Introduction to peptide prescribing

You can buy things online, you can by things at your gym. I mean, go to Costco. It's a situation where as I think, peptides in general are being over prescribed in a lot, a lotta places.

But as long as you're a forward-thinking physician who's actually putting the time in, checking the labs the correct way and actually listening to the patient, making sure their lifestyle, their diet, they're exercise, the hydration, and their sleep and the stress reduction are online first and foremost before you prescribe any of these.

Because again, peptides are not an end-all. They're not a magic bullet. they require work. The require that your body is ready to receive them and utilize them.

If it's not, you're planting a seed in a barren ground. That's going to work for you. It's gonna work with the patient. You're listening to the Lifestyle Medicine podcast with Dr.

Ivan Rusilko, brought to you by Access Lab, where we explore new perspectives at the forefront of personalized health care. Welcome to the Lifestyle Medicine Podcast.

I'm Dr. Ivan Rusilka, your host, and we are powered by Access Labs. If your doctor's not checking your labs, they're not a doctor. And today, we're actually taking a different spin on all the questions and requests we've been getting for content that people would like to see.

Of course, everything always leads back to peptides this day and age. So we've been getting a lot of questions when it comes to what are peptides? Are they good for us?

are they dangerous? How should I prescribe them? Pretty much the whole gamut of medicine in general. So today we're going to kind of take a different stance on it.

I myself have been using peptide since 2012. I was one of the first physicians to write protocols for IGF1R3 way back in the day for Vicrin. I think we were the 1st company to bring peptides to the market at the A4M way, way way in a day.

So I've been using peptide on myself and with my patients for an extremely long time. And I like to think that there's a special way to prescribe them.

And, I think, that today it's just overdrawn. I mean, you see Instagram influencers, physicians who have never done a day of wellness, regenerative medicine in their life, all of a sudden pitching and hawking peptides here, there and everywhere.

Um, and I, think this is not only an educational tale, but also a cautionary one.

What peptides are and why testing matters

So we're going to get into the top five peptides that people are always asking about. That'll be GHK, BPC157, GLP1s obviously, MOTC, and thymusine alpha.

We'll start there and maybe we do a couple of these series just to kind of give you an idea of how you should actually prescribe peptide and when you shouldn't.

We're going to hit the high points of when it comes to testing, which if you don't test before you prescribe peptides, you are not a physician. I need to repeat that.

If you're getting peptide offline from some telemedicine thing where they ask you three questions and don´t really check in-depth lab testing. That's dangerous.

Ceptides are safe things when comes the medicine and actually altering how your body works. But the scary thing is, they can also be extremely detrimental, dangerous and all around just not good for you if they're done and not the correct setting.

So we're going to kind of demystify first and foremost what a peptide is. Then we'll go over the different peptides, you know, what to test for, the things that I look for in my testing.

And again, using Access Labs has been great. They've let me really develop a lot of really unique protocols. If I'm going give somebody a specific peptid, it's not only going work, but it is safe.

You know, this industry is probably getting, you know a couple of black eyes here and there because people are taking peptides and it's not really working.

So it is just a situation where we really need to kind of reverse it and kind to make sure that we kind get those peptide prescribed properly. And I did misspeak, we won't be doing MOTC.

We're going to be all the secretagogues which help stimulate growth hormone and IGF-1 because that was a big one. MotC was number 6. Maybe we have to do a second follow up to this one, so let's get into what is a peptid.

So what exactly is a peptide? Well, a Peptide is chain of amino acids, usually anywhere from 2 to 50 in length. That's much smaller than its counterpart, the protein, which is almost the exact same thing, just a little bit longer.

And they're all held together by covalent peptides bonds. They're manufactured mass quantities by the body because they are that important. They manage immune systems, neuro-endocrine systems.

They managed how you heal, how do you have sex, How you think, and how to feel. So they're extremely important to how the body works as a whole. And it's kind of unique.

Peptides kind-of work as very unique intracellular key. so they fit into the actual lock and then they turn it, usually a G-receptive protein and they set off an intracellular cascade of events which again can be going anywhere from healing, regeneration, repair, you name it.

But it is extremely import to know that these peptides are like little floating keys that go around and once they fit into the actual receptor they turn it on and they can do all sorts of unique biological and regenerative functions throughout the body and that's kind of what makes them unique.

They're a natural product which is also a huge huge thing to know about peptides but unfortunately the way they're being you know handed out like tic-tacs and candy these days there is some potential for them to kind do some harm so that we're going to get into with the next five peptide and peptid groupings that were going kind go over.

But in short, just remember peptide is nothing more than an amino acid, kind of put together in a very unique Lego type way to kind to do all sorts of unique biological systems and functions that really make us, us.

So first and foremost, let's touch on BPC157. What does that do? Bpc is a peptides derived from the human gastric juice, which is kind unique, it comes from you.

It speeds up healing and all sort of different things which kind make for a really very good healing potential.

BPC-157 for healing and recovery

You know, It does this through several different ways. One of the biggest things is it stimulates vascular endothelial growth factor, BEGFR2, to grow new capillaries, also known as angiogenesis, and also recruits fiber grafts to

basically lay down the new structures of what collagen is and be.

The labs that I check, though, this is important. So first and foremost, a neutrophil to lymphocyte ratio, or the NLR, as well as a high HSCRP. If you find two of these things that are off, you know, BPC is a great addition to it.

It helps our chronic stress, which is amazing, it can create a very toxic, I guess you'd say acidic type environment. So it's super, super good if you have inflammation anywhere throughout the system or actual injuries that you're trying to recover from.

I use it tremendously when it comes to post-surgical healing. We have a lot of cosmetic surgeries here as long with all kinds of different surgeries, hip surgery, orthopedics, you name it.

but you know because of how well it not only brings the fibroblast in, but also very important. Another place you would find a good time to use BPC was when you have high serum ferritin with either normal or low iron.

This is because when it comes to any type of chronic mucosal inflammation, anemia, chronic disease, you need barrier repair. So it's a situation when your gut lining's off, that's where you absorb most of your iron, and you if that off your guts off you're gonna find that a lot of people are anemic, this is important in you perimenopausal women.

and women who are menstruating, and men who have issues when it comes to low testosterone, things like that. So gut issues is also very big. Low serum zinc and albumin is another big time you want to use this peptide.

And again, if you're going to something that's going build, you need the building box and the actual cofactors. So again, having things like, you know, the good albumin, good proteins, and zinc when it's low, BPC is phenomenal at actually helping these actual scenarios when they actually unfold in your lab testing.

Another area I like to use it is post-exercise. It helps with muscle, I guess regeneration helps you heal faster. So, again all those athletes out there, it a good thing if you're really hitting the high intensity hard, or if your not really training for something, are you doing Barry's Bootcamp, you know, doing marathons.

But with every yin, there is a yang. So there's sometimes when you find certain things in lab testing, you do not want to use BPC. First and foremost, any tumor marker that is elevated, things like PSA, AFP, CEA.

Things like this, Bpc has the potential to actually stimulate that. That's why in all my testing I always make sure that there are no history of cancer or current ongoing cancers, because this is something that might shy me away from using Bbc as an actual peptide.

Also, severe iron deficiency or low ferritin. Again, iron is incessant for collagen synthesis, and if you don't have that, you won't get good oxygenation.

It's also a situation where you've got to correct these things before you use BPC, because if not, your doing an injustice to your patients or you're wasting your money, which is not a good one.

Also, hypoproteinemia is also a situation where if you don't have the protein to actually build these actual things that you want, better muscles, collagen, hair, skin, all this different stuff, you definitely need to have actual building blocks there.

So I always make sure that we're checking all the different protein levels. We're making sure we have a very, very strong foundation of different things we can use to build and heal and regenerate.

So when it comes to bpc it's a situation. It's an amazing healing peptide first great recovery peptides for athletes helps build muscle helps heal post-surgical all fantastic times if you have cancer avoid it if You have low iron avoid It if have issues with you know, low proteins or or low nutrition You need to boost those up before you actually interject bbc into a program or start taking it yourself Just because again, it is probably a smart way to do it.

You save yourself time You, save, yourself money you prevent any type of potential issues you don't want to arise.

GHK-Cu for aesthetics and tissue repair

You can use it orally. I love it if I find leaky gut. It's phenomenal for leky gut I think it's one of my best treatments for leaking gut, I usually combine that with thymusic beta.

you can throw some KPV in there for the inflammation. Post-surgical like I said it is phenomenal. For that you throw secretagogs which we are going to touch on in a second.

To really help the body really get that IGF, BPC, healing regeneration factor going. And just overall aches, pains and things like that. Its a pretty phenomenal peptide for a lot of different things.

Up next, we got the beauty peptide, GHKCU. I use this for all things aesthetic, as well as healing and regeneration, so it's a great combo with BPC. GH KCU is a tripeptide.

It consists of a glycol, histidyl, and a lysine group bound to an actual copper ion. Its fascinating the way it works, it really is. it helps with cellular gene expression, It turns the cell back into a healthier, younger, profile.

It simulates collagen, elastin, all these different things that help with hair, skin, nails, with your tendons, ligaments, bone even. So it's super good.

And also as a side effect, not to let people know, it boosts antioxidant defenses like super oxide discutase. Phenomenal complex to have in your body.

But again, we're going to go through the labs because you need to know the lab before you do anything else. That's a great one too for the brain. But when it comes to low serum copper, that's one of the biggest things is again, you're actually delivering copper into the actual body itself, which helps with tissue remodeling, helps collagen, it helps everything when comes of like basically building back the elastin in the collagen in your system.

It's fantastic for that. A lot of people actually do have a low copper due to diets and basically just lifestyle as well. So if you find low copper, I mean, go ahead and jump on this.

Also, if your high zinc to copper ratio, and a lot of people don't understand the zinc level suppressed tissue copper. So, If you have a gigantic zinc-level and low-copper level, you might want to think about adding GHKCU to it.

And again, too much zinc and too many copper or vice versa. Too much of a good thing is always a bad thing. It's always the situation you want balance that out.

Also, I look for low vitamin C or things like low total protein, which are the co-factors for building blocks. Again, just like with PPC, you need to have the building block before you jump into trying to build something.

So a lot of people are saying, oh, take GHK and I'll get better hair, skin, and nails. Yeah, it may happen, but if you're doing it blindly, It may not work and all of a sudden you are wasting your time, wasting energy and it could actually hurt you.

So now we're going to get into when you do not want to touch GHKCU. The times where it's contradicted or it won't work. Again, elevated free copper in the system already.

If you have too much of it, adding even more into it can trigger all types of oxidative stress, things that you don't want. Something like a Fenn reaction.

It's a chemical process, which is a short-lived particle called free radicals. Aggressive particles act like molecular shredders. So it is something you just don´t want jump in freely and just start prescribing.

Same thing with that, you have an elevated iron saturation, usually over 50% or severe iron overload like a hemochromatosis. Excessive free iron paired with supplemental copper, it can damage organs from the heart to liver to pretty much any organ in the body.

If you do have a damaged liver, elevated ALT, ST or total bilirubin, this is also where you don't want to touch GHKCU. Copper is almost exclusively through bile.

Liver dysfunction traps the copper in circulation.

Thymosin alpha for immune support

So again, GH KCU is a phenomenal peptide to use. I use it again You know a couple weeks post-surgical you don't jump too fast on that one music for hair skin and nails I combine it with hair programs because I think it's fantastic It does a lot of work when it comes to the hair follicles as well That's a whole nother lecture to talk about but it is phenomenal for her and for skin I mean the elastin when you combine that with a healthy IGF estrogen levels proper nutrient levels as well.

All these things really make GHKCU a fantastic peptide to go to. But there are a lot of things you really got to pay attention to, like the iron levels in your system, if you have too much copper already, and basically the building blocks.

You need the buildings blocks to actually give peptides, because again, peptids are not the buiding blocks, they stimulate the bulding blocks so you got make sure you them before you actually prescribe it.

So again GH KCU is an amazing aesthetic aswell as an anti-oxidant type peptidde and I use it freely when it's justified. So one of my absolute favorites, because again, I'm a huge fan of the immune system, and I think something such as thymus and alpha, which is a regulator of immune systems, is one my favorite peptides to actually incorporate in my programs.

It's a 28 amino acid peptide that is usually produced by the thimus gland. And that's kind of like a drill sergeant for the system where it actually prolongates the maturation of stem cells into their helper and killer T cells, Well, and also cell surveillance.

So it's a situation where it is great at regulating your immune system. It's going to kind of make sure it working correctly and avoiding overreactions, which is again, autoimmunity.

We don't want that. If you have a low lymphocyte count, that's definitely something you want to look at or low white blood cell count. This will help simulate the body to actually produce more of the actual lymphocytes, more the of actual white cells or lipopenia or anything like that Also, low vitamin D is phenomenal for your actual immune system.

So if you have a low Vitamin D, your immune systems are more than likely going to be hampered. You always want to check the vitamin B, correct the Vitamin B.

But you also want make sure that the Vitamins D if it's low, go for it. As long as there's no contradictions to it, but also check that Vitamin-D too if your really looking at making this peptide work phenomenally.

Also again, like I said, when it comes to the actual white blood cells themselves, A depressed total white blood cell count, this is actually going to go through and help the bone marrow, increases output of all the different white cells in there.

So definitely check all of the things when it comes to your immune system, those being kind of one of big ones. I'm going throw another one in, there's going be your chronic infections like EBBCMB, Candida infections, all these different things are where your system is being wore out.

You're going to have a low innate and acquired immune system if you're consistently battling chronic EBV. The amount of chronic EBB that we check at our clinic is bananas.

So it's a situation where take a look at all these different hidden viruses, things like yeast, like Candida overgrowth, check all the different bacterial pathogens that people might have, Lyme disease, all this different stuff.

If you are finding these things, thymusine alpha is phenomenal to boost the immune systems in a very naturalistic way and you get some pretty cool results out of it.

But like I said before, where there's yin, there is yang. So the labs that warrant its avoidance, that's one of the biggest things here. And again, autoimmunity.

Secretagogues and growth hormone support

So you have anything from Anna, DSN, DNA, Schorn syndrome, multiple connective tissue disease, all these different things is going to basically, if you inject thymus and alpha into it, the T cell proliferation is gonna be enhanced.

That's probably the big thing I have with this peptide is making sure that the person does not have any type of autoimmune, issues, especially as well as any type of thyroid antibodies like TPO or thyroid glycolin antibodies, Hashimoto's, things like that.

You have to avoid this. So it's just a situation where as you know, if you have anything where your immune system is overactive or you do not want it to be over active, Thymus and alpha is not your candidate, but anything else where you need to normalize an actual immune system, boost it in a certain way.

Thymos and Alpha is a go-to, one of my favorites when done correctly. But again, you also need that sleep, that nutrition, the hydration, proper exercise, get the lymph moving around.

Get out walk, out run, do some of that stuff to kind of help that immune systems. The thymos and the alpha was one my favorite to actually use and I've been using that since 2000, I think.

All right. Up next, we have the secretagogues. And I think IGF-1 is one of the most overlooked hormones in the body when it comes to any type of diagnostic testing.

Everybody's checking testosterone, thyroid, progesterone, estrogen, DHE, cortisol, all super important. But for some odd reason, whenever I have somebody come in from anywhere in world, nobody ever checks IG-F1.

It's one my favorite peptides to check, and it becomes aging, regeneration, functional medicine, whatever flavor you want to give this industry, it's probably one the more important, but people don't really understand that for whatever reason it could be.

I myself, I think things like samoriline, CJC, iprimorulin, tessamoruline. These are all peptides that kind of help stimulate the pituitary gland to act naturally.

But again, these will not work. I exemplify this and I want to really hammer this in. these peptide will work if you're not getting proper sleep. Your growth hormone is released during sleep, you usually take these peptides right before bed on an empty stomach.

This stimulates release from the from from, from pitutary glands of human growth hormones, which then circulates and then turns into IGF-1 which does all the fun stuff that you hear about IGF1 doing.

It's extremely important for a lot of different things, it helps to simulate the environment into the actual tissue. So it's phenomenal, but stimulating its natural production, which is one of the most important things.

The stimulation of natural growth hormone during sleep is, one the important thing that these different types of peptides do do. They can be injected, they can used as a trochee.

I have a very unique blend that I've been using now since 2015. Its CJC, Ipermoralin, Ceramoraline, Cialis, and Oxytocin. Help with sleep architecture.

Cielis and oxytosin are kind of like, what is that in there for? But that's a different There are super, super good times to do it. So when you're checking your labs, obviously a low IGF-1 is one of the biggest things that I do check for when it comes to that.

Check your IG-F1. And again, I want this not too high, because again taking these things won't make it too, high it'll just push your pituitary gland to the highest natural level as it can be.

You know, and again somatopause, which is the gradual decrease in IG up over a lifetime. It usually starts, it takes place at, 20 years old and you decrease like 10% per year.

All those different statistics mean nonsense, but it is the aging hormone. So IGF-1 is a very important thing to check. Then you have, I really like looking at your lifestyle.

If you're healing from any type of injury, hurt leg, pulled this, torn that, whatever it could be. And then also sleep architecture. I think it's fantastic a lot of people were in woo or a ring all these different things I Think it was a phenomenal idea to kind of add that in there and make sure that you've seen you're not getting the correct deep sleep So those are the kind things that I warrant to make that when I'm going to prescribe one of these, you know CJC, Ipermoreland, Sanmorelin, Tessamoreland There's a bunch of different ones you can take a look at It's one of those situations where it's just make sure that you're doing it right for the right reason.

But again, there are certain situations, where you do not want to prescribe. Obviously, any type of tumor growth or history of cancer, you have to be very, very cognizant of that.

There are studies go back and forth that, these secretagogues don't really have that direct link because they're similarly natural.

GLP-1s and metabolic health

Again, at the end of the day, I usually steer clear in any active cancer case when it comes to that Also, when it comes to any type of sugar imbalances, you have to make sure that you're taking a look at the patient's sugar beforehand.

Any type, of you know, dysregulation in the sugar aspect needs to be addressed before this is actually prescribed. But again, I really, really like these peptides when done correctly.

You know I don't think they're They're prescribed enough, I guess you'd say, because I know everybody I've met now with the high stress lifestyle, the poor sleep, and the alcohol and stuff before bed, all this kind of stuff.

It really throws off how your body produces growth hormone naturally throughout the night. These peptides provide a great way to naturally produce or stimulate the production of your natural GH spikes throughout night as you sleep.

So it's a very, very good peptide to use. There's all a bunch of different ones. Make sure you use the right ones and right combinations. But it is fantastic when used properly.

So, and of course, we have GLP-1s. You have your semiglutide, your trisepatide and ranitrutide. But again, We aren't going to talk about that because that one's not yet approved.

GLp- 1s work in a lot of different ways. They stop the production of fat and sugar coming from the liver. they work

on the brain to increase satiety. Or they worked on a stomach to kind of slow it down and make you feel fuller.

And obviously the pancreas because again hyperglycemia is the cause. It comes from diabetes, it's cardiovascular disease, its dementia, It's cancer, Its everything.

You know, some of the times where, you know when you're testing labs, the things you really want to look for, and this is important, number one, if you have a high HbA1c, high fasting glucose, obviously too much sugar in the blood, checking those and having those are extremely important.

You have an elevated fasting insulin, a HOMIR, I mean if have something like a hyperinsulinemia, your pancreas is working too hard, so these things can kind of take the pressure off of your pancreas, let it breathe, If you will.

Also if your have cardiovascular markers, again things like, which again, cardiovascular disease is actually a sugar issue, not a cholesterol issue. When do you not want to do it?

Again, you know, elevated calcitonin in the system. Again this is an contradiction. High calcitonins, so it's a situation you got to clear somebody before they do that.

It's not a good thing. So make sure you're checking the elevated serum, lipase and amylase. Your pancreas is working way, way too hard to be a pancreatitis.

If you are going to really jump on someone in a high dose, GLP-1, check the lipaste, the amylae. And a low EGFR, if your kidneys aren't working right, it's a situation where you have to really make sure that you're protecting those.

Because if you mess those up, when it comes to GLP-1s in general, I wasn't one of the physicians who jumped on the bandwagon and prescribed them to every single person who walked in and made a fortune on it.

We were very selective on them. It required extremely detailed lab testing. And we did it sparingly. They're kind of a bandaid on a hemorrhage. I saw a lot of people, the way they did the wrong way, they didn't check hormones like testosterone, IGF-I, all the anabolic ones like DHEA.

because people would go on it, they wouldn't eat, you can see this in Hollywood. So if you're going to go in one of these things, also check your hormone levels.

You have to make sure they have a very robust, metabolic type situation to actually put these hormones into it. Because metabolism is the biggest thing in our life, and again, the more muscle you have, more metabolic you are, your BMR goes up and you feel fantastic.

So all in all, that's kind of the overview of, of top five peptides and how to use lab testing.

Responsible peptide use and closing remarks

So the last thing as practitioners that we want to do is, you know, put our patients in harm or, kind give them something that not going to work just because we wanna make a quick buck, which unfortunately is kind the main market right now.

You can buy, I mean, things online, buy things at your gym. You can go to Costco and find them for God's sakes. So it's a situation where as I think, you know, peptides in general are being over prescribed in a lot, a lotta places.

But, as long as you're a forward-thinking physician who's actually putting the time in, checking the labs the correct way, and actually listening to the patient, making sure their lifestyle, their diet, they're exercise, the hydration, there sleep, under stress reduction are all online first and foremost before you prescribe any of these, because again, peptides are not end-all they're not a magic bullet they require work they required that your body is ready to receive them and utilize them if it's not you're planting a seed in a barren ground and that's Not going to work for you it is not going work with the patient and it will not work in the industry because you can give it a black eye a bad name

and who knows peptides might disappear because of it.

So, again, this is the Lifestyle Medicine Podcast. I'm Dr. Ivan Rosilko. We're powered by Access Labs. You can check us out on YouTube, on Spotify, and on Apple.

Anywhere you see a podcast, we'll be there. My Instagram is obviously DrIvanRosilco and Lifstyle Medicine as well. And again thank you guys for stopping by.

If this, you know, goes the way we think it will, then we might have to do a part two and maybe hit every peptide out there because there's a heck of a lot.

Guys, rock and roll. Take care. Thanks for joining us today on the Lifestyle Medicine Podcast. At Access Labs, every innovation we pursue is driven by one bold purpose, making personalized medicine more practical and accessible for patients and providers.

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