Unlock Your Healing: Peptides Explained Transcript

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Introduction to Peptides

Hi, it's Dr. Jen. Welcome back to another mini talk and hope you find these really helpful. And I'm so glad to have you here at the Peptide Summit. So what is a peptide?

Let's talk about peptides in the definition in case you just need that you can come back here and be like this is what peptide is. So peptide is a short chain of amino acids linked together by peptide bonds and amino acids are building blocks of proteins.

Peptides are smaller fragments of protein is what you could think of them as, and peptides can vary in length, ranging from just a few amino acids to a dozen amino acids.

Peptide Structure and Size

So, we'll have ones that are little like GCC copper, which is just three. and then you get in that nuance of, well, what about by regulators? They're for less amino acids. Right. So, it's it's kind of fun to talk about peptides because there are so many and most of them are found in, in our body already.

And naturally, a peptide is composed of two or more amino acids linked by the peptide bonds. So this is where we get in the nuance, where that's at least where it is.

Like GCC hoppers, three peptides. and then it could go up to to usually about 50. And then it's considered a protein. So this is where it's like becomes nuance because there's no strict definition.

So one chain of amino acids when it reaches a certain length is then considered a protein rather than a peptide. And peptides can range in size, like I said, from just a few amino acids to a dozen and peptides, they play crucial roles in the biological processes throughout the body.

They act as signaling molecules, hormones, neurotransmitters, and enzymes, along with other functions.

Peptide Functions in the Body

Some peptides have very specific functions, and regulating philosophical philosophical processes. Physiological processes such as growth, metabolism, immune response, and cell communication.

So in the context of medicine and biotechnology, this is where peptides have gotten a lot of attention for their potential therapeutic applications, which we have found out during the summit.

They're so broad and amazing. There are peptide based drugs and these are peptide therapeutics, and these ones are there to design or mimic the natural peptides functions in the bodies.

So these are where you're getting them for from your compounding pharmacies. These drugs can be used to treat various conditions. Hormonal disorders and metabolic diseases are music disorders cancer infectious diseases really they're just such have a broad application.

Therapeutic Uses and Advantages

So due to their small size and how they can specifically target certain certain processes in the body, they offer such an advantage because they are very specific for what you need them to do, as you will find out.

For example, BPC 157 if you take it orally, very specific to gut health. Copper if you put it on your skin, very specific to the skin, that medicine time it's made of for very good for immune system.

So they're very specific and they have low toxicity and really low side effects compared to, you know, drugs or larger protein based drugs. So there are natural peptides in the body.

So I think that when people say peptides they get kind of overwhelmed. They get weirded out, especially like doctors. So I'm like, okay, well insulin is a peptide.

So insulin is a peptide. It's produced by the pancreas. And insulin regulates our blood sugar levels by promoting the uptake of glucose into our cells for energy or for storage.

Glucagon is a peptide. It's also produced in the pancreas. And glucagon increases blood sugar levels by stimulating the liver. To reduce that stored glucose into the bloodstream, another peptide that's actually used in functional medicine oxytocin.

So oxytocin that's that love hormone. And this plays a role in social bonding.

Examples of Natural Peptides

This is why you're supposed to hug someone for 10s that or more release that oxytocin, which I find that would be hard to hug someone just, you know, for 10s unless it was like a family member.

But maybe we should all do that more. oxytocin plays a role in childbirth and then lactation. I know as a breastfeeding mother, you know, that's such a it's so relaxing.

You just get that release of oxytocin. You could go right back to sleep if you had to nurse in the middle of the night. So oxytocin is released in childbirth and breastfeeding.

And it promotes that you're in contraction in in milk injection. And you know, you can get actual oxytocin from the compounding pharmacy. And it's used for different, different, purposes.

It's actually, you know, cognitively sexually used in different ways. and Pettersen is a pharmaceutical of the peptide oxytocin. These suppressant antidiuretic hormone is a peptide in our body, that regulates our water balance in the body growth hormones.

So growth hormone is a peptide. It's stimulates growth cell production and regeneration in humans and animals. And this plays a key role in childhood growth.

Muscle mass maintenance and metabolism regulation. And growth hormone is one of those that we have. CJC 1295. We have Tessa Maryland, APA Maryland and their gross growth hormone releasing peptide.

So they're not growth hormone. They help your body secrete growth hormone because as we age growth hormone does decline. Glucagon like peptide one GLP one.

We've heard of those. Yes. You you make this and then we have the, you know, semaglutide dose impact will go V and GLP one in the body is secreted by intestines in response to food intake.

And GLP one regulates insulin secretion, glucose metabolism and how and your satiety how do you feel.

Peptides for Balance and Homeostasis

So it's it's so cool. Peptides are awesome. And most of these peptides that we are using, they are you know, they're found in our body for for important functions.

So when you look at peptides, think of them as something amazing that can really help your body, do specific targeted things. Kind of like just giving your body like a little boost to get back in homeostasis.

And that's what a lot of peptides do. And especially we're living in such a toxic world with so much stress. We're all juggling so many things that peptides can really help you get back into that balance if you get off track.

So thank you so much. I hope you enjoyed this mini talk, and I will see you guys at the Summit.