Intro and conference reunion

Hi, my name is starker back. Welcome to the Peptide Summit. I'm here with, my friend Doctor Greg Jones and, when I go to medical conferences, I would.

I actually have to say Greg is one of my all time favorite people to run into because he's got the most positive, great attitude of anybody you're ever going to meet.

He grow up in Mississippi, and, he was born in Mississippi, grew up in Chicago, joined the Navy, got to travel, see the world and ended up going to medical school.

He's a natural traffic doctor and, is a knowledgeable, thoughtful, great human being and a great doctor. And we've talked about cases and talked about articles we're reading.

And, it's been a pleasure to get to know him, and I'm delighted to have him on the summit today. Welcome. Thank you. Thank you. Matt Scott. I'm excited to be here.

And it's funny, you mentioned, like, going to conferences and being positive and happy, and it's kind of reminds me of being on this because I've actually watched the the peptide summits, right?

I've actually, you know, been a spectator and going to these conferences where I'm, you know, me guys like yourself. And it's like, because I grew up playing sports, it's almost like, like, holy crap, I'm in the I'm in the league now, man.

This is it. Like I'm on, I'm on the court now. I'm on the field now, and I'm meeting these guys and women who I looked up to as I started learning about peptides and, and regenerative medicine and anti-aging medicine.

And so for me, like, I'm still kind of the kids, I'm still fanboy. And I go, oh my God, not cooked. But I kind of, you know, you know, Jean-Francois look at that and says, oh, God is doing well, you know?

And I get so excited, you know, because it's like, you know, I, I've always followed you guys and I've learned so much just from afar. And now being able to have these conversations and, and learn more and share ideas and share resources, man I it's like I it's blessed the charmed life.

You know I get to live doing this and that's what sports did you did you play I was a baseball player. I was you and I was catcher. This is why, we'll talk about these.

And this is why BPC and peptides and PRP have been my friend, because my knees were, they did not come out happy from all the all that squatting down.

So yeah, that was ahead. And, that was, that was my primary. A little baseball, a little basketball here. But baseball was my my first love. So, you know, I, I that's awesome that you share that story.

The, a positive attitude will take you far, but then, you know, it's we're we're at such a an exciting moment in medicine. And I think part of it is we can just zoom around with each other and share information like this that I remember when I started this, I would hear somebody had an idea, and then I would, like, get in a plane and go to Atlanta to meet.

And it's said outside their door and, you know, to talk to them and stuff. And so I took a the longest time to figure things out. And now I feel like, you know, there's this groundswell of people sharing information. And and I'm so I'm so excited about it.

I'm more excited, actually, than I've ever been. And I'm, and and, you know, the great thing is, you know, we were talking about, you started your practice and you started with 16 people, and now you're so busy you don't know what to do.

And I was thinking, if you're if you're in, Arizona, you should go see Greg. You should give him up, give him a bigger problem with him. Made people because he's a great doctor.

Tell me, tell me about, tell me about your philosophy of medicine. And and and then let's. So let's start with what one area that I think is a great area to, to think about is how to balance hormones in the body.

And so maybe, maybe share your, your perspective with that, of that how and how you think about that at a high level. That's just I'm glad we're editing this.

So, I'm at a podcast right now, so, so philosophy wise, that's how busy it is. I just knock on the door. So philosophy wise, it's interesting because I remember reading some articles on the hallmarks of aging, and they talk about stem cell exhaustion and inflammation as a whole.

I think the list is like nine long. But that list, I realize if you didn't go to medical school, you're not geeking out on anti-aging medicine or regenerative medicine.

It doesn't make a whole lot of sense. And so for me, I realized, and this kind of goes back to I tend to say, a lot of men and women who are getting a little bit older, 40 and 45 and up, who really just want to feel better, right?

They know how to eat for the most part. And we'll talk foundational stuff here in a second. But they know how to eat, they work out. They've got some semblance of where there are other hormones and supplementation.

They just don't have it anymore. Kind of lost that mojo, right?

Medicine philosophy and health foundations

And so when I sit them down, I talk about, okay, let's talk about why you feel like crap. Right. And so I'll make a little list for them. And obviously everyone doesn't fall in every category.

But the list goes on to say, okay, we're getting older. I know your hormones are going to, you know, as you get older, your hormones are going to decrease, right?

So, you know, there's going to be a reduction in hormones and then I break it down and say, hey, it's not just testosterone. There's several there's so many hormones that need to be balanced.

It's a symphony. And whether you're mad men were easy. We're three. Our symphony is like a 3 or 4 piece band for the most part, right? For most guys. But, you know, women. It's an orchestra, man.

Is Phil harmonica all these hormones, they get balanced. Right? And then. Okay, we know that number two makes you feel like crap is you have a reduction in brain function, right?

You just don't remember as much as you used to. You got some brain fog. You're not as sharp. You know, the memory is not there. So, you know your brain function is going to be reduced three and that's and you know, it's a cellular repair cellular function thing.

Right. So and I was saying that the way you look at that is think about how your guts, your gut is functioning. Right. Think about how you sprain your ankle, how long it takes to heal, how you have an injury. It takes forever to heal.

And then I'll go to mitochondrial, you know, dysfunction. I'll talk about energy and ATP and how mitochondrial dysfunction is associated, all these diseases of chronic aging.

Then and then we'll go to inflammation. Then we'll go to oxidation and then we'll go senescence. All right. And so we say, you know, and so I know this is where I'm going to get into philosophy.

I know these are the seven things that are going to make you feel like crap and make you age. I'm not going to wait until you come in and say, you know, oh my God, I'm tired.

I'm not healing. We know what it is. Let's create a strategy to address these seven things in advance, and then we layer it right. So I don't just say, hey, let me treat all of these.

Here's, here's your might see and here's our NAD and here's our hormones. And they're just like, all right, here's, you know, now you got a bag of things and you don't know what to do with them.

Right? So when it comes to philosophy, you know, we start with the foundation your diet, your exercise. What are you eating? What are you taking? Things you have control over?

No matter who you are, where you start in this journey, I start with the things you have control over the external environment, sleep, diet, stressors and for the most part, the water you drink, the things in your house.

What are you cleaning? Your, you know, you're cleaning your house with? What are you putting on your clothes? And so we create that. We establish foundation then.

And I'm gonna start talking here because I'm right. This is a happy ramble. I'm happy to talk about this because this is what I talk about my patients about all day, every day.

And I get to talk to someone else. Not. And it's not a click and I'll tell them my philosophy. This is kind of what I was a basketball player. This is like me shooting a three pointer in front of Steph Curry and then, hey, I like that. Right?

And so so first we say, okay, now we establish our foundation. And then the next step is hey let's optimize your hormones I stop you, I use a for TRT in the context.

Everyone knows what it is. I like HRT and TLT hormone optimization therapy, testosterone optimization therapy. I like that because I can I can replace you and I'll optimize you.

Right. And so that's one and two. And from there we build up you know, and to you know when you talk about peptides and the really cool thing when I draw this on the board is I'll have my list of seven, I'll talk about hormones and peptides and mitochondria, and then I'll put the numbers that are associated with that.

And you realize like, like peptides almost cover all seven those things and in many cases all seven, you know, you can say, okay, no matter what we do, the philosophy is no matter what we do is going to be addressing these seven things, because we know this is what's going to make you age and not feel like yourself.

And that's how we optimize your health. So that was an elevator speech going from the first floor to 254th floor. So of so, so I love that, before we go into things, what water do you recommend people drink for me?

I tend to, you know, at the base I say do not a bottle. Oh, my God, I hate bottled water. I hate it when passion. I know it's sometimes a necessary evil, but the fact is, is that most people have bottled water that they buy in a store that's at room temperature has been, if not stored to room temperature, it's been transported in the back of a truck.

It's gotten hot. And those plastics get into the water. So at the very least and say, hey, man, you know, let's let's come out the bottle of water if you can.

In a perfect world, if you can get your, you know, our water or the filtered water, alkaline water, I love that. But at the very least, if someone depending on their means and their access, like the very least, get a good filter and have your water and you know, at least do that if you have to tap water.

So like, I don't have a necessarily a favorite brand, but I am so against bottled water, it's not even funny. You know, unless you're about to dehydrate and you're like, this is you need this as an emergency. I just don't like that.

So we try to get water as clean as possible. Yeah, I would, I would agree with that. And then I would say, you know, we I do probably have spring water, half reverse osmosis water.

And you know, I'm, I'm hearing more negative about the alcohol and what water. And so then you see, since you mentioned that, I just I love that you said that, fluoride is a toxin and I avoid fluoride like the plague.

For people that need a filter. My friend Winston has a company called Hydra. They have a great filter for filtered water. If you want a portable container, but I just.

Since you said that this is a topic that we're going to start to delve into, and, get into from a diet perspective, this is just rapid sequence before we get going.

But from a diet, what diet you like to for people on I love Mediterranean diet. That is that is my my jam. That's my go to number one because you know, especially meeting you know, I said, oh man, I want to, you know, let's say the whole we talked about Whole30 and keto and, paleo and all that stuff, and they're they're great and they serve their purposes.

But I am a fan of Whole Foods and not just Whole Foods. But here's the thing about what I like about the Mediterranean diet. It's sustainable. You know, I get I get excellent compliance with it.

And I can actually pull out a stack of research papers, a sailing high and say how this benefits you if you're looking at cardiovascular disease or diabetes or cholesterol levels, that diet just has so much research on it.

And there's a variety to it, and it's not overly restrictive. That's normally my go to from a clinical perspective. It's like I a lot of times when it comes to these diseases of chronic, you know, a a lifestyle that med diet, man, it takes care so many of them.

Right. And so now someone's like, came to this and it says, okay, well, foundationally, I just want you to eat Whole Foods, man. You know, I really want you to make sure that, you know, if you're going to go grocery shopping in a simplified form, stay on the outside, on the outside, you know, so, you know, if it's sitting on a shelf for a very long time, it's probably got preservatives and preservatives in it.

And it's probably not the best for you. Right? So I'm a big fan of that now as an athlete. We used to you know, we used to be all about high protein. Like oh my god, how much protein can eat.

At one point I remember I was doing like 300g of protein a day and I was like, oh my God, why is my GFR so low and why is my knee so high? I'm a bonus for the roof and I'm just I'm crushing my kidneys with a high level protein.

So I don't necessarily say, hey, protein is is not exactly the answer in all times and at all times. And depending on how you speak to it, there's a there's a camp that's pro mTOR and ATM tour depends on who you talk to about the value in that.

So the kind of ask your question, where are you going to fall out on that? On the mTOR thing? Oh, I'm a mid-round. I don't want mTOR so low that you're not getting protein synthesis, but I also don't want it so high when it's becoming detrimental.

Right. So with that being said, I tend to, you know, I say, hey, you know, it may not seem like a lot if you're coming from a high protein diet, but I am very much on board with 0.8 to 1 point 2g/kg.

That just it just works well, man. And you know, they tend to do well. They still see they still see muscle building. They still see fat loss. But they're not cause any type of cellular dysfunction because they're just overeating protein.

Yeah. That's that's basically what I do also. And that's some of the people that's been, that's not that far from something that, that, let's say a mediterranean type of diet people have been doing for a long time.

And so then I always think about that. Okay. So that was that just couple background. But I like to go for the one thing. Oh yeah. You know this is it's I mean it's a backtrack here.

Two things. One, that filters are hydrous. Is it h y d or us or h y d ros. Okay. Perfect. And second, when it comes to that diet thing, and this is because again, as an H part, you know, we're we're trained in clinical nutrition.

And I can give you a handout a mile long on these diets. But at the very least you can affect so much change by saying, hey, I want you to eat more fruits and vegetables.

And here's what I want you to do is going to be a struggle. It's gonna be a challenge, right? But I need to avoid dairy, sugar, processed food, fried foods, fast food.

If you can eliminate or minimize that your health and change like like it can also quick. And it happens so fast you see their crp go down and you see the ISR go down.

I see their lipids change. You see their oh my God, I want to see changes from that. And that's not even, you know, that's nothing extra. That's no handout.

That's literally this is the size of these are things that are bad for you I love that. So avoid. So you said avoid sugar dairy, processed food, fried foods, fast food if you can lay off of that.

Oh my goodness. And your skin changes and you feel less bloated and less inflamed just from cutting those things out because they're so pro-inflammatory and they push into metabolic inflammation.

And now you're in a cycle, right? Obesity, inflammation, inflammation, obesity. Yeah. So then I'm I'm 100% with this. And so then within within that like this is a home edition.

So I'm looking over I would 100% agree with that except we eat go dairy. And so then this is this is an interesting one to think about. And then, you know, one little tidbit tip, because I looked over and I left a sweet potato out from last night.

But, what, as a little tip on diet, as you're thinking about these things, what we do is basically, eat a salad 100% of the time every day with every meal, every dinner.

And then, generally, if you're we're going to be on the non vegan. And so then I have vegetables and meat, but generally the meat first and then the vegetables and then I'm, I'm not dying of hunger for carbs at that point.

And so then I looked over and I ate a quarter of a sweet potato. And so then, yeah, that's kind of an interesting the different root vegetables will feed different aspects of your microbiome.

And so then you get this idea where you're you're staging. And so you don't fill up on carbs too early. And then that has bad, that'll hack for me. That allows me to kind of get, get through, a dinner without that a pretty balanced way where I and then I ever I basically don't ever overeat anymore.

And I used to and so then that's just an interesting little tip right there like that. Yeah. So I haven't really got upon the goat dairy here. And with that, we goat cheese and here, you haven't seen any type of, inflammatory effects with it, and you're feeling pretty well.

So and I do I do great with the goat dairy. And so then I like that I'm and but and so then that one this then becomes an interesting journey of and then I think the food water diet, lifestyle, toxins, you know, like where this is home edition.

And so then we, we go, like, wildly out of our way to have, like, no dyes, no perfumes and anything in the laundry. And, and all of those things, you know, the, I, I did, a thing with Fran Drescher, who's amazing person.

And one of her really big deals is detoxifying your house because, whether that be from from toxins and cleaning supplies or from mold or, you know, what have you.

But then once you once you detox your, your house, you detox your life. Once you detox your dad, your diet, you detox your body. And so, you know, it's it's nice, it's good, good stuff.

So then now take me, let's let's get into, let's get into this hormones. And so we're going to let's talk about testosterone optimization.

Hormone optimization and growth hormone peptides

And then and then talk about growth hormone. And so let's let's talk about those two. Let's do that with guys. And then just take me through women how you think about it okay.

Gotcha. And it's it's it's fun to talk about it because the more I get into practice, I realize that the numbers are different. The games are saying, let me my that is that I want that testosterone optimize and both my male and female patients because the benefits are almost the same, you know.

So if I have a testosterone optimized, whether you're a male or female, you're going to have more energy because you know, this and this is it's a and branch off because obviously your, you know, testosterone will up or up regulates production of repopulating.

You get more red blood cells in a tissue, more, you know, more nutrients out and all that stuff. But again, you don't produce more blood. And we can talk about side effects, and that could be a whole other podcast right there.

On managing the side effects, potential side effects, because some people don't get that somatic rate increase. But more energy, better focus and concentration, better libido, better motivation, confidence, assertiveness, better muscle building, better fat loss.

And that's just what they feel, right? So if you get into some of the the further research to understand that, it can also help lower the risk of Alzheimer's and dementia and cardiovascular disease and diabetes and metabolic syndrome, and go on and on and on.

But at the end of the day, like I want that for both my male and my female patients. Right. You want the benefits of testosterone because again, females need testosterone too.

And I've had so many patients come in like only about, you know, primary care doesn't want to do testosterone. Is worried about like, all these effects.

I'm like, well, I'm not worried about it because I'm not going to, you know, average male patient is on 150mg. You might be on eight, you know, but this is something that's going to benefit you. Right?

So that's where it comes down. The difference comes in and how much testosterone we need. Right. And so benefit wise like I you know outside of there being some type of contraindication or in a female's case if they're looking to get pregnant, I am all on board with using testosterone therapy and both males and females to optimize for health because the benefits just all across the board and how they feel.

Yeah, it can be life changing for someone in perfect. And now tell me about growth hormone. What how do you put that together? Well growth hormone is amazing too because again you know, this is the and we can you know we'll shift gears in the peptides here hopefully a little bit but I understand okay.

Well I'm talking about the growth hormone peptides maybe. Yeah. Yeah. Exactly. Because again you know

because I was all about my benefits growth hormone I say okay well it goes down that what I said a little while back about.

It's not just that one hormone. And when I'm making my list of hormones I want to optimize, I put growth hormone actually right after testosterone, you know, and then I'll put five right next.

But so because growth hormone is going to benefit and some of the similar effects of testosterone, but also you only get better body composition, better sleep, better in a deep, deeper restorative sleep, better skin elasticity, better brain function.

But was really cool about growth hormone. You also get some protection of the heart and the bones as well. But growth hormone is actually and I've seen some studies on that actually being protective of cells and actually having the benefit in this goes in.

So that way back in the beginning, I talk about those ten poles and my philosophy and that whole autophagy thing, getting rid of all senescent cells that are not doing their job anymore and actually causing inflammation and oxidation. Right.

So you're getting all that with growth hormone. All right. And so what's great about peptides though is like because again I get the look and I know the looks comment I get the eyebrow raising.

It's like the growth hormone. Is that great. Why don't you just give me growth hormone. Why are you giving this peptide. You know, give me the good stuff.

And then that's a conversation about side effects and suppression of your natural growth hormone access. And they expands. And then, you know, they're depending on where you're reading at.

You know, when you're doing a recombinant growth hormone, you're only getting one isomer where doing a petite central not releasing you naturally get all 5 or 6.

And so I think growth hormone is essential in many cases. But again, it's not for everyone. Right? You think about pregnancy. You think about someone has had like a potentially pituitary adenoma.

There's some people I'm just like, yeah, it's probably not the best thing for you. And then something else I'm finding is that, this goes back to the male female thing, is that females on birth control, because there are some studies showing that oral estrogen actually blocks the effects of growth hormone at the liver.

It's not going to produce as much IGF one, which is kind of a driving factor of why we're doing the growth hormone. So there's certain strategies I do with with females on birth control.

They're looking to get some of the benefits. But yeah it's it's so essential man. It makes such a difference in sleep itself. And just people they just come in and say I just feel better.

Even if they don't start seeing the body composition effects right away and they just feel better. Right. So then what we said then we're going to we're talking about hormone optimization.

And so then with some hormones you're just going to take a hormone. So you're just literally going to take testosterone. And you could do that as an injection.

You could as the cream that you could rub on. Or you could put a little pellet under the skin. So that would secrete testosterone. The. Yeah. When I got into doing this, I, you know, I first, you know, went to a forum and started setting integrative medicine.

I always talked about the gangs of, functional medicine. And then the biggest gang was always like the hormone replacement guys that we're all doing. A lot of them were doing the, the growth hormone, but.

And I always felt like you could kind of tell the people who were taking too much growth hormone. And then about 6 or 7 different ways just by looking at them.

And then it, it is imbalance compared to the way that you get it. When you take a peptide, the causes your brain to secrete growth hormones, because when you do that, it's much more balanced that I think that that may be because of the isoforms.

And then it also it, it leads to a smoother effect on the body. And then when you take it, you know, some people like to take it in the morning, before a workout.

A lot of times people will like to take it at night before they go to bed. And so those people will do both. And that night, one really can help people sleep.

And then almost everybody that I know has totally abandoned injecting the growth hormone because the peptides are so much better. Would you agree? So much better and so much, less expensive to, you know.

Right. You know, if you're getting legit growth hormone, not, you know, overseas. I got this, from, a friend of a friend who has a friend in Europe or whatever, you know, because you can get this stuff on the internet, but that's an entirely different conversation, even with peptides that we can have on why for the love or whatever you are.

So do not buy research peptides, but that's a whole other subject, you know, and then we can talk about why. But that being said, you know, I think that, you know, and this is where you talk about the release part of it.

And to me, it's a control. What I mean by that is if I'm taking, let's say, for example, CJC 25 and intramural, and I know that that peptide is going to work for that half life, I want to say it's 24 to 32 minutes.

And maybe I think it's, I think small and was like 8 to 12 minutes and the citizen world was like 8 to 24 and, test Maryland has a bit longer is I know I'm going to pulse that growth hormone for that period of time.

So it was kind of control pulse. Right. And so that's kind of it. Whereas people who are taking some of the other forms of it, it's like it's too much and potentially you just don't have that control over the release so that you get with peptides.

Right. And then that being said, it's like another thing is that with the peptides, because you're producing it from your own, from your pituitary gland.

And I love I read this article that talks about how the growth hormone releasing hormones will kind of increase the, production and the, ghrelin receptor agonist, like the ephemeral.

It will actually stimulate the release. You're kind of getting both more production and more release. Right? But at the end of the day, they're not going to suppress your natural production.

So when you stop taking these peptides, your body will still produce this growth hormone as it was before. If you're going to take growth hormone, I read this article that talked about up to a year of depending on how much they did growth hormone, they did recombinant and how long up at up to and greater than a year before you actually start making your own growth hormone again.

And that's a long time to not have those protective effects. Benefits would rather now have you, have you use CAS peptide? I have not, I've read about it.

And I read some studies on it. I think one of the things that I, and I maybe make some time, I can add our allies up. I think there was one because we're looking at because ACG is obviously very difficult to get these days.

And using this captain as a luteinizing hormone stimulator is and you can correct me on this, one of those you had to take several times a day to get the benefit.

That might be to get that irrelevant. Yeah. So Kiss peptide, you can just take it once a day okay. Great. Great, great. And so then this one does an interesting it's like, you know, conversation to think about just because, I do think if you're taking growth hormone, then what happens is, is that the body is sensing that and the body goes, oh, man, there's a lot of growth hormone here.

And so then the body goes, we don't need to make growth hormone up here. And so then it stops making it. So then that's what we're talking about with suppression.

So we're suppressing that growth hormone. Now the same thing. Well technically if somebody has a really low testosterone then what happens is, is we give testosterone it was already low.

And then the body goes, oh great, we got testosterone. And that will suppress testosterone. So now Chesterton will basically tell your brain to secrete, and stimulate the testicle to make testosterone.

So then Chesterton is to testosterone kind of like the growth hormone secreted gods are to growth hormone. And so that one one interesting direction, I think that to think about on this whole hormone replacement conversation is the synergy of, of, of, starting with just stimulants before the testosterone.

That being said, some people have been so low for so long, and testosterone replacement is such a homerun to, get people feeling better. To use a baseball analogy for baseball player.

I, I always, I always thought if I was talking to somebody and they go, you know what you were saying some stuff. And I wasn't sure what you're saying, but then you said I was going to be around, and I knew what that meant.

Had, but, but but regardless, the growth hormone secreted guys for sure. Now, are going to be better than growth hormone. And so then there's one, there's two that are go together CJC and morale.

And, and then there's another one Tessa morale and that. And that's probably your you're and then often people combined almost always when they have tests for morale.

And they'll combine that with morale. And when do you like to to use what's your thought process on where you go between those. So for me I kind of feel like there are two peptides.

And, you know, I don't want to get ahead of it. I feel like if if I have to give you a starter kit of peptides, perfect, I'm most likely going to say, hey, here's CJC 25.

And if morale and here's VPC 157 like this is it. You know you've never done peptides before. Like you know you we ran your labs. We've done your HPI.

We have your history as a patient. The thing is say this for you. Here are these peptides that you can start with now the CJC 25 RL. And I like that because you have two peptides works.

You know we mentioned alluded to it a little bit earlier is that if these two peptides work together synergistically to help your pituitary gland release more growth hormone.

Right. And again, this kind of goes back to I like them together because again, that's great for growth hormone release and hormone receptor agonist such as CJC 25 morale.

And they actually help you increase the production like at the Maryland because you get some you get more release. So make more get more out. Right. And that and that's great, you know, and the safety of it.

Right. But I like that it doesn't. It's it's gentle, you know, it's it's what I mean by that is breath test. Maryland is very awesome. But you get more growth hormone released from test morale because it's, you know, it's.

And this might be something I got into the recent research on this, but I think it's a little bit almost more identical to

our H than CDC 25 is. I just got figure out why you're getting more from this.

And I'm know if it's a longer amino acid sequence. You know, because you're looking at I think test is like 43 or 44 versus 25, which is 29. But, I had to do some research on that.

But you're getting, you know, I think I saw, soon from so I talk about this one time about how, how many units growth hormone you get from the CDC. 1295.

And I think it was like 2 or 3 units, if you compare that to actual recombinant growth hormone, which isn't a lot, but it's enough to have a effect. And so I like that because it's channel and you can get them started.

They start getting the benefits or sleep out of their start seeing improvement. But improvements in body composition, they feel better sometimes. I mean, hey, my skin looks clearer, like I'm definitely thinking clear.

I feel more focused. That's a great start. All right. And so now the cool thing about CDC tone. And if I come around is that we can actually titrated, depending on their goals.

You say, hey, I feel great. It's been a month or two. Like I really want to focus on, you know, body composition and losing fat. I can bring you up twice a day safely, right?

We do. You measure in the morning and night. And one thing I will mention, in the morning, is that I've been noticing that people who take it before workout in the morning Tennessee, more fat loss and people who are doing it afterwards.

I think they're getting more anabolic effect. And I again, it's so much out there and it's like I think about something like, oh, it's got to be someone. I'm not the only person.

I'm not that smart to the only person I thought about. There's got to be something out there on research. I think when you do it before workout, you get better utilization of carbs like I need to.

I got to verify that, we're, I think doing post workout because you, you know, basically you call that, you know, that stimulation and you know, that stress on the muscle that now that growth hormone is going to go into us repair ability and optimize performance.

Great for repairing for that. Thought about it, a great, great, great for repairing, recovering from injuries to so that's why I, I tend to be that's my goal too with that one.

Now test morale and is when usually say, hey, you know, I don't like having any one on one single peptide more than three months at a time just because there is some what we call tactical access and slowing down the release growth hormone.

And we talked about this in our podcast way back when about if you keep ringing that doorbell, you know, you don't hear it as well. And so test morale and I love that because again, you get more growth hormone release that actually can help reduce visceral, visceral fat loss.

More so lipids than the other peptides do. And I think it's just great as a transition. Also awesome right. And I tend to see people who do well on it.

I think they tend to lose more weight and body fat on just morale and 100%. Yeah, they tend to lose a lot more. They lose it fast, they lose it faster.

So those are kind of my go to is and I make that adjustment based on what the patient's goals are and how they respond. But it's hard to go wrong with a with a star a good intro to peptides with Casey 25.

And for morale and as a growth hormone spirit of releasing peptide together with. And so if you add in your starter

pack after we cover those what comes next.

Yeah. So PPC 157 or body protection compound 157. Such a good peptide for repair. Yeah. This is especially your athletes right now I say athletes this is going to be your non competitive.

But you're not getting tested right. Because peptides are absolutely banned. From your you know professional leagues. And if they're testing because okay you know performance enhancing I think like why is the IPC 1% performance enhancing.

It helps you repair. That's would be a good thing. But then come to find out it does upregulate growth hormone receptors. So you can talk about how you will side will enhance performance.

But so BBC 157 because again you're helping repair tendons and ligaments and it's anti-inflammatory. And again it helps upregulate growth factors and your growth hormone receptors.

So I like those together because I think you get benefit using them together. I read an article I read an article this morning about BPC 157, and I knew this, but I'd forgotten it how it actually upregulated growth hormone receptor on tendons.

And that's amazing. Right. So now you have these two peptides giving you more growth hormone. And now you're another one. It's like I got these peptides throwing the ball I got one question.

You know. And so that's kind of really cool when you're trying to improve performance and actually heal. Right. How do you like to dress. How do you like to dose BPC 157. What what I, I tend to, you know, for me especially when have I'm very like individualized with things that I don't really have like a standard hey everyone gets you know, 0.10ml or 200 micrograms.

It really depends on what we're trying to do. If they're severe in pain, severe injury, need to recover. I'll go to 400 micrograms. So 0.20 miles or 20 units on Insulin's range I have no problem starting with that.

If I know I'm trying to, I need to I need to hit this hard and fast and I can titrate down. That's just my own personal preference because it's safe and you know, it's and I tell people I BPC 157 you make this yourself.

You know we must have these are amino acid sequences. But we literally make BBC 157. And I got and so then as a kind of maintenance those and I'm very okay with doing the 200 micrograms and you know after they've got through the injury phase of it. Big fan of that.

I do like injecting it like say at, you know, I mentioned that whole, synergistic effect with our CDC 25 morale. And I do like doing them in many cases together as an once range as your CJC 1295 next and Maryland next range BPC 1257 doing both right and then totally and you know and see because again, if I'm looking for this is that recovery thing right.

You got your growth hormone peptides. Recovery gets you deeper sleep recovery BPC one by seven more recovery right. And amazing to see people's results like oh my god like I'm able to hit these PR is in my workouts and I'm really taking three days to recover from leg day.

Not a day and a half, you know like that's great to hear. So awesome to hear. So that's a good one. I, we, one thing I found if I'm a great sleeper and I've had my sleep fairly dialed in.

And so then for me, if you said, take CJC and BPC at night, no problem. I will have a lot of sensitive people wear BPC. What will stimulate them a little bit and it'll have effects on dopamine and serotonin.

And so there are some people that I'll stimulate and will not want to take it before bed. So then that's just a little, idea that it's a short half life.

And so then for sometimes for, if somebody has a real significant abdominal inflammatory situation, we'll dose it 2 or 3 times a day, for, if people have a real big, you know, I have a couple vegetables, I got a bunch of long Covid gastrointestinal stuff lately, including that came out of Omicron. And, we'll do oral sometimes a couple times a day, and then also even do subcutaneous on top of that a couple times a day.

And I, I've had and then interestingly, you talk about the tendons, we will pinch fat and just go superficial to a tendon and into the subcutaneous area.

And so and we will inject those everywhere where people have pain and B and and that has been a home run and often will combine that with other things.

And we'll kind of get into that. On the sports side of it, things. But the it's been a, home run it and then obviously it's great for Burns and stuff like that, right?

Yeah. Like I feel like I'm, I feel like I egregiously undersold BBC 157 right there. Because again, like we just mentioned before, we got on the call, I have an inflammatory bowel disease patient.

Oh I'm like, oh I'm going to put her on BBC one by seven. I'm thinking of dosing her to, you know, where I started to. And I may end up titrating her up to three times a day, with oral capsules.

And then on top of that, like BPC is great for, any type of corneal injury. So it helps if we've got DPC eyedrops I use before I use DPC seven as a toothpaste repair enamel.

I haven't had the how did that go? Oh, went wow. Well, I mean, you know, like I said, hey, it's definitely gotten better. And Dennis was surprised but still didn't believe it was the BPC 157.

But it's okay. You know, I you know, I'm not here to argue. Like if the results say it is what it is. I've had it. How did you make that? Did you just how did you make the toothpaste? But.

Oh, There's a cop out pharmacy that I use. She actually has a PPC pay. She actually makes it in paste. Oh, really? Which one is that up here in Indiana?

Okay, yeah, I like them a lot. Yeah, yeah. That's great. Yeah. So, I just had them brush once in the morning and a night and they got, And then. Oh, I have not done this yet, but I have a patient I want to bring it out to is I did a peptide certification course and they and they were talking about hair generation actually using BPC 157 GSK copper and another peptide called transformative for and actually injecting that into the scalp before the PRP.

And I was like this makes a lot of sense because you're reducing inflammation. You're getting more collagen synthesis or getting hair follicle stimulation.

I was like, this might be great for my hair generation patients. So I was like, oh, this is great. So BPC, one of our salon man, I can't say enough about it.

And nerve regeneration, right? I mean, just, toxic in on the oral form, reducing toxicity, you know, angiogenesis, cardiovascular health, brain function.

I mean, that peptide is if the growth hormone peptides are normal, peptides, number one BPC is one A or one B, okay.

BPC-157 and tissue repair strategies

That's a good one. And so then if you think about that, then if you think about, unpacking some of the stuff that you just said you got, if there's a tendon, there's a nerve right next to the tendon, then so then it's good for the nerve and it's good for the tendon.

It's like one of my favorite things to do. Nerve hydro dissection with, the, the, and it's also good for angiogenesis. And so then you think, oh, okay.

If I put it in the hair, there's nerves and blood vessels there and connective tissue. So it's kind of and then PBC really combines. Well. So then you, you can mix BPC with these other peptides.

And so then we, we've actually had very good success with combining BPC and GG okay. And, and sometimes we'll do GSK copper by itself. Sometimes we'll do a 5050 of GSK with G. H..

Okay. Copper. The copper can burn a little bit more. GSK by itself doesn't burn. And then putting the BPC with that and then you can use, the, the time as a metaphor for you can use some of the fragments of time as beta before and and them, the, I enjoyed that lecture.

I was also at that lecture and, and I thought she was super great and, and, they've had very good results with fairly high volume of doing that combination with PRP.

So then suddenly you go, okay, this is a way to supercharge PRP. And we also know that PRP is good for the hair. And so that now you begin to start to go down this road of being able to synergistically combine things that are regenerative with peptides.

And, and I think that directionally, that is that is going to be for me. I, the most important thing that I'm going to be thinking about in the next kind of 4 or 5 years, or at least one of them.

Oh, yeah. And they work great. You know, that that layered approach and and also the, the beauty of it, the artistry in it and is the turn in which peptides work together and then which, which one is going to work best for that particular patient, you know.

And that's, that's the artistry, man. Because again, it's not just throwing a peptide grenade at people because, you know, it's it's a lot and it gets expensive.

And sometimes, you know, I'm I'm a big bang for the buck kind of doc is like, hey, if I can give you one, two, three peptides, I can help you, you know, with, with the conditions you're presenting with and also your personal health goals, man, that's, that's home run slam.com style, whatever we want to call it.

That's great for all of us, right? Because we like to see people get better and we love to see the results that they're getting. Oh. And then kind of touched on another thing about, PRP in combination is like, I actually really like PPC and articular, arthritic conditions, shoulder injections.

I've seen some amazing results with, but, because sometimes I can be a bit of a warrior and I'm like, you know what? Let's let's do some others on after that too.

So although PRP is a seven and then I'll do a little ozone in there too, just for that. But you know, I like just kind of what was on it in itself is that's a whole other conversation right there.

Because ozone is a simulate fiberglass and of size, but also any type of risk of a reaction. I like the fact that I can reduce that, you know, so what I mean by immune system reaction are effects.

So it's just great. That has been that combo. I've got to do that on two patients. PRP, APC, ozone man, they are backflips and they're loving it. Okay, so that's interesting.

I have not combined peptides and ozone together just for heads. I'm I'm worried that the oxidative effect what would impact the peptide. But I would totally echo that with the idea that, and Edwin Lee wrote an article, PRP joint injury, I mean, peptide joint injections with BPC 157 and, you know, I would also say I've seen, and I've seen that both for AC joint injections, which are for people who are out there learning is on a scale from 1 to 10 of an easy injection.

It's about a, two because you just, it's, really narrow joint, but it's a really one because you can just make in and then slide right into the joint and you see your needle right in the joint, and then to and then.

That's right. The AC joint like Romeo Clinic is running is right above the shoulder joint. So it's a nice way to kind of get into the, shoulder apparatus.

And we've seen incredible we've seen big results in these with BPC 157 also. And then it's also, you know, this is a worldwide podcast. And you know, I was I was sitting here thinking last night and talking to Bob.

The great thing about my life is I get to hang out with Bob every night. I was everybody wants to talk to Barb on my, but I was I was saying, you know.

It's a really exciting moment to begin to think that there's options that are going to be coming into the market worldwide, that are an order of magnitude lower and cost to potentially even more than an order of magnitude lower in cost, that now you can begin to do things to three joints that, what if you push that, kick that knee replacement down the road five years?

Okay. Where do you kick that down the road? Ten years. What does that do for our society in terms of health care costs? I mean, it's and and then and then you begin to say, okay, well, what would happen if you, made PRP and put some peptides in that?

And then sure enough, that's now you're starting to get to some pretty interesting, you know, biochemical, ways to affect the biology of a joint. And, you know, it's it's inspirational because you begin to see we're seeing that it's working and then the, the just the financial cost of it being a lot less, I think is real inspirational to me because I think it's going to have it's going to it's going to really change the way we think about sports medicine.

Oh indeed. Indeed. Because I used to I think way back when we first saw handlebar PRP, this was before I even was a sparkle. And, my med school professors eyes was we mentioned professional athletes like Kobe Bryant, you know, and like, oh my God, they got to fly to Germany to get this is so expensive, right?

And now it's so inexpensive. Just do PRP, you know, just trying to process it and getting the kids. It's just it's just so accessible now. And I think there's going to be more to follow on that and ways to help joints generate and actually prevent surgeries and help people heal.

Or as you said, put it off for a long period of time because, you know, and and at the end of the day, you know, I know you grew up in anesthesiology where all it's like, man, you know, that's kind of like the, you know, surgeons, that's what they do, you know?

But it's like, I have great friends that are surgeons, orthopedic surgeons, like, look, I don't want to do that unless I have to. And if you can help with that, as long as possible, they're okay with that.

Like. Yeah. You know. Right. I got to do a shout out to Tanisha, who's, one of my, medical assistance, and I was, I, I give them all of these statements.

I like I'm saying stuff like I was. And then they always repeated to me, so, like, I'll say, like, never let the sun rise and sat on a bowel obstruction and then.

And then never give sedation to a patient prone without oxygen, like so then I was. And so then asked, makes statements like that, and then they'll quote them to me and I'll hear them making these little statements, which is useful because the, that avoids lots of complications.

So anyways, I had I was telling them they were talking about a surgery to fix something, and I said, well, a chance to cut is the chance to cure, but a chance to cut is also my chance to cry.

Because, you know, my surgery can go so sideways and. And then, somebody was talking, and then I just heard

the machine in the background quietly say a chance to cat as a chance to cry again.

And I mean, that's good. I mean, in the day, like, we have so many options. There's so many cutting edge things, and it's just like, we can really make a difference.

And it's just knowing when and how and where, you know, I mean, so, you know, another thing about is like if, if you and this, this is a good one and I gotta get your opinion on this one in terms of thinking about how to combine these when, that that has been an evolution that's going well.

And so then when you think about a joint, one thing that happens is, is you have a nerve that's go into a joint and then you've got the ligaments and tendons and fascia that are around that joint, and then you've got inside the joint and there's a joint lining in there.

And then there's cartilage. So then now, in my old world, what I would do is I would use row pivot, which was a local anesthetic that last for kind of 8 to 24 hours.

It has a but and so then I would do a nerve block of the, the nerve that's going to a joint, like for example, the femoral nerve. And then I would then they would operate and do whatever they're going to do.

Now, what word will like to do is we'll do a nerve hybrid dissection to the nerve going to the joints. Now then that means we're putting fluid around that nerve could be BPC 157 could be, fragments of thymus.

And before can be. So we have a variety of different things in parallel to that. We could be putting something around those tendons by the knee because that's where or by the nerves close to the knee.

And then we can be going into the joint. That could be something regenerative into the joints. Could be some cells could be. But but but the peptides are outside the joints or it could be PRP in the joint.

And so then now you're getting fairly robust combinations where we're treating the entire body and affecting it. So I don't know what your thoughts are on that, but is this kind of it's been we found we found that, you know, 100% of the time, people do really well with the combinations of regenerative stuff and peptides.

Yeah. There is a, I can, if I remember this here. Oh, man. Okay. So I really like that, but a little bit different. So I'm going to take it in. And because I've always thought that a comprehensive approach to treating a joint is the way to go.

And I mean, my comprehensive is I want to treat the joint, the tendons, the ligaments, the nerves. Right. And the joint, obviously, that's how I'm going to the joint with whatever marginal of injection substances are going to be PRP or Pro therapy or peptide.

And then the ligaments I want to support the tendons and ligaments. We'll say, you know, I want to support the surrounding structures right. Let's say ligament more so Lieutenant. Right. So let's say like a shoulder.

So I want to be able to use potentially like I can use PRP, I can use I don't want, you know, tendons and ligaments. Right. Because you may notice how you may find a tear in my finest and tendon damage.

You can actually do that. And so now I can treat those, you know, that, you know, and thesis and thesis about. Hey, man, it's been a long day. My coffee's kicking in a little bit.

My coffee is wearing out. Right. So where that ligament attaches to the bone, I want to do my pro therapy there. I get a PRP where the injury is. But what makes this comprehensive is when I get the chance to do it, when I'm able to talk to my patients, I want to do this.

And this indicated I'll actually do neural, which is that hydro dissection tree treating the nerve, supplying that joint. Yeah. Because now I've hit all the layers, I've got the joint, I got the ligaments, I got the tendons.

And the reason being is oh man, I used to mess this up. And that's why I was calling it Wilson's Law forever. Finally got around. I got enough questions wrong. Enough crazy stairs to remember.

Is Hilton's law right? Because if I remember right, the joint, that is how I'm going to mess. So you have to correct me at a joint. That's interesting.

I was going to say the branch with nerve that inhibits a joint also extends to the muscle and across the joint. So basically, if I know that that joint is generated by a branch, by a nerve branch, I can treat the nerve.

That's also going to treat the muscle itself. And so I'll, I thought about that and I was like, oh, this is perfect because now I'm getting all the layers, you know?

So is there a better way to say Hillsdale man isn't messing up for years? Okay. So that's a good one. That's a good one. So basically basically what's happening with this?

I'll give you an example if, if there's a, if there is a, muscle that's over a joint. Yeah. The nerve that is going to that muscle is also going to the joint.

And the logic for that is that you want a nerve to go to the joint and the same muscle, and they're going to be integrated and coordinated because you're when that muscle moves that's going to move the joint.

And so it needs to act in kind of a coherent way. And so then if a if the and so then the idea is that there's a nerve that's going down to the joint.

And then there's also a branch of that nerve that's going to be superficial and cutaneous over the joint. And so then they're they're both branches of the same nerve.

And so then the the concept of pairing neural was that, and and this came from John left off who's a friend of mine, and he invented this idea neuro parallel.

And so then what his idea was that, I'm going to I'll go and I'll go into this a little bit is kind of yo yo like this one. His idea was that nerves tend to get impinged.

They tend to have decreased blood flow because they have decreased blood flow. There's slightly less oxygen. But then because of the less blood flow there's less glucose.

Right. Because there's less glucose they have less energy. They have less energy. And then their they become dysfunctional. And then that can lead to muscle spasm and dysfunction.

And so they call it like a PDA. So then which is low glucose. So that and so then so then that was the idea. And so then and, and if somebody had pain over a joint, often they would find the nerve that was going to that joint.

And then and sometimes they would go a little proximal if we're working in the rest, sometimes they go a little proximal. To the joint, but then also potentially come right over the joint working on the, the muscle over the joint and then the nerve going to the muscle and then doing that.

And traditionally the way that they were doing that was with a three cc syringe and a 30 degrees needle. And so then, that that's good. And then that was a half inch needle.

So then that was an idea. And so then he but and then, he changed that from, neuro parallel because there was a big community of people doing parallel therapy.

And so then they changed the name to, hairy neural. So close to the nerve therapy. The good thing about that is, is that, dextrose also has some benefits to nerves, and it probably is a it has an it can block, on myelinated C fibers.

And the inability to see fibers control blood flow into a tissue. Bad. And so if you treat with dextrose then that can cause block of those, myelinated kind of pain fibers which can improve blood flow.

And so this was the nerve idea. So then what I said was, oh, okay. What would happen if you started doing something very similar to that? But instead of and because we had done that and he came to my office and we'd had a great time, and I showed him nerdfighter dissection and stuff, which was awesome.

And so we, I had like a big meeting of the minds with him. And then what we started doing is I started saying, wait a second, rather than use, one inch or half inch needle, let's you start doing the same thing with an insulin needle.

And so then and instead of doing and so we started doing pari neural injections with an insulin needle and liking it way better.

Joint, nerve, and regenerative injection approaches

And then I said, wait a second. BPC is good for nerves. What if I started doing pari neural injections, but instead of using, 5% dextrose, we start using thymus beta for BPC 157 fragments of thymus metaphor.

And so then I started doing pari neural injections and pari tendon injections with insulin syringes basically all over the body. And so we got into doing that in Covid just because people couldn't come to see us.

And then that became kind of one of our favorite ideas. And so then that is kind of my explanation of that idea. Now then, interestingly, if you think of an evolution and so then like they came out with this idea of using dextrose and then this is from the Pro flow kind of community.

And then this idea of and the, the idea was is that nerves like 5% dextrose. So this is a constant concentration. So if you use 70% dextrose it's kind of taught as loss.

Hypertonic. And it can scar connective tissue okay. So then nerves like 5%. But then what happened is people said, well what if you put like 15 or 70% dextrose or on tendons.

And so then traditionally what happened in parallel was if there was a ligament that came down and attached to a bone, then what they would do is do needling all around that to create an inflammatory, concept around that tendon.

The dextrose would be hypertonic. And what kind of scarring now? So then, with that was kind of like this, I and this idea, you know, started maybe 60 or 70 years ago.

This has been going on for a long time now. When I started doing ultrasound on, a lot of people would had a lot of trouble with therapy. I would see scarring.

Now, then what happened is and then, especially with some of my friends that come from other countries that can't, that don't have what we have in terms of regenerative medicine.

So they're stuck with doing dextrose on themselves. So I was kind of horrified when I would start to see, you know, some of some of these guys, on ultrasound.

So then what happened is, is, I this this I think is an important what what I do now is I'll look and I'll look at where that tendon comes down with an ultrasound, and then I will come down and then do something kind of like parallel, but I'm not doing damage because you had to do damage if you wanted to get something to happen to heal.

If you were doing with, and 17% dextrose. But if you can put peptides, they have so much regenerative potential that I found you don't need to do the needling and damage.

And so then basically you can just come down and then gently touch, and then I'll gently come down to the bone

and then to read peptides through where the tendon is.

And then hydro dissect the fascia a little bit. But then, my current concept is using relatively high concentrations of peptides, low volume, and then extremely low trauma.

And so then now I don't do any needling. And then combining that with something that's kind of a little proximal. That's going to treat the nerve. And then doing our joint concept.

But then do your thing where it also which is give that person CJC an upper morale. And and then give them systemic peptides that then are going to continue to stimulate it and heal that as time goes on.

And that's that's awesome I like that. Yeah. Because you know, I always think about and I guess the with pro therapy that's the whole like the trying to and that whole scarring there.

Again it's an older concept is that you're trying to correct ligament laxity. Right. You do that by trying to stimulate collagen fibroblasts and get the you know, FGF.

And also if you're trying to get those growth factors to create that, but it's kind of an uncontrolled process. And so you might yeah, you'll get the correction of ligament laxity.

But it might be too much you know. So that's actually really cool to to think about that. And all right that you know maybe. And so then here's another one.

Here's another good one. And so then. And I've had this this one. And you know, I have somebody that looks like you. Almost anything I do is going to work.

Your body's kind of perfect. Your biology is perfect. You're you're strong. And then I'm almost certain that you don't have complex illness. Like, I know that I have.

Then that on the other end of the spectrum, we've got these people with that are super sensitive, you know, with Lyme and mold and all of the the inflammatory kind of conditions that people will have.

Now, a lot of those people also have ligament laxity. And I think part of the reason that they have ligament laxity is that there's inflammation at where those tendons are attaching, and those tendons are not doing what they're supposed to do because they're in pain and they're dysfunctional.

And so then and now, interestingly, one idea would be just to follow your one A and one B, give them C ephemeral, and then BPC start to manage that and optimize what's happening from a systemic level.

And they're just kind of start to fix those tendons. And then one thing you will see is that that stuff starts to get better. But then the other idea is then going in there in a careful way.

One idea is to go in with an ultrasound, another idea. So you just get close to that joint and then do something this kind of like carry neural and and then you know, I've been we've had I think that the evolution of pro life therapy is going to be sort of a, earth shattering idea, because I think that probably you could just take parallel therapy, and if you added peptides to it, it would be like probably five times more effective.

It's going to be super exciting to see that. Oh, man, I'm super excited to hear that too. Especially if, you know, if you don't need as much volume. Because again, a lot of times you're looking at pro therapy joint and depending on the joint, you might be looking at anywhere from 2 to 6, you know, depending on which joint you're going into.

So that'd be great to do. You get the same effect, a better effect and less volume and less pressure on the joints. So I'm excited about that. So in and then along those lines and that's, that's another one that has been kind of a game changer for me, which is, is that, you know, a knee you could put ten cc's and a knee three foot, five cc's in a knee.

You know, we started I started if I'm coming into a, finger joint, I only use an insulin needle. Now. And so then I look with them, by ultrasound, and then I can see right into the joint.

And then I literally stick a needle under ultrasound into the joint, and then you might only put ten units in, but then you can have something that's relatively concentrated and have kind of an effect that I have a patient I did, for a thumb injury, right at the first MCP and I was doing, I say I did a HD 9 or 6 for with hyaluronic acid.

Oh. Yeah. He's me pissed off. This is his podcast because I, I went bilateral I had a, 31 get especially with a, Yeah. Yeah. Because you know, but no, no, I, I use a regular HD because the HD was so thick.

Oh, yeah. So I had to use a 27 by one by if I had. Oh that's fine. So it's not as lesser, you know, it's not that he's like, oh man, you could have done this with a smaller needle.

But you know, so yeah, that's, I would for that joint. I think a lot of times I might use, a 27, 27. Okay. All right. We're in a clip. We're in the clear, we're in the clear, we're in the clear.

We're in the frame. Now, we we covered one a and one and one a. What's your next. Peptides that are your go to every day that you you like to like to tell people about okay.

So after CDC and Maryland and test Maryland and the BBC 157 if I'm that layered approach is like, hey, okay, all right, doc, what's next? And it depends on what they have going on. Right.

So if they're into the more esthetics, more inclined into like, hey, I want to, improve that body composition, you know, muscle mass and, and lose body fat depending on their status.

Right. Because this is another thing. You can't just throw it at everyone. I might say IGF one, our three thought process of that is that, you know, we talked way back when okay.

The growth hormone peptides I'm releasing growth hormone for the pituitary going to deliver releasing IGF one. That IGF one is what's going to you know, has receptors on the ball muscle cells and does all the good work by stronger bones but also lower fat.

But that half life is how long that's you know, if I want to extend that half life, I make a certain IGF one, 2 or 3 combination with that. If I want to push that for now, this goes back to being careful with a patient because again, I don't I have to see what they are because again, if I have any inclination that they have any type of insulin resistance or glucose insensitivity, I'm probably not going to do that because I don't want to push them into insulin resistance by giving them by flooding them with it with IGF.

So that that's you know I look at that situation there. Now I'm going to kind of like wrap a few of them in in this goes into situational stuff right now if someone is like hey I'm have a little bit sarcopenia or muscle loss, I'm struggling with putting a muscle.

I'm eating well, I'm working out. I like what the CJC 25 and the BBC are doing. I might consider doing about adding a peptide call for a mechanical factor, and some people say it doesn't work.

Same great results that peptide. But again this goes back to foundational. It's not going to work if they don't then you got to work out because this peptide literally repairs muscle cells and increase muscle.

Satellite stem cells. Right. So if you're not stimulating the muscle to grow with exercise and muscle contraction, probably not going to work as well.

It doesn't really work in a vacuum. I do like that one post-workout and athletes as well. How much how much, how much do you give them? Just this, 200 micrograms point one.

We're really well, really well. So how frequently will you dose that? I feel that one day most people is, hey, if you're

doing weight training sometimes four times a week.

Five times a week, does really well, I don't it doesn't necessarily have been every day peptide. So I kind of like if you're especially if you're having a hard, kind of like a weightlifting, you know, session at our training.

I like it after that, you know, so doing that. But the hard part is I'll tend to like it as soon as possible. I have to workout. So unless you're carrying that, your vial, your syringe, with you going to get home.

I still think the fact of doing that so that those two, I like those in combination with it. Now for my say my pain people, as in, hey, I'm recovering.

And this depends on what I see and how they present the clinic and lab, or if I think there's a ton of inflammation going on. I really like KP. KP really is, man.

I am getting a crush on that peptide, man, because I've seen just almost instantaneous reduction of inflammation. It's probably to me as close to a corticosteroid that a peptide can get without being corticosteroid.

I mean, it drops inflammation like incredibly like, you know, like I actually had a cystic acne patient and it said a painful says. It was like, oh my God. Like, this is man, this is a trial settle. All right.

This is literally the first thing came to mind. I was like, you know what, let's not do that. And I actually took an essence range. And I did 25 units of CP every three days in a row, syscall.

I was like, this is really cool. Each day you saw reducing in size and the pain getting less, you know. So that was where it was. Where was it at? The location of the cyst, was on the chin.

Really? Yeah. And you injected into it or just close by? Close to it or close to it. So. And then I actually had, I have probably, you know, I don't know if it's like, based on I probably have the word scale attachment attachments at the iliac crest in the history of the world.

If I squat the wrong way, I will flare up like no one's business. Right. And I do, you know, chiropractic, stretching, cupping, and it manages it. But every now and then I get a flare.

And I had a bad one a few months ago and actually called, the, the head pharmacist up here. And I was like, like this. I'm like, dude, I'm struggling.

I can't get out of that. Like, bouncer data for orientation of people saying touching it. Like, what? What the hell? You know, and I speaking of repetitive injections, I had, you know, at one point in time, it's hard.

No one else is here. I'm like, crap, I don't know. The doctor came by and we did a very low, low dose, probably therapy kind of threaded at that attachment.

Iliac crest got me out of pain there, but I'm like, hey, I'm struggling. And she's like, once you pray five days in a row right near the area, by day three, I don't need to do it again, you know?

So I was like, I was pretty sold on it and I've done it systemic subcu, not for injuries. And I've seen that ESR and CRP go down tremendously. Like I'm a big fan of that. This is more on that repairing.

If I know that I'm in an act of more of an acute injury, I need to get that inflammation down without. And this is timing, right? I don't want to knock it down so much that I suppress the body's natural ability to heal by suppressing inflammation, but we're kind of at that point like, wow, like you're two weeks out from the injury and it's still there.

I might be, you know, more inclined to do that. One. So yeah. So that, that yeah, the, the I have a crush on Cfpb I love it. Yeah. That's a good one I love oral I even thought about oral and topical and that's just, you know, injecting right there.

So yeah so so Cfpb is just this anti-inflammatory. And then it comes it has some benefits in terms of mast cell activation. And so then it particularly when I think about MSL and and and sometimes that's food is a trigger for that and gastrointestinal stuff.

And so then we'll use Cfpb and then we will use a combination of BPC and Cfpb orally. And then I do that for all of the inflammatory bowel, people that we see, the but then I also notice that it has that effect.

And so there's probably an effect of Cfpb on nerves. And and so then when you think about that iliac crest, basically, what happens is a lot of times the, the if you think the spine is down here and then, in the back part of the spine, there's a joint.

And so then what happens is, is the, the nerves that come out, come out, they come out the lateral side of the joint, and then they kind of come up and they going to climb up and go over the iliac crest.

It's, clinical nurse. The colonial nurse. Yeah. Right. Right. Yeah. And so then now I always tell everybody, I know these are some extremely important nerves because they were they were named after George Clooney, as is a different spelling.

It's a different spelling. But. And so then when I see pain, there, then I, I have, sort of two, two ideas. One. Okay. It could be a sharp attachment, could be, laxity or pain around like the low lumbar ligaments.

Could be and so then, but then if you go and, you know, there used to be a lot of parallel ideas of going along that iliac crest and then, doing, and if you look at or ultrasound a lot of times you can see a little tunnel where the nerve comes through.

And then if you look at your ultrasound and turn Doppler on, a lot of times you can look and sometimes you can find an artery. And then that's going to be where the nerves and it's basically like at the junction of like with me and with facts and you'll, you'll see where it comes over.

And so then but then, you know, it makes me, me go, okay, so you did that treatment was, was that, did that actually kind of hydro dissect your, your colonial nerve and then that reset the nerve going back to the reset.

And then that basically resets the muscles. And then because if they're in pain then they go into spasm. And now you you're, you're moving this functionally which causes more pain.

So that it's just it's just that one is interesting to think about because think about back pain and then that that and then you think about go back to this idea of okay, we have, you know, you know, however many billion people in the world there are.

And so then starting to be able to do subcutaneous peptides in the low back. Well, we do hydro dissection of the thorax, the lumbar fascia treat of joints.

For quadratus lumbar. What I'll do is I'll look with an ultrasound at, usually at L3. And that's just because the L3 transverse process is high. L4 is down like this.

And so they come down. But L3 you'll see. And then you can see the quadratus lumbar muscle.

NAD, thymus peptides, and closing thoughts

And then basically what I'll do is I'll hydro dissect the superficial and deep plane of quadratus lumbar. And then basically what you'll see is you'll see fluid open up and then you'll see the and when you'll.

So you'll just see black where that fluid is. Now you get up and walk around. That fluid is tracking north and south and then lives in that whole plane where quadrants, environments.

And so then now you can you gotta come up and I'll do it for you. And so and and so then this is to me, this is the future of how you take care of pain.

Because then at a 1.0, my idea is kind of make an assessment of try to figure out what's going on is amorphous. Is it more myofascial and then beginning to kind of treat with the same type of stuff that we're talking about for treating a wrist joint.

Now you say, okay. And it used to be that. And then this is a this is a big one, okay. For it used to be that what people said was, oh, okay. If this is a that you got to go down and meet all the crap out of that and then and then create inflammation so that you can have stability at that percent which was.

And it when, when we would do that. And then placental matrix and things like that there you would it would be amazing. However then I found out oh placental matrix is so regenerative I don't need to do the needling.

I just go down and then I look and watch it spread and then slightly move around carefully and then treat that. Now what were the evolution is, is that peptides are an amazing initial treatment because they start to heal things get things better, and it's low cost.

And so then now just thinking about that and but the back is as interesting as it comes from from a peptide perspective. That's not even now just talking about the QL and the for facades.

And that's not even get into the side. So it goes on and on and on. So I know we're probably running low is like, I can go, this is such a fascinating thing.

It's like, I mean, one more day. Oh, if I had to pick one more, I want to go. Last but not least, that's another one. Okay, good. So if you trap me on a desert island, I'm taking cityscape, Maryland BPC one five 7000 off one KB.

See any that I think I'll be okay. So with that, I set out for one because, people start hearing about it more in the covet days because, you know, there was there's a whole thing of the FDA and all they're, they're, they're sending nasty grams out because people are claiming that, you know, whatever.

But at the end of the day, bouncing off of one, what I love about it is because it's so clear tropic, it does so many things. This is that goes back to way back and beginning of our talk today is like, what can I give someone if I want one peptide to do a lot of different things?

Those are the ones I really want to go to with. That was enough. One, we're talking about reducing inflammation. We're talking about balancing the immune system.

And when I mean immune system balance, we're talking 22 to 17. So Dana, volunteers want a more antiviral taste to being, you know, kind of upregulated.

We're talking about autoimmune conditions. I want that more balance. I don't want too much of one too much. I don't have the right or the wrong time. We have. Yeah, we have that, oh my goodness man.

Just from a general. Does autophagy literally does direct autophagy, you know. So a lot of times when I talk about senescence and things that increase the top energy, there's there's some steps in there, just pathways in there.

But there's some studies showing off one actually directly stimulating that. So then autophagy for people is, is how a cell cleans itself up. Yeah. And so then that and that and autophagy and that essence are two of your pellets.

Right. Oh yeah. And and senescence is a zombie cell that's kind of dysfunctional that can create inflammation basically. So thanks for clearing. Like sometimes I'm almost a cell that people know what it is because I talk about it so much.

Yeah. They're like, oh, there's not a journal. So I want to top his answer that there he is again talking about zombie

cells and SAS and all that stuff. So so I like that stuff.

One now, what I also like about that is, that's an alpha one is really cool is I'll start thinking about because I do a lot of DND and clinical. Okay.

And so that being said, you know, I started I've been to, a couple of trainings, we start talking about the need metabolism. And because, you know, this and I thought about this way back when, it's okay, I'm about to give you a lot of energy.

It's got to go somewhere. You're going to use it, you know, use it for ATP. Right. Oxygen neurotransmitter detox pathways forward. But how do you get rid of it?

Right. Just like anything else, you got to metabolize it. Right. And again, with our body you use things to do things. And so the first thing I thought about initially was, the methylation factors.

Right. Because if you're going to metabolize in a day, if you look at the pathways, I don't want to get too biochem for the the listeners here is that you are going to use multiple factors to metabolize that NAD and get rid of it.

Right? To actually get rid of it actually matter excreted right, into its final form. I want to say it's one man is the final for one animal. Get out to look at my mouth again.

I want to say, is one in. So that being said, I would think about if I'm using multiple factors to metabolize in a day, that I want to replace those because people get super tired after NAD.

So I look at at betaine, I look at TMJ, or I look at Sammy, and that was the first pathway that I learned about when it came to NAD metabolism, and that was where I was laser focused.

Focus on that. Come to find out, if you go higher up in the metabolism pathway, that you actually the metabolism and metabolism of NAD compete for cd38 like wait a minute here.

Oh wait a minute. I could be long term actually affecting someone's health by dropping the cd38 as it's trying to compete to metabolizes NAD. Again, this is this is my my thought on that was like okay, what helps upregulate Cd38 bouncing off one.

And so I was like, wait a minute here. If I may get better benefits and my results, my outcomes with NAD treatment, if I'm able to potentially do a month or so if I was an alpha one before I do nad IVs, especially if I'm going to do high dose or series.

Again, this is you know, this is Doctor John's like kind of looking at some research and actually like trying to put all this together. And I thought about it enough.

It was a liability and actually be an adjunct to NAD therapy. So I this is I put this into practice and I'm glad we're going to talking about it because this is something I've been thinking about and how to, you know, again, maximize my benefits and outcomes in a day treatment without causing any side effects from that.

Okay. So then what I learned on that, this is an interesting one. What I learned about that is, is that we always give, a methyl donor before we give NAD.

And so then we have and that's one that I like the most is htmg which is try methyl glycine which is also a betaine. That's what we're doing here to. Yeah.

And so then we'll take and take that as an oral before doing an ab. Now nad is going to have a whole bunch of play tropic effects from, and it's going to have some immune stimulating, some DNA stimulating.

It's going to activate the sirtuin super families. Does all of this stuff. One thing that I'll tell you is the one population

you got to be careful with, NAD is people with complex immune problems, and that population can get a little derailed when they take energy then.

So then what'll happen is you'll see when I first started teaching some of the Lyme doctors how to do an ad, because we were we started doing an ad seven years ago or something six years ago. The, We were doing it for people with addiction, and you could give them 1000mg of NAD, and they would do great.

But if you took if you take somebody that is really toxic with mold or somebody who's really toxic with Lyme and you give them 100mg, you may totally derail them.

And so I haven't figured out if that's an immune aspect of the NAD or if it's driving a, detox. It turns their detox pathways on and they can't handle that.

But what I did find is that if you put them on time to stand up, don't worry, it's the home edition. The, the if you put if you put people on thymus and Alpha one and then you put them on it for a few months, then they basically.

Well, and then you start to introduce an AB. And then what we started to do is introduce energy. We had this experience with a few people that got, had a hard time with energy.

So then what I started doing was, during nad with an insulin syringe. And interestingly, from a cost perspective, it's, it's a it's cost about the same.

But then what you're doing is you're doing a subcutaneous injection. And so then that's 100mg is 200mg per mil. And this is from a company called archway 200 milligram.

And they have the best subcutaneous entity in the world that I found. So then 200mg/ml. And so that means 50 units is 100mg, which means 25 units is 50mg, which means 12.5 units is 25mg.

So then what we started doing is for those though, some of the complex illness patients, when they start doing an ad, we have them do ten, 15, 20mg of energy.

We're starting want super low and then they can start to take that and then their body gets used to it. But I but but but your your intuition is 100% right.

And so then that, that the time to set off a one is extremely helpful, as an adjunct around getting someone ready for energy therapy. So, so, I mean, we've helped people that that peptide is amazing, help people with allergies.

And it's great for, talk about that inflammatory bowel disease case earlier. I mean, it just does so much and it just really just helps the body feel better through all these effects.

So, I mean, there's so many people with just wow, they they love it and they love how they feel on it. And so that is definitely a peptide I hope never ever goes away.

But that's, you know, kind of out of my hands there. So all in all and I I'm excited about the feel of that ties in the work and on. And I just feel like it's that whole like there's so much I feel like I know a decent amount about peptides that are so much I don't know.

And there's so much research, so much for coming out. And I'm just excited to keep learning, man. So it's it's great times. I, I feel like I got to know you better.

I love talking to you. I loved before before we, before we got on the podcast today, Greg was listening to Tom petty in the background, so I knew we were Solid Brothers 100% forever, though.

And so, Well, you're doing amazing work. I think you're an amazing doctor. And I'm going to stop you on the podcast and have you as a friend. Thanks so much.

Thank you, I appreciate it. Yeah. And it's, my office is known for the 80s is like an 80s party in here just about every day. So it's, and the like I will say, as a music of my youth, it kind of is.

I don't want to date mount a carbon date myself here, but, it's definitely getting out there. But now, this was an honor and a privilege, and I'm excited to, be a part of this.

And I can't wait to see it. And, so we found Matt. And thank you again. I really appreciate it. Okay. Awesome.