Joint Pain Treatment: Natural Regeneration and Prolotherapy Explained Transcript

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Introduction to Nutrition and Vegetarianism

So some people I laugh because they need to take good nutritional oils and they have this belief possibly that they need cod liver oil and they can't tolerate it so they hold their nose and force it down.

Well, if your body's rejecting some type of a food product in your mouth and it's uncomfortable and tastes bad, there is a good chance you should not be swallowing it.

It makes sense, right? Why would you eat that? If it's causing discord in your mouth, what do you think it's going to do to the rest of your body for the next day and a half?

Come on. So that's a bit of a challenge. So vegetarianism, all the different aspects and there's different shades of that are good, but not for everyone all the time.

That's the trick. It may be therapeutic. It may be a long-term lifestyle. The biggest problem with vegetarian approaches is that you have to get so much variety, which most people aren't prepared to do.

Welcome to the Natural Facts Podcast. I'm your host, Dr. David Wickenheiser. I'm a naturopathic physician with over 30 years of clinical experience. I have a focus on natural and regenerative medicine.

Through this podcast, I will be your guide, helping you to make sense of conflicting healthcare choices. Welcome to The Natural Facts. I'm Dr. David Wickenheiser, naturopathic physician and your host of the Natural Facts Podcast.

This is the third of four interviews I recorded with Dr. Sharon Livingston for the Verve Podcast. This episode is on the natural regeneration and prolotherapy.

Podcast and Interview Introduction

Hello and welcome to The Verve with your host, Dr. Sharon Livingston. In this special series of interviews, Dr. Sharon talks with Dr. David Wickenheiser.

Dr. Wickenheiser is a naturopathic physician and an expert on natural remedies for better health and disease prevention. And now, here's Dr. Sharon. Hi everyone, it's Dr.

Sharon Livingston with Dr. Wick. And today we're continuing our discussion about pain. We've been talking about knee pain in particular, but treatment of pain and joint pain is similar.

Is that correct, Dr. Wick? Dr. Sharon, pain from a joint cause is a very common circumstance for all of us. Whether you're active, inactive, everybody will have joint pain.

And whether it's your knee, your shoulder, your low back, your neck, jaw, wherever it happens in the body similar mechanisms affect all of them. We've been talking about assessment.

One of the things that we talked about informally was something you called rice. Could you talk about what rice is? So RICE is rest, ice, compression and elevation.

And this is a classic physiotherapy approach that's been in discussion and practice for many years. Rest, stop hurting yourself. Take some time to let your body to recover.

Assessing Joint Pain and RICE

Take time. Ice was to shut down the inflammation. and there's some controversy with that now that really helps healing but ice is important if you've just twisted your ankle you want to calm everything down and there are some tricks with that of course because you don't want to leave the ice on for too long if anybody has held a snowball or thrown snowballs after about eight minutes your hands are getting very hot because your body moves more energy more blood flow there so if you've got say a twisted knee sprained ankle, you want to put ice on it but only for six to eight minutes.

Take it off and then put it back on. That will chase the blood away and calm down the situation. So rest, ice, then compression. You want to support the area and then elevation, elevate your knee, your ankle so it brings blood flow away from those areas and doesn't congest it.

So these are really important concepts but there is some controversy in terms of whether or not you should do all those things every time. And so can you talk about that a bit?

What kind of controversy is there? And I understand the thing about the ice maybe doing the opposite of what you want to do and bringing more to it. Is there other controversy about it?

Well, there certainly is from the standpoint of published research. I'm a member of the American Association of Orthopedic Medicine. So this is a group of doctors, convention every year, lots of information and workshops throughout the year.

And there is a lot of discussion that you should not be putting ice on. Partly because most people don't really know how to apply it. They just put the ice on and an hour later throw another ice pack on and they're over treating.

So there is some evidence that if you just allow that area of your body, knee, ankle, shoulder to calm down, so rest perhaps ice. Compression will support it if you need to.

You don't want the area to fill up and swell like a balloon. for say a twisted knee and then elevation, of course, you twisted your knee, put it up and rest from there.

So the controversy is, are the treatments of that type for everybody going to work well for all injured people and not always, but it is a good place to start.

How long do you go with that treatment before you decide to try something more aggressive? huge question. Dr. Sharon, this is a big discussion and even medicine.

One of the most popular statements is, I thought it would just get better. I do know that one. Hey, we've all done it. If I just limp around for another week, maybe it'll heal on its own and sometimes it does and certainly if you're younger and you're 20 years old and you've twisted your knee, yeah, it's going to get better on its own because your metabolism is fast enough.

But for most of us, we really need to assist it and that's where treatments come in. Okay, so I've been doing my ricing and I come to you and I say, Dr.

Wick, you know, I'm still experiencing this pain and what can I do now? It's really stopping my functioning in certain ways. It is very uncomfortable.

Okay, so the next couple that we've covered in previous podcasts, but what we're going to, I'll review just now is we need to assess and find out what actually is going on.

So that's a physical exam, put my hands on the person with an injured knee, for example, and find out where the pain is, what they've injured, look at their x-rays if they've got any, put the ultrasound machine on to see what is damaged if they've actually torn muscles or ligaments in the knee.

Now, if all that's in place and say they don't have anything obvious, it's just swollen and in pain, then we've got the

option of starting treatments, which may be simple or more involved.

Okay, so let's say we've gone to the next step. What might that be? Okay, so the next step that I like to do with patients is to confirm that they're getting good nutrition.

Are they eating well? Are they restricted in any way in their diet? Are they getting enough protein? Protein is essential to forming up the collagen, which is the connective tissue that's going to support the knee.

Now this is all assuming that their bones are fine and the x-ray came back, everything is smooth and normal. So it's just soft tissue, it's just ligaments, tendons and muscles we need to feed.

Nutrition, Protein, and Food Tolerance

So that's making sure they get enough protein and if not use a protein supplement, possibly an amino acid supplement, that'll help a lot to get started.

So let's go back to the protein. I think I may have told you this. I was a vegan for 15 years and in recent times it just seems to work better for me.

I went back to animal protein. The last couple of years I eat meat. So what do you mean by good protein? What is good protein? Well, that's always a discussion because it's not always the what, but the who.

In other words, what's best for you and that really is testing it out. There's different types of testing, but your personal experience is the best. Some people I laugh because they need to take good nutritional oils and they have this belief possibly that they need cod liver oil.

and they can't tolerate it so they hold their nose and force it down. Well, if your body's rejecting some type of a food product in your mouth and it's uncomfortable and tastes bad, there is a good chance you should not be swallowing it.

It makes sense, right? Why would you eat that? If it's causing discord in your mouth, what do you think it's going to do the rest of your body for the next day and a half?

Come on. So that's a bit of a challenge. So vegetarianism, all the different aspects and there's different shades of that are good, but not for everyone all the time.

That's the trick. It may be therapeutic. It may be a long-term lifestyle. The biggest problem with vegetarian approaches is that you have to get so much variety, which most people aren't prepared to do.

Interesting. Something interesting happened yesterday. It fits with what you're talking about. I was doing some distribution of materials for the Chamber of Commerce here.

I've been volunteering, helping them out. I was with a woman who wanted to talk to me about some issues she had and so we used this time so she was helping me and we were talking while she was helping me.

We walked into a restaurant and to me, it smelled oaky. To her, it smelled delicious. Her eyes lit up. She wanted to sit down and have lunch. And she said, oh my God, have you eaten here?

And I said, no. And she said, why not? It smells so great here. I said, oh, I just haven't gotten around to it. Isn't that interesting? I mean, that would not have been a pleasant experience for me.

Maybe not good for me, but for her, it was wonderful. Well, we're playing with a lot of different emotions and associations and I've seen this before.

There is a delicatessen in the town that I live that I've gone into a couple of times over the years because they have

certain Christmas delicacies that I've been sent to go and pick up.

And I walk in and I know it's a butcher shop, but there's a smell of death and I eat meat. I'm not full vegetarian by any means. I like plant-based products, but I also eat meat.

But when I walk in, it does not smell good. It's like it hasn't been cleaned out. And other people walk in, they're in their heaven, just like you just said.

So it's associations. This is where we're testing out or we can test people for what they're allergic to. One way to test this is to stay away from those foods for full four weeks.

Now, this is classic with sugar. You come back to sugar and you go, oh my goodness, what was I eating this before? It doesn't taste good. It's a certain effect.

Same with salt. When people take a break, let their body reset, they may not accept the smells and tastes that they had before in their life. Do you remember that movie where the, I forgot the name of it.

It was about the guy who went on a McDonald's diet for a month. Oh, supersize me. Yeah, yeah, yeah. And at first he was revolted by the sense and then he got used to it and he liked it.

Like he reset his taste. Sort of. It also made him sick. But in the beginning he was revolted and then he was forcing it and then he got used to it and liked it.

So how similar is this to other experiences like smoking cigarettes? Because people become addicted to what they're allergic to and you get allergic when you're overloaded.

You go through this whole overcompensation cycle. It's like passive-aggressive relationships and codependency. It's almost like you're codependent with your food.

Oh, I love that. What a great concept. Well, same mechanism, same neurotransmitters. If one system is so profoundly operational, I'm not saying effective, but operational for emotions, how is food not connected to emotions?

It always is. Is it possible, though, that there were some foods in that restaurant that she was smelling that were good for her, whereas they were not good for me?

Is that a possibility as well? Dr. Sharon, as you know with marketing, you sell the sizzle not the steak because the sizzle stimulates your emotions and it starts you imagining and being creative and projecting.

And so all of a sudden your comfort foods relate you back to a comforting time in your life and food is all part of this. The real reflection of food is how do you feel in half an hour or more to the point after you haven't eaten a food for a whole month and your body has calmed down and you reintroduce it.

Does your body accept it? No different from emotions. And so for her, certainly it was good, but good at what level? And if you look at people and they're eating their comfort food and they're 50 pounds overweight, you're looking at this thing, well, it may not be working right.

Okay. So we've tested people's nutrition and we try to help them with that. And they come back and they say, doc, listen, I've been eating the way we talked about and the pain is still here.

What do I do now? Well, if they've truly been following the program, we're then looking at not just making sure they've got enough building blocks for rebuilding their joints, reducing the pain through changing and improving their structure, but stimulating the body to use those building blocks.

This is where we go into herbal medicine. You may go into homeopathic medicine, something like Traumeel, a

popular one for trauma from there. So there's a whole list of things to consider there.

From Nutrition to Regenerative Injections

But if that's still not enough because we get started with that pretty quickly with virtually every patient, they may need what the medical doctors talk about as or describe as interventional medicine.

Okay. Can I ask you something about that? I know we're going to talk about interventional medicine in a second. What I'm thinking is some people, including myself, we're not perfect.

Oh, I know I should be eating this or I know I should be doing this nutritional. Can I go into something interventional even if I haven't time tested a nutritional approach?

Yes, a lot of people do have good nutritional capacity in their body. It may not be ideal, but it's certainly adequate and that's a challenge for some people because they say, well, why don't I just take a pill to fix my knee?

Well, yeah, if you're nutritionally deficient, that's a great way to go. but you may have enough nutrition in your body many of us do but it's not being used properly so we need to turn on the cells we have cells in our body that's what we're made up of little organizational units of life we have cells that are called blast cells that make fiber fibroblast cells actually lay down more connective tissue we can regenerate think of a spider laying down a web now it's a different arrangement than that but it's similar and that these cells when they're turned on will use what they're being fed and lay down more ligaments and connective tissue in say a sore knee it will repair when those cells are turned on Okay, so I kind of did what I was supposed to do.

It might not have been perfect, and I still have pain in my knee or my back or my ankle or something. And so now what's the next step? Well, the next step in our office is to do what appears at first not to be a good idea, but I assure you it is, and that is to use needles to inject specific medicines into specific places, say in a sore knee, that will turn on the regeneration.

So it's using regenerative injection techniques. Oh my god, I'm gonna have to get a needle in my knee. I know, we use freezing so it's not a big deal.

But yep, that's exactly what everybody says. Oh my god. So what do you say to them? It's a bit odd in our office because majority of people come referred by a friend or relative who's already had the treatment.

And for people who haven't had that referral, we've got to talk and describe things and reassure them a lot more. The people who come in for the treatments and they've been referred, I start covering my bases, make sure they're fully informed.

And usually they hold up their hand and say, it's okay, it's okay. You don't have to tell me about that. I know it works. Let's just do it. So the first one, what would it be?

What would be the first line of treatment with this kind of needle thing? Tell me what it's called and then tell me why you would do that particular thing and what the expectations were.

And I know that when the person is there, they're already kind of committed, so maybe they don't want to hear it again, they just want to get it done.

But for here and now, could you describe what it is, why it is, how it works and what we can expect? Sure, my favorite is not the most common. We're going to go through each part of this.

Now the most common type of injection treatment for the knee will be dextrose prolotherapy and that's where a sugar dextrose at a certain concentration with anesthetic is injected into the capsule of the knee and yes you freeze the skin and yes you do it.

There is going to be some pressure, a little bit of pain but not a lot because we're freezing it. And that will help to heal the entire knee. Now that's the most common treatment.

It's been in the United States since the 1940s through the 50s, 60s. Textbooks written on it. That's what the core treatment that is taught by the American Association of Orthopedic Medicine involves.

And for many people it's effective, but it's not my first choice. Why sugar? Why would you put sugar in my knee? Yeah, that's a good question. Isn't that odd?

Well, it's totally odd, but scientifically validated. There's two approaches with using the sugar. At a low concentration, around 5%, it resets nerves.

And so there is a situation in the human body where you may have pain, it may be signaling that there was injury but you've healed and you simply have not reset.

In those cases, resetting the nerve rather than healing the knee may be more appropriate and that's where you use low concentration of the dextrose. Wow, so it's almost like the phantom pain.

somewhat phantom although phantom would be a little bit different but very similar that it's not real it's not true the nerves firing it's signaling but it's not firing the right way it's as if the guard dog next door is just barking for the sake of barking And that's somewhat common with people that need care in the knee, you need to reset.

So there's times when we use that, but majority of time based on the physical exam and what we've looked at with the ultrasound and x-rays, you can see that they actually are stretched in the area.

And so to turn on the fibroblast cells that lay down more collagen and tighten up and support the knee, dextrose is a popular way to go, but it's not my favorite.

Okay, I want to hear what your favorite is, but before we do that, sometimes I have these thoughts about who on earth was the first person to think, oh, let's put some sugar into that joint.

You know what it reminds me of? It reminds me of leeches. Like, who got the great idea to put bugs on someone to drain toxins out of their body? I always wonder why would someone think to put dextrose in a joint?

Dextrose Prolotherapy Explained

Well for sure and it is an irritant. Now if you've ever played guitar and say you're in your teens you want to play guitar and your fingertips really hurt because you got this guitar with steel strings so you take sandpaper and buff up your fingertips and in about a week or two of doing that oh look at you've got these amazing calluses where you're working on the guitar and that's no different than the rest of your body including the ligaments and tendons of your joints.

You can increase their size and cause sclerosing so that means laying down more tissue and getting stronger but there's a discussion here by irritating and sugar is a relatively safe non-toxic generally injection.

Now there's toxicities with sugar, you can talk about diabetics and all that stuff, but in this way injecting sugar will irritate an area of connective tissue and cause the fibroblast cells to lay down more tissue and strengthen an area that needs to be supported.

Okay, you said that that is a common first line of defense, but that it wasn't your favorite. So what is your favorite and why? Well, I have another one that's much better in my estimation from what I've seen with the ultrasound because dextrose, while it's common, while it's very straightforward, there is a problem in that it's gonna irritate and build up anywhere you put it.

And that's not always the best idea because you can create excessive scar tissue. I've seen it. I've felt it when I

treat people after they've had multiple dextrose treatments.

The biggest problem with dextrose is it doesn't work quickly and so you need 8 to 10 to 12 or more treatments in many cases, sometimes a few works but not common.

So it takes a lot more time and expense and we're not sure where all the sugar is going. because it can spread out. Now I prefer something else called platelet rich plasma PRP prolotherapy.

Now there is some confusion because people say well prolotherapy which was taught and practiced in the 50s and 60s that is the standard. Yeah but it's time goes ahead and we learn more things.

So within platelets, platelets are in your blood they normally stimulate the formation of clots so you get a cut or you get a bruise the blood, you don't want it to flow everywhere, so you land up with a blood clot.

Those platelets also hold platelet-derived growth factors that activate stem cells to make new fibroblasts to have really efficient and elegant healing in an injured joint.

Where do they come from? Where do you get those plasma-rich platelets? I'm in general practice and I'm really cautious about a certain number of medical concepts like contamination and sharing viruses, not really big on that.

I first went to a platelet-rich plasma training session that would have been in June of 2012 and it was interesting, it was fun. Coming home in the airport, ran into one of the dentists that practiced in my building He had their own office there and I'm saying, oh, I just learned those coolest stuff about platelets.

And he says, well, we've been using platelets for gum treatments for years. And my first question was, well, that's really cool. Where'd you get them from?

We get them from the supplier. Supplier? That means someone else's platelets? Oh my goodness. Okay. We use platelets to turn on healing in a joint but it's the person's own platelets.

We draw blood, put it in a centrifuge, spin it down because it's a different weight from the red blood cells and other components in the blood. So you get a separation and you can extract out specifically the platelets, mix it with anesthetic and inject it into an injured soft tissue area of whatever joint you want in the body.

It's the person's own platelets. and it'll turn on healing using your own platelets. Well, why aren't those platelets in my body working on their own?

Why do I need to take them and re-inject them? I'm kind of confused. I understand and that's a really good point because there isn't a lot of great circulation in many of the joint areas and that's a really important part here because muscles heal faster than ligaments.

The ligaments don't have as good a blood supply and you're not going to get as much there. Now there's other parts here because when people are bruised they have a certain degree of healing.

The problem is the red blood cells, when they disrupt, when they break and cause a dark blueing or purpling of a bruised area, those red blood cells interrupt the activation of the stem cells and that healing.

So you really just want the platelets, which you almost never just get in natural, you know, just day to day life. So it's in the blood and if you get it put into an area through a bruise, red blood cells go and that counteracts it.

So this is really specific treatment from a person's own blood going into their joint in a way that your body would not just put there on its own.

PRP Prolotherapy and Healing Timelines

I go to the doctor and he takes blood from my arm just the way they would for a regular blood test. Is that how it works? Exactly. And it goes into specific equipment that we've got, kits that are disposable of course, so that you don't have to worry about contamination.

Who else used the kit? No, it's one use. Put in whole blood, spin it down, pull off the platelets and then inject it under ultrasound guidance so we know exactly where they're going.

Although the margin of safety is huge because you're not putting in red blood cells, you're just putting in the platelets and anesthetic and the worst you can do is have a bruise.

If you put dextrose in the wrong place, the worst you can do is create scar tissue and bind up an area that you didn't plan on being sclerosed. Well, okay.

So I come to you, we do the PRP, and what happens then? What can I expect? Like, what will they notice right away? How long will they take to have some relief?

What can I expect? It really depends on the individual, but I'll tell you what typically happens. What typically happens is that they're going to be somewhat sore for the next two to three to four days.

The normal activation cycle is 11 days to lay down the new collagen, which that's the whole new net inside the knee or whichever joint you're working on, lays it down 11 days and then it will continue to thicken and regenerate all of that tissue for the next three to four months.

That's what we've seen. Now, the challenge here is expectation because if someone has a really damaged connective tissue knee, then it may take two, three or possibly even four treatments.

That's not what I've seen for most people but I have seen it for some and that's a frustration for some people. They come in and say, well, I thought it would only take one treatment.

Well, hold on. We talked about this at the start. It's your body. It depends how it heals and that's what we have to work with. So it's not a guarantee.

One treatment does everything for everybody. That's just not practical. Although we have seen some amazing results with some young active athletes and their recoveries.

So when do I get my second treatment? How long after the first? If I need more than one, when would I go for the second? So it depends who you are. There have been great results with semi-pro and professional athletes.

Someone's in a major university football team in the US and they want to get scouted for the professional teams and they've got two weeks between their second last game and their last game of the season.

And cases were presented at conferences where they were injected two weeks apart. Now that's not it for everybody. I would suggest the fastest we can do if people are really in a rush is a month apart, but I prefer to allow people about six weeks to really assess.

Although some people have shown great results after three to four months. So it depends how fast you're going to grow tissue and regenerate. I'm trying to think about, I'm looking at the length of time of our talk right now and what we should cover before we push the next sets of treatments into our next talk.

Okay, a lot of people use dextrose. You prefer the PRP. What else is there that you might inject? Dextrose is the most common, not my favorite at the higher concentration.

The lower concentration to reset nerves, wonderful. Using that in a number of different treatments but the majority of treatments we do is platelet-rich plasma.

Now we can add other treatments into the PRP prolotherapy to make it work better, one of which is ozone and that's a whole nother discussion. We'll talk about ozone therapy, we can add ozone.

From there you can add cold laser, you can do taping for the knee, Those are my major treatments for that prolotherapy treatment. Okay, so ozone is something that would be added to the prolotherapy.

Yes, ozone therapy since 1996, I was board certified in it. And there is within that world of doctors and treatments, a number of famous doctors that I've been a student of, one of which is Dr.

Frank Schellenberger. Dr. Schellenberger, well, he developed and coined the name prolozone, so prolotherapy using ozone. If you're doing that, would that be in addition to the PRP, the platelet-rich plasma or is that separate?

Well, this is where the confusion comes in. See, I love doing things that work, that get me results because I want people to be better as quickly as they can be so that they don't waste time.

And I had been doing prolozone for over a decade. I learned prolo therapy, the classic dextrose and it wasn't really working that well. I did it for about a year and it's like, gee, this just really isn't working.

I learned the platelets and it worked better. I added the ozone on top of it. So I would inject say into a knee, their person's own platelets with some prokane and anesthetic, put that in.

So you'll put in 10 cc's and then you follow with another 10 cc's of the ozone. And that's why I get such great results because we do what works and what's been proven with many patients over many years.

Adding Ozone and Managing Expectations

ozone helps the PRP. So interesting. So you in your own practice, do you always mix the PRP with ozone or do you do a stepwise approach? It depends on the individual, step wise is always there.

Although if I'm doing a knee, I always put the ozone in. If I'm doing a shoulder, always, low back, always. Sometimes ankles, sometimes hands, we may vary it a little bit and not put the ozone in right away because it gives a little bit more pain for the patient.

It depends on what their tolerance is going to be. Given a choice, I would add it in every time. Adding the ozone will make it a little bit less comfortable.

little more pressure, you're putting in a little bit more gas into the area. So if they can get past the first 5 to 10 minutes, which sometimes they can if they're hypersensitive, which by the way guys are more hypersensitive than girls, and give me a 70 year old grandmother and she just goes through the pain, you give me a 40 year old macho dude and they'll have more sense of pain because needles just affect guys more than women.

So we always combine as much as we can to get the best results. And then that's where my experience comes out. That's what I know because I've always done it this way.

People always get better quicker than some of my colleagues and we just want to get the best results. I'm having the imagination that some people are going, oh my God, that sounds like I was okay when you were freezing my knee and it was a little pressure, but now I'm going to have pain too.

So how much pain can they expect with the additional ozone? With the freezing, not a lot. Let's put this into perspective. A lot of the nerves in the area are reset with the anesthetic and this is entertaining for me because I've had a number of patients comment that the freezing I gave them was so good because it lasted for three days.

Uh, yeah, I know. It's a prokane, it lasts 15 minutes. But the nerves were reset. Even with the ozone put in, there's a little bit more pressure, so there's a bit of pressure when it's going in.

And that's about a minute and a half to two minutes. Well, I also put on a cold laser and it calms everything right down. People leave my office feeling better, having less pain than when they walked in.

So if you can get past the first five minutes, then it's clear sailing. Now, this enters into another discussion of challenge though. and this typically happens at three to four days after we treat people and this is the highest risk of the procedure because at that point they figure they're pain-free and they're fully healed, they can go right back to their busy lifestyle and that's when they can mess things up.

Okay, so you really have to set expectations and what they need to do. For me, in what you're saying, the biggest barrier is getting over the first five minutes, the idea of putting that needle into my knee or into my joint or into my shoulder.

I think the knee It's almost like somebody putting a needle in your eye or something. I don't know why. Well, that's the initial thought, yeah, but it's not valid.

And this is where a lot of the people that come in with referral, they're past that and say, okay, well, we got to be cautious about this because I've done a lot, we watch, I'm really good at this and we're going to freeze you.

And people say, I know all about it. I heard what you did for my friend. Yeah, it's not a problem. Just do it. Because a lot of people, when they come in referred, they've watched their friends.

They got the confusion at the start. Oh my goodness, they used a needle and I wasn't happy about that. But as the weeks go by, they're so much happier because they're getting their life back.

It's like, well, going to the dentist. I mean, who wants to go to the dentist to get a needle? Nobody. Do we all do it? Pretty much. Okay. You know, I think this is probably a good place to stop for this session.

Very, very interesting. I so much appreciate learning from you about all of this. So folks, just to remind you, we're talking about therapy for pain. These are the solutions and treatments that you can do.

They're alternative ones where you don't have to go and have an operation. You can do these non-surgical techniques. And we're learning about them and really, really helpful, Dr.

Wick, I appreciate it so much. So next time we'll be talking about some other approaches like the perineural, is that what it is? Yes, perineural and going a little bit more in depth with ozone and other treatments.

So thank you, Doc Sharon, and look forward to our next episode. Okay. Thanks so much. I'll talk to you soon. You've been listening to a special series of The Verve with your host, Dr.

Sharon Livingston. If you'd like to learn more about Dr. David Wickenheiser, just visit his website, drwik.com. That's drwik.com. And on behalf of Dr.

Sharon, until next time, thanks for listening. I hope you enjoyed this episode of the Natural Facts Podcast. To get access to my future episodes as soon as they're available, subscribe wherever you get your podcasts.

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