foundation of Our beautiful medicine that we have the glory of being able to practice.

1:12:43 - Michael

Yeah. So Again, CBD is very much in our awareness. It's you know, it's all over the place, it's available in so many places. We've gotten sit down have this conversation. There's a lot that that you know. We kind of know about CBD these days and you know it's in our awareness in a big way. Is there anything maybe that we haven't covered yet, but anything that you would want to tell us about CBD that, like we just may not know yet but maybe we should know about? It's like, just like, what's the big secret?

1:13:15 - Chloe  
What's the big secret?

1:13:16 - Michael  
Yeah, sir, is there a big secret?

1:13:19 - Chloe  
I don't know that there's a big secret I mean I think we've touched on. So you know like we haven't gone super in depth on any one thing, but I feel like we've touched on so much, but again, I think it's. It's the same secret as acupuncture and what we've talked about is like giving the body some of the space that it needs to heal, giving the body just a little bit more chi and breath in order to Move forward into the next steps. And you know enough like centeredness and calmness. You know, again, it's, it's bringing the plant medicine to people in a in a sustainable, functional way. You know it just adds, adds to our repertoire.

You know it doesn't, it doesn't take away the need for acupuncture, meditation or movement or any of the other things that we have in our practice, but it can really be an incredible tool to help support our patients and ourselves, because we give a lot as practitioners and you know, most of us are small business owners in the time of COVID, with the crazy election and all of those things. So you know, I know for me, when I talk about our products, it's I'm not trying to pitch it, I'm the worst salesperson ever, but I only sell things that I just love passionately myself and I don't know what I would do without them, and you know there are other CBD products that are that are really, really high quality also, so and we've talked a bit today about how to make that assessment for yourself as to what's high quality and how to do the investigation To see what's high quality, so that's super helpful.

1:14:49 - Michael  
I didn't realize that that I could go to really any CBD companies website and and go look at their Certificates they should all be up.

1:14:58 - Chloe  
If they're not, then that's definitely a red flag for me. Or if you can't easily access them through emailing somebody you know like, I know for me again, it's just me, I don't know how to use my website so, like, we test every single batch that goes through, so sometimes I won't upload the like latest batch and somebody I'll email and be like I got this batch and it's, you know, expires this date. Like do you have the, you know the COAs for that exact lot number? And I'll be like sure, and I'll just email it to them. But you know, like, but there's always, they're always up on the website.

1:15:29 - Michael  
Otherwise, that's really helpful to know that, that there is that kind of transparency out there, and if you're not finding that transparency, then you know, keep looking for a different supplier.

1:15:42 - Chloe  
Definitely Well, and it's, yeah, it's. It's definitely a tricky field. I mean, there are a lot of people again, there's a lot of money in the industry. It's kind of the wild wild west right now, isn't it? It is, and the regulations are really difficult because there's On some hands there's, you know, in some ways there's no regulations.

In other ways there's a lot of regulations. There's really no regulations as to what we put out there, there's just regulations about what we said. So like even with my products on my website, you'll see, like rest and relax, like may sort of cut, you know, like it's like with Chinese medicine, may sort of kind of Ish treat the symptoms of such and such Um like you can't say anything, you can't make any claims, you can't make anything even close to a claim

whatsoever. There's that regulation, but in terms of like what the quality of the products are, the only regulation is do they have, you know, x amount? Like are they within range of the amount of cannabinoids that they claim they are on the bottle? That's the only real regulation. And I don't know who. There's nobody testing. I mean, maybe if somebody were to call you up and, like, you know, send you in, somebody might come and test that for the most part. For the most part, it's not tested by anybody that I'm aware of.

1:16:54 - Michael

So industry is self regulated at the industry is self regulated. Maybe they're True to what they're saying, maybe they're not. Now, the certificate of authenticity. Is that what it's called analysis analysis? Sorry, such a good of analysis, will that also tell you the amount of CBD within a certain amount of of you know material? Yeah, it does, okay.

1:17:19 - Chloe

Yeah, it shows you the amount of CBD and the amount of THC and then it should break down that ratio to you so you can be able to see how much there's definitely reason to consider using higher THC products for certain conditions, specifically neurological conditions, specifically pain. You know, one clinical note for some of the practitioners out there is if you are in a state where marijuana is legal and your patients are having these issues, you can also you can advise them to get a bottle of THC tincture. You know they can create ratios, you can create ratios on your own. So THC really helps potentiate the actions when it comes to pain and neurological conditions. So that way, like sometimes, I'll put you know a THC tincture into some of our complete spectrum. Or people have, uh, really insidious insomnia. Put a couple, you know, put some of it into our rest and relax and really potentiate that, make sure that they're Going to get higher quality sleep. So you can play around with that.

1:18:18 - Michael

Yeah, and this raises the question for me. You know I barely have my toe in the water with this, but I've heard that there's two strains of cannabis. Right, so you've got your indica, you got your sativa and they have really really different effects. Right, so, like for pain, you would probably use one more than the other, but I can't remember which one it is which. How does that work? Can you give us kind of a breakdown? Can you know the cannabis team versus sativa team?

1:18:47 - Chloe

The way that it was explained to me, which I will never forget, is indica is in the couch. Um, so indica is the that's they call it couch lock, which I cannot smoke. An indica at all I will like. I have far too much work to do. I just I get super anxious for a lot of people with anxiety. Wait a minute.

1:19:08 - Michael

Wait a minute, it makes you anxious. Yeah, well, I can make you anxious.

1:19:12 - Chloe

I have a lot going on, so like for me to like sit down and not be able to really like function for a couple hours, cognitively is not. It's not much of an option for me. So then I get more anxious, but from a lot of people with anxiety.

1:19:28 - Michael

That doesn't show you out, it actually makes things worse for me it does.

1:19:31 - Chloe

Yeah, I have an indica tincture that I might take if I know I'm not gonna be able, like if I'm having a hard time sleeping, I might add that and with one of my other formulas. But sativa is

more of a head high sat, so head, you use your head to take the satis so that one's more like More energetic, more activity, so you can sort of get things done. So that's more functional Typically. But so depending on your level of anxiety, what that source of anxiety is coming from, normally one is better For you than the other. Or you can get a hybrid which is a combination of both where you're sort of fall somewhere in the middle.

1:20:09 - Michael

You are speaking so Chinese medicine about this. I really appreciate it. One of the things I've heard was like okay, indica if you need like to mellow out, need to sleep. You know indica is really good for that. If you like that fuzzy kind of head thing, sativa for that. But what I'm hearing you say, this really, really makes sense to me. What kind of anxiety do you have? Well, I get a lot of things done and I like to get things done and I feel like I'm behind and my anxiety comes from I've got these things to do, I haven't done them. If I Take something that prevents me from doing my work, is that going to help me or make me worse? I bet it would make me worse too. I bet that I bet my anxiety go through the ceiling with that, whereas if I've got something that gives me a little energy boost it's like you know a little cup of coffee kind of thing you know I'm like good to go I can roll with that.

1:21:02 - Chloe

Exactly, yeah, it's uh, it's very interesting and, and you know, like as you play with canvas medicine, whether it's hemp or THC, it's a very individualized medicine. You know, some people really just need a very little bit, some people need a lot more, and then there's normally a bell shaped curve of efficacy. So you know, you sort of get to a place where things are really good and then sometimes more is not better.

1:21:24 - Michael

More is usually not better. I mean, we're back to the Goldilocks effect, exactly.

1:21:29 - Chloe

You know, I tell my.

1:21:30 - Michael

I tell my patients all the time, right? Because they're always like, hey, I feel terrible today, load me up with needles. I'm like no, no, no, no. And I remind my patients, right, I'm like, well, you remember as a kid reading that you know the great treatise on enoughness, right? You remember reading the great book of enoughness when you were a kid, right? And in fact your parents read it to you, didn't they? And people look at me like what the hell are you talking about? Michael Max Goldilocks in the three bears, the great treatise on enoughness, right, the Goldilocks zone. It's really true too much Not helpful. Too little not helpful. What's helpful? What you need when you need it, that's what's helpful. That's why Chinese medicine is so amazing, all right, not just the, the methods that we have and the herbs that we use, but the perspective that we have of looking and being able to see what do they need? And just that and nothing more.

1:22:25 - Chloe

Well, what's at the heart of it, like where it's coming from. Yeah you know, like, do you just need a hug? Like you know I have. I am some patients that, like I was, just like you know. You just need a friend. Like you want to get a Couple coffee, like it's okay.

1:22:39 - Michael

You know like you just need a friend. Wouldn't that be great? It's like I'm not prescribing your herbs, I'm prescribing you. Take your friend out for coffee twice a week.

1:22:48 - Chloe



It's true. I mean, you know, like and and that's one of the great things that we learn is like how to see, you know sort of what people need, and, but not just from a physiological standpoint but from the whole mind-body, spirit aspect of it. You know, and that's that's what makes our medicine so unique is that we can really see when people are deficient, no matter what that looks like, or where people are excess. You know, and and try and work to bring that harmony back together.

1:23:18 - Michael

So well spoken. I really appreciate that perspective. So now I'm looking at sativa, now I'm looking at indica and realizing I need to bring my Chinese medicine eyes and my Chinese medicine heart to it.

1:23:32 - Chloe

It's you know. Yeah, you're gonna like it. Great, I'll send you some edible.

1:23:37 - Michael

Yeah, okay, I'll be Waiting by the mailbox, Chloe. Anything else to share with us about this vast topic? For we wind it down for today.

1:23:50 - Chloe

Not much on CBD, you know. I think I think it's a great plan and I think that you know practitioners, you know we really have a responsibility as herbalists, as as the most highly trained herbalists that there are, to look into it and to provide the highest quality plant products that we can. I think this is a tremendous tool. I also, you know, again want to harp on we really need to take care of ourselves as individuals and this is a great tool for that and I really think that, as a community, you know, I just I want us all to remember that we're all here because we want to help people and I I hope that we can work together to to grow and expand our field and to remember that our mission is all the same at the end of the day. Beautiful.

1:24:36 - Michael

Well, thank you for that, and I want to show you something. So all y'all is out there listening. Right now I'm using a internet recording software Chloe and I can see each other as we're having this conversation, but it but it just records high quality video which is coming in your ears. But, Chloe, I want to show you. You see, this is my mail app on my phone. Oh, all right, yeah, see, watch what I'm doing. Delete or cancel. Delete.

1:25:04 - Michael

I have no Email on my phone. How do I feel? I don't even know how I feel yet. Well, maybe just because you know we've been talking about this, but I feel a little bit lighter. It's kind of like my phone's not my damn boss. So much now.

1:25:19 - Chloe

Like I can't even respond to all my emails or text messages. As it is, I think I have like 500 something Unopened text messages, let alone don't even get me started on my emails. So, like you know, seeing that I'm getting all these emails and still not having the time to respond is certainly not helping my anxiety level. I hope it works out for you. I've been stoked about it.

1:25:42 - Michael

I'll check back with you and let you know. Maybe I'll let the listeners know too in a month or two. If, uh, you know I'll let, I will, I'll let. I'll let y'all know. I like, let's see what happens, I'm gonna throw that experiment out in public. Let's do an app. All right, Chloe is ever. It's been an absolute delight and I look forward to our next conversation.

1:26:02 - Chloe

Thanks so much, Michael, it's been a pleasure.