The Anti-Surgery Revolution: Using Cutting Edge Stem Cells for Joint & Spine Regeneration Transcript

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Introduction and guest background

Welcome, everybody, to another episode of the Exponential Longevity Summit. I'm your host, Doctor Jeffrey Gladden, and we're here discussing how we're leveraging AI to outlive disease and live young for a lifetime.

And today, I have the pleasure of being joined by a physician of great notoriety. He's a innovator in the neurosurgery and regenerative medicine space.

Doctor Jeffrey gross. So, Doctor Jeff, welcome to the show. Thank you. It's, my honor and pleasure. Appreciate it. Yeah. Appreciate you being here. So tell us a little bit about how you got into this space.

Not every neurosurgeon ends up in regenerative medicine. What? Give us, kind of the the synopsis there, if you would. Sure. Well, I practice for a few decades in neurosurgery, focusing on the spine.

I have a spine fellowship. So lots of neck and back pain, you know, day to day things. Disc problems, nerve, pinched nerve, what have you. And it occurred to me over my practice that a lot of my colleagues were over utilizing surgery because it was the next thing on the menu, and I was trying my darndest to help people not have surgery with everything else we possibly could.

And so many of them were in that gap between, hey, nothing's worked so far. The injections, the therapies, what have you and and surgeries and anything left.

And they were I'm not quite ready for surgery. And I say, well I agree with you. That's great. So what do we do. And they would say, well, how about this? How about that.

How about stem cells. How about if you hear it enough times and you okay, you know what? I'm going to stop going to those stodgy neurosurgery conferences with people patting themselves on the back for doing the same thing they've done for decades. Right.

I'm going to I'm going to open my mind and start going to regenerative medicine, stem cell meetings, exosome meetings, other things like that.

From neurosurgery to regenerative medicine

And it it just blossomed into not only something to offer my spine patients, but to offer to other types of problems. And it just grown exponentially quickly.

Yeah. No. That's even that's great. You know, it's it points out, as you're listening to this, that really the key is never getting married to your answers.

It's always about being married to the questions. Right. How do we actually do it better? How do we how do we help this person in a more innovative way?

So with that, tell us a little bit about, you know, what techniques are you using? How do you how do you orchestrate this for, the patients that you see?

What's your what's your intake protocol? What's the what's the process? What's the procedure? What kind of, you know, materials are you using in the course of these?

And I know it varies from patient to patient, but just give the audience a sense of kind of how that works. Sure. So most of what I do not not all, but what's what I do is musculoskeletal.

That means joints and spine. We try to, as part of longevity, keep the moving parts working so we can be able to exercise and move, which are, you know, crucial elements of a longevity plan. Right. Yeah.

So we want to help people avoid joint surgeries. So so we evaluate people from, from, you know, 0 to 100. We start at the basics. What's their lifestyle like.

Because, you know, degeneration of joints and spine has a metabolic component. It has inflammation. And that's where you get words like osteoarthritis.

And bone on bone I mean those all come from from injury to the cells due to degeneration and deterioration that make cartilage and support cartilage. So we we evaluate the patients.

We get various specialized MRI's. We correlate those with their symptoms. We do a lot of this remotely either all over the country and, and the few outside the country.

And then then only if they're a candidate do do we? And there are targets. Do we invite them here locally to have an injection? When I was getting into this, you know, there are different methods of these injections and different things you can use in the biologics regenerative realm. So I wanted to take from the best practices at the time, which I think still are.

So number one, instead of injecting the cartilage of the joint, what's different in our clinic is we follow a French protocol that's been around for over 20 years.

In fact, they've published their 15 year follow up showing that injecting the bone edge called the sub control bone, where the control sites live, those are the cells make cartilage is you're you're both in efficacy.

You mean how well you do and how long that lasts compared to injecting the cartilage? Because, you know, you think about it, the cartilage barely has any cells.

Evaluating patients and choosing treatment targets

It's it's a biological rubber, right? It's not there. It's not where the the party is, you know, you think you made that joint as a baby from the growth plates, the bone, not from the joint.

So the joint, the joint cartilage is what we try to support by injecting the bone. Now, of course we do. So for the audience, it's almost like the cartilage is kind of, it's almost like extruded from the bone, if you will.

Right. So the bone is where the cells are. The bones are the are, you know, they can manufacture and grow and things like that and, you know, restore themselves.

The cartilage is just an extruded product of the bone, so to speak. And so, you know, if you're injecting into that, it's kind of like there's nothing there to regenerate by itself.

It needs the bone. The bone needs to be stimulated to regenerate. The cartilage is basically what we're saying. So yeah. Right. And we see this probably in our practices, doc.

I mean, you if you take someone with a joint pain and yet you clean up their diet and they have into an anti-inflammatory diet, and sometimes their joints feel better because those cells are less inflamed.

Not the cartilage. You know, it's the cells in the bone. So, so we so we inject that under twilight sedation because we don't. And done. And it takes a number of months.

But we have some crazy results where we've even done some memories afterwards down the line. And we have seen thickening of the cartilage layer between joints and reversing that bone on bone situation.

Well, that's I mean, that's a big deal because a lot of people that end up going for, a lot of people get this diagnosis of bone on bone, you know, whether it's a knee to shoulder.

Hip, you know, whatever it is. So is this something I know you're you're a neurosurgeon in a way, but is this something where you've expanded into hips and shoulders and other all the joints, basically.

Yeah. Yeah, I, I couldn't not do it. So. Yeah. Right. But we're doing even bombs and fingers and toes, ankles everything. Yeah. Yeah. Okay. Great. And so with that approach, you know, what are the what are the products that you found to be the most helpful and kind of stimulating that regenerative process?

Really what you're doing is you're kind of stimulating the bone to do what it's what it can do, but it's not actually doing right. So tell us talk us through how you do that.

Well, yeah, that's exactly right. So the reason the bones not doing that, like any tissue in the body is, is as we are exposed to the world and all its negative impacts chemically and, and mental stress and all the things that affect our cells negatively, we are degenerating and and aging is, you know, is in the same realm.

So we want to reverse that inflammatory deterioration. And the most, most useful biologics do that. So I prefer a youthful donated, ethically sourced product from an FDA certified lab.

And these I don't I don't like to use someone's own. Although we have Stem cells or biologics because my, my stem cells are 59 years old and they've been exposed to, you know, electromagnetic waves and, and the oils and too much sugar at times, you know, who knows what.

So I like the more active youthful source. So we get that these are usually from the donated after a planned C-section, after a successful delivery. You know, it's harvested from amniotic contents.

You know, placenta.

Why bone-edge injections can regenerate joints

And, and, and umbilical cord and these things and it's and and this is the baby make the germ lines and the growth factors and the, the small vesicles that we sometimes call exosomes that the stem cells have produced.

And the and this is the soup that makes us. Well, this is this is a really interesting point because, you know, the fetus, everybody knows that a fetus can actually regenerate.

You know, it's mom's in a car accident, loses a finger, it'll grow another finger. Right? So, and we all know that a child heals extremely well, right?

If they break a leg, well, you know, you'll never even see it on an X-ray. You know, a couple of years later, right? I mean, they have all the regenerative capacity, or at least as much as humans do.

We're not salamanders, I suppose, where we regrow tail. But. But the point is, you're going back to kind of roots source, molecules that have the ability to stimulate that for young people.

Now, what you're saying is those same molecules can stimulate analogous amounts of regeneration in older people. Is this what you're saying? Yeah, right.

Well, I don't know if we can actually do it as well as in the in the womb. But. Yeah. No. Exactly. Right. Yeah, but the point is. Yeah. So it's a little bit the host.

So if a child can regenerate to some extent, you know, I don't know that, you know, a 59 year old, for example, would regenerate to the same extent. But using those factors, you're going to get a better regenerative response, than you would any other way.

That's kind of what we're saying. I think. Right. And we like this better than the stem cells themselves, because the stem cells are really the delivery mechanism of these growth factors.

And these these small vesicles, what some people call the Leo secret home. You know, because we, we, the stem cells in a, in your body only last 12 to 14 days, if that.

Right. But the benefits last much longer. And the reason is those stem cells have delivered to you this secret time. So we're just skipping it out of the delivery mechanism into the end product.

And the beauty of this is it's way more affordable and easier to handle and deliver, than the stem cells themselves. Right. And so this can also be done.

A lot of people are flying, you know, out of the country, around the world to get quote unquote, stem cell procedures, with a procedure like this, it can be done ethically, and in conjunction with FDA approval and things like that here in the US.

Right. That's what you're saying. So, well, the this the labs are FDA certified, regarding the procedures and use of the materials, we are not allowed to make marketing claims.

Those have not yet been approved. Right. Okay. Right. So there's no marketing claims here, I get that. Yeah, exactly. Yeah. We don't we don't market out of our practice either.

It was just we just talk to people about it when they come in, so to speak. But so tell us, who's not a candidate for this? What's the situation where this would not be helpful?

Well, anyone that's super inflamed and hasn't managed that yet.

Biologic materials and ethical sourcing

So, so, someone, you know, we want to optimize people first, whether it's, you know, cleaning up their epigenetic profile, their lifestyle, their activity, their sleep, their diet, maybe hormone optimization, because the cells will be more receptive to the regenerative, activities.

Right. We want we want those cells as, as cooking along as great as they can be. Yeah, exactly. So if you're listening to this, I mean, and you're struggling with some sort of joint pain, the first thing that you can do, is actually to clean up your life, so to speak.

Right? And, you know, eat a non inflammatory diet, which basically a lot of that boils down to not eating a lot of carbs. Certainly getting away from processed sugar, maybe some very slow release carbs, eating plants that have healthy fats in them that are inherently anti-inflammatory, fish oils, using additional supplements that are derivatives of fish oils like special pro resolving mediators can be helpful.

Hydrogen of course. And hydrogen water and inhaled hydrogen can be really good at calming the oxidative stress that goes along with inflammation. Right.

So there's lots of things that you can do at home that quite honestly can dramatically improve your situation. You may not even need. But what you're saying a regenerative procedure after you clean that up, if in fact you still do, then you would be, ready at that point to have it done.

So when people are sending in their MRI's, and things for you to review, what are you looking for? What what's the criteria there that that lets you know this is going to be a successful procedure or not?

How do you how do you analyze that? So we get that the higher quality MRI, it's called a three Tesla, which is the magnetic strength. And we ask for an additional sequence that's not standard called inversion recovery or stir.

And this really brings out the inflammatory change in the bone marrow just at the edge of the cartilage. And we can often see the inflammatory targets right there.

And those are where we inject these. Okay. Got it, got it. Okay. Very interesting. Okay. So it sounds like you've been doing this for a while. Can you share with us?

You know what kind of success stories you had? This is not marketing here. We're just talking about outcomes that you've observed. Right? So can you give us an idea of what some of the outcomes you've observed, would look like?

Yeah. So, I think the low hanging fruit here are our knees. Knees do exceptionally well due to most likely due to the way they have a very flat surface across the meniscus.

Compared to a ball and socket joint.

Who is a candidate and how to optimize first

So, so with the knee is we've actually seen regeneration, thickening of the cartilage, over, you know, 9 to 12 months after the procedure in the, in the few patients where we have, obtained some MRI's.

And with that, we see functional recovery, return to activities, reduction in pain. And sometimes that pain reduction comes very early because there is an anti-inflammatory element of these, growth factors.

And, and, the, you know, the micro vesicles, the exosomes in the product. That's a really good point that you're making. So if you're listening to this, it's inflammation that's causing your pain primarily.

Right, inflammation and oxidative stress. So again, going back to those basics of taking the carbs out, taking the sugar out, you know, things like that that are causing inflammation in your body.

You can you know, with ChatGPT, you can basically ask it what's a generally applicable anti-inflammatory or, you know, diet. And it'll give you a lot of recommendations.

So, so cool. So you see regeneration and these it sounds like getting people back to full function is what I'm hearing. You know. A lot of the time, yes.

They're a handful of them. Nothing's perfect. Right. We have a handful of people who have done the procedure who haven't fully recovered. And I'm looking at maybe a booster procedure for them.

A second procedure. Or significant, cartilage, erosion. And they were close to the bone on bone. But, but we're studying this, or we look to potentially participate in some, some formal in these studies so we can really quantify and standardize, you know, how we measure it.

Right. And then you mentioned that, the shoulders and the hips, the ball and socket joints may not do quite as well. Tell us about that. What's the challenge there?

How do they work out, or is it a case where you do end up doing multiple procedures? It sounds like you're kind of a one and done with the knees for the most part.

So talk us through that now. No, the shoulders and hips can be one and done and they do. They do. Well it's take longer. So we're seeing sometimes the spines and the bond sockets take longer.

The quicker results come with knees, kneecaps, base of the thumb for people who, you know, issues with a lot of,

you know, manual issue, dexterity issues, things like that, they just take longer.

The ball and socket, I think is due to the mechanics. It's the way it loads. The weight is different. Okay. Got it. All right. Well, it's very exciting what you're doing.

MRI review and identifying inflammatory targets

And what's the supportive, protocol that you use post intervention here? You probably have people on certain supplements or things like that. I mean, we talked a little bit about hormone optimization.

Certainly that increases your regenerative capacity to have that anabolic push from the hormones, whether it's testosterone, estrogen. So yeah, I can I can imagine a number of other things that you might do.

But I'm curious, do you have a post procedure protocol that you like or how does that work? Yeah, I mean, I really like people, at least to be on an anti-inflammatory spectrum of supplements.

You know, the, like you said earlier, fish oils, probiotics to work with the, the I, we want, I want people getting restorative sleep. So I'm a big fan of melatonin and magnesium.

Good. Also for magnesium at night. And I'm a big fan of vitamin D3, with some K2. Good preparation. Yeah. So, you know, people who are pill adverse, we at least get them on those five.

Outcomes, recovery, and post-procedure support

And, those who are more inclined, like myself, you know, we can add all kinds of, and here's my daily regimen. You know, I'm showing for the for the a pill pack.

Yeah, that's about the that's your daily pill pack. That's probably about eight. Part of. What I do. But anyway. Yeah, yeah. Meal meal pack meal prep and and to pack.

Right. And, yeah, we help everyone. Like you said, everyone's different, right? We want to make sure that they they have what they need. We'd love to do a full spectrum of of labs, things that a regular doctor may not necessarily get as part of a checkup and really dig deep.

Yeah, yeah. Well, I congratulate you on the work you're doing because you've really stepped outside of your construct of being, you know, you're not attached to your title, right?

I mean, you're a physician, of course, but you're not attached to your specialty training. So that's really, refreshing to see. So how do people, how do people find you?

How do they get Ahold of you if they'd like to have you evaluate their situation? Sounds like they don't have to come to Nevada to do that. And so. Yeah. Right, right.

So, our, our brand is in the office is called re celebrate because we're celebrating the renewal of your cells. So you can find us on the web, Instagram, LinkedIn, Facebook, all the socials at that same word.

How to contact the clinic

Our e c e l l e bratty re celebrate.com is the easiest place to go. There's a place to reach out to us. We love to meet new people and we love to educate and help others the best we can.

Yeah, beautiful. Well, thanks for that. I appreciate all the great work you're doing. Thank you.