

THE MODEL HEALTH SHOW

EPISODE 655

Supercharge Your Brain Health, Immune System, & Microbiome Through The Power Of Bees

With Guest Carly Stein Kremer

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SHAWN STEVENSON: Welcome to The Model Health Show. This is fitness and nutrition expert, Shawn Stevenson, and I'm so grateful for you tuning in with me today. On this episode, you're going to experience a masterclass on a category of nutrition that's transformative for your brain health, cognitive performance, your metabolic health, the performance of your immune system, and so much more, all backed by mountains of peer-reviewed evidence. I'm telling you; this interview blew me away.

I learned a lot and it encouraged me even more to double down on this particular category of nutrition. Again, you think you've heard about it, but on this episode, we're going to learn about a whole new level of understanding of these foods that have been around for thousands of years, that today we have, again, mountains of peer-reviewed data affirming their efficacy. Now, as mentioned, we're going to talk a lot about brain health today, but I also want to give you some insight into another category of nutrition that is needed for the health of our brain and overall cognitive performance. We're going to be talking about today, with our interview, we're going to look at what's fueling our brain and what can actually heal the brain.

In addition to that, I want you to know about something that actually makes up your brain itself. Your brain cells are largely made of fat, but a particular kind of fat. Omega-3 fatty acids are able to traverse the blood-brain barrier and to nourish your brain cells. They actually help to give your brain cells substance and stability, and they enable something called "signaled transduction" so your brain cells can actually talk to each other. So, it's kind of important. When we become deficient on Omega-3s, certain parts of our brain in particular start to lose their volume. Our brain can actually shrink without these critical Omega-3 fatty acids. Now how prevalent is this particular issue? Well, a study that was published in the BMJ that included nearly 1000 children and over 1300 adults found that over 95% of children tested and almost 70% of adults tested were deficient in Omega-3 fatty acids.

Now, why does this matter? Well, the researchers denoted a significantly higher risk of cardiovascular disease due to these deficiencies, but most notable are the impact that lacking these Omega-3s has on our brains. Again, these enable our brain cells to engage in signal transduction, to give them form and shape and sustainability, and also for our brain cells to engage in this process of neuroplasticity for them to evolve and change. Omega-3s are critically important and what happens when we don't have them? Well, this study that was published in the journal, Neurology, used MRIs looking at people's brains and found that people who consume the lowest amount of the Omega-3s EPA and DHA had the highest rates of brain shrinkage. So, this isn't a joke. This isn't like Omega... This sounds nice. Omega this, Omega that. Seriously, we're not getting adequate amounts of Omega-3s, which is one of the biggest

deficiencies in our society. Our brains are literally going to shrink significantly. Now what can we do to address this? Well, of course we're going to get Omega-3s from real whole food sources. In particular, it's well noted to be coming from seafood sources.

Now, in order to address these deficiencies, I'm a huge fan of concentrates of Omega-3s DHA and EPA. Now oftentimes this is coming from your standard run of the mill fish oil, but there is a significant issue in the industry that a lot of people aren't talking about and it's how the oils are being processed. In fact, fish oil might not even be the best source. According to NYU neuroscientist, Dr. Lisa Mosconi, the very best source of DHA found in nature is not from fish or fish oil, it's from fish eggs, aka fish roe. The fish roe that I use, unlike many typical Omega-3 products that use high heat and chemical solvents to extract the oils, Paleo Valley's wild caught fish roe is gently freeze-dried to keep the full range of nutrients and Omega-3s intact and undamaged. Again, it's wild-caught. It's made from 100% wild-caught fish and fish runs in pristine waters sourced from sustainability-minded fishermen committed to preserving fish runs for future generations. Again, not only do we have the Omega-3s we're looking for here, but in addition, it's an incredible source of Choline, which is critical for brain function, selenium, fat soluble vitamins like vitamin D and vitamin E. The list goes on and on, but without any binders, fillers, or any unnecessary ingredients. And also again, it's processed in a way to retain the nutrients we're looking for.

Go to paleovalley.com/model. That's P-A-L-E-O-V-A-L-L-E-Y.com/model. You're going to get 15% off their incredible wild-caught fish roe. It is one of my favorite things. And in addition, of course, they've got incredible vitamin C formula, their essential sea complex that utilizes superfoods, the highest botanical sources of vitamin C ever discovered, as well as their turmeric complex is amazing as well. But again, their wild-caught fish roe is a necessity right now. With 95% of children and almost 70% of adults tested being deficient in Omega-3s, we got to do something about this. Again, go to paleovalley.com/model for 15% off. And now let's get to the Apple Podcast review of the week.

ITUNES REVIEW: Another five-star review titled “Great Podcast clearly explains topics” by FFDG14. “Listen to my first episode and like the way he explains everything clearly. I think I'm going to really learn a lot of good info here.”

SHAWN STEVENSON: Yes, you absolutely are. Thank you so much for hanging out with us and thank you for leaving that review over on Apple Podcasts. And on that note, talking about diving deep and explaining things clearly, let's get to our special guest and topic of the day. Our guest today is Carly Stein Kremer and she's committed to working exclusively with sustainable beekeeping organizations and partnering with leading bee research institutions and prioritizing pesticide-free health and wellness products. Above all else, she works tirelessly to raise awareness and create a better environment for our world's most important

pollinators, the bees. She's been featured in Allure and Vogue Magazine, along with numerous other major media outlets and she was also featured in Forbes 30 Under 30 in 2019. She continues to strive to innovate in health and wellness. And now we're going to jump into this amazing conversation with the one and only Carly Stein Kremer. Carly, welcome to The Modern Health Show. So good to have you.

CARLY STEIN KREMER: Thank you so much for having me. I'm so happy to be here.

SHAWN STEVENSON: I'm a huge fan of bees, all right? And my wife lovingly, her favorite coffee cup has bees on it. She's the queen bee of our household.

CARLY STEIN KREMER: Love that.

SHAWN STEVENSON: But bees are just a huge part of our reality. Can we talk about first and foremost, why are bees so important to our entire ecosystem?

CARLY STEIN KREMER: Absolutely. So, to start off, bees pollinate one-third of our food supply. To phrase that differently, every third bite of food you take was brought to you by the bees. So, I really, I like to explain the bees as pillars of our entire ecosystem. If you remove the bees, so much of the fruits, vegetables, plants, so many things we rely on just couldn't grow. They simply couldn't grow. So, we take for granted you water things, you put them in the sun, and they just grow. That's not how it works though. A lot of plants, they cannot self-pollinate so they can't reproduce. So, they rely on pollinators like the bees to help transfer their parts to allow them to reproduce. So, some examples, tomatoes, berries, even coffee is partially bee pollinated. So, the bees just bring us so many of the foods we rely on and beyond what we consume, over 40% of wildflowers and plants are pollinated by the bees. So, we would be living in like a desert wasteland without these creatures.

SHAWN STEVENSON: Wow. First of all, that's just remarkable in and of itself. But why I love bees so much is that there's this really remarkable intelligence that is happening in the bee community. Right? And of course, we want to talk about some of the products that come from that community and that includes the hierarchy with the queen bee and the drones and all that stuff that we'll get into. But I would love to talk a little bit about the flagship thing that we know from bees, which is honey. And let's start by talking about the history of honey because honey's been around for thousands of years and literally it's been found thousands of years old and it's still good.

CARLY STEIN KREMER: Yeah. It's the only food on the planet that never expires and that's 'cause of the enzyme content. And you can think of that, like think about, people take digestive enzymes, think about how powerful the enzymes are in bee products, and they can literally

preserve something to outlast us. They found honey in Egyptian tombs that's still totally nutritionally intact. Propolis actually has been used for thousands of years as well. So, we have a really long healing history with the bees. The bees predate us and if you think about it, they need to predate us because they are critical for growth and life on this planet. But then how we've used their products, it's really fascinating to look at the history because it's been used across cultures. The Assyrians used to drink propolis, they thought it reduced fever. In ancient Egypt they used honey and propolis in the embalming process for putting people into tombs. Even Socrates was a big fan of propolis. I think the first recorded human use dates back to 300 BC. So, we have this incredible history with these different products coming from the hive.

SHAWN STEVENSON: Wow. And this is one of the things for me, it's my cognitive bias. I'm looking at what have humans been doing the longest? And also, you see it across the board in historical context, but also in medicine. Like you just mentioned, Hippocrates, the father of modern medicine, he gets that label. And to understand that he's using bee products in his practice for healing and for nourishment, for vitality. Now you just mentioned propolis and honey. What's the difference? Like how are bees making these respective things?

CARLY STEIN KREMER: Great question, but for me, before I started beekeeping, I did not know about propolis, Royal Jelly pollen. All I knew about was honey. And I think many of us have this idea that that's what the bees do. They make honey and honey is amazing. Honey is like a huge part of my routine and has a ton of health benefits, but the bees do so much. So, if you don't mind, I'd love to give like a little Hive 101 and just break it all down for people?

SHAWN STEVENSON: Absolutely.

CARLY STEIN KREMER: Awesome. So, honey I like to think of as the carbs for the hive. That's the bees' primary food source. They're making it from flowers. So, the bees will go flower to flower. They have this long tube-like tongue and they'll put it into the flower and suck out the nectar and they store it in their honey stomach. They basically have two stomachs. One for their food and their bodies. And the other which functions as a nectar backpack. They'll bring it back to the hive, they allow it to ferment, and we get this sticky, delicious substance called honey. And for the bees it's their main food source, for humans, it's full of antioxidants, really high in enzymes, awesome for immune health. Also, really great for helping people sleep through the night. That's like a fun health hack that I use. A teaspoon of honey before bed makes a massive difference for glycogen levels in the liver.

So, honey is the bees' carbs. Propolis you can think of as the bees' medicine. So, while honey comes from flowers, propolis is coming from plant and tree resins. So, if you cut open a tree, sap will trickle out. That's the immuno properties of the plant itself. The bees are literally collecting the immuno properties of the plant, combining it with their enzymes and making

this sticky, amber-colored substance called propolis. And they use it to line the hive and keep it germ-free. And they'll even line the inside of the cell walls for newborn baby bees. So that's how they create a sterile environment for newborns. And bees are so smart, I love this.

SHAWN STEVENSON: Wow.

CARLY STEIN KREMER: They'll have a propolis mat at the front entrance and it's how bees come in and disinfect when they come into the hive. And just an interesting testament to the power of propolis, this happened to me early on in my beekeeping days. So, let's say an intruder gets into the hive like a mouse, that will happen. There's honey and pollen and delicious stuff in there. The bees can sting it and kill it, but they can't pick it up and carry it out of the hive. And just like us, if there was a decaying body in our living room, there'd be a lot of disease. You'd get really sick. So hypothetically, a dead rodent in the middle of the hive should kill all the bees. But what they'll do is they'll actually wrap it and mummify it in propolis. And propolis is that powerful of an antibacterial, antimicrobial substance that it encapsulates all the germs and bacteria and doesn't allow it to infect the rest of the hive even as this creature is rotting.

And so early in my beekeeping days, I opened a hive and I saw a mummified mouse and freaked out because that is like one of my number one fears of rodents, which is funny 'cause I'm fearless with bees, fearless with sharks. But a mouse freaks me out. But yeah, the testament to the power of propolis, so propolis is the bees' medicine, honey is their carbs, royal jelly you can think of it as like the brain food or the super food of the hive. A lot of people compare royal jelly to colostrum or breast milk. So royal jelly, it's a secretion from the nurse bees and it's given to all newborn baby bees for the first three to five days of development. After three to five days, they transition onto a more normal diet of honey and pollen. And then only the bee who's to become queen continues on her exclusive royal jelly diet. And then it's really interesting 'cause if you look at the biological properties of the queen bee versus the regular bee, a queen bee will live three to five years versus a regular bee during foraging season will live six to eight weeks.

The queen bee will have thousands of babies versus regular female bees don't have reproductive organs. And if you just Google a queen bee or if you've seen a photo or seen one in real life, they're robust, like she's jacked. And it's just interesting to see that royal jelly is her primary diet and it's creating this big difference. And then for humans, there's a lot of different research looking at the benefits of royal jelly. A lot of it is focused on brain health and I'm actually really excited about the ability of royal jelly to support brain health. So, we can talk more about that. And then pollen, pollen you can think of as the protein source of the hive. So, pollen it's literally the pollen from the flowers. Bees are going flower to flower. They collect the pollen; they mix it with their enzymes and then they stick it on their hind legs. It's called

their pollen pants. It's very cute if you've seen a picture of a bee with huge pollen granules on their hind legs, and they fly it back to the hive and yeah, it's their primary protein source.

Pollen actually contains more protein per weight than any animal source. So, more protein per weight than beef eggs, you name it. I love pollen because it's so nutrient dense. A lot of people refer to pollen as nature's multivitamin 'cause it's full of broad-spectrum vitamins, branched-chain amino acids. It gets a lot of recognition for supporting allergies as well. But for me pollen's my daily multivitamins 'cause it's just so bioavailable.

SHAWN STEVENSON: Yeah. Wow. So remarkable. And obviously you know this, I've been a huge fan of all these things for a long time, but you really stepped up to the plate and just brought a level of efficacy to the process. Because again, you're thinking about bees and the ecosystem and how much we're dependent on them. So, it's like a bigger perspective on why this matters, but just doing stuff in such a remarkable way. And I want to circle back a little bit because when you talked about propolis, I think that's the thing that really got you into this space was an experience that you had early on with propolis. Can you talk about that?

CARLY STEIN KREMER: Yeah, so I'm autoimmune and one of the symptoms or things I dealt with growing up was chronic tonsillitis. So, tonsillitis, it's not life-threatening, it's just really uncomfortable. And another fun thing with my autoimmune condition is that I can't take antibiotics. I have a pretty serious reaction. So, growing up when I got sick, I was just out. I would miss like three weeks of school as a kid. What I really needed was a tonsillectomy, but because antibiotics are dangerous for me, the doctors felt uncomfortable performing a surgery in case of infection. So, I was just literally always sick. And when I was in college, I did a semester abroad, I got so sick, and I was having a hard time breathing 'cause that's how severe my tonsillitis would be. And I thought I was going to have to go home, and I was like... I busted my butt waitressing to be out here. It was my first time like that on my own. And I was just sick of being on the bench. I was sick of missing out. And so, I was really determined to find a solution.

I got really lucky. I went into a pharmacy in Florence and they're really progressive with natural health in Europe. It's amazing actually to see what's happening there. And I spoke to this pharmacist, and she told me... I riddled off my long list of allergies and my medical history and she was just like, "You need propolis." And I had never heard of propolis before, I'd only heard of honey. And I thought she was crazy, but I started using it. She sold me this tincture of propolis, and in five days I made a full recovery and that had just never happened to me before. And then I went down the research rabbit hole. And for anyone listening, if you go on PubMed and type in "propolis" there's so many exciting studies.

SHAWN STEVENSON: So many.

CARLY STEIN KREMER: And I just started learning about it and how it can act as an immunomodulatory agent and how it could help me, and it became a part of my daily routine. And that was in 2012, I still have my tonsils today and I'm thriving. And it just... It really altered my health, so I completely fell in love with propolis, and that was really the catalyst for me to start learning about the bees. And it's really what allowed me to find my passion in life.

SHAWN STEVENSON: Yeah. Oh my gosh. That's such a great story. And again, it's something that's been around for so long, but you just weren't aware that it existed and cut to, you have in this proclivity towards autoimmunity, has this tonsillitis been an issue since? It was something that plagued you early on in your life.

CARLY STEIN KREMER: I have not had tonsillitis... Occasionally I'll feel run down and get sick or something, but I have not had tonsillitis since 2012. I use propolis every single day, so I feel like I'm protecting myself. But to your point, we have this amazing healing history with propolis. And most people don't realize it, during the Boer War, people were dressing wounds with propolis and honey because of its antibacterial properties. And in the 17th century, the London Pharmacopoeia actually listed propolis as an official drug. So, before the advent of antibiotics, this is kind of what we were leaning on. And then the crazy thing too, a study was just... I think it might have been published now, or it's in motion, at Sonora University, they're looking at propolis for antibiotic resistant strains of bacteria, and it's been effective against MRSA. And so, it's kind of like, we invented all this stuff, and I'm a big fan of science. And we've created a lot of great things, but we've also moved away from these tools that are totally accessible to us and accessible to, in some cases, a broader demographic, like people with autoimmune and they can be really beneficial.

SHAWN STEVENSON: So remarkable. Again, there's an intelligence there, right? Versus the blunt instrument, like this isolated thing, this is what we're obsessed with in medicine today. And with something like propolis, there's such a vast array of nutrients that we're only scratching the surface of understanding. One of the big reasons, and you mentioned it being anti-bacterial, anti-microbial, but also, it's anti-viral too. There's one study, and we'll put also your references... Well, we'll put it up on the screen for everybody. But there was one study that was looking at first of all, propolis has like 300 polyphenols that we're aware of. So literally hundreds of polyphenols. But this particular study, this was published in Archives of Virology, so a journal dedicated to virology, and the polyphenols were found to inhibit the activity of coronaviruses. This is prior to coronavirus being such a big part of our lexicon. This was well known, it's able to disrupt this copying process of viruses. It's so powerful and it's just... The bees are making it.

CARLY STEIN KREMER: It's amazing. There's a study right now that's in motion in Brazil, and they're looking at propolis and its ability to support tumor shrinkage. And so that's a study that's going on right now, but it's just so exciting. We really are just scratching the surface here in terms of what we can do with propolis. And it ranks higher on the ORAC chart and antioxidants than blueberries, it's something that is just so good for our bodies. Something kind of cool 'cause we were talking about cyclists before we started recording, and of course, I read this study because my husband's a cyclist, but there was a study looking at competitive cyclists and oxidative stress because working out at that level, it is really hard on your body, and it found that regular consumption of propolis reduced the oxidative stress on the body, and so just the support in terms of protecting your body and reducing inflammation, there's so many benefits.

SHAWN STEVENSON: Yeah. Wow, so cool. Again, this speaks to... There's two parts to that, right? So that oxidative stress reduction and one into the spectrum accelerated recovery. So, we do the thing we love. We recover faster, but also not incurring the damage in the first place, our body is just being more resilient, so... So cool. And you made it. Now here's the thing, alright? And there's a video on my channel that's probably 12 years old, where I'm in a health food store doing a talk, my son Jordan was there, actually, I was up in the window of the health food store talking about bee products and propolis was one of them that... There was a sizable amount of science around, but it wasn't accessible for people to actually get propolis, and you brought that to the market in a big way, and I just... I love it, it's one of my favorite things, I had it today. So, you have this propolis spray. Can you talk a little bit about that?

CARLY STEIN KREMER: Yeah, so we make a propolis spray, it's four sprays a day. That's really all you need. It's kind of your daily immune support, I use it every single day, and then if I'm traveling or anything that would create additional stress on the body, I just double dose. So I'll do eight sprays, For me, I really started this company because I couldn't find propolis myself, I found it in Europe, I couldn't find it in North America, I started beekeeping and fell madly in love with the bees, and then started making these things for myself, and I started sharing them, it was like a very organic evolution, I wasn't like, ooh, I have this big idea and want to start a company. I never thought I could do something like that. And so yeah, it was this very authentic organic evolution, but our goal is to really bring these efficacious nutrient dense tools to the public because everyone should have the ability to feel amazing, everyone should have these tools and we should make them accessible, and so our whole goal at Beekeeper's Naturals is to build a brand that kind of sits at the intersection of science and nature, and something we're really focused on is, can we engineer a product with the scientific rigor that you typically see in the pharmaceutical world, but use all natural ingredients to achieve our goals? And that's what we do and it's so much fun.

SHAWN STEVENSON: Yes, and also sustaining the bioavailability, the integrity of it.

CARLY STEIN KREMER: Yes.

SHAWN STEVENSON: That's another huge thing that you do.

CARLY STEIN KREMER: Yeah, we are super focused on bio-available products, at the end of the day, our products have to work, they have to deliver on results, they have to be safe for the broadest demographic possible, it's kind of silver lining of my health challenges of the past is that I'm the best guinea pig ever, because I react to everything, and so we don't make a product that I can't take every day, and we were really championed by the autoimmune community in the early days, and we built products that they could really feel a difference and we've been able to thankfully grow, but yeah, a big commitment of ours is to bring science backed products and bring the consumer these products with ingredients that are in line with their values, 'cause a lot of the tools we are given today, whether they contain steroids or sugars or whatever synthetic ingredients, they're really out of line with our value system, and we treat a lot of medicine as a band-aid versus a solution, and so our whole thing is like, we want to address the symptom for sure, but we want to address the root cause. We want to support and nourish the whole body...

SHAWN STEVENSON: Yeah, yeah, what if we can, again, make us more resilient, you mentioned this is something daily to do so that you are less likely to have an infection in the first place, and one other... We'll throw this up on the screen for everybody, this was published in Antiviral Chemistry & Chemotherapy, reveal that propolis has significant antiviral effects, which we know, specifically in reducing viral lung infections, isn't that good to know at this time, when again, we have this almost such a pervasive fear around viruses in general, but especially viral lung infections? And again, it's really driven by what are the questions we're asking, are we looking for big pharma, big pharma daddy to come along and make up some new stuff for us, or can we lean on things that have been utilized for thousands of years that also have so much scientific rigor in talking about their efficacy? But again, what I really love about what you do is bringing them in a form that is not denaturing the product, and nothing can represent that better, I think, than your honey. This super food honey. So can you talk about that a little bit like, obviously, honey is just amazing, it's what people tend to connect cognitively with bees, but your honey is really extra special.

CARLY STEIN KREMER: Yeah, I love that product, and I am a complete psycho about not denaturing things, the amount of products that have been brought forward that I was like, "We're cutting this because we're not..." An example was, our team got really excited about gummies, I feel like gummies were really big, and we were working on gummies for over a year, we tried so many different things and I couldn't find something that I was comfortable with because all of the gummies they apply such a high heat, and it's for such an extended time

period that I was just like, "I don't feel good about this." So, we're very intense about that, and it definitely makes our product pipeline longer and we have a crazy dedicated insane team, but we make things that we're really proud of, and our honey is a great example of that, so our super food honey... I love that honey because it's got therapeutic grade dosages of all of the super foods from the hive, so in one teaspoon, you're getting 745 milligrams of royal jelly, which is like a power dose, 532 milligrams of pollen and 42 milligrams of propolis, and then it's coming to you in our signature sustainably sourced raw honey base, and something that's really unique about us as well as a company, and something that...

One of the things I'm the most proud of actually, is that we practice pesticide-free beekeeping, and it's very hard to do that, it means that... You see organic honey and people get the idea that that's pesticide-free, it's not because you can't put a leash on the bees, just because the hive sits on certified organic land doesn't mean they're not going to fly next door and get into those flowers and the bees will forage for a five mile radius, so unless there's like five miles of clean grounds on all sides, we can't work with that, and so we're only working in remote geographies where we can really control to ensure that there's no pesticides, no dirty things that you don't want in our end product, and so it gives us a product quality we're really proud of, and a honey that's really unmatched and really medicinal grade, and the most amazing part of all of that is that as the company grows, effectively what we're doing is creating bee sanctuaries.

We're creating these habitats because the number one thing killing the bees, a lot of different perspectives here, but in my opinion, the number one thing killing the bees is pesticides, pesticides are rough in the US, Neonicotinoids are the most common class of pesticides, they have been banned in other parts of the world, here we still have them unfortunately, we're constantly advocating for that to change, but when you remove that from the equation, the bees are not being poisoned and they're able to thrive, and what we've seen is contrary to population trends year over year, our hives are growing and thriving and multiplying. So, a little tangent there, but just to speak to the quality of our honey and all of our bee products, we're really focused on... We talk a lot about people, planet propolis, those are the three things we want to have impact on and have an impact on the planet, that's the way we do it with the sustainable supply chain, and it allows us to create a product that's truly pure. And so, the honey, I use it every single morning, I do a teaspoon every morning, something really cool too about the royal jelly in there, so 745 milligrams is a lot. There was a study that I just read looking at women going through menopause, and it found that consumption of royal jelly and it wasn't a crazy quantity, I'll find it and send it to you, so I give you the exact quantity. I feel like it was something like 1000 milligrams.

But That... Or something like that, but the amount reduced their symptoms in a pretty large way, so really cool to see that. But a lot of the studies on royal jelly focus on the brain, so we

see a lot of people using our honey, we have people who just want to be healthy, and then we have people who are dealing with TBI and concussion and that sort of thing, and royal jelly, it has a pretty crazy effect on the brain, so some different ways you can use that product, but I love getting that high dose of royal jelly.

SHAWN STEVENSON: Can you talk about one of the reasons why it's so remarkable for the brain?

CARLY STEIN KREMER: Yeah, yeah, so royal jelly is so cool. Again, just thinking about how nourishing it is, the comparison to breast milk, colostrum, it's such a nutritive substance, but why it has such an impact on the brain... A few reasons. So, the first one, it's one of the only naturally occurring sources of a citicoline, so the neurotransmitter responsible for brain-body connection, it helps to support your transmission system. So that's crucially important. And then this is my favorite thing about royal jelly. It has these two naturally occurring fatty acids that are only found in royal jelly, one of them is called 10-HDA, and the other one is AMP N1-oxide, and they basically act as a catalyst for neurogenesis, so they promote brain-derived Nootropic factor, it helps you to create clean fresh neurons, as we age that system starts to break down as we're exposed to carcinogens and all the toxicity of our environment, it really affects our brain, and so getting it like that in the royal jelly, it makes a massive difference.

We have our brain fuel shots, and the inspiration for that product was actually my co-founder, he had a really serious concussion after a ski trip, and I freaked out 'cause he's my best friend and I put together this formula, and he is a Canadian boy, and so he grew up playing hockey and has concussion history, and because he has that concussion history, he had done baseline testing, so we were able to put him on this formula and track his recovery, and he had such an incredible recovery coming from such a severe head trauma that that was sort of the inspiration. I was like, "Oh my gosh, we need to make a product around this," and then I started using it and we started working on that, and three years later, we came out with our brain fuel shots.

SHAWN STEVENSON: Amazing, so amazing. So, it's neuroprotective, but also in healing the brain, it's one of the few things, as you mentioned, natural source of citicoline, but also one of the very things that has been found to stimulate neurogenesis. Specifically, one study, and it was from researchers in Japan, we'll put that out for everybody too, and they found that royal jelly specifically stimulated neurogenesis in the hippocampus, so the memory center of our brains, and again, there are only a handful of things that have been ever discovered that can do that, there's something really special about it. And you mentioned earlier, even talking about its role in nature and how robust the queen bee is versus... Can we talk a little bit about this? So, you've got the worker bees, which are also the ladies, by the way, where are the fellas there? What are they doing?

CARLY STEIN KREMER: The drones are not doing much. The hive is a fascinating matriarchal society, so the drone bees are literally there for procreation, so they basically hook up with the queen and then get kicked out.

SHAWN STEVENSON: Dang!

CARLY STEIN KREMER: Yeah, it is brutal, it's brutal.

SHAWN STEVENSON: Do they die sometimes also when they have sex with the queen bee?

CARLY STEIN KREMER: Yeah, yeah. Oh yeah. So, they die, it's like a good way to go out, so they are okay.

SHAWN STEVENSON: Right. It's my turn fellas.

CARLY STEIN KREMER: But yeah, they die on that mating flight and then because they're literally there for procreation, once the queen is pregnant, it's kind of like, bye guys, and so if it's in a cold area where the bees need to hibernate over winter, right before the winter, they'll kick all the drones out 'cause they're just taking resources and...

SHAWN STEVENSON: Dang. Wow, it's so incredible. But also, this speaks to that longevity component when you gave kind of the perspective on how long the queen bee lives versus the worker bees. Again, the queen bee is exclusively eating royal jelly, that also... We're talking potentially 10 times longer life. Right? What is it? And then again, we're just starting to really understand, what is it about this substance that is just so good for life?

CARLY STEIN KREMER: It's fascinating and then also the queen having 1000 plus babies. And so, for me, I'm approaching a stage where I'm starting a family and I'm on it with the royal jelly, like my husband knows, we take royal jelly every day. And that's another thing, and it's still really... The scientific community is just starting to look at that, there's been such a focus on royal jelly's ability to support brain health. By the way, there was actually a study at University of Warsaw that found that regular consumption of royal jelly meaningfully improves spatial reasoning. So athletes, anyone in that kind of world, it's a really cool thing, so science is really focused on the cognitive effects of royal jelly because there's so much there, and I think over the next few years we're going to see a big focus on fertility for men and women and what it can do in that sphere, it's really exciting.

SHAWN STEVENSON: Yeah. Which that's another massive topic right now that most people have no idea about, our fertility rates are just plummeting as a species.

CARLY STEIN KREMER: It's crazy.

SHAWN STEVENSON: From both the side of men and women, sperm count is plummeting. It's... Again, we'll put the study up for everybody, if you're listening to the audio version, make sure you pop over to YouTube, hang out in the studio with me and Carly, and you can also see the studies as we go along, it's a longitudinal study looking at folks over a significant time span and seeing essentially the fertility rate dropping about 1% each year for the past 40 to 50 years, and the same thing paralleling with a drop in male sperm count about 1% each year, and that accumulates, so 1% might not sound like a lot, but then 50 years later, when it's doing 1% a year, suddenly we're in this place where it's scary as far as the longevity of our species. With that said, there are solutions, and also, we got to look at what's causing the problem in the first place, why is this happening? So, I want to circle back now and talk about, you mentioned pesticides being potentially the biggest threat to bees.

CARLY STEIN KREMER: Mm-hmm.

SHAWN STEVENSON: Right?

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: One of them that I've been... I keep pushing this into our sphere into popular culture, Chlorpyrifos is one, and you mentioned how bees are also helpful with coffee, right? So Chlorpyrifos is very popular in coffee crops and a bunch of other stuff, but it was also found to be, number one, it's an Obesogen. We'll put the study up for everybody to see. It's an Obesogen, so obesity causing agent, clinically proven. But it does this by disrupting the microbiome, by disrupting the gut microbiota. This is another reason I wanted to have you on, is to talk about gut health.

CARLY STEIN KREMER: Mm-hmm.

SHAWN STEVENSON: And how... So, number one, we've got this threat... This external threat. And by the way, that threat Obesogen, but also, it's been found in several studies to disrupt the creation of babies in the womb. So, all these birth defects, specifically brain defects.

CARLY STEIN KREMER: Mm-hmm.

SHAWN STEVENSON: And it was created to target very small organisms, "pests", right? And to kill them, to destroy their reproductive cycle and/or their nervous system. Bees are very small

organisms as well. It's just like we don't... Well, not we, but they didn't care about that fallout. It's just like we're trying to grow this stuff over here and not thinking about the bigger picture.

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: So, can you talk about some of the benefits that we could see in healing 'cause gut health is a big issue right now when it comes to bees?

CARLY STEIN KREMER: It's critical, yes. It's so important. And by the way, we are exposed to Neonicotinoids which are the class of pesticides that I really focus on and speak a lot about because they're so... I mean, there was a study at Harvard looking at the effects they're having on the bees. It's a neuroactive substance. It's really harming our bees. Neonicotinoid is a water-soluble substance. It's getting into our water, it's degrading our soil, like we have so much pesticide exposure. So, it has never been more important to protect our microbiome. That's why we came out with a gut health product. So, we have a complete gut health formula. We talk a lot about Propolis for the immune system, but Propolis is so amazing for the gut as well. Of course, it's amazing for inflammation and we know that 70% of our immune system is related to our gut health. But one of the things that Propolis does in a really incredible way is it strengthens the tinctures in the gut lining. So, it helps to prevent leaky gut. It helps to heal. Propolis actually contains Pinocembrin, which acts as a fungicide. So, for things like Candida, it's really effective. And it's a super effective prebiotic.

So our complete gut formula, it's a prebiotic, probiotic, postbiotic. I feel like the world really got into probiotics, which is step one. And then we started to learn about prebiotics, which we now know you need to have a prebiotic with your probiotic, and postbiotics. People are kind of just waking up to this. And we're really passionate about this triple threat formula because we have that postbiotic in there too. And we're using something called Butyrate. Something really important about our formula, we're using Butyrate with a glycol backbone versus a salt backbone. A lot of the Butyrates on the market have salt, which just makes it significantly less bioavailable. And the likelihood of it with a salt back getting to your colon and getting absorbed, it's just like diminished significantly. So, we're using one that can really be absorbed in the body. There's actually an animal study showing that it was absorbed by the large intestine, so it made it to the colon, which is really cool.

And then we're using a spore-based probiotics. So again, we're using something with the highest survivability where we've tested all of our strains and we've seen that they actually do breakdown in the body versus a lot of the strains of probiotics on the market, they'll die in the bottle before they even...

SHAWN STEVENSON: Yeah.

CARLY STEIN KREMER: Get through your system. And so, making this gut health formula is something that we're really excited about. And it's been really cool. We've been able to work with a few gastroenterologists and we did our beta with a few doctors, and we rolled it out in clinics with people who have had long-term severe colon inflammation, things like IBS, things like colitis. And so, we were able to actually see the impact that this formula had and see what happens when you introduce a super effective bioavailable prebiotic, and not just any prebiotic but Propolis, which is again, like the healing properties of the plant and the healing properties of the hive coming together in the synergistic blend. And then the soil based, spore-based probiotic, and then a really high-quality Butyrate. So, I'm, if you can't tell, very obsessed with that product.

SHAWN STEVENSON: It's so awesome. And of course, even in my office in the room next door, I have the royal jelly, you know, the brain fuel in there. And of course, and my son being here as well, in my pantry at home, we've got all the Beekeeper's products. And a lot of times if I am looking for a Nootropic, a little edge when it comes to cognitive performance, that royal jelly formula... But it's not just royal jelly. You also have Bacopa in there...

CARLY STEIN KREMER: Yep.

SHAWN STEVENSON: As well. And there's another...

CARLY STEIN KREMER: You need some Ginkgo.

SHAWN STEVENSON: And Ginkgo as well is in that formula. And these little... It's these cool little vials too. So, I don't know if you've seen the show Witcher on Netflix.

CARLY STEIN KREMER: Oh, I love that show.

SHAWN STEVENSON: He's got those little vials. So, every time I take it I'm like, "Yeah, you know, I'm the... " That Witcher vibe. But for me, in addition to that, just being able to have the accessibility and the quality is out of this world. But the thing that you're doing too is like, let's see what happens. And also looking at the mistakes of other companies and products and things like that. Because when people find out about probiotics, for example, marketers screw everything up. So, it's just like all of these different probiotic products come out, but people aren't realizing like a lot of this stuff, like you said, it's dead in the bottle before it even hits your... Not to mention your stomach acid and all the different things. Is this actually doing what you think it's doing?

CARLY STEIN KREMER: Mm-hmm.

SHAWN STEVENSON: Even with the intention being there. But now we've got the prebiotics included the probiotics themselves, also the protective benefits of things like Propolis. I mean, come on, and then of course the postbiotics as well.

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: And then implementing it with gastroenterologists in their practice and just seeing like, do people actually get benefit?

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: That's so special.

CARLY STEIN KREMER: I mean, we did all of that before we rolled it out in the market. And so we are seriously thorough when it comes to launching products. And I think this company was really shaped by my own struggle and my own experience. And so, I had this frustrating experience that so many people can relate to where they didn't fit into the traditional Western medical model, and then it pushed them to explore natural. And there's a lot of BS out there. There's so many incredible tools and I am such a proponent of everything natural, really. But there's also a lot that, as you said, gets kind of messed up in marketing and people see an opportunity and they take advantage of people in need. And our goal was to build something that's the opposite of that. Build something that people can really trust. And something as well, you know, early in my career, I worked in finance and my big focus when I was in finance, I researched biotech names. I was a pharmaceutical researcher. And so my whole job was to look at these big massive pharmaceutical companies that had a patent pending drug that was going to be a \$1 billion and read every single piece of research and look at that and make the call, is this going to come out or not?

And then if I thought that it was sound research and it was going to come out, we'd buy it. And if not, we'd short it. And it was a pretty high stakes, high pressure job. But it showed me, in addition to my own experience, where I felt completely excluded from the system, it showed me how broken the system is in a lot of ways. And how we don't look at side effects and we don't look at the whole person and how profit driven so much of this is. And so being able to build a company and build a brand that is person first and environment first. And our goal is to help heal, and sharing that it's just, I think it's really important. And we're seeing incredible... We're not the only people doing this. There's so many incredible brands today, but consumers have to be really discerning. And it's tricky, and it's confusing.

SHAWN STEVENSON: Yeah. And you already know my standards are very high, especially what I'm putting in my body and on a consistent basis, so it means a lot. It really, really means a lot. I admire so much people that care about things as much as I do. And you have your specific thing, like you are obsessed with bees. I'm not...

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: Matter of fact, you've been in there in the trenches. Like you're out there with the bees, you got the whole thing on. But also, you're probably at a place where you're probably engaged with the beekeeping without needing to put on the whole equipment.

CARLY STEIN KREMER: Oh yeah. I'm like out there in a tank top and shorts. I'm... Yeah, super comfortable.

SHAWN STEVENSON: My son Jordan sitting over here, he's shaking his head right now. He's like, "No way." He's afraid... This big muscular guy.

CARLY STEIN KREMER: I'm going to take you beekeeping.

SHAWN STEVENSON: I mean, let a bee come by. This guy is... And also, he had never got stung by a bee. But he was just, of course, terrified of the scenario. And guess how he gets stung for the first time?

CARLY STEIN KREMER: How?

SHAWN STEVENSON: Football. A bee is in his football helmet.

CARLY STEIN KREMER: Oh my God.

SHAWN STEVENSON: How can you attract a scenario like that? You know what I mean? So anyways, if people are in particular, again, this is something even today, Propolis, the honey and also the bee pollen, which I want to talk about next, but if I'm making a smoothie, guess what? I'm going to dabble in these different things. And before we go even a step further, if people are like, "I want these things," go to beekeepersnaturals.com/model, you get 20% off storewide. And this is something... It's outrageous. Like I've talked to your team about this, like you guys are giving too much to the people. Like this stuff is so valuable, but please take advantage of it. 20% off storewide, that's beekeepersnaturals.com. That's B-E-E-K-E-E-P-E-R-Snaturals.com/model. 20% off everything. All right.? Get you some, like yesterday, especially again, my favorite, right? Well, it just depends on the time to be honest. But huge fan of the

brain fuel. And my team knows this, it's sitting there in my office, and if there is a Nootropic that I'm taking before the show, that's what I'm taking. So, you've just done such a great job.

CARLY STEIN KREMER: Thank you.

SHAWN STEVENSON: I want to talk about pollen now.

CARLY STEIN KREMER: Yes.

SHAWN STEVENSON: Bee pollen. Because outside of honey, that was the first thing that I became aware of, and I started utilizing bee pollen probably... It's getting closer to 20 years now actually, but the quality in which you've done it is just out of this world. But you mentioned earlier gram for gram most dense source of protein out there, it's a complete protein as well.

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: And what else is it about bee pollen? How can we use it? Let's talk about that too.

CARLY STEIN KREMER: Yeah. So, first of all, I think every major athlete is using bee pollen. Bee pollen is such an amazing tool for supporting endurance, muscle formation, recovery. It's really high in B-vitamins, so amazing for supporting energy levels. It's a complete protein. It's got the amino acid profile that you want. So, for me, I do a teaspoon, I just like shoot it, I'll do a teaspoon every day and that's my multivitamin. Like that's it. That's what I take. Just because I think so many times when we're taking capsules, it titrates in the body. Things aren't necessarily engineered to make it through our body the way we want it to. And so, given titration I'm always like, what is the most bioavailable substance I can take? What do I know my body's going to really recognize and utilize? And so, I do a teaspoon every morning. It's kind of... I'll do like usually our B.Powered Honey in the morning. And then I'll do, like before a workout, I'll like shoot some pollen, but I put it on my smoothies, I'll sprinkle it on salad, I put it on ice cream. Like instead of sprinkles, I mean, everything you can think of, I put bee pollen on. But for everyone listening, like a really great way to think of it is the same way you would use Hemp seeds or Chia seeds. So, putting it on oatmeal or yogurt or in a smoothie.

SHAWN STEVENSON: Acai Bowls, we do that.

CARLY STEIN KREMER: Acai Bowls are perfect. I have a five-year-old brother and what I do for him, now he's obsessed with pollen. When I first gave it to him, he was like not into it. And so, I used to sneak it into his PB and Js.

SHAWN STEVENSON: Look at that.

CARLY STEIN KREMER: Yeah, and now he spoons it though, so now he's...

SHAWN STEVENSON: That's awesome.

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: I love that. My youngest son, Braden, right now he's just into like making like peanut butter and honey...

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: Sandwiches or peanut butter and banana and things like that.

CARLY STEIN KREMER: Mm-hmm.

SHAWN STEVENSON: But that's what it's really about, especially with kids just adding in the good stuff.

CARLY STEIN KREMER: Oh, yeah.

SHAWN STEVENSON: Finding creative ways to "sneak it in".

CARLY STEIN KREMER: Totally.

SHAWN STEVENSON: Just get that intelligence into their bodies.

CARLY STEIN KREMER: Mm-hmm.

SHAWN STEVENSON: And especially today, the accessibility to higher quality things is really remarkable. Obviously, the accessibility to do sh*tty things is exponentially grown.

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: But the same thing is just like really what he would tune to. Because when I think about the sandwiches that I would make as a kid, like, oh my goodness. You know what I'm saying?

CARLY STEIN KREMER: Yes.

SHAWN STEVENSON: And it's so cool because especially what your family's going to do is utilize the things that are there, right? So, if there's certain things you don't want your family consuming, don't bring it into the house in the first place. And it doesn't mean you can't have those things, but if you're going to go... If you want to have those things, maybe you got to proactively go out and get it.

CARLY STEIN KREMER: Mm-hmm.

SHAWN STEVENSON: Right? And so, we've got a lot of health affirming things that are just on hand, and it just makes it so much easier. And you mentioned earlier about honey being found in tombs and just like it's still biologically active, thousands of years. Like its mind blowing to say the least. But you said something, and for some people it might be like, well, honey lasts longer than anything. What about a Twinkie? What about McDonald's French Fries, right?

CARLY STEIN KREMER: Mm-hmm.

SHAWN STEVENSON: Very different scenario like...

CARLY STEIN KREMER: Totally different. One is...

SHAWN STEVENSON: What's keeping one alive-ish and then the other...

CARLY STEIN KREMER: Yeah. One is fake synthetic preservatives and ingredients, the other is naturally occurring enzymes. I mean, it's such a different thing. Yeah. And it's so important to look at it that way. And just on the subject of kids, because I'm like, I'm so close to my little brother, he's... Because we have such an age difference, he's kind of like my little baby. And he is obsessed with bee products. He's been spraying Propolis since he was two years old. He's that cute kid that's all over our Instagram if anyone's looking at it. But he got sick recently and he was taking our cough syrup and just chugging it. And he healed up really quickly. And I just think that's important for any parents listening because there was this really interesting study a few years ago looking at Buckwheat Honey, which is a specific honey varietal. Buckwheat Honey by the way, it actually has the highest antioxidant count and more powerful antimicrobial effects versus any other kind of honey, including Manuka.

And so, everyone's like buying these super expensive Manukas, and it's like, you can just get it from Buckwheat. But anyways, so this study comes out and it's comparing Buckwheat Honey to Dextromethorphan. Dextromethorphan is the active ingredient in most over-the-counter cough syrups. So whatever brand cough syrup you're buying at the drugstore, it's probably got Dextrome in it. And there was a study, and it was looking at Buckwheat Honey versus

Dextromethorphan in upper pediatric respiratory infections. So, kids with respiratory infections. And it found that Buckwheat Honey was just as effective and now we're learning that it's even more effective. And so, when that came out, I was like, "Why on earth would you give a kid Dextro, let alone an adult?" And so, we created this awesome formula. So that's our cough syrups, and our cough syrups they're Buckwheat Honey based. They've of course got Propolis. We've got Chaga in there and it's all things that are science backed that are third party tested. And we just create these great formulas.

SHAWN STEVENSON: That's so cool. And not to mention with these over-the-counter cough syrups, the food dyes.

CARLY STEIN KREMER: Oh, yeah.

SHAWN STEVENSON: And the Propylene glycol, and the Corn syrup and all these other things that are anti health.

CARLY STEIN KREMER: Totally. Totally. It's so wild to me that as a society and it's completely changing, and that's community, and customers, and people are just demanding better and demanding what they deserve. But for so long, when we're sick, when we're at our most vulnerable, we're taking sugar and chemicals and for allergies we're taking steroids. Like it's just... It's so backwards and yeah, so it's so cool to see the public change. And also, for us, when I started this company, I was like going store to store with a backpack full of Propolis. People were like shooing me out of their store. I'd beg the occasional like super hippy-dippy health food store to take us on consignment. And now we're selling at Target. And so that just shows what consumers are demanding today. And like the change in sentiment. And that's the coolest thing.

SHAWN STEVENSON: That is so amazing. Oh my gosh. So cool.

CARLY STEIN KREMER: It's like people are just like taking the power back.

SHAWN STEVENSON: Yeah.

CARLY STEIN KREMER: 'Cause they know how they deserve to feel, and they know that the population, the amount of sickness, it's not normal. It's not right.

SHAWN STEVENSON: Yeah.

CARLY STEIN KREMER: And so just bringing these tools to the forefront that I am not... I did not discover them, I stumbled upon them. It's really ancient wisdom from the bees. But having

researchers' kind of turn their attention to these incredible tools, it just is such an unlock for people.

SHAWN STEVENSON: Absolutely. Absolutely. And I love that with Target and just because this is truly like the definition we might place on like everyday folks. And just that exposure to be able to see these things, because of course I would see Beekeeper's at like Erewhon.

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: Right? And I'm just like, "Oh, that's tight". But to know, for example, that everyday folks are getting access to these things and just this education period, I think it really speaks to also the power of this platform and podcasting and things like that...

CARLY STEIN KREMER: Oh, totally.

SHAWN STEVENSON: Where this type of information will be completely foreign to me. And now it's like literally right there on their phone. All we've got to do, you said this just a moment ago, you said unlock, you just got to get people to realize it's right there on their phone.

CARLY STEIN KREMER: Mm-hmm.

SHAWN STEVENSON: All you got to do is find me.

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: All you got to do is find Beekeeper's and your life is going to change. Just push play or just check out that website. And when you mentioned being sick and giving kids sugar, the question will come up, "Well, isn't honey sugar?" Talk about that.

CARLY STEIN KREMER: Yeah, I love that question. So, honey and regular cane sugar, first of all, different glycemic index rating. So regular sugar, I think it's in the 40s, honey is in the 30s, but you also have to look at holistically what's happening. So, honey, number one, it's got a lower index so it's not creating that same spike, but there's also so much more going into it. It's full of antioxidants, especially raw honey, which... And our honey has the pollen and the propolis, but honey is so high in antioxidants. It has all of these other nutrients. It has trace amounts of beeswax and propolis and all these other ingredients. And just because something is sweet doesn't mean it's inherently bad. No, I'm not telling people to eat a jar of honey a day. I definitely don't do that, but I do eat around a tablespoon every single day, and it's had a tremendous impact on my health. And again, it's the antioxidants. It's the anti-inflammatory properties. It's the enzymes. It's also...

It's having an effect on my nervous system. So, something that a lot of people don't realize when you have honey, it creates that slow, steady spike in insulin, which allows the tryptophan in your body to cross the blood-brain barrier where it's converted into serotonin and then melatonin in the dark. So having a little bit of honey, and again, a moderate, a little bit, not like a cup, but a spoon, it really helps to soothe your nervous system. And so, there's so many benefits of this substance, and as long as you're having it in moderation, I think it's totally safe. And then the other thing for people who are on a ketogenic diet... And I meet a lot of people on ketogenic diets who do totally fine with bee pollen and can have a small amount of honey, but I know everyone's different. And so, for people who are on that, engaging in that lifestyle, propolis has zero sugar. Propolis has zero grams of sugar. Same with our Brain Fuel shots, so those are both certified keto. So, there are really options for everyone, but again, not all sweetness is created equal. It has a different glycemic index and so many additional nutritional properties.

SHAWN STEVENSON: Yeah, and it's not even comparable, honey versus cane sugar.

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: One is pro-inflammatory, one is anti-inflammatory. And you just mentioned, it's such a rich compilation of nutrients that we're just beginning to understand.

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: Whereas cane sugar being this blunt instrument...

CARLY STEIN KREMER: Yep.

SHAWN STEVENSON: Again, and there was a study published in the peer-reviewed journal, Nutrients, and they actually found that the consumption of raw honey specifically, so we got to talk about this in a moment, led for study participants to have improved fasting blood sugar. So, it helped them to improve their fasting blood sugar, 'cause we tie sugar or even honey unfortunately we put into that same kind of category, improving your fasting blood sugar, improving lipid metabolism, and overall, just having the opportunity to... In this particular study, the anti-inflammatory benefits led to decreased risk of cardiovascular disease with honey, right? You're like, "You don't eat a whole jar a day." We're not Winnie-the-Pooh, but in reality, honey is so nourishing for so many different reasons. If you're going to go for a sweetener, this is the one to go to.

CARLY STEIN KREMER: Totally.

SHAWN STEVENSON: Even today, I'm not particularly a big fan of the kind of...

CARLY STEIN KREMER: Alternative sweeteners?

SHAWN STEVENSON: Yeah, you know?

CARLY STEIN KREMER: Yeah, me too.

SHAWN STEVENSON: That are still like... It looks like cane sugar, but it's not.

CARLY STEIN KREMER: Yeah.

SHAWN STEVENSON: It's this powdered white substance, looks kind of like sugar, looks kind of like cocaine. But it's not.

CARLY STEIN KREMER: I know, and some of them are like endocrine disruptors. We're learning all kinds of things about it. I'm the same.

SHAWN STEVENSON: So just be cautious about anything that's just super... This kind of extracted thing, isolated one thing, one-trick pony versus something, again, that's been used for thousands of years, not only does it not spike your blood sugar like high fructose corn syrup or something of the like would, it's been found to improve fasting blood sugar, right? So, it's something really special about it. Can we talk about the honey that's usually out there on store shelves versus the superfood honey from Beekeeper's?

CARLY STEIN KREMER: Yes, totally. So, most honey is pasteurized, so you want to look for a honey that says "raw" on it, first and foremost. Whether it's Beekeeper's or another one, you want it to be raw because pasteurized honey, it's literally boiled. It's cooked to such a high degree that all of the nutrients are cooked out of it, all of the enzymes are cooked out of it. You get this liquidy substance and it's like... You know the Squeezy Bear honey?

SHAWN STEVENSON: Mm-hmm.

CARLY STEIN KREMER: That's pasteurized honey.

SHAWN STEVENSON: I call them sugar bear.

CARLY STEIN KREMER: Yeah, sugar bear. That is like blasphemy to me. That is taking this unbelievable substance and turning it to sugar. And the reason people do that is 'cause it's

easier. When you have raw honey, it crystallizes. All honey will crystallize. The crystallization period depends on when it was harvested and also the floor of the crop it came from, but all raw honey will crystallize. It will get hard. That doesn't mean it's bad. It's totally fine. It's totally fine. You might have to put a little more energy into scooping it out than you do with the Squeezy Bear, but you're getting incredibly nutritious substances in there. So yeah, and I think pasteurized honey is basically sugar. And just to go back to the pollen as well, all pollen is incredible. I think everyone should be taking pollen every single day. Same with propolis. But yeah, pollen is something I think everyone should be taking unless they have a severe allergy or something like that.

But a lot of the pollen on the market, it's heated at a pretty high degree. And something that we do really differently at Beekeeper's Naturals is we don't apply heat, so you're actually getting a really high-quality raw pollen. And then the other thing, all of our apiaries, we're really focused on creating the most supportive environment for the bees, and so we're really focused on biodiversity. And there being a lot of wildflowers and more and more in our culture, it's mono crops, it's mono-cropping. And in the old days, that's why people think that honey is really good for allergies, 'cause in the old days when you're having a little bit of honey, it's coming from a farm that's got blueberries and dandelions and all kinds of flowers, and so you're sort of micro-dosing with the allergen 'cause you're getting that broad exposure and reducing allergies. That's not the world we live in anymore.

Now we live in... It's a dedicated almond farm, it's an avocado farm, it's a blueberry farm, and it's a monocrop. And that has an effect on our animals and our creatures. That certainly has an effect on the bees, just like us. Kale is good for you. If all you ever ate was kale, it's not a varied diet, so the bees need biodiversity. So, for us, we're working with apiaries. An apiary is a bee farm. But we're working with apiaries that commit to biodiversity. And if they do have a monocrop, if they do have a specialized crop, you have to engage in 30% margin planting. So, they have to create biodiversity in the margins so the bees have that accessible. And that means that the pollens, our honey is... You're getting really rich, different floral sources. And that's the best for your body. So that's just another thing that makes us a little bit different.

SHAWN STEVENSON: Yeah, including that nutrient diversity proactively is so cool. And you said this term throughout several times, and allergies, and there's so much data and also a lot of anecdotal evidence which we cannot ever just deny or ignore anecdotal evidence, but folks who have a propensity towards allergies and asthma and things kind of in that category, but utilizing things like bee pollen, ironically you would think all this pollen is bad, but helping to make them more resilient and less likely to have allergic reactions.

CARLY STEIN KREMER: Yeah, we've seen an amazing response from customers. And we actually came out with an allergy formula. So, we have our sinus support capsules which have propolis.

Propolis also... Really cool, there's actually been studies showing that propolis reduces the histamine response.

SHAWN STEVENSON: Yeah.

CARLY STEIN KREMER: So really amazing for anyone struggling there. But our sinus support capsules, those have propolis, bromelain, nettle, quercetin, and then we do a nasal spray as well. And I'm sure all of the listeners have seen the recent press around FLONASE, which is very scary. It affects our brains in a negative way. And so also giving people a nasal spray that has completely clean ingredients, that's a big difference. And so, bringing people, again, just tools that they can trust and introducing them to natural kind of ancient wisdom versus these new synthetic ingredients is something we're really passionate about. But yeah, we're seeing people micro dosing with pollen and really propolis, we've seen as a huge game changer when it comes to allergies.

SHAWN STEVENSON: Yeah, and you mentioned, of course, honey as well being in that category, just the bees are just helping us to be more adaptable, but we have to take care of them, and this is another big reason, a mission behind what you're doing as well, sustainable beekeeping, but also expanding the opportunity for more bees and more beekeeping.

CARLY STEIN KREMER: Yes, absolutely. And again, we're the only bee product company that practices third-party pesticide testing. So, all of our product, even though we work very hard to work in these super remote locations... We have an apiary in the Rockies, we're all over the world. We're working in Spain. It's really cool. We get to work in some incredible places, and that's because we're looking for super remote places that don't have the pesticide exposure. But on top of that, before anything gets put in the bottle, we send it to a third-party lab in Canada where I'm from, and we test for every pesticide toxin and pollutant. And we also do that in Canada, not just because it's where I'm from, but because Health Canada is a little more rigorous with what they classify as a pesticide, toxin, and a pollutant. And so, we're sending it to a pretty rigid place to make sure it's totally clean. And once that comes back clean, we're like, "Good to go. Let's put it in the product."

So, we go to great lengths to make sure we're bringing people the highest quality, purest ingredients. Because again, if you're going to be investing in your health and you're going to be caring about your body, you should have accessible the cleanest, purest, highest quality ingredients possible. And it's another way that we can monitor our apiaries because I can't be in Spain all the time as much as I would like to, so it's an objective measure for us because I haven't been there. I do audit our apiaries very regularly, but if I haven't been there it means that every single batch, I know is clean.

SHAWN STEVENSON: Yeah, and please know that it is appreciated. I know it takes a tremendous amount of energy and intention to do what you're doing, and it just really is special, it really is. You mentioned your social media as well. Where can people come and hang out with you more, learn more about Beekeeper's?

CARLY STEIN KREMER: Yeah, so Beekeepers Naturals, that's our social media. We are always talking about the bees, how you can get involved with the cause, we're running through products, explaining how these different things can support your life. And then my Instagram, it's Carly.Kremer, come check me out. I'm always excited to engage with our customers at our "hive" as we like to call it. But we're really, really excited about sharing information with people. And that's why it's so inspiring what you do. You're helping people wake up to the biggest opportunities in front of them, and so if we can support people on that journey and share these tools, and even if you want to just come to us to learn about what you can do in your backyard to support the bees is great with me. We just want to share the information to help people live their best life and support the planet.

SHAWN STEVENSON: Yeah, that's what it's all about. And you're part of the superhero team, and I appreciate you so much. And again, everybody go to beekeepersnaturals.com/model, 20% off storewide. It is amazing. I love all the things. And really, truly thank you so much for stepping up to the plate to do things at this level, because it's had a huge impact on me, you know? What you have helped to create is a part of this body. It's in here, and I take that very seriously. And you're just amazing. I love the way that you think, I love the way that you communicate and also what you stand for. We really need more of this right now, so thank you so much.

CARLY STEIN KREMER: Thank you so much for having me. Such a privilege.

SHAWN STEVENSON: Awesome. Carly Stein Kremer, everybody. Thank you so much for tuning in to the show today. I hope you got a lot of value out of this. This is one to share up with your friends and family. You can take a screenshot of this episode and tag me, I'm @shawnmodel on Instagram, and I'm @ The Model Health Show on Facebook. And this is so important because we're speaking to something that we oftentimes have exposure to. It's something we are aware of. We're aware of honey and bee products and things of the like, but the story is so much deeper and it's so important in the story of humanity because we're talking about the leading pollinator of our food as well. And so, we would truly be lost without bees. This is such an important thing for us to understand for our own health and wellness, but also for sustainability of our livelihood.

Again, share this out with the people that you care about, and we've got some incredible master classes and world-class guests coming for you very, very soon, so make sure to stay

tuned. Take care, have an amazing day, I'll talk with you soon. And for more after the show, make sure to head over to themodelhealthshow.com. That's where you can find all of the show notes, you can find transcriptions, videos for each episode, and if you got a comment, you can leave me a comment there as well. And please make sure to head over to iTunes and leave us a rating to let everybody know that the show is awesome, and I appreciate that so much. And take care, I promise to keep giving you more powerful, empowering, great content to help you transform your life. Thanks for tuning in.