



HEALTH COACH CERTIFICATION SUMMIT

Reed ([00:00](#)):

Hey folks, today I have a real special privilege to be introducing to you a company that has decided to sponsor the summit. The sponsorship is allowing us to reach more people, get the word out, and I hope you'll enjoy our next speaker, Victoria Hahn. She's from ProLon. She's got a very interesting background, so I really look forward to you guys meeting her and listening to her answer my interview questions. Welcome back everybody. I'm really excited to introduce you to a new friend of ours today, Victoria Hahn, she's a registered dietician with a Master of Science in Nutrition, Healthspan, and Longevity from the University of Southern California. She completed her training at the University of California, as I said, at the Irvine Medical Center—that's not too far from me—with specialty rotations at the children's hospital, Los Angeles and the Goran lab. She currently works for a really good company that we're familiar with. She's one of the medical educators there for L-Nutra as a medical science liaison. Now, prior to her joining L-Nutra, she was working in the field of nutrition science, covering a wide range of topics, including nutritional sufficiency in specific populations and the ketogenic diet as a treatment for pediatric epilepsy. That's so interesting. Her primary clinical experience is inpatient clinical dietetics, covering a full spectrum of patients, including pediatric, medical, and trauma. So I'm really happy to have you here today, Victoria, how are you doing?

Victoria ([01:37](#)):

I'm doing great, Reed. I'm so excited to be here today. Thank you so much for inviting me on to share a little bit about not only what I do, but the company that I work for. So I really appreciate it, this is great.

Reed ([01:50](#)):

Yeah. Fantastic. Well, when I met you, I knew I had to have you on here. So I think everyone's gonna be really interested in finding out a little bit more about you, where you came from and what got you into this and then, yeah, we'd love to hear more about L-Nutra and that sort of thing. So I've got some questions for you, but tell us a little bit more about you because we love to get to know new friends.

Victoria ([02:14](#)):

Yeah, absolutely. Thank you. So, a little bit about myself: obviously right now I work as one of the medical educators at L-Nutra and it's a really exciting role for me because it enables me to not only still remain present within this field of research—that's my true passion. I was in research for quite some time, not a very long time, but I got a little taste of it and I just never really wanted to leave. But, just as tides turn and as I got out of undergrad and when I was transitioning to get into my dietetic internships, I was trying to figure out exactly what I wanted to do and that's actually how I stumbled upon the program at USC. It's funny because that program—why I gravitated towards it was obviously it's a dietetic internship. So I got all of my internship hours, so I could test for this RD exam. But in addition, I saw this woman, her name was Carrie Kreitzer and she was speaking at a symposium and she was saying, "Oh, you could do some research at USC". That was the one thing that I heard. I'm like, "I gotta be there". I had a few other programs in mind, but that one is so accessible because I live in California



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and I live in Los Angeles specifically, so I figured, "Oh, well let me go find out what this program is all about". It was unique because I was part of the first cohort to actually go through this novel program that—yeah— UFC Gero had started. So it was a wild ride. It was great. There were a lot of learning curves, if you will, because as a growing emerging program you really have to go through everything. So it was a really awesome experience. I did get to do quite a lot of different research projects there. That's really how I got connected with L-Nutra. During that time, when I was in that program, that's where I was starting to get really interested in this diet called the ketogenic diet and the thing that was so interesting to me about it and why I really love research is because of the biochemistry of it. I love this idea that you can very elegantly see how something works. Like you can provide a specific diet and see an actual effect in real time. Which, you know, there's many diets as we know that they do affect our overall health and you can measure that and they're beneficial. That's something we widely understand and know, but sometimes to see changes that take time and that—kind of being a bit of someone who really wants the instant gratification, I will admit I was just so drawn to this diet where, wow, you can see changes nearly immediately. Well, not necessarily immediately, but very, very rapid, especially for something like nutrition. You could see it helping out these specific children, in essence. So that really got me really engaged within that area of nutrition science. Like I said, while I was going through this USC program, that's how I stumbled upon L-Nutra. Funny enough [Laughing] I'll never forget the email that I got. I thought it was a research position. So I was like, "Oh, this sounds great. I'm right about done with my program, let me just go and apply to this". And I find out it's for a company called L-Nutra. I haven't really known what they were about. I just knew that there was this individual, his name is Valter Longo, very prominent researcher at USC. I knew all about his research, I had taken one of his classes and it was a really awesome class about this longevity and fasting, and I learned so much there. So I was really drawn to this potential of this company. That's really my little story as to how I got here at L-Nutra. It's been quite a wild ride because I got to see it grow from really an infant all the way up to where it's at right now. It's quite a large company now, we have so many different people on board and I've seen it grow and develop. It's been quite an interesting experience, to go from this more academic research setting completely to industry. It's been interesting, but very fun and the really nice part—yeah—sorry...

Reed ([06:38](#)):

Well, I was going to—it's a wonderful story. I was gonna ask you about working with kids, because working with children is very, very rewarding and health coaches, a lot of us have kids—

Victoria ([06:49](#)):

Oh, absolutely.

Reed ([06:49](#)):

They do respond quicker I feel. They respond really fast. I've had some almost miracles just getting kids off certain foods and things in their environment to a more stable, nourishing kind of thing, and just watch them change. It seems like almost overnight. I'm sure you saw plenty of that.



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Victoria ([07:11](#)):

Oh yeah. I mean, working with kids, it's funny because we always say, "When you work with kids, you're really not just working with one patient, you're working with several". So you always have to work with the family. If you have a change for the child, then the parents are also probably gonna have to change their behaviors or how they eat or what have you. So it's a very rewarding experience to work with kids. It's one of those populations where— it's really funny because it's like this running joke in, I want to say medicine, where some people that really don't understand pediatrics, they'll say, "Oh, children are just tiny adults". But they're really not, from their physiology to their behaviors, everything, they're totally different. It's a really rewarding field to work in if you ever get the opportunity. So yeah, I absolutely agree.

Reed ([07:59](#)):

Yeah. Their mentality and their metabolisms aren't like us at all. They're not just little—you can't use the same kind of—say, "Well, they're just 40 pound adults". No, they're not one bit. Yeah. So that's a great thing.

Victoria ([08:11](#)):

Yeah. No, no, no, no. They are their own.

Reed ([08:14](#)):

Another question I have for you about that experience at USC, because about 15 or 18 years ago, I read a book called The 120 Year Diet and I highly recommend it if you like some of these older research books. There's a lot of nerd in most health coaches, we're just kinda nerdy, we like the biochemistry and physiology and anatomy and things like that on top of the inspirational stuff, training people and getting them to transform their lives and things like that. But this guy Roy Walford, Dr. Roy Walford was a USC—

Victoria ([08:48](#)):

Oh, yeah. [Inaudible]

Reed ([08:49](#)):

Yeah, well his book inspired me almost 20 years ago. Is he still there? Do you know?

Victoria ([08:57](#)):

Roy Walford, I believe was actually at UCLA. It's funny that you mentioned him, Valter Longo, the founder of L-Nutra, the company, he got to study under him I believe for his PhD. I could be wrong, don't quote me on that. But I definitely recognize the name and he was prominent with the biosphere project.



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Reed ([09:20](#)):

Biosphere 1 and 2. He was the nutritionist. Yeah. Well, I'm sorry to mix those two schools up. I know they hate when you do that.

Victoria ([09:29](#)):

No, it's okay. Just don't tell USC or UCLA! [Laughing]

Reed ([09:33](#)):

Yeah. Yeah. Well, I try to stay out of that kind of politics! [Laughing] So why don't you do—

Victoria ([09:41](#)):

Academia, right?

Reed ([09:41](#)):

Well, just the rivalries. I got my own Alma mater too, you know? I'm a Buckeye. L-Nutra, tell us more—like when you started with L-Nutra and you got into industry. I think it's also, this is a factor that health coaches need to understand too, is you can take training. People have taken my training. It's very robust. We have the anatomy, physiology, the biochemistry. We have all of the diet, rest, exercise, stress reduction, supplementation, training. We have training in onboarding clients and helping them out through a certain time period, actually doing the coaching work and things like that. And, at the same time, a lot of my graduates end up going out and getting jobs, they don't—maybe they're not entrepreneurial, they just wanted the information, but then they go work for supplement companies and lab companies, things like that. So tell us about L-Nutra, what that experience is like for you.

Victoria ([10:45](#)):

Yeah. So working for L-Nutra, it's quite a wild ride I will say because we're such a passionate and ever-growing company. I mean, fasting in its own right, we can just start there, because it's such a novel and exciting field. Actually in 2020 it was rated the number one food pattern in America. So we definitely know that people are very attracted to this topic of fasting. I can tell you what, even here, I feel like it's been exponential growth ever since I've been here. So it's a very dynamic place to work at, very rewarding with that being said, because part of what I really love to do here is you get to take all of this really incredible research and apply it in so many different facets. So, just to kind of briefly mention what L-Nutra is about, L-Nutra is this Nutra technology company of nutrition technology. What it does is that it uses breakthrough science to enhance human health and longevity. So the real idea that we have here is actually to enhance a health span, which is this concept of healthier years lived, like what's the point of living long if those years are of very low quality. We want high quality years!



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Reed ([12:09](#)):

Yeah.

Victoria ([12:09](#)):

That's really what one of our fundamental concerns. So our mission is really to give everyone this opportunity to live, to be 110, but healthy. So very, very important to always keep that in mind. We do so by providing a wide variety of solutions, nutrition solutions, and lifestyle solutions to help individuals and also the medical system adopt these types of patterns or programs so that they can achieve that goal. This has been built over 20 years worth of research and just basic lab science by Dr. Longo. So Valter Longo, we were briefly mentioning him and he's actually the Longevity Institutes Director and that's at USC, University of Southern California. What he was able to do is he was able to repave the way from LNutra to produce these solutions such as the fasting mimicking diet, so specifically ProLon, and then also the Fast Bar. But something I do want to note is that LNutra is not just on a commercial side about developing products. We also have a really big focus on our dedication to advancing the space of credible fasting science. So one of our major solutions that we provide is supporting education. That is one of our big pillars here because ultimately, as we all know, knowledge is power and if we were to provide individuals with the right tools, then the hope is that they'll be able to make better and more informed decisions. With that being said, there's just an abundance of misinformation today, especially as it pertains to fasting science and, of course, technology and social media just very much complicate this picture. Everybody's an expert, right? It's not to say that people are not, absolutely, we are our own investigators, but it's really difficult to sift through sometimes and find the accuracy. What is truthful? Sometimes we don't even have time to be looking through these things. So the citations that are present—who's gonna sit there and spend hours reading all this very dense literature and that's really where L-Nutra comes in. We want to be adapting the space of credible fasting science. Yeah.

Reed ([14:41](#)):

Perfect, yeah. That's what we're most interested in, so why don't you teach us something here today about why fasting is so important? We've all probably got an opinion about it. There's a lot of people making a lot of claims—

Victoria ([14:54](#)):

—I know!—

Reed ([14:54](#)):

—But you guys actually are doing the research and we can tell you are a sincere R&D person. So why don't you teach us why is fasting so important?



Victoria ([15:05](#)):

Yeah. So, fasting, why is it so important? Well, ultimately it appears to be at least required for life. So you think about it from this perspective. So we're either eating or what are we doing after we eat? We are technically fasting and that's so remarkable to think about. There were organisms before us that could not sustain themselves during these periods without any food intake. So in essence, just due to evolutionary pressures, they did not survive, but what did—where these types of organisms that could persist through these periods of fasting and in essence feasting. So it's really no surprise that we have this built-in machinery to be able to handle these periods of lack of food intake. But the real funny thing is that it wasn't until more recently that these periods of interrupted food intake or interrupted by uninterrupted daily food intake. So we're thinking fast food, locations, convenience stores. I can go down the street and go buy myself a thousand calories worth of nothing. I would gain a lot of weight this way by just overeating. [Inaudible] we really see that this may be linked to of course, a multitude of health concerns that have arisen. So it does appear that part of why fasting is so important is because this is what we were built to do, but we just don't have the ability whether it's from behavioral perspective or just maybe not the knowledge to capitalize on that natural process. So that's—going back to what L-Nutra is all about—living. That quest to live to 110, knowledge is a very key asset here. There's so much information on fasting right now that just actually a quick Google search on fasting I believe it's around a hundred million hits you'll find. So even to just try to start like, "Okay, well, I know fasting is important, but what should I do? What kind of fascinating should I do? What is fasting to begin with?" It's very confusing.

Reed ([17:14](#)):

Yeah. What is it? Why don't you explain that? Explain what fasting is. Yeah, what is it?

Victoria ([17:19](#)):

Yeah, yeah, absolutely. The funny thing is that it depends on how you really want to define fasting. So you could think about it from its adjective perspective: to fast a rope. You can think about it from an adverb perspective: the car is moving too fast. But more often than not people think about it from a more verb perspective: to abstain from food. Typically, when I ask this question, because whenever I do presentations I always ask the audience, "What do you think fasting is? How do you define fasting?" And those shout out words, like "Lean body, mass loss, malnutrition, oh that's hard, starving, not eating anything". Those are all kind of correct to some capacity, depending on which angle of fasting you're looking at, those all kind of fit within this puzzle. I like to define fasting—and the way that we at L-Nutra we look at fasting—is more, what happens once you abstain from food? So fasting, to abstain from food, that's more of a trigger for this outcome. So what would that outcome be? You could look at it from a physiologic perspective and then also a molecular perspective. If you look at it from a physiologic perspective, it's really the shifting from one energetic substrate—glucose, for instance,—to free fatty acids, and then subsequently ketone bodies. In addition, it also appears to be the efficiency in the utilization of that energy, because if your body doesn't have a lot of energy coming in then it has to be a



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lot more resourceful about what it does have available. But you can look at it even deeper. What's happening on a cellular level? What's happening within the cell on a molecular level? It appears that what's really happening there is the absence of what we call the triggers of these food sensing pathways. Specifically, they appear to be these growth pathways. So things like IGF-1, Insulin micro sector 1, MTOR: Mechanistic Target Of Rapamycin, and then also PKA or Protein Kinase A. What Dr. Longo had actually hoped to help us realize and recognize—also, additionally a few other researchers as well—was that these pathways, they sensitize concentrations or degrees of nutrient presence. So it's not to say that you need to completely vacate all nutrition. You don't have to just be absolutely abstaining from everything. Rather, you need to be very meticulous about how much you're getting in at a point in time. That is in essence enough to not upregulate their activity. So what you end up seeing is, in essence, fasting. Without the presence of adequate—these stimulatory molecules, these triggers, you end up seeing fasting occur and what you actually can link that back up to is this other process called stress resistance. It's really remarkable when you start to think about fasting as less of this kind of verb definition, like not eating food, and more thinking about it from the perspective of that is a way to trigger fasting, but there must be some other ways to do that as well. So as long as we understand what's controlling fasting from a physiologic and molecular perspective, then maybe there's a way to mimic it. That's really part of what L-Nutra has really leveraged from Dr. Longo's lab, is this understanding of fasting.

Reed ([21:01](#)):

Yeah. There's so many different angles. Like you said, you hear all the time about intermittent fasting. That to me is—I mean, it's a lifestyle. It is a way to cut calories, but it's sort of a trick to lose weight. No one would do it if they weren't trying to lose weight, really. I don't think they're getting deep enough, as I guess you are, into the science of it. How exactly does it change your cellular? The molecular part, physiology, how you're actually functioning on all these different levels. What does it do to your hormones, your immune system, digestion, detoxification, things like that? So you guys—and it also, I think for the audience, we've heard a lot about ancestral dieting, the paleo diet and these kinds of things. It works for a lot of people. If you get the paleo—which paleo diet? 'Cause if you're not eating according to your ancestors, if it's an ancestral diet, well, who were those people? It's not going to be the same for me as maybe for you even. We had different ancestors, so it would be different. But one thing might be common—

Victoria ([22:14](#)):

—Absolutely—

Reed ([22:14](#)):

—that it it was feast or famine. Because back in the day it was Hunter gathering. It was all there was. There was no agriculture so you probably— if you killed something and you could scrounge up some root vegetables or something, maybe something it was hanging on a tree, but you'd probably feast for



days. Like you're not doing much at all, rest, sharpen your tools, procreate, or like I say, just rest. But then what? Hey, you gotta go a week before the next kill. That's real fasting—

Victoria ([22:51](#)):

—Yeah, exactly—

Reed ([22:51](#)):

—but it's hard. That's where you—it's not an easy thing to do. So I love that you brought up mimicking. I don't know what would be the best order to talk about things in to talk about that. Do you want to tell us what other kinds of fasting patterns are out there? Let's talk about that. [Inaudible]

Victoria ([23:18](#)):

Yeah. So we can dissect the different fasting patterns that are out there because there's just obviously a lot. Even what I'll share right now, it's almost like a cursory overview. But in essence, you can define fasting as this umbrella term. So, there's all different types that fall underneath this umbrella term. So the way that at least we define fasting is that you can split it out between either two or more days at a time: they call this prolonged or periodic fasting, or two or fewer days at a time: we call this intermittent fasting. That's really this big buzzword, whenever you read papers, especially scientific literature on intermittent fasting. It really does you a lot of justice to go read the methodology section, to figure out exactly what kind of fasting pattern they're using, because I will tell you what, there's all different types that they use and they kind of will use this blanket term of intermittent fascinating because, of course, it's very popular, it's trendy right now. So as a researcher, you want your publication to be published. You want those good keywords in there, but at the same time it does kind of murky this picture. What exactly do you mean by intermittent fasting? So just for the sake of what we're talking about today, this is how we define it. So within this scope of intermittent fasting, two or fewer days at a time, there's time-restricted eating and that's where you restrict eating to a certain window of time. This one's quite popular right now. Let's say the 16/8, so 16 hours of fasting, 8 hours of eating. Then the 12/12: 12 hours of fasting, 12 hours of eating. There's so many different iterations with that being said, there's even this one called the One Meal a Day, and technically that's a form of time-restricted eating because you're consolidating all of this food consumption within a period. That one is quite popular today. There's also the 5:2 diet, which is 5 days of normal calorie intake, 2 days of fasting or very low calorie intake. There's several different iterations of this one. Then there's also alternate day fasting where in essence, you alternate from fasting and feasting, fasting and feasting, or nourishment. That's for a set period of time. Some individuals have specific types of regimens that they'll follow. So that's kind of intermittent fasting. To go on the opposite end, so two or more days at a time, these are consecutive days, so now it's quite long. Again, we call this periodic or prolonged fasting. There's really very few versions of this. There's water fasting, of course, you could water fast. Depending on the individual, it can be dangerous so we don't recommend water fasting unless it's medically supervised and absolutely cleared by a healthcare provider. And typically, because it's so difficult to do, it's done in an inpatient setting, meaning you do



this at a facility and someone's monitoring you and distracting you with other things to do. Again, it's not the easiest thing to actually undergo.

Reed ([26:18](#)):

Sure.

Victoria ([26:18](#)):

But people do it! Then there's also fasting mimicking diet. This is an iteration of prolonged fasting because it's typically days at a time. The one that's commercially available, ProLon, that one is five days in a row. This one is typically done in a more outpatient setting. Most individuals can do this at home. In essence it has the same idea of prolonged fasting, but you actually get to eat food when you're fasting. So it is quite different than what you would think of as water fasting. You actually get meals during this program. This one is the one that we were really leveraging Dr. Longo's research with. We utilize all that foundational, preclinical understanding and the clinical trial to support its safety and efficacy. That's how we have this program called ProLon.

Reed ([27:13](#)):

So how are these different? Like how would you pick one? Because I know I have friends, certain religions, and they don't eat from Friday at dusk 'til Saturday at dusk. They just skip a day and it seems to work well for some, but I don't know what good it really does. It seems like more of a religious thing than a health thing, you know? So what are some of the differences?

Victoria ([27:41](#)):

Yeah. So the one that you're describing, there was actually quite a— I wouldn't say a lot of research, but as it pertains to time-restricted eating, because that one is still this emerging field, some of it is speaking towards the more spiritual and religious fasting. It's quite an interesting topic. I will admit that it still does appear to be a little murky just because the studies, they're not necessarily very large in size, but that will soon change. There are a lot of studies that are pending and about to be published on time-restricted eating that are larger in sample size. We should get some really good information on TRE soon to come. It's quite an interesting area of research, but what I'll say is that, it's hard to really piece together what duration of fasting you should have dependent on the individual. Is it really that everybody should be doing a 16/8, or is it only specific to a certain type of individual? Or should everybody be doing a 12/12? What is the best form of TRE? And likely, as you were alluding to earlier, it's gonna have to be personalized. Everyone is different, everyone's unique. To try to categorize everyone and blanket statement, it's much easier to do it that way, much more cost effective too, but that probably will never solve the true question at hand: when and how should we be fasting from a daily perspective? So, within this 24 hours that I have, should I stop eating at 6:00 PM or should I stop eating at 8:00 PM? Or when should I start eating? That's still a question that we have. But in regards to the other fasting patterns and really how they connect and how they compare, ultimately there is no

one grand, clinical trial that's comparing all of these different types. Hopefully soon to come, but even without being said, it is possible that these patterns they're just different because of the duration of time. Let's take the 5:2 diet and alternate day fasting. There's quite a lot of research on these two types and the sample sizes, they are quite sizable so the information is robust. But typically in these studies, the type of arms that they have, they compare this to ISO court calorie restriction. In essence, either you could be doing the 5:2 or ADF or calorie restriction and in that caloric amount they end up being equivalent when you look at it from the nutrition profile. What they find is that maybe you can get some weight loss a little earlier with some of the fasting patterns, that's arguable, but ultimately when you look at it from that six month mark, it's just as effective as caloric restriction. So it's interesting to note that because what I'd say is that this is a really unique tool to utilize and an additional tool to utilize beyond just this traditional method of caloric restriction. We know that calorie restriction works, it definitely works in the immediate setting, but in terms of longterm, there's always something that occurs and it may be behaviorally dependent, it maybe metabolically dependent. We're not too clear on why people get weight regain and why sometimes they're not able to lose additional weight. Obviously this is a huge problem that we have, even here in America. So the jury is still out if it could be even more effective than caloric restriction from a longterm perspective, we're thinking years at a time, but it's still something to actually be proud of that this is now a new type of program that we could implement if our clients or patients are looking for weight loss. Specifically if they don't want to be doing a caloric restriction or calorie-restricted diet, this is an alternative. So it's quite interesting in that regard.

Reed ([31:43](#)):

Yeah talk about it. Tell us about the idea of mimicking, about ProLon 'cause I think it's fascinating. I've actually created my own study group, so I'm sponsoring a dozen of my staff to go through a fasting, mimicking diet. We're gonna start it in another week or so—

Victoria ([31:59](#)):

Nice!

Reed ([31:59](#)):

Tell us all about it. Yeah, it's since we met. I started that 'cause I'm just so interested. I want to try it myself and things. So what is—tell us more about ProLon and the idea of mimicking 'cause starving yourself for 5 days is not attractive.

Victoria ([32:17](#)):

Well, it's not starving yourself for five days though. That's totally different. I would argue that maybe—

Reed ([32:24](#)):

Yeah, I meant that's not what ProLon, it's a mimicking thing. You do get to eat, right? So tell us about it.

Victoria ([32:29](#)):

Yeah, absolutely. Yeah, to piggyback off of the last question into this describing ProLon even, so the really interesting piece of prolonged fasting, and specifically ProLon, is that this is fasting for days at a time. So, in a clinical study, when we're looking at: how does this work? What kind of outcomes do we observe? We do get to see this weight loss affects, specifically this trunk fat region three cycles of FMD over three months, so once a month for three consecutive months. In generally healthy individuals what they had observed was actually around 5.73 pounds being lost, 1.6 inches of waist circumference going down, preservation of lean body mass, nobody lost any, which is great, it's a big worry. Then we also saw a metabolic balance support as it pertained to a few different markers that we were measuring. So it is to say that as with all that being said, there does appear to be some interesting effects of fasting for days at a time that may even be outside the scope of what we see with the shorter term fast. So specifically we think about ProLon, it's this periodic five-day structured meal plan. It's kind of funny to say it's five fast days, literally five days that you're fasting and in technicality, it's five days so it's fast. I liked that phrasing because it really does describe exactly what it is and what it does is it delivers this very unique nutrient ratios to deliver the benefits of prolonged fast without you actually having to abstain from food. You do get three meals a day with some snacks in between, and it's been scientifically formulated with these plantbased ingredients to mimic fasting, prolonged fasting, specifically. So again, this is not like the 5:2 diet where you're just fasting for a couple of days and you go off, or one day you go off and you go back on. No, this is fasting for days at a time, five specific days at a time. Part of providing the meals, the hope was that this would enhance the adherence to a prolonged fast because of course the alternative here is water fasting, which is just quite difficult for the most part and again, sometimes why this is done in inpatient settings. Although one could always make the argument that, if you have someone who is highly motivated, maybe they'd be able to do that, but for the grand majority of individuals to abstain from food for days at a time, that's a complete lifestyle change. I mean, I know that even for myself to think about doing even a shorter term fast, let's say, maybe just a couple of days, if I had to think about not being able to eat for those two days, that's me reorganizing my whole life. I have to then figure out exactly how I'm going to avoid any of these triggers, if you will. And reorient myself where I know that my partner, he's gonna want to be eating, but I cannot. It is a whole lifestyle change, even if it's shortened durations, and that can be quite difficult. I know even for myself sometimes it's hard to get certain individuals—In the past, I'll never forget, there's certain patients that you have where you'll say, "Hey, how about you just eat some more fruits and vegetables? You said that you want to change your dietary patterns and your habits." This would have been all discovered in the interview of course. And mind you, most of my clinical expertise, it's an inpatient clinical, so these people are at the hospital. They're really sick. So I get to force them to eat certain things. So after me talking with them, they'll say, "Oh yes, I wanna change my diet. I wanna eat better". I'll come back into their room and I'll observe what they actually ate from their meal, and they would have left all of the greens. All of the vegetables. I'm like, "What are you doing?" Of course, I don't

say like that! But you know, I ask, "Hey, were you finished? Were you gonna eat all of that? Oh, I'll get to that. Yeah, not a problem." It is hard to change behavior, ultimately, and that's a huge component to ProLon is that, by providing meals this actually could make fasting more accessible for most individuals. We found that it's actually been used safe and effectively in 160,000 users globally, whether we're thinking of direct to consumer or you have an HCP channel, so a healthcare provider channel, and we do track its safety profile carefully.

Reed ([37:15](#)):

That's a good explanation. So you're fasting, but you're not fasting. That's where the word mimicking comes in. You said FMD: fasting mimicking diet, right? I was assuming that's what you meant. So, how does that work? How can you eat, but your body thinks you're not eating? Or something like that.

Victoria ([37:33](#)):

Yeah, absolutely. Yeah, so FMD means fasting mimicking diet. I don't think that you could actually say that word with it sounding nice, but nonetheless... This program, like I was mentioning, it was really built with this foundational research that Dr. Longo had undergone. So all of this knowledge, all these studies that he had spent all this time on, he helped to develop this program that in essence mimics fasting. The way that this is working is that there's very specific nutrient ratios. Very specifically, Dr. Longo is mindful of the amount of protein, the amount of sugar, the amount of carbohydrates, and then lastly, of course, calories. Each one of these plays a role as it pertains to these nutrient sensing pathways or food sensing pathways. Specifically again, IGF-1, [Inaudible] PKA: protein kinase A, and then also mTOR, or the [Inaudible]. In essence, what he was able to do by modulating all these nutrients and—not necessarily the perfect amount, but a specific amount—was he was able to see, this same type of effect as what you see with fasting without actually having to fast. That's where the mimicking comes into play. But truth be told, part of what fasting is, is it's this stimulation of the stress resistance pathway, the stress resistance effect. So sometimes, I think about it and I think fasting almost doesn't really do this kind of mechanism—doesn't really do it justice because what it's really doing, is it's helping to put the body into this mode where it can survive and sustain itself without food intake. That's really what he was leveraging. So how these two sides of the coin work is that when you're eating normal food intake, and obviously you have adequate levels of protein, calories, carbohydrates, sugars, and that will trigger these nutrient or food sensing pathways IGF-1, mTOR, and PKA. What that will ultimately lead to is in essence aging. Now that does sound pretty heavy because aging is kind of a heavy word, but truth be told that really means growth. It really means one of the same thing. When you think about a child, or an infant growing into a child, they age, right? So they're really one in the same coin. Just one sounds a lot worse than the other. We can just say growth, but that's what happens when we eat food, we have adequate building blocks in order to grow, that makes perfect sense. When you look at the opposite side of this, when you don't have adequate intakes of protein, sugar, carbohydrates, that leads to this suppression, or it takes away these triggers that would lead to this growth occurring. So what you end up seeing is stress resistance, that's really how the program works is that it's very specific in the types of



nutrients that are being provided over those five days in order to perpetuate this specific molecular and physiologic response.

Reed ([40:57](#)):

And what is that specific molecular physiological response called? Are you talking about autophagy? Is that what you're looking for? Can you explain that?

Victoria ([41:07](#)):

Yeah, absolutely. Autophagy is quite a beautiful process and Yoshinori Ohsumi, in 2016 I believe, he won the Nobel prize for this in Physiology of Medicine. Honest to goodness, if you ever get the moment, you definitely need to check out how autophagy works and read some of his papers. It's this very elegant process and there's all different types of autophagy. I will admit, it gets very complicated the deeper you get into that topic, but what he was observing was this thing called macroautophagy and he was able to categorize in essence its mechanism. So how it works is that autophagy is basically the cell—so it's an intracellular process, it happens within the cell—it's the cell's recycling machine. So during fasting conditions, during stress such as fasting, the cell will trigger this autophagosome to synthesize. It's a very beautiful process. Again, if you like the details, let me know, and we can definitely chat about it, but in essence, it helps to create this autophagosome, which will bind to a lysosome that will degrade all these intracellular components. So what's within this autophagosome, very specifically, it appears to be these misfolded proteins or poorly functioning organelles. They get shuttled into this autophagosome, where they get degraded and then this will release at the end, in essence, the building blocks for life, so proteins, amino acids, glucose. That's so remarkable because when you're fasting again, you don't really have anything coming in. Or at least traditional fasting, when you think about abstaining from food, you don't have enough nutrition coming in and so your cells actually have a way to sustain themselves by, it appears to be preferentially catabolizing these less functional components and repurposing them for other metabolic endpoints. It really is just a very beautiful process that our cells have, that appears to be triggered with fasting.

Reed ([43:14](#)):

That's beautiful. I do get the beauty in that, that your body finds a way. This idea of stress response goes very, very deep, including that if you don't eat it will find a way to sort of consume the garbage that's laying around and do something, get benefit from that.

Victoria ([43:35](#)):

Yeah. Do something with it. Yeah.

Reed ([43:38](#)):



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So you are kind of detoxing almost, on a cellular level. It may not be called that, but I could see it as being a very cleansing kind of a thing, but you need to get into a true fasting state for that to occur, correct?

Victoria ([43:52](#)):

Yeah.

Reed ([43:52](#)):

So fasting—like I said, I wasn't referring to ProLon, I was just saying, not eating for five days sounds really hard to accomplish. Like you said, if you're gonna do a water fast, you need to be under medical supervision, heaven forbid. So if you could get that benefit, that effect, another way so you can consume something so that you don't just feel like you're totally starving to death. I've tried fasting, going out in the woods and not eating for a few days, you know?

Victoria ([44:25](#)):

Oh, wow.

Reed ([44:25](#)):

It's—yeah, it's really difficult.

Victoria ([44:28](#)):

I can imagine.

Reed ([44:28](#)):

There's actually survival camps where you go out and you hike and camp, and you take water and that's all you take: water. There's nothing else around. People start thinking about eating bugs and things 'cause they're just having a hard time.

Victoria ([44:44](#)):

I'd probably started thinking about that, honestly. [Laughing]

Reed ([44:47](#)):

[Laughing] Yeah. Yeah. So anyways... But that might be, just like you say, it's part of the stress response. This idea of resistance and how our ancestors survived and grew and were able to actually advance, survive.

Victoria ([45:06](#)):

Yeah.



Reed ([45:07](#)):

Yeah, it's really fascinating.

Victoria ([45:08](#)):

Yeah, we had to leverage this very beautiful process that we've all kind of forgotten over time. It's funny because you have certain types of channels where their main focal point is food and food is just this very remarkable thing. It allows us to survive. It allows us to thrive and it's a beautiful—it's also social, events, when we eat food, we eat it with family, we eat it with friends. So it's so much more than just nutrition, but yeah, at the core of it, to not have food, fasting in its own right, this is what helped us to evolve. It really is something that we've kind of forgotten as time has progressed, but it's really awesome that we are starting to see that people are recognizing that fasting—well, they're remembering, "Oh yes, this is a thing". And then they're also thinking, "Hmm, maybe this could benefit me. Maybe I should try it out once in a while". Yeah, so it's been really interesting to see this area grow within, honestly, the past 5 to 10 years here.

Reed ([46:25](#)):

I guess I'm really looking forward to it. I've tried it other ways that didn't exactly—that I don't really want to repeat, even if it did me some good. So I'm looking forward to this. Again, I've sponsored a group of my staff to do—about half of my staff are gonna do it. We'll do that for the benefit of the other half. Then we have a lot of people that might be interested in—depending on what we learned from it. Why don't we talk about who ProLon is for then? And maybe who it's not for, if it's not for everybody. Let's find out about that.

Victoria ([47:02](#)):

Yeah, absolutely. So in essence, ProLon ultimately—well, side note, of course before starting any new dietary regimen, always be sure to speak with your healthcare provider if you are on the consumer side of life—but in essence, what ProLon is and what it's for, who it's for rather, would be someone who's looking for weight loss support, someone who's looking for healthy aging support or maintaining healthy aging. Then also those who are looking for this metabolic balance support. With that, it's quite a wide variety of individuals. So some, they may find some benefit with utilizing this program for a multitude of reasons, even all three of them with that being said, but with that being so broad, really who this is not for is the hard steadfast list. So do not use ProLon if someone is allergic to any of the components within the program. There's tree nuts, there's oat, sesame, other components that we can not replace because, going back to how specific the diet is, how specific that nutrient profile is. We really want to make sure that the consistency of each program is the same. So everyone is actually getting that same fasting mimicking. So with that being said, we don't have any substitutes or there are limited substitutes for things such as tree nut allergies. We actually haven't found a good sub for that yet. So if somebody does have an allergy, we would not recommend using the product with them. For those that are pregnant or



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breastfeeding, those are growth phases, they need specific nutrients to stimulate and sustain that physiology. So we wouldn't recommend ProLon for that. If someone has an active infection, if someone is malnourished or underweight or BMI of 18.5 or below, or however else you are categorizing malnutrition. Then of course those that are pediatric, those that are 17 years old and below, we would not recommend using ProLon with them.

Reed ([49:15](#)):

Okay, fantastic. So listen, you guys have been so generous in your sponsorship of this event and I appreciate you coming on and telling us all about yourself. Great to get to know you and to know about ProLon 'cause the idea of fasting mimicking is really fascinating. It brings out the nerd in all of us. Plus we're always looking for tools that we can help our clients with and in their transformation all of our clients have goals. It's not just about weight loss, it's about being healthier, being happier and living longer in a good way. Like you said, it's not about adding years to your life, but adding life to your years, of course. So, any major takeaways that you'd like to make sure that we get out of this presentation today? Or interview.

Victoria ([50:07](#)):

Yeah. Yeah. Thank you. Thank you. Very beautifully said. So the main takeaway that I would hope everybody is able to leave today with is that fasting, it's a part of life and we've all had these periods of fasting and feasting, even when we're not trying to. So for example, when you're sleeping and when you wake up and in theory—of course, unless you are sleepwalking and eating, that is a thing that can happen—well, let's just say you're not doing that—then in theory, you're fasting. So in light of the building evidence to support fasting, it really is time to get a better grip on all of this information and really to sift through what the facts are. There's, like I said, a lot of information out there over 100 million hits on Google, and I'm sure that will continue to trend up as time progresses. There's also a lot of excitement with fasting. It's this number one eating pattern in America right now. If you'd like to become more knowledgeable about fasting as a whole, and really understand what the tools are out there, especially if you're planning to provide insight on this topic, but you really don't know where to start, then I would encourage you to just check out ProLon and even [inaudible]. There's a whole host of information on our websites as they pertain to fasting and fasting research and how it works. I would definitely invite you to really see some of these tools because, like I was saying earlier, our main goal here, one of our main goals, we have many goals at L-Nutra, one of them is to be able to provide solutions for everyone as they pertain to fasting and fasting science. We hope that you check us out and that you also feel empowered by looking at some of the things that we have to offer.

Reed ([52:04](#)):

Well, thanks so much. It's been great to get to know you and again, get educated on fasting and fasting mimicking, and especially your product ProLon. So thanks again for being here.



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Victoria ([52:15](#)):

Yeah, no problem. Thank you so much Reed for having me. I really appreciate the opportunity and thank you all for joining us today. Thank you for spending some time and I hope that you're able to further solidify your understanding of fasting and of course, fasting science. I appreciate your time today.

Reed ([52:34](#)):

Okay, Victoria. Thank you.