Dr. Drew Sinatra: Pain. It's something we all deal with. Some of us deal with it on a daily basis. Some use NSAIDs to deal with pain, some turn to opioids.

Dr. Steve Sinatra: But what's the healthiest way to deal with pain? How do you treat your insistent pain without doing more damage to your body?

Dr. Drew Sinatra: Today, our colleague from Healthy Directions, Dr. Joe Pergolizzi, will be joining us. He's a world-renowned expert on pain management.

Dr. Steve Sinatra: We'll be talking about natural ways to feel better, how we can address the opioid epidemic, and what you can do to improve your overall health.

Narrator: Welcome to **Be HEALTHistic**, the podcast that is more than just health and wellness information — it's here to help you explore your options across traditional and natural medicine, so that you can make informed decisions for you and your family. This podcast illuminates the whole story about holistic health by providing access to the expertise of Drs. Steve and Drew Sinatra, who together have decades of integrative health experience. **Be HEALTHistic** is powered by our friends at Healthy Directions. Now, let's join our hosts.

Dr. Drew Sinatra: Hi, folks. If you like what you hear today and you want to listen to future conversations on all things integrative and holistic health, subscribe to our podcast on Apple Podcasts, or wherever you download your favorite podcasts. Also, check out and subscribe to our YouTube channel, which will feature video versions of our episodes plus video extras you won't want to miss. Finally, we have more with me, Dr. Drew Sinatra, my dad, Dr. Steve Sinatra, and other Healthy Directions experts over on the Healthy Directions site. So, visit **HealthyDirections.com** to explore our database of well-researched content and information. And of course, you can always follow us on our social media channels.

Dr. Drew Sinatra: Welcome, everyone, to another episode of **Be HEALTHistic**. Today, we are joined by Dr. Joe Pergolizzi. He's an internationally recognized pain management expert, and a pioneer in pain medicine who practices multi-modal treatment for optimal pain management, focusing on non-prescription options. Welcome to the show, Joe.

Dr. Joe Pergolizzi: Oh, thank you very much, Drew. Pleasure to be here.

Dr. Drew Sinatra: All right. Well, Joe, I think our listeners would love to know about how America got involved in this opioid epidemic right now. How did this happen?

Dr. Joe Pergolizzi: Well, Drew, I think there's two sides to the story. I think part of the story is that we really wanted to address pain, because it's the most common reason for people to seek medical care — and particularly severe pain. So, if we go back and look at the history of pain management here in the United States, it's a very young specialty. So, in the effort to try to address this problem of pain, particularly moderate to severe and severe pain, the information that we garnished from treating cancer patients as outpatients, along with their chemotherapy and other supportive care measures, then was brought into non-cancer chronic pain, and acute pain. This is where I think we probably would've benefited from more formal didactic training in medical school and for other clinicians. So, I think it starts with the education part, and then it gets layered on to a demand for quick, effective, pain-free situations.

Dr. Drew Sinatra: What do you mean by “pain-free?” How can a doctor set an expectation that anything will be totally pain-free?

Dr. Joe Pergolizzi: You'll hear them say “pain-free surgery.” I mean, what does that really mean, Drew? Right?

Dr. Drew Sinatra: Right.

Dr. Joe Pergolizzi: I mean, if someone's going to take a scalpel to you, more than likely you're going to feel some type of pain. So, I think expectations got a little ahead of ourselves, and at the same time, there were a lot of different types of institutional guidelines and society guidelines suggesting that we need to aggressively manage and treat pain. Because when pain is not appropriately addressed, particularly acute pain, what happens is we can experience physiological changes that are not good for the patient. Increased heart rate with increased oxygen demand. Splinting in postoperative patients, so they're not getting appropriate respiratory exchange. We also see issues with an immune system, nutrition, etc.

Dr. Joe Pergolizzi: So, when you don't aggressively and adequately treat particularly severe pain in the acute setting, you can have lots of negative consequences. So, this acute pain when unchecked appropriately can lead to a system of chronic pain, because the body is using pain as an alarm. It says, "Something's wrong here, and you don't want to do this anymore." That's part of the idea. We should take that very strongly, and we should try to avoid those type of activities or seek medical care, particularly for severe pain.

Dr. Drew Sinatra: I agree completely. I love the idea of the body using pain as an alarm, as the body is just so amazing at letting you know when something's wrong.

Dr. Joe Pergolizzi: Right. A lot of times what happens is a primary care doctor might look at what a specialist is doing, and they may send their patient who's in pain that they're not able to control to the specialist, and the specialist then will do different things, like interventional procedures. Or maybe they would've put them on an opioid, and then send the patient back. Sometimes you'd say, "Well, look, that worked for that patient. I have a similar patient. Maybe I'll try to employ those strategies." And without the basic fundamental knowledge, because we just didn't have that type of in-depth training, I think we wound up not assessing the whole entire picture in certain patients.

Dr. Drew Sinatra: And of course, the prescription opioids have the addictive piece — and that's going to lead to the next part you're going to talk about, is why people are getting hooked on these meds.

Dr. Joe Pergolizzi: Right. So, if we look at these medications, we have to realize that the opioid system in our body is really one of the intrinsic systems that we have as human beings to manage pain. We have natural opioids — we call them endogenous opioids, the enkephalins and endorphins. These get released by the body when we have pain. The problem is that they don't last as long, and they're very temporary, and they get broken down. On top of that, you may metabolize these drugs differently from one person to another, and that can lead to differences in how you respond to the drug. So, some people may respond to codeine, where a third of the population may not because they don't break codeine down into hydrocodone. Some people may respond to hydrocodone, but then hydrocodone gets broken down into hydromorphone.

Dr. Joe Pergolizzi: So, there's a lot of different dynamics when you take these medications. The one thing we have to realize is that these new receptors do more than just address pain. They affect your gastrointestinal system, they affect your central nervous system in different ways…they can result in what we call off-target effects. An opioid or an opioid pain medication, we want to get an on-target effect of pain relief. But these medications are not selective, and they affect *all* the targets — so the off-targets can happen, as well. So the off-target effects are things like opioid induced constipation. One of those may also be euphoria, and when we think about euphoria, we think about, you know, the presence of feeling good.

Dr. Joe Pergolizzi: So, some people who are in a lot of pain may look at this different, and not only are they getting pain relief, but now, after being miserable, they're feeling euphoric, if you want to use that term. This might be one of the reasons why people could then have different types of problems, what we call aberrant behaviors. Over time, you probably are going to need more of the same drug to get the same effect. And if tolerance builds up, now the patient's requiring more

medication than they probably need. So, it's not unreasonable to say a patient's pain could be getting worse, that's why you may have to increase the dose. Or, they may be getting tolerant, and all of a sudden you're increasing the dose beyond what they really need.

Dr. Steve Sinatra: One of the things that I'm privy to, actually been for decades, is in the post-op surgical patient who underwent a bypass or abdominal aneurisms, pacemakers, we did a lot of those. But, the pain management wasn't serious with pacemakers. But, I can remember I had some patients with bypass surgery that were absolutely miserable. I had a few patients who only healed by secondary intention. In other words, when the wires were put into the chest and the patient, for some reason, developed an infection which was horrible, a lot of these wounds had to heal secondarily, and it would take several weeks to months for these people to get healed.

Dr. Steve Sinatra: Fortunately, fortunately, in the bypass patient who had an incision in their chest, the pain management wasn't too difficult. It was only in a very few patients, especially with the secondary intention. But in your experience, has the bypass population been troublesome for you? Especially the chronic pains from not the incision, but the wires that were in the chest. I mean, about 3% of my patients had chronic pain, and I used to tear my hair out trying to manage these people, because it was difficult.

Dr. Joe Pergolizzi: Well, you know, Dr. Sinatra, you're absolutely right. The difference between acute and chronic pain is that something over time has gone wrong. Our body tries to heal itself, as you know, and this process may not always work right. And we call that maladaptive central, meaning your nervous system, neuronal, meaning your nerves, plasticity. So, trying to get back to where it is, and somehow it gets rewired the wrong way. This can result in chronic pain, particularly pain that is going to be related to some type of trauma, like this. You know, surgical trauma when you crack the chest is a pretty big insult to the patient. Now thankfully, the majority of people, like you said, will not have this — but some people do.

Dr. Joe Pergolizzi: When they have chronic pain, we have to think about, "Well, how are we going to fix that?" Because it's different than acute pain. If you hurt your knee, you can use ice and heat — and I prefer topical type of pain medications to start with. And then maybe other oral over-the-counter pain medications, or going to a chiropractor, or massage therapist, or physical therapy. But, when we come out of surgery, let's say, and you have that type of pain that you suggested from the sternotomy, that's the cracking of the chest. Or even very commonly we see it from lung surgery; patients who have their lungs operated on, we have a very high prevalence of post-thoracotomy pain syndrome. We also see it with

women who have breast surgery. A lot of women have chronic pain after breast surgery, particularly in their armpit.

Dr. Joe Pergolizzi: So, something's gone wrong in the healing process, and that's where then we have to try to describe, well, what type of pain is that? There are different types of pain. Some pains are what we call more inflammatory. Some of them may be what we call neuropathic, where there's a lesion to the nerve; something's happened, the nerve is not sensing and responding the proper way. People who have diabetes commonly have this type of chronic, neuropathic pain. When we're looking at this, what we find is that your body's going to try to adjust to this type of pain in different ways, and one of the things that happens in our system when we don't treat the acute pain right, is that, it's like leaving the fire alarm on. It just keeps ringing, and the people on the other side, they want to do something about it. So we have what's called up-regulation, meaning that now you're going to be even more sensitized.

Dr. Steve Sinatra: Right, right.

Dr. Joe Pergolizzi: Right? When we shift that curve to the right, where a normal touch now is painful, and a painful pinprick is outrageously painful — that type of sensitization is what happens to people who have chronic pain, and then it becomes very difficult. We don't know if we can ever go back.

Dr. Drew Sinatra: So, just to clarify for our listeners, when you're talking about up-regulation and becoming more sensitized to pain — something that should not be super painful, let's say a pinprick, becomes way more pronounced and way more painful than it originally would've been. So, how do we deal with this, and what do we do about it?

Dr. Joe Pergolizzi: So, part of I think what I like talking about is how do we appropriately address the type of chronic pain before it becomes chronic? I think the first thing is they should be really educated consumers, and they should know what their options are. They need to be able to speak with their caregiver, their clinician, and there are lots of different clinicians now. When we think about how we sort of grade our pain, it's not uncommon that people use a pain scale. They'll say, 0 is no pain and 10 is the worst pain you ever had. What you'll find is people will say kidney stones, natural delivery, these are all 10s, right? Then somewhere between that, and no pain at all being a 0.

Dr. Joe Pergolizzi: So, most people are going to have pain, and we sort of arbitrarily bucket them. We say mild pain is when you have pain that's about a 0 to a 4 or 5, and then we say moderate pain is when you go from like a 5 to a 7. Moderately severe pain is

at 7 and 8, and severe pain is really 8 and above. We want to be able to address that appropriately.

Dr. Drew Sinatra: Right. I agree with you that the general pain scale is pretty arbitrary, so I can see how that's a contributing factor.

Dr. Joe Pergolizzi: Now, we do have the option of looking at over-the-counters, and we recently did a survey of pain physicians at one of the largest pain meetings in the U.S. called Pain Week, and we found that when patients have moderate pain, acute pain, that topical pain medications are very much preferred. We also found that patients really like non-pharmacological options. I know, Steve, you probably have used different things in your career to help patients for different types of pain, and they don't necessarily have to be a traumatic pain. People could start to have pains in their joints, and they may benefit from things like turmeric or from chondroitin. Different things to that effect have been very helpful. There are other things you can do. I very much believe in earthing or grounding. You know, where you take your shoes off…

Dr. Steve Sinatra: Now you're getting warm, Joe. I'm glad you mentioned earthing and grounding. But, before I get into that, one of the supplements that I used in a lot of my patients with neurogenic pain, you know, pain from nerve, is alpha lipoic acid. I would use it in peripheral neuropathy. I know in Germany they were using like 600 milligrams a day. In my practice, and again, in a lot of these bypass patients who had pain in their sternum where nerves were cut, I actually did use alpha lipoic acid, and I had great success. So, as sort of like a nutraceutical, you know it works.

Dr. Steve Sinatra: Omega-3s work, too. I used a lot of omega-3s in my practice as anti-inflammatories, and I had great success. And then you mentioned earthing and grounding, and I have to tell you, in some of the worst pain syndromes I've seen, in people who had refractory pain, some of these patients — and they wrote us beautiful articles when the earthing book came out — they were talking about, they were amazed at when they were placing their bare feet on Mother Earth for a half hour to 45 minutes, that a lot of their pain or the awareness of pain went down. And I'm sure it has a lot to do with the regulation of the sympathetic and the parasympathetic nervous system — and the release of cortisol, as well.

Dr. Joe Pergolizzi: I agree.

Dr. Steve Sinatra: So, I think you get an endocrine, and you get a parasympathetic/sympathetic response that's favorable. So, I really like some of the non-analgesic factors, so I would say earthing in any pain syndrome is really the way to go. Hey, look, it's

not going to hurt you unless you're on a coumadin or a serious blood thinner. You know, you want to do it with caution. But, there's really no contraindication to earthing, that I can see.

Dr. Joe Pergolizzi: I'll be honest with you, if we just take a step back for a second. Water. Good intake of water is very important. Avoiding sugars. Avoiding artificial sweeteners. All these things in the literature have been reported potentially to exacerbate pain, as well.

Dr. Drew Sinatra: So, Joe, for a listener out there that may have just had surgery, they've been put on opioids. What's, in your opinion, a safe time frame for them to be on it — and then when to consider using non-pharmacological options?

Dr. Joe Pergolizzi: Okay. That's a great question, and right now in the United States there's a lot of emphasis on this, because there is some data from the CDC that would suggest that the longer you're on an opioid medication post-operatively, the higher the chance you have of experiencing those aberrant behaviors. Which could include physical dependence, tolerance, and ultimately opioid use disorder. So, the medical boards have looked at this very closely, and now in states like Florida, they only allow you to be on for three or five days, or a total number of pills. Part of that is because when we went back and looked at some of the surveillance, we would notice that people would get prescriptions for these medications, and the prescriptions may be for 15 days, and it could be up to a hundred pills, right? So, now they're very much either capitated by the amount of days that they have, or the amount of tablets. What they're finding is anywhere between three to five days — and then if you're still having pain, you call back in and see your doctor, because it could be something else.

Dr. Joe Pergolizzi: Now, in the hospital itself, they have what's called opioid stewardship. And they're trying to avoid using opioids in the hospital where they can, and they're trying to use it with other combinations of drugs, as well. And particularly when you go home and you're discharged, let's say you have a knee surgery or hip surgery. You're going to go home and they're going to give you some physical therapy with that, as well. So, the idea is to move away from any long exposure to opioids, because that can lead potentially to physical dependence and aberrant behavior.

Dr. Drew Sinatra: Before, you mentioned some topicals that you like using. First off, what are some pharmacological topicals, and also some non-pharmacological topicals that you like to recommend?

Dr. Joe Pergolizzi: The prescription topicals that are out there, a lot of them are compounded by the pharmacy. If I were to have been asked the question how can gabapentin,

this drug that works in your spinal cord, how can you rub that in topically? That's what people have to understand — that your skin is a big organ, and your skin can bring drugs into the body. Now, a real topical stays in the skin, and that's where it works. And that's important, because some people may be on a patch and they put a patch on, so that the medication can get into their blood, and it bypasses their liver. Or they can't swallow, so they need a patch. There are a bunch of over-the-counter local anesthetics, and they themselves are not without concern. Some of them can cause issues with your blood, methemoglobinemia, right — and that's in the warning and precaution.

Dr. Drew Sinatra: Well, it's great to hear that there are so many topical options out there for folks who need to treat their pain.

Dr. Joe Pergolizzi: So, we have a bunch of different types of topical agents that you can use — and some are using now CBD oil, which you and I may talk a little bit more about. There are other things, too. Olive oil in some anecdotal studies have shown, peppermint is another one. Rosemary…rosemary sometimes allows things to be absorbed quicker, so it's like an enhancer. Then when we look at other types of options, ice and heat are good. I mentioned to you when we put heat on something, we're increasing the circulation of blood to that area, and we're bringing more of those natural opioids and natural endorphins and enkephalins there, and flushing out all the byproducts of wound injury. When we put ice now, we close it down — we try to keep that all contained in one area, and hopefully those things that help us with pain relief will last a little longer, as well. So, ice and heat are very important.

Dr. Drew Sinatra: What about systemic heat? You know, are you a fan of infrared saunas, for example? Do you like those?

Dr. Joe Pergolizzi: Yeah, you know, I like it. People use different terminologies when these infrared — so nowadays with the new LED lighting, you can see lots of different things. I think what you have to realize is that this low laser level technology can potentially be very helpful. So, what are we trying to do with this? We're trying to energize the mitochondria, that's the idea. So, actually, if I take off my doctor hat and go back to my physicist and physical chemistry life — what we're looking here is the powerhouse of the cell is trying to get more energy in there, and this might do that. You know, there actually is a mechanism that mediates that, adenosine. These adenosine receptor modulators, particulary the ARM3s, we call them. These are very, very interesting, because if you can mediate that part of the mitochondria through adenosine, then you can make the cells stronger and you can make them repair quicker, and you may be able to decrease the inflammation.

Dr. Joe Pergolizzi: Remember, when these cells are hurt, they're like crying, "Ah," and when they're crying, they're letting out oxygen free radicals and all these other things. There is lots of different reports out there. There is one report I read about osteoarthritis where 15% of the people said it as good, it helped with their pain.

Dr. Joe Pergolizzi: Pain is very particular, right? So, you're going to see different things work with different people. The other thing about pain, it's a perception, right? Because right now we're still in search of the biomarker of pain, so I can sort of judge yours and your dad's pain against each other, right, based on a biomarker — like cholesterol. We don't have that. I sort of look at my patients that are in pain, and I try lots of different things to see which one's going to work for them.

Dr. Steve Sinatra: There's a very important, practical thing we need to consider, and I'd love to get Drew's opinion, as well as yours, Joe. I mean, let's face it, when you're in pain, you can't sleep. This is one of the biggest factors that I saw in my cardiology practice for years, and now it's even worse with all the electromagnetics in the environment, with melatonins going down and stuff like that. So anyway, it's wide open, but I think sleep and pain are sort of buddies in a way, and we have to take them into a direction where we have to get our patients asleep comfortably. Because remember, when you're sleeping, you're healing.

Dr. Joe Pergolizzi: You know, you hit it right on the head, and I'd love to hear Drew, so I'll start with the pharmacological stuff. Sleep is such a big problem with pain, that there is a tremendous amount of patients that get a co-prescription for benzodiazepine and an opioid — and that's not smart, right? Not so much because the FDA even has a boxed warning on that, and what the FDA is saying is pay attention to this, because you can have what we call additives, or super-additive, or even ten-fold respiratory depression when you give benzodiazepine and opioids.

Dr. Joe Pergolizzi: So, let's take that elephant off the table, and then let's talk about some of the things you mentioned. Those liposomal GABAs, some of the natural products — I'd love to hear what Drew thinks — are very important, because pain patients do not have great sleep. You know, they also have anxiety and depression, as well, a comorbidity index of 30 or 40%. So, it is important that you get sleep. I could tell you that some of my fibromyalgia patients, they'll come in and I'll ask them, "What's the main thing you want me to help you with?" They're like, "I need to sleep." Right? So, I think that you have to address it, as you said — you need to think about different types of alternatives; I've used many different types of alternatives. But I will say to patients that if you're getting an opioid medication for your pain, you want to make sure that whosever prescribing that knows whatever sleep medications you're taking, too. That's really important. Drew, what do you think about that?

Dr. Drew Sinatra: Yeah. I mean, liposomal varieties are great. Some combinations out there are like GABA, L-Theanine. I've seen a lot of CBD added in there, as well. You can add on some magnesium, maybe a little melatonin in there, and that can certainly help people fall asleep. They don't work for everyone, but for a lot of people they do help support sleep — so I'm all about using those.

Dr. Joe Pergolizzi: Yeah, I like magnesium a lot, and Steve, I think maybe you and I had spoken about this…

Dr. Drew Sinatra: Oh, yeah.

Dr. Joe Pergolizzi: ...before. I mean, I love the drug. Women who have pain and are also going through menopause, I think they respond really well to magnesium and zinc, and to some of those trace elements.

Dr. Steve Sinatra: Right, right. Then, just getting back to the cardiac point of view, another dilemma I had often is I would have patients on cardiac meds and pain meds at the same time. Sometimes there's a fine line. The other thing, too, that I saw was probably from the cardiac point of view, when I was using pain meds, the sequela of constipation came up in a lot of my patients. Joe, in my cardiac population, that was even worse than having pain. So, what I would do with a lot of my patients, I would get them up walking more. I think walking was one of the best ways of alleviating constipation — and taking away their pain meds. I'll tell you, when it came to this aspect, many of my patients preferred the pain, a little bit of discomfort, over the constipation. So, I think we need to address that, because again, it was a real finding in my patient population. Especially those bypass patients that had the incision in their chest and stuff like that. So, it's something that I think we should address.

Dr. Joe Pergolizzi: Well, you're right. Obviously when we open someone's chest, we have to make sure that they physiologically can handle that pain, so we give them opioids. I mean, you're going to do that, it's very painful. But then post-operatively, we start to switch them to different things — and we also, before the surgery now, give them medication that specifically address those opioids in the gut. And when they're activated in the gut, what they do are four basic things. They stop your peristalsis, so that, sort of, motion in the gut. They increase the removal of fluids from your gut, so they make it dry. They decrease the mucus in the gut, so the stool can't slide forward, and then they shrink your sphincter. So, it's hard, dry stool not going anywhere, and that's what the problem is with ileus. And you're right, patients will do anything to have a bowel movement at that time. And they can't really be discharged from the hospital if they can't.

Dr. Joe Pergolizzi: So, nowadays we use other things like a premixed and ready-to-use bag of NSAIDs. You know, we found that a lot of these can be managed with proper, lower doses. For when patients are at home, and they have issues with some of their medications, there are other types of things they can do. Because, yeah, a lot of pain medications also cause what we call bowel dysfunction. So, there is fruits that you can use, increase your water, increase your fiber, and then there's a bunch of different Chinese remedies, too, that you might want to look at, as well.

Dr. Steve Sinatra: I guess that's the dilemma. I mean, how do you weave through pain, and sleep, and constipation? I'll tell you, my hat goes off to you, Joe, because managing these patients with pain, you get into a lot of dark alleys. I think the good doctor here will look at all his aspects. They'll look at how are they sleeping? You know, are they moving their bowels? What is their pain like? Then for a cardiologist like myself — well, is the pain provoking angina, or is that making arrhythmias worse? I don't think patients realize this, but a lot of doctoring, we're constantly putting our finger in a dike and trying to plug up this hole, that hole, and this hole. And sometimes it becomes a nightmare…but in the end, remember this, the body always finds a way to heal itself. And time heals.

Dr. Joe Pergolizzi: I love that. I'll tell you, Steve, I've heard you say it before. It's the body, like you said, the mind, and the soul. But again, Drew, just to draw back to where we started, to what was some of the fundamental problems that got us into this opioid crisis? We just spoke about a whole bunch of them. It's a lot of different elements for you to pick the right course and do the right thing. And if you don't have that primary basic understandings, then you potentially can have problems. That may be part of it, too.

Dr. Joe Pergolizzi: There may be part of it that is on the patient's side, and with maybe initial good intentions. You know, they want to get out of pain, they want to be the good patient, and they're not getting good pain relief. They're afraid that's going to be the bad patient. So, what do they do? They ask their friends. "What did you get for your bad back? Oh, can I try that?" Those are things you shouldn't do, and those are some of the problems that led to this crisis. I think now we're at least focusing very heavily on education, and appropriate prescription, and looking at outcome measurements — so that we're always seeing if the patient's getting better, and that's important.

Dr. Drew Sinatra: Earlier, we mentioned having CBD in some topicals, and I use a lot of CBD orally for patients that are in mild pain. I mean, I'm certainly, Joe, not treating anywhere near the scope you are, in terms of moderate and severe pain. But for those who are suffering from mild pain, whether that is something like it's Crohn's disease and they're having abdominal pain, or someone that has back

pain, more of a chronic state — I do like CBD. I do find that it can be effective for some people, but do you use it orally in your practice?

Dr. Joe Pergolizzi: Yes. I was very fortunate to help look at the only people in the United States who had a principle investigative mediated study that was registered with the FDA for synthetic cannabinoids for pain in diabetes, in cancer, and with spasticity due to MS. So, we learned a lot from that. Remember, that is a synthetic one, so you can get more of a sort of pointed response. When we look at the natural CBDs, I think we have to sort of ask ourselves, well, is it hemp-based? Is it marijuana-based, first? And then, how pure is it, and what type of concentration are we getting?

Dr. Joe Pergolizzi: If you have experience like you do, then you're able to give better suggestions for your patients, and that's key. Because, I love capitalism, but a lot of the CBD I see being sold nowadays are soccer moms, with all due respect. Meaning that they may not have that fundamental understanding — and in a sense, if you think about this, if you wanted to be a critic of CBD, you could say that this is one of the largest unsanctioned clinical research experiments in the world.

Dr. Drew Sinatra: I couldn't agree more. There is so much junk out there with CBD. I mean, you can go to a gas station these days and buy CBD there. I mean that, to me, is just wrong. It's wrong.

Dr. Joe Pergolizzi: Yeah, that's why they need people like you, qualified individuals. Now, I then was asked to be involved with CBD in California, and I met a bud master, and that was a lot of fun. He was about 17 years old, and I've got to tell you, he knew more about the pharmacology than I think I ever did, and I was a former pharmacology professor. So, that gets down to another point. Like you said, you know, you've got to demystify this. I think that if paid clients or patients want CBD, they need to go to qualified individuals, and they need to understand what they're getting. I think that we're going to get to the point where we're going to unlock the nature and the beauty of this particular option for many different types of issues, and pain is one of them.

Dr. Joe Pergolizzi: So in the past, when I had patients who had cancer pain and you could not prescribe it in Florida, I would sent them to California. So, I think that there is a genuine value of it. I think it really is best served in the hands of an individual like yourself, who can help clients or patients or people better understand what the right choice is. Because right now, it's just too much blanket, and everybody's involved, and everybody says their product is better than another, etc., etc.

Dr. Joe Pergolizzi: Now, there's a couple things I could tell you as a doctor and as a scientist. These plants are very much based on the genetic code of the plant, and each one is different, right? The strands. Another thing to realize is that they may have trace elements in them, and some of those trace elements may not be as healthy. Some of these plants may be susceptible to fungus. There was a big clinical study that was stopped at the major academic centers for medicinal marijuana because it had fungus in it. So, again, they need to be going to people like you who are vesting the time to vet these products, and to give proper guidance. Otherwise, it's an uncontrolled experiment, and then you're not going to get the results you want.

Dr. Drew Sinatra: Joe, what's your take on medical marijuana for pain management, including THC? We just talked about CBD, but I want to hear your take on THC.

Dr. Joe Pergolizzi: Sure, it's very interesting. I have my own impression in that I recently went to a big conference down in Naples, Florida, from Johns Hopkins, where I previously was a part-time adjunct assistant professor. And I heard them talk about what they're doing with medicinal marijuana and different extracts of it. I think if I paraphrase the keynote speaker that we have many miles to go still, to figure it out. I think what we find is sort of a combination of, again, public demand and expectations, and the concept of having a balance between "do no harm," and getting some type of relief for certain patients. So, I think what we're seeing right now for pain is anecdotally, a lot of people that I know who are prescribing this — and some of my patients who have been prescribed it — will tell me that it does help, particularly for their cancer pain. And it may have some other type of effects, like helping them gain more appetite. Right?

Dr. Joe Pergolizzi: I think we're sort of at the crossroads right now, where we have an opportunity to explore this natural product, and to better understand how it might be able to help people. But at the same time, we have to be cautiously optimistic and we have to be vigilant ourselves. So, if we're not going to do the standard type of drug development that we would with other things, then we have to impose it upon ourselves as individuals that believe in it and support it to always be looking to do no harm.

Dr. Drew Sinatra: All right. That's great. All right. Well, as we wrap up, let's leave our audience here with some takeaways. From Joe, what you were talking about today, it appears that a multi-modal therapy approach is really what's necessary to treat pain, acute and chronic. I mean, I was blown away today hearing you speak. Even you mentioned euphoria as a side effect, I never even thought about that. The way your brain is thinking around all these things is just incredible. So, I learned so much about even, like, the foods we're eating, our mindset. You know, what medications we're prescribed. You know, what other sort of non-

pharmacological things we can take. These things all play a role with pain and how people get better, so I learned so much today from you. Thank you.

Dr. Joe Pergolizzi: Thank you. To recap today, I think it's important to realize that pain still is the number one reason why people seek medical care. All types of doctors have to take care of pain. All of us are going to have pain at some point in time in our life, unless you have a certain genetic predisposition to have no pain, and trust me, you wouldn't want that. The other thing we have to realize is that if we don't appropriately treat acute pain, it can go into chronic pain. And there are different shades of pain and different reasons why we will have pain. It's important to realize that you have lots of different things you can do. And in the event you are prescribed an opioid, and whoever prescribes it for you has done appropriate risk management strategies, then you need to make sure that that opioid is for a certain amount of time, and that it's hitting its end points. Because otherwise, we may get down that spiraling hole. Don't forget about things we talked about like tolerance, and dependence, and opioid use disorder and aberrant behavior.

Dr. Drew Sinatra: Well, those are some great points for our listeners to keep in mind.

Dr. Joe Pergolizzi: So, we want to use multi-modal, that's pharmacological and nonpharmacological, and multi-mechanistic — that means different ways of addressing your pain. Topicals are a great way to start, particularly with an acute pain. Remember that, they stay in the skin where the pain is. Then a lot of things like your dad mentioned. You know, think about how we can improve nerve health. Think about how we can use things like earthing and grounding. These are all important, and they're all good for the patient. The patient's got to own their pain, and understand that they're the ones who best can manage it, and it's a two way street with whoever's helping them. So, Drew, I really enjoyed speaking with you, and I hope I brought some insight.

Dr. Drew Sinatra: Oh, it was great having you on the show today, Joe. Thanks so much.

Dr. Steve Sinatra: So, just to summarize, I think we could all agree, I mean, we're all clinicians, that the most important operative in the management of our patients is really the reduction of pain and suffering. I mean, let's face it — patients will show us enormous gratitude whenever we can reduce pain and suffering, whether it's emotional pain, physical pain, of course, but that's the aspect of being a really good doctor. So, Joe, thanks so much. I appreciate all you're doing for your patients. And Drew, as a naturopath, my heart's out to you because you offer so many great ways of alleviating pain, as well. And hopefully between the three of us, we've given our patients a lot of information that they can sink their teeth into and get well.

Dr. Drew Sinatra: Since we were talking all about pain management today, our **Wellness Wisdom** segment focuses on one of the most common complaints, according to Dr. Pergolizzi — lower back pain. If you're suffering from lower back pain, you're not alone. About 80% of people will experience some type of back pain over the course of their lifetime. It's a persistent, nagging pain that disrupts everything you're trying to do during your busy day. For many people dealing with severe chronic pain, surgery may be the only viable option, so it's important to have a discussion with your doctor about the risks and benefits of surgery before opting to take this course of action.

Dr. Drew Sinatra: But, the good news here is that here are numerous ways to get relief from lower back pain without resorting to surgery. Therefore, I wanted to take the time to share some of the more common non-surgical treatment options for back pain that can help if you're really suffering.

Dr. Drew Sinatra: Heat or ice. Heat packs and ice can help to relieve lower back pain. Some people find that alternating between the two works best. Manual manipulation and massage therapy. This treatment can be conducted by an osteopathic doctor, chiropractor, physical therapist, or other qualified pain health professional.

Dr. Drew Sinatra: Exercise. A program of back exercises will usually include a combination of core and back strengthening, stretching and low-impact aerobic exercise. Electrostimulation. This included transcutaneous electrical nerve stimulation, or TENS units, various types of electro-frequency application, and spinal cord stimulation.

Dr. Drew Sinatra: Pain medication. Typical oral pain medications to treat lower back pain include acetaminophen, NSAIDs, oral steroids and muscle relaxants. Topical OTC and prescription pain relief products also exist, and are good options. Hopefully, some of these tips will help you get some relief from your lower back pain without drastic measures.

Dr. Drew Sinatra: Remember, everyone…if you liked what you heard today and you want to be an active member of the **Be HEALTHistic** community, subscribe to our podcast on Apple Podcasts or wherever you download your favorites, and subscribe to the Healthy Directions YouTube channel. You can also find more great content information from us and the Healthy Directions team at **HealthyDirections.com**.

Dr. Drew Sinatra: I'm Dr. Drew Sinatra.

Dr. Steve Sinatra: I'm Dr. Steve Sinatra.

Dr. Drew Sinatra: And this is **Be HEALTHistic**.

Narrator: Thanks for listening to **Be HEALTHistic**, powered by our friends at Healthy Directions, with Drs. Drew and Steve Sinatra. See you next time.