



Injection Therapy for Pain Relief and Joint Regeneration



Ep 12: Injection Therapy for Pain Relief and Joint Regeneration with Dr. Angela Cortal

Gregory Anne

This is the Rebellious Wellness Over 50 podcast for women over 50 who aren't done yet. You may have seen the worst of aging and are hoping there's a better way, there is and I'm going to show you how. In interviews, book reviews, rants and stories, each week, I'm going to bring you the latest science based info on how to age better. I'm Gregory Anne Cox, and I believe it's time to bust the myth that aging equals decline in every area of life. It pisses me off and it's B.S..

Look, aging happens, but it doesn't have to ruin your life. You just need to get a little rebellious in your approach.

Gregory Anne

Welcome back, everybody. You know, I'm always so grateful for my listeners who show up week after week to get this great information today is just like every other episode full of juicy stuff, no matter where you are in the journey.

My guest today is **Dr. Angela Cortal**, and she is an expert in pain relief, in going from degeneration to regeneration of joints and problems in the body.

So, Dr. Cortal, welcome and thank you for being here.

Dr. Cortal

Oh, thank you. I'm very excited to be here.

Gregory Anne

So, Dr. Angela is an Oregon based naturopath who has made it her mission to change how we approach and treat chronic joint pain by reversing the causes. Now, this is a little bit different. Last week, we talked about a way to adjust your movements to get some relief from pain. We're talking about reversing the causes of things like arthritis, one joint at a time. And I know that from reading about you, Dr. Cortal, that this was a personal thing.

Gregory Anne

This started because you were thrown into this situation that you needed to get handled. Tell us about it.

Dr. Cortal

Yes. So, I was a very a very young adult, barely an adult, I think, about 19 years old. And in Oregon, skiing is a very common winter sport. And I grew up skiing with my family and I was out on this particular day out with some friends and hit a block of ice that is not easy to see in in the surrounding field of snow. Blocks of ice can , and I just hit it just right or just wrong with my ski and kind of went down instantly and with within that week, found out that I had torn my ACL, which is one of the main ligaments and the knee that kind of holds everything together, stability wise, went into surgery, all within that week, kind of a whirlwind experience.

Dr. Cortal

And the surgeon fixed what they thought needed to be fixed. But I was sort of, I went into this track of although, I was a compliant patient, quote unquote compliant patient, as we talk about, I did all the physical therapy and took the medications and everything that I was recommended. I had just quite a lot of lingering issues with my knee still being really weak. And it would give out on me. And there was quite a lot of chronic pain.

Dr. Cortal

I was on, I was prescribed just about every type of pain medication out there. This is a few decades ago. So even, even the more heavier duty painkillers were also used a little more liberally at that time and just really feeling stuck as the years went on and things did not get better. And in fact, it seemed like they were worse. I was grasping, grasping at anything and everything out there to try and get my knee to heal, get my body to feel better.

Dr. Cortal

This was all through my 20s and I thought, I'm too young to feel like I'm very old, which I did. I felt very debilitated and very elderly at the age of say twenty-three, twenty four and decided to just look into a, fast forward a couple of years, still more or less holding the same. I'm going through medical school and then starting my medical practice and thinking like what, what else is there? What have I not looked into? And I found my way via regenerative injection therapies, and then studying what some of the very smart doctors in this field were saying, that you really have to look at the whole person, not just the injection therapies and piecing together that over a series of years, finding out that there's a lot more to joints than just wearing and tearing and falling apart.

Dr. Cortal

And I'm so glad that you already had someone speaking about mobility, mobilization. And so my real key piece, the part that I'm a cheerleader about, is looking at all of the systemic influences we'd say like someone's overall health and what's going on there, because there are some really, really key factors that I found personally for myself that was stopping my knee from healing. It wanted to and was trying the whole time and just was prevented from doing so.

Dr. Cortal

And so that's my big work of my private practice with patients. And an online education generally is so many factors that we can look into. That is just a matter of finding out which are key for each individual person.

Gregory Anne

And I'm glad you brought up the individual part, because there is no one way to heal. Even if one therapy works for ninety five percent of the population, there might be that five percent. It's not going to, or one diet might really, really relieve certain conditions in the body of one person and not the next person. So, you have a favorite way of feeding the body so that it can be well enough to heal and do its thing. I mean, like you said, your knee was trying to heal. Our bodies are self-healing machines if we give them what they need.

Gregory Anne

What is it that you find is helpful for people with pain?

Dr. Cortal

That's a great question. So, when it comes to chronic pain, chronic joint pain and what we eat, what we do and don't put into our bodies every day, I like to think of it like our nutrition is our building blocks. So what are we putting in as far as our meals and foods will help or hinder our body, our joints and ligaments, tendons, all that musculoskeletal tissue.

Dr. Cortal

It needs certain building blocks to heal. So, I break things down into categories of what do we need to make sure you have enough of that might be deficient. And then what are some things that might be found in excess that are actually doing potential damage? And so the "enough of "category, I think of, generally speaking, protein levels, a lot of people and I find very commonly in women when we're actually doing a very detailed diet diaries or tracking their protein intake on, there's all sorts of apps nowadays that can do that, is that we see, depending on someone's body structure, their weight and what's going on with them.

Dr. Cortal

Like, are they are they trying to build up muscle because they're in an athletic performance field or are they experiencing a chronic injury, something that's not healing? And we need to make sure they have enough protein to heal from that. So we do. And we see this in research. There are very specific amounts of protein that are bare minimum. And if we're not getting that, then then things will just not be healing because there's all sorts of other cell turnover and recovery that we need in our body from a day to day life.

Dr. Cortal

And if it's just a chronic nagging shoulder or elbow or hip thing, you know, the nagging thing, then it might always be pushed to the wayside. If someone does day in and day out, isn't eating adequate protein levels. Specifically, within that protein subject collagen is a big piece and something that I really commonly talk about. And I recommend if someone is looking for a additional protein source. And the reason for that is that collagen is a unique grouping of some amino acids, which are the little tiny building blocks of proteins.

Dr. Cortal

And we need collagen to build up cartilage, tissue, ligament, tissue, tendon tissue if someone is healing from a fracture. So the bone tissue itself is knitting back together. All of those things, if we look on a microscopic level, are predominantly made of collagen. So if there is no collagen in someone's diet, then we're relying a hundred percent on someone's body to kind of take the amino acids from other places and put them together to regenerate that cartilage or ligament tissue or whatever.

Dr. Cortal

And that I find even I would say in the US, it's very common even for us omnivorous people to never eat collagen. It's just not a part of our cultural dietary menu. And so paying attention to that by incorporating specific foods that are rich in collagen or using the supplementation is something that I'm using pretty commonly.

Gregory Anne

Now would bone broth be considered a collagen source?

Dr. Cortal

It is.

Dr. Cortal

Yeah, I would consider it. When you look at like the grams of collagen, for example, it's a little more modest than I would say the often foods that are made with I mean, just to be honest, like knuckles and joints of animals, you know, chicken feet and pig feet and something like that for a lot of Americans that are like eww but very common food. Those are very high collagen foods because like I just said, the ligaments and the tendons are very high in collagen in humans.

Dr. Cortal

And that that rule also applies to other animals, I guess you can say as well. So for only eating hamburgers and steaks and things like that that are more typical in the US and that's just the muscle meat of the animals to get down to it. They're not as rich in collagen. So anywhere across that spectrum. And I'm often saying to patients when you're cooking that food and it like gels and congeals when it's cold in your fridge, you know, that has a good bit of collagen to it.

Gregory Anne

Exactly, I have some venison stew on in the cooker right now. And of course, venison is lean. So it's not that we're looking for fat, we're looking for collagen. But I make stock out of the bones before I add the liquid to the meat and the vegetables. So I feel like I am

because it will be nice and it will be like a brick when it comes out of the fridge, you know, afterwards. So I know I've got a good supply in there.

Dr. Cortal

Yeah. So that's a great way of, you're starting with something that is rich in protein, but maybe not specifically collagen and then with the bone, the bone broth addition. Yeah. I mean our bones in general are predominantly collagen fiber. If you if you look down on the microscopic level, so if you're doing that extract with with the broth with most people are cooking it for 12 hours, twenty four hours, something like that, then then you're getting a lot of that out.

Gregory Anne

So we've got protein, we've got collagen going on. This is, now we're still in the category of what we should have enough of.

Dr. Cortal

Yep. What we've got to make sure that you're not deficient in.

Dr. Cortal

And for some people, healthy fats, that is a little bit more individualized, just depending on what, if any, meat sources are in someone's diet. What other sources of like omega three fatty acids, for example, is present and in our diet. So that one is a little bit more varied, but often something that can at least be, if not the key piece, there's really no harm in thinking about where am I getting any essential fatty acids in my diet, does it, do we have sufficient sources here?

Dr. Cortal

Where can we add some more of that in. Then on the other side of what can be potentially found in excess, that's specifically damaging to joints, to accelerating osteoarthritis, to sort of putting the brakes on joint regeneration? A lot of it is around blood sugar regulation and insulin regulation. And so, as a general sort of hormonal concept, insulin resistance and markers of insulin resistance and metabolic syndrome are very common in the US, although it takes three of the established eight markers of metabolic syndrome for someone to get that diagnosis.

Dr. Cortal

Seven out of eight adults in the US have at least one of those markers which are relating to a lot of different chronic diseases like blood pressure, blood sugar. It's something that you go to your doctor to see if you have that diagnosis.

Dr. Cortal

But the concept is very prolific. There's a lot of metabolic unwellness in the US population, in other similar populations. And what that leads to is higher blood sugars that we can pick up on labs. But specific to joint health, the insulin resistance that develops actually creates an insulin excess that is sort of spilled over, so to speak, into the actual joint tissue itself. And in research, they can test this. They can do a sampling of the joint tissue.

Dr. Cortal

They can find this and that hyper insulin states within the joint is its own sort of irritation and inflammatory trigger.

Gregory Anne

So, it's different than systemic inflammation, it's literally going into the joint and creating its own little havoc.

Dr. Cortal

Yes. And systemic inflammation also, we can see a number of other inflammatory markers with that. We'd be talking about adipokines a fat tissue derived inflammatory markers.

Dr. Cortal

So, one layer after the other of inflammation. And yes, joints are sensitive to that. And these are not short-term states. These are usually conditions that are happening over years and decades. And so there's just that cumulative effect where that for some people can be a major reason why they got an arthritis diagnosis at an earlier age than their friends or family members or something like that. And why it seems to be continuing despite all the good things that they think they're doing.

Dr. Cortal

I thought I was eating well and I thought I was exercising. But maybe for them, their blood sugar, for example, if their blood sugar is still high, then that insulin resistance is still continuing.

Gregory Anne

And now we can I mean, diabetics are given blood sugar monitors, little finger pricks. Right. But now I know there are continuous blood sugar monitoring devices that you actually, I guess, like push into your skin. And some are still given by doctors for diabetics. But it's a little bit trendy right now to have these things put into your system and read all throughout the day. It's really amazing watching the data of a person. I've

been following this one woman even exercise, which I didn't know can raise our blood sugar.

Gregory Anne

But I would say that's not a bad way to have it. But if it comes back down right away as your heart rate comes down, it comes down. That's what naturally should happen after we eat, right? You eat, blood sugar goes up within 90 minutes, it should return to whatever is your baseline. I have one on my bucket list soon to get one of those just to have fun, because I know the dangers of high blood sugar.

Gregory Anne

I don't have high A1C, I don't have any of these problems now, but I know as we get older, things tend to creep. And I want to be aware of what are those things? Maybe, I shouldn't be eating apples every morning for breakfast. I love them. Maybe it's just not a good food for me right? So those kinds of things just interesting data to have. So now, go ahead. You're going to say something.

Dr. Cortal

Oh, I the continuous glucose monitors, CGMs. I'm also a big fan of them. Yes. They're sort of a popular in the bio hacker world thing. And but I but I think with good reason as a physician my experience is I can only get the insurances to cover them for my patients who are diabetic and are poorly controlled, which is its own category of lab results. But if I had my way, I would say anyone who wants to check into this, like we do annual exams and check ins and mammograms, paps, we have these kind of screening preventive medicine tools.

Dr. Cortal

And I would say CGM, I hope in the future is seen more like that. It really gives us the information that we can't get otherwise, which is how is my body reacting to what I'm doing through the course of the day? What I am you know. Yes, exercising or not even sleep can you know, and good sleep can help your CGM, your glucose numbers.

Interrupted sleep can worsen them, infections and an other sort of acute injuries and then, of course, food and that, I can talk in a general sense with patients about and we touched on earlier, like the macronutrients, the proteins, the fats, the carbohydrates.

Dr. Cortal

But even within that, it's like all the food goes into sort of a black box, so to speak, of how does that person break down those foods? Because with CGM research, we see that individual people react differently. So someone's blood sugar may spike from apples, but

then someone else might not. And it's popcorn more than rice, even if the carbs, so to speak, are the same in each of those foods. Yes.

Gregory Anne

And I think and I don't want to get too far off. I want to hear about your therapies. I think the future of, I will say wellness care is individual testing, genetic testing by reputable people who can help you read the thing and not just like they do every genetic blip on the thing. And then they tell you you're going to get cancer, you might get diabetes or you're, I don't believe in that kind of thing, but I do think we're moving in the direction.

Gregory Anne

And hopefully it will become affordable for people to have these individual tests to show them and so that we can prevent more prescriptions and more procedures and amputations and things.

Gregory Anne

Anyway, let's go tell people sort of done the drum roll and we haven't gotten to the point about how you going to relieve the pain. So we know that there is a body part. There's eating, there's all these. What about your particular kind of therapies and treatments for people with chronic pain? Tell us about them.

Dr. Cortal

Sure, so. So we jumped off of movement, exercise, mobility, nutrition, we're kind of we're kind of building, going up the ramp.

Dr. Cortal

So additional things that I check into the other sort of boxes to check, so to speak, in terms of other systemic or just body wide influences are hormone levels. We briefly touched on inflammation levels, though, hormone levels, specifically. If someone has a deficiency in certain types of hormones, we do see that they get an earlier arthritis diagnosis and that it accelerates faster. So they go from mild to moderate to severe in less years than someone who does not have that same hormonal deficiency.

Dr. Cortal

We also see it's more likely more prevalent that folks with certain hormonal deficiencies get more joint replacement surgeries. So that's kind of all under the same topic of joint hormones matter when it when we're talking about chronic joint pain and degenerative joint diseases. The top hormones that I see again and again in the research are thyroid levels and estrogen and testosterone.

Dr. Cortal

Progesterone is another what we'd call a sex hormone going along with the estrogen and the testosterone. There's some information out there about pain levels generally, but it's really the thyroid and estrogen and testosterone that we see most closely linked to the timeline, the timeline and the progression of someone's joint degeneration.

Gregory Anne

So interesting. I interviewed a woman a couple of weeks ago on thyroid, thyroid expert. She did mention the relationship. We didn't have time to go into it. It's not really her specialty, the relationship of pain and arthritis and development of things. But she did say that it's one of the key hormones to look at if you are suffering with certain things, make sure you get the right tests so that you can see where you are on the profile of health or lack.

Gregory Anne

And then...

Dr. Cortal

And then so then going off of that certain supplementation. I mentioned collagen, essential fatty acids and regenerative injection therapies is the other specialty of my practice. I use two called prolotherapy and platelet rich plasma injections. And what these are, how I explain them is, although they can feel like magic, sometimes they're not magic, they're communication. And so via my appointment, my work with patients, talking with them, doing the physical exam or honing in on what are the specific sites that are just lagging in terms of healing, like their lingering injuries, they're just not getting better.

Dr. Cortal

There's degeneration present. And so we apply the injections specifically to those spots, which is also a very individualized manner. No two cases of knee pain or hip pain or shoulder pain might have the exact same sources of pain because there are so many different specific structures within each of those joints. I don't just think of a knee. I think of, well, there's the articular inside of the knee joint. We have the cartilage, the rolling surfaces of the bones in there.

Dr. Cortal

Then we have the joint capsule. Then we have all the ligaments, tendons, muscles and nerves in the area can also be sources of pain. So for each person really getting specific, identifying what are your sources of pain, is your pain coming from so that we can figure out would someone be a good candidate for the therapy of doing the injection therapies

to those sites and really just helping helping that area heal? They mimic what's called a stem cell migration signal, which is just a fancy term of of saying we're kind of tricking the body again, kind of getting back into the biohacking.

Dr. Cortal

We are mimicking the same signals that a new fresh injury tells the body like, hey, we just got injured here. Hey, you just sprained your ankle, something like that. And the immune system and all of the growth factors then are sort of magnetized, almost coalescing around that area and reinitiating the healing cascade.

Gregory Anne

Interesting. Interesting. Now, I have to mention that PRP is also used for facial rejuvenation, and it's called the vampire facial because, of course, they're using your own blood. Explain a little about PRP, because I think we ran that those letters by. But I don't think you explained it.

Dr. Cortal

I'll say that the action is more or less similar, comparable. So although I'm not an esthetician, I don't do like skin care, really. I'm more of a orthopedic sports medicine, joint pain kind of a provider. But the underlying reason why they work is is the same, it's that they're stimulating collagen and regeneration, collagen fibers inside of the cartilage tissue or collagen fibers inside of someone's skin. The visit, the PRP platelet rich plasma. The visit starts with a blood draw because we need to get those platelets that are naturally in our in our bloodstream.

Dr. Cortal

And so then that is processed during the visit and the red blood cells and white blood cells, for the most part, are taken out and. It's concentrated down so that what we what we have left for the what we're actually doing, the injection, is platelets and growth factors that are then injected into the sites that are needed, like, for example, a ligament connection.

Gregory Anne

And does this provide immediate relief, is this sort of like in three to five days you might feel better?

Dr. Cortal

There's a little difference between the prolotherapy and the PRP, and I'll say that I use anesthetic, so numbing agents while I'm doing the injections. So there's an immediate numbing like if anyone who's gone to the dentist and you feel that numb right away. But

that's not the therapeutic, I guess it's therapeutic in that it makes the injections more comfortable, but it's not the real thing we're going for. And that's that reinitiating, the healing cascade. It's a cumulative process because it's just piggybacking on our own natural timeline for for healing, for healing those tissues, those cartilage ligament, tendons, tissues.

Dr. Cortal

And so with prolotherapy, it's about three to four weeks out. We're seeing more or less the the majority of the effect of the treatments with PRP. It's a little bit longer. So someone may not notice really anything at all for a solid month. And that's not too unusual for the it's really more like six to eight weeks out. So it can be kind of slow, slow, slow improvement. And then finally that month, one to month two post injection, where we're really seeing the big bump in whatever we're looking for, for each individual person's specific sites of pain, laxity like excess motion instability of a joint, biomechanics of the joints.

Gregory Anne

And do you, I know that you do not facilitate, but do you prescribe somebody to have some sort of exercise modification during these times or they just go about their normal day?

Dr. Cortal

It's very good practice. There is a decent sense of, there's some common sense of like not overexerting yourself, not going into some intense injection regimen and then going for a marathon the next week, something like that. I talk to patients about if I know their type of exercise regimen and I'm familiar with certain modifications that they may want to make within the early phase of healing those first three weeks. So I will often start the conversation and then match them up with someone that may be a more appropriate athletic coach or sports medicine focused chiropractor or physical therapist or someone like that to do that more kind of long term game plan with them.

Gregory Anne

Since one of your goals is for people, is to go from degeneration to regeneration, is there an ongoing series of treatments for people to get to the, one you start the regeneration? Do they need continuous? And then if they stop coming to someone like you, will it, backslide?

Dr. Cortal

That's a really good question, and I and I do these injection therapies because they are, I don't think of them as maintenance, as a maintenance type of treatment. Someone may go to and get chiropractic once a month or something like that.

Dr. Cortal

And they're doing this ongoing maintenance treatment, the regenerative injection therapies. I don't view it and I don't see it like that at all. I think of it actually more in terms of we do an initial series of treatment and for one person, that may be one visit. For another person that may be two or three in a row within a certain set of weeks or a short number of months. And then we see they're pretty much good.

Dr. Cortal

I try to establish for each person what their goals are. And through that initial series of treatment, we're trying to meet all the goals that we possibly can and then they hold. The injection therapies the whole idea is that we have reversed that chronic lingering injury. We've gotten a deeper level of healing that just wasn't happening previously. And then they should go out and live their life. And they do. And I don't see patients. I'll see them for a short period of time and then I don't see them until, I don't know, maybe they overdo it or have a tumble on a snowboard.

Something that that brings them back into my office, because now there's a different body part, the injured. But generally they hold. If someone is getting these treatments and they feel like they're doing great, but they're going back to square one every three months, my mind's going off thinking, what are they missing? Going back to some of those earlier steps, is there like a hormone deficiency that's preventing that person from actually feeling and being able to retain the benefit of that treatment?

Dr. Cortal

I'm really curious if if they're if they're not holding and in research, we see this as well. They'll follow people one or even two years post the injection series. And they're all the benefits are retained.

Gregory Anne

So why are you and your fellow practitioners the best kept secrets on the planet?

Dr. Cortal

There is not that many practitioners who get into this particular type of field who draw lines between our systemic our overall health and the injection therapies. I, I think it just may be a little bit more common for well, I mean, we have our standard of care approach are, you know, if it hurts, give you some ibuprofen and then a physical therapy

referral. And if that's not working, then then you're seeing the surgeon. So we got that approach that that's overrepresented out there.

Dr. Cortal

And then in certain fields, and my own naturopathic medicine and functional medicine, I think most practitioners are aware of sort of the overall whole body piece. The injection therapies themselves take a long time to learn. This is after we get our doctorate. So a lot of providers are probably not interested in yet more and more schooling. It takes years to get good at this. So to connect all those dots is our professional organizations are relatively small. They're wonderful, spectacular providers, but we're definitely vastly outnumbered by the conventional orthopedic provider.

Gregory Anne

I wonder when that cloning thing is going to get big enough that we can use it on people like you, because I can't even, I have friends that have chronic pain. And I mentioned earlier, I'm going to see one tomorrow and we usually walk for miles on the boardwalk. She happens to live near the beach. And she texted me and said, I won't be able to walk tomorrow, but we can sit because the benches are back. And that just makes me sad for her.

Gregory Anne

I could visit with her sitting and walking doesn't matter. But she's just her pain in her knees. She's looking at surgeons. So I said, don't call a doctor till I speak to the woman I'm interviewing, because if there's an alternative, I don't know anybody that would want to have major surgery if they could not have major surgery.

Gregory Anne

So what would you tell somebody to the average skeptical 60 something, especially a woman who she would say, I'm not this type, I don't go to your doctor. I want my physician has to approve whatever we talk about. What would you say to that one?

Dr. Cortal

First, I like I like healthy dose of skepticism. I think that's important for us to not just take your word for it. Anywhere and everywhere that we might get information about what to do here. So I definitely welcome that. And what what I would say is that a lot of if someone, for example, is talking over treatment options with their primary care general physician, they may not be aware of the huge body of research that the regenerative injection therapies have.

Dr. Cortal

Just looking at, for example, knee osteoarthritis and prolotherapy. There's thousands of studies out there on PubMed and the meta analysis, the the systematic reviews of just thousands of patients going through these studies shows that for the most part, they're really reliably effective. If we first made sure that someone is a proper candidate. And in my book, that also means assessing nutritional and metabolic and hormonal inflammatory markers, all of those pieces putting together for each person an individualized, like what are we wanting to start on first?

Dr. Cortal

Which for one patient may be blood sugar or another. It may be a different kind of nutritional modification or getting getting them moving.

Dr. Cortal

And I do have patients sometimes that are coming to me and they are just gung ho ready for the injection therapies first visit like they're like, we got to do this right now. We've got to do this as of yesterday.

Dr. Cortal

And I understand the motivation because I've been in some of the most severe pain and joint pain and all of that possible. So so I've lived it and I understand it. And so how I'm often strategizing with patients is if we take a couple of weeks and for some of these maybe three, six, eight weeks and at least lay a better foundation for you, then we can step into the injection therapies. And I'm much more confident you'll have a better, more robust response from the injection treatments versus if we just go right into it and leave some of these other deficiencies or something like that remaining.

Dr. Cortal

So that's a big piece is kind of putting together the plan. And I would say just in my, I've been practicing for eight years, and that I encounter a lot of primary care doctors, family medicine, internal medicine and physicians that are more than happy to work with me. I don't see it as us versus them. They don't see it as us versus them. They see it as, yeah, we have these couple of tools for those with chronic joint pain, for some they work, but they see that for a lot of patients it doesn't like, they they're just as frustrated as I am, that it's often just a matter of if a doctor really is not familiar, with sharing a couple of studies, if they're like, oh, I don't know what kind of injection for your hip, I'm not so sure about that. It's often just, hey, look, look at the couple of meta analyzes. Thousands of patients. Look at the response they got from their hip osteoarthritis.

Dr. Cortal

And then it's always an individualized risk versus benefits with these types of regenerative injection therapies. The risk is very low. If we're making proper patient selection, of course, versus the potential for benefit is as huge as massive is keeps me it keeps me moving, keeps me active and also for many, many of my patients the same. That's great.

Gregory Anne

And people can go to your website, which I believe is Dr. Angela Cortal.

Dr. Cortal

It doesn't have my first name is just Doctor. Dr. Cortal.

Gregory Anne

OK, because you do have you can click on links and read articles and studies that talk about PRP and prolotherapy if people wanted to do it that way. You also have a book, if I'm not mistaken. Yes.

Dr. Cortal

"Younger Joints Today" and I published that last year and

Gregory Anne

Congratulation's.

Dr. Cortal

Thank you. Thank you. Kind of kind of unusual time for everything, including book publishing. That was July of last year. And that's sort of my manifesto, I guess we could say, on everything that we've been talking about. So I go through and I've sort of pieced together everything that we're reviewing into seven specific steps that I go through in my mind. And again, this is individualized. So I'm not doing all of them for every patient, but we're at least thinking through them.

Dr. Cortal

And that's really just sharing my perspective and my clinical experience and a whole bunch of research citations for those that do want to hit the books, so to speak, to be able to see what and how I go through this process with patient.

Dr. Cortal

And is it available on Amazon? OK, great. And if people don't happen to live in Oregon near you, what is their next best option? How do they find somebody like you?

Dr. Cortal

Couple of things I can mention.

Dr. Cortal

So, one, my professional organization, it has kind of like a long acronym. It's AOAPRM, but their website is prolotherapy college. org. And this is a professional association of those who are doing prolotherapy and other regenerative type of injection therapies. For the most part, this is from, I would say, functional medicine, osteopathic doctors, and also naturopathic doctors like myself and medical doctors who are all very integrative minded. And so I think how I work and how I think, my whole treatment philosophy is shared with this organization.

Dr. Cortal

So that's a good one for people across the US and also in other countries to look at their directory and potentially find someone that's close to you. Another resource that I have is every couple of months I lead an online group education that is a month long. And we go through some of these major pillars that we're talking about in terms of this is all the patient education that I have sort of encapsulated from my many, many patients that we work through this of people going through this group process can bring their own labs, their own imaging and really learn how can they look at what's been investigated for themselves.

Dr. Cortal

And for some people, it's figuring out and really putting their finger on, OK, that's that's what that MRI meant.

Dr. Cortal

Like, I never really understood it. I didn't really know what they were looking at on those labs. And so so we're going through a lot of the investigative work that I find that anyone can learn just for their own self and figure out what investigation has been looked at for me, what has not been looked at, where we're going to go from here, what can I bring to my doctor's next time we're talking about labs, for example, and that's called Foundations of Resilience.

Dr. Cortal

And you can find it through my my website. It's also Dr.Cortal.Com/foundations. And so we lead that live every couple of months. And whenever it's not live, then then it has a wait list sign up that that you can provide.

Gregory Anne

That's great, because more information, the better for person I know myself others feel intimidated sometimes. And I'm a crazy researcher and I'm willing to talk to my doctor. But there are times when I stumble and I forget and then I'm out of the office. And I think, why didn't I think? But that course that you're talking about sounds like bringing all the pieces together. You can say, OK, now I know I understand this. What's my next step?

Gregory Anne

Right. Just give the patient more personal power to have a conversation with their provider.

Dr. Cortal

It can take a part time job to be your own advocate. And just by getting some of this information and us talking in this group, we have a Facebook group. So it's very interactive sort of environment that we can learn from each other's experiences and as a group, help each other go forward.

Gregory Anne

Yeah, which is terrific. And I especially we're not out of the woods yet. So online communities can be super, super helpful and supportive and letting people know they're not alone, "I've had that same kind of problem." Now we're going to, that's great that you do the group as well as just being live.

Gregory Anne

I do it on Zoom. Is that how you do the live part of it?

Dr. Cortal

Yes.

Gregory Anne

Well, I for one, I'm not thrilled not to be able to have one of these injections because I like to bio-hack. I want to try things but I'm also glad I don't have any pain. But I will be recommending you and your work and the organizations that you mentioned, I will put the links to the group that you mentioned. And is there anything that you want to leave the listeners with? Give them a little hope? I don't know. What would you like to how would you like to wrap this up?

Dr. Cortal

Yeah, so I would say just keep going and just keep learning. I felt stuck. I felt like, why am I doing everything right? And everything seems like it's going wrong for a very long

time. For years. So I understand, you're not alone. There's probably millions and millions of people feeling the exact same. Just keep learning. Just keep looking into these alternatives out there. Yeah. Just just keep going because there are more options than you're often aware of from the outset.

Gregory Anne

Now, that's a really good point. And that's one of the reasons I did this podcast on the work I do is to bring more alternatives like yourself into the conversation for people.

Gregory Anne

Well, thank you very, very much. I'm so glad that you reached out and got in touch with me. This has been a great conversation. I know it'll help a lot of people. So thanks.

Dr. Cortal

Thank you so much. It was a pleasure being here.

Gregory Anne

You're welcome. And listeners, as always, thank you for being here. Be well till next time.

Gregory Anne

That's the end of another episode of the Rebellious Wellness Over 50 podcast. I hope you've enjoyed it. If there's anything that you heard or hear when you tune in that you think would benefit a friend, a sister, a mother, or even some guys, send them my way, would you? And if you've not ever been to the website, Rebellious Wellness over 50 dot com head on over there, there are resources, things that I don't always get to on the podcast that might help you age better

Gregory Anne

Be well till next time and stay that way