Can You Reverse Metabolic Diseases with Food Alone? The Science Behind the Fasting-Mimicking Diet Transcript

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Introduction to ProLon and L-Nutra

Hello everybody. Welcome to a very exciting lecture, interview, conversation reunion of two friends. I get to speak to somebody who's so busy and all over the world, doctor Williams Hsu is a medical doctor.

He's chief medical officer of L Neutra Health. Many of you know for sure that I'll neutral. There's a parent company for the commercial product that I post about talk about podcast about all the time.

Prolong the five day fasting mimicking diet. So, this gentleman that I'm talking to now is in charge of the science behind what that product does in the other division.

The L neutral division. We're going to talk about which many of you listening that are aware that maybe 80% of Americans have a metabolic health problem.

There's a new term c am syndrome, cardiovascular, kidney, metabolic health. And it's estimated that 80% of Americans fall. Unfortunately, and it's probably true of most of the Western world, if you happen to be beaming in from somewhere other than the United States, have a c k am syndrome.

So I think there are solutions we're going to talk about. But let me first formally welcome you, all the way from cold, still wintery, unfortunately. Boston.

Thank you for being here, Doctor Kahn. Thank you. And, always such a pleasure to have a conversation with you. Yeah. And, you know, for people that are listening, they may not know the term translational medicine, which is, you know, basic science and early animal research if needed.

But trying to move that when appropriate into the human sphere. And few companies have done that as well, particularly if we talk about food as medicine.

This is a reversing heart disease naturally. Summit. So anything you can do with food is undoubtedly going to fall under the natural column. So your your whole entity does that so well of course led in the scientific team by doctor Walter Longo.

But I think we see more of you though. Always hear him. He's, still with his his cells and his, mice and and then translate them into human. So maybe if by chance, somebody listening isn't familiar, let's just spend a moment on what pro on is.

I mean, what physically it is. Briefly describe it and I'll be quiet. Know the the fast moving diet, what we call FMD, it really is, is a structural meal plan that essentially gives you it really rejuvenates the cells from from that level, that gives you the benefits of, of like a five day fast, except that you don't have to fast.

It's actually nutrition that flies under the radar.

How the fasting mimicking diet works

So the cells think that you're fasting when in fact you're getting nutrients. Now why do we do this is because kind of the the age old truth that the cells and the biological life forms always have a way to deal with adverse environment.

And in the old days when food wasn't available, the cells had, you know, through, in fact, every cell in the body

respond to the stress of no food and came up with a way to take that every stimuli from the outside in turn into something that makes the cells younger.

And so this five day test, the mimicking diet would address that cellular rejuvenation. And and lowers the biological age. And it actually has the potential to reverse many age related chronic conditions, which we'll talk a little bit more later.

All right. So we're talking about in fact my laptop, which I'm using via the internet to speak to you, the miracles that we have nowadays is resting on a box that says parole on it's science is not a diet, is it?

Actually raises my laptop. I love also, I always keep a full or an empty proline box around. It's empty because I've used it. The last time I did the five day fasting mimicking diet was a group fast that I led, and that was in mid-January.

And I'll find another five days, probably in April, to keep on track about 3 to 4 times a year doing this. But, you know, it just sounds too good to be true.

That you can eat, but the cells think you're fasting, but your body gets the benefits. It's like, you know, there's a million pitches in the world. I mean, how many patterns, how many dollars from the National Institute of how many behind this that make it so different than, you know, so many things you can just flip through on social media?

Yeah. Doctor can you're right. There's there's so just a lot of noise out in the nutrition space and and how do you trust it. Who do you trust. And and I think we tried to do this by conducting, clinical trials that are of the highest rigor.

And so far we, this technology we call neutral technology, of the FMD, it has over 130 global patents. So in longevity, cardiovascular diseases, diabetes, blood pressure, cholesterol, autoimmune cancer.

And so these are we've filed over 250 patents. And so far 130 have been granted. And so we're still waiting for new ones to come. I've also we talked a little bit about, you talked a little bit about translational medicine, but what we've done is taken a step further.

Now we've started our 48 clinical trials. And so I don't think there's any other nutrition company out there that's been so committed to the science and the facts of our products, and that's a commitment we've made and will continue to make to to our customers.

It's really, really remarkable. And as we were just discussing for a moment before we put Ricardas, I like to read the literature. I have my various ways to stay up to date.

And, you know, it's remarkable how many, you know, studies come out in a 12 month calendar. You mentioned one that's probably about two and a half years now.

I don't have it open right in front of me. But biological age reversal, the fact that you judge humans, you calculated not just their chronological age.

Anybody can do that after your driver's license. But did testing on their biological age. And what did they do? They did the five day program three months in a row.

Yeah. It's actually two different studies, put together in a publication. One involved, three cycle of SMD three cycles.

Biological age reversal research

The other study was a four cycles FMD. And when they this is actually a true story. You know, we submitted initially to to the journal. The journal didn't believe it because it was too good to be true.

They actually asked for the second study to be combined with the first study to show more power. And lo and behold, I mean, the second study showed exactly like the first study that is just merely 15 days of effort.

Just remember, the FMD is a five day kit, right? So if you do it three times, there's a total of 15 days. It was associated with a two and a half year reduction in biological age.

Now what's biological age. Well, it's it's a way of looking at how old your body is. Without just counting the calendars, because you could do it. And you and I both have seen patients who are, let's say, 50 years old, but they're have a body of 45 or 50 year old.

They have a body of a 16 year old. Right. And so chronological age is actually a bad marker for health. And so this paper was published by Yale and, UCLA and USC together in this journal called Nature Communications, show that merely three cycles of FMD lowers biological age by two and a half years.

I mean, it was among the top three papers downloaded for that year. So it was a very impactful, publication, you know, and probably everybody listening would like a bit younger of a body, as I'm in my 66 approaching 67 year, I can't claim everything is exactly as, you know, it was 20 years ago, and I'm sure everybody listening late.

So even just, you know, starting to turn the dial back rather than racing forward, which would inevitably does and, you know, racing and not doing it with a medicine that is of questionable risk benefit ratio.

I mean, the risk benefit ratio, the 15 days of using the prolonged systematic food program is so much favoring benefit in so much not favoring risk that it's really low stands me how remarkable it is.

And then it is. This is where, where I think it's, is when nature meets, science. Right? We we discover what happened in nature and by understanding its mental pathways and how the cells actually work, we're able to bring out what, what sort of mechanism of healing there are deep seeded in our DNA and, and activates it right by, by providing nutrition below the detection, of the cells.

And so this is where I really see a beautiful story of how nature has designed the body to be. And yet we are leveraging technology and science to bring it out.

Yeah, that's something everybody listening should become very, very, you know, adept with and incorporate in their life would be my recommendation. Let me just ask you about one more recent paper of the dozens.

And does that are, connected to all new trials?

Autophagy and cellular rejuvenation

And that's one that you were a prominent author on in December of 25, the effect of fasting, mimicking diet, markers of autophagy and metabolic health.

And we're going to talk more about metabolic health. But yeah, there are probably some serious students of longevity and aging that know all about autophagy.

And the Nobel Prize in medicine. But there's clearly some of us saying that are not using the word autophagy on a daily basis. Yeah. Tell us a little bit about autophagy and a little bit about this study that you were author on.

Yeah. This is a really an age old question is, you know, how does fasting actually what do they do? How do we know it works? And and this work is really building upon the, the Nobel Prize in 2016, given to Professor Toomey for discovering autophagy.

And let me explain a little bit, you know, when when, when in the nature, when a cell is starved with no nutrients, the cell has to survive. So what does it do?

The life form has to figure out what inside the cells can I burn to provide nutrients so I can live another day? Because the food is not coming from the outside.

It's very simple. And so over time, the cells have developed mechanisms where they take out things that are less valuable, you know, misfolded protein or the mitochondria or structures in the cells.

There are just not broken. There are broken and not valuable. The cells go by to to take in them and burn those components. To do what? To generate energy.

So the cell to live another day. And that's a survival mechanism triggered by this external stress of that food. And so the cells actually recycles, these, these less valuable parts.

The when food, you know, always do reoccur again. Right. To happen in the nature food, the rain comes the food becomes available again. Now the cells actually have to produce new parts that is recycled earlier.

So what you're doing is essentially taking the older worn out parts you replaced with new parts. And now we're doing this under control environment, because now we're sneaking the food in right through the fasting mimicking die nutrition.

And so now you're getting the benefits of that cellular recycling while you're getting the food, you're getting the nutrition. What what ingenious way of triggering the these, bodies, the ability to heal.

Right. And but not not through brute force, but through science, through sneaking those nutrition underneath the detection of the cells. And this is the story of the fasting mimicking diet.

If somebody wanted to who's listening right now. So I'm going to embark on this five day fasting mimicking diet. And I want to run a test to prove I'm in autophagy and renewing my cells.

I don't think that's quite yet available. Correct? No, this is actually a really difficult, research to do. We had to engage with, with, initially University of Texas and this and this Cedars-Sinai, researchers to test to to test for this, not not clinically available yet.

We had to run through a lot of essays and complicated essays like LS3, B2, versus one, I mean, complicated, you know, enzymes and so on, so forth that we believe in the future. It might be possible.

But what this also tells us is that we're committed to showing, demonstrating the evidence and the science behind the FMD. And in fact, in the study, we show that autophagy begins to be triggered, probably after three days of fasting.

And so day four, it of that day four days, day five of the people who are taking prologs show a very remarkable signal of autophagy flux, which is really what is a hallmark of active autophagy.

We related we were elated to to see the results. And now in front of the world, we can show a definitively that as you go through this five day FMD, the cells go through cellular autophagy, rejuvenation and repair.

And I just want to stress for people listening, you know, there are many studies that are done on the desktop, many studies done in animal models. This was human data.

So although, you know, you and I doing the five days as you mimicking food is medicine program cat run a task for autophagy. We have reason to believe that it is a reachable goal.

And as you said, if you're just skipping a meal a day, there may or may not be benefit to you and your metabolic health, but it's this five day program that triggers these remarkable changes.

Well, there's people listening right now then.

Clinical programs for metabolic health

No, they're not metabolically healthy. Again, I threw out the number 80% have this cardiovascular kidney metabolic syndrome. Other data in the United States says 93% of Americans are not metabolically healthy.

And, you know, you oversee a tremendous program under the name El health. And I really suggest everybody listening when we're done. Dash Neutra health.com and go read about it.

But these are programs based around the five day fasting minimum King diet to address head on using food, prediabetes, diabetes, metabolic syndrome and other disorders.

Tell us a little bit about that branch, which is not going to be talking about prolonged because we're not using commercially available bodies. But ultimately, there are plenty of people who want to use medication to treat chronic diseases, but they're also a large segment of the population says, hey, you know what, all these chronic diseases, why do I keep taking more and more medications?

I'll need to? Health was born out of that. That angle that the body has an ability to heal. And we know when we combine FMD together with principles of lifestyle medicine, focusing on exercise, stress and everything else, all the behavior change when you put it together, especially when is supervised by a physician.

Oh so supported by a dietitian. Now that is a very comprehensive and safe program to reverse, chronic diseases such as type two diabetes, high blood pressure, or hypercholesterolemia.

And that is the program that we build. It's a physician supervised. You have a dietician that is personalizing the treatment, but also incorporating the Smt at his core within intention to reverse age related chronic planning diseases.

So these are you know, we're not talking about theoretical cancer. These are programs that people can enroll in either they can initiate that by going to the website.

I have prediabetes. My doctor says I type two diabetes. My doctor says I have a metabolic syndrome problem, that you can enroll, you can be coached, you can stay in six months.

There's diabetes type two reversal programs for 12 months. And they're available right now. Right. That's that's absolutely right. And sometimes, you know, we know that, you know, if you just eat well and exercise well, you could achieve better health.

But the reality is it's difficult to do. As can see, our program really understands the pragmatic challenge of being living as a saint. And so we try to use these neutral technology approach sets such as the FMD.

And especially, you know, combining high tech with high touch delivery through a dietitian that can personalize to your need. This is where we can treat the root cause of these conditions.

And in the hopes to reversing it. Wow. And you have published data on the impact of being involved in a program like this. You know what? What on average happens a hemoglobin A1, CA3 month marker, a blood sugar control.

What happens with medication lists in people, you know, rolling. There are two different levels of evidence. One is clinical trials. And the clinical trials, run at a universities where you show, for example, six months, but you pray to about 1.4 you once you drop, which is really impressive.

And in in those studies, about two thirds, the people were able to experience a drop in medications. And that's what a lot of the patients, while they want freedom from the burdens of taking multiple medications, now, the second level evidence would be what we call real world evidence.

In fact, we we presented the American Diabetes Association last summer, from 200 of our diabetic, patients in the

program, which again, we show people, lot about, about 10% of their body weight with less medications.

Again, about two thirds of the people, 65% of the people to 70% of the people were able to reduce their diabetes, medication dependance. And at the same time, blood pressure medicine was also decreasing.

There were losing weight, but they were maintaining muscle. And that was a key point here. I think this is not everyday weight loss, right? It's a five day interventional nutrition that that was portable.

And then there's according to a protocol, it's almost like a drug except it's actually nutrition. And the results are astounding right. People are distress.

The decreased of living with this condition. It was improved less medications they lost. People maintain muscle. And that's exactly what we see as a better picture of health.

When all these parameters improved. I'm just browsing as we're talking the Al Neutra health.com, website. And there's a tab called science. I always like to go to tabs like that when I'm looking at a product website or a educational website and just literally dozens of research papers about weight loss, blood sugar control, preservation of muscle mass, obviously the competitor out there is the pharmacologic approaches.

And certainly the GLP one class of drugs and related drugs. But, you know, we all share this concern. We don't really know very long term. It's the exact opposite.

Our food is medicine. It's, you know, stop eating food might be medicine. It certainly is concerning about the, you know, the ratio of visceral fat loss, subcutaneous fat loss and somatic muscle loss.

None of us want to necessarily end up frail. But in the case of a person who has that hemoglobin A1, C of 6.9 and maybe their endogenous says, look at I read the literature of if we have your hemoglobin A1, z under 7% and you're stable, that might be a reasonable end point.

Now that's still solidly type two diabetes, causing probably nerve damage, arterial damage, chronic kidney damage, eye damage. It's not normal. You know, that person facing the choice of a GLP 1st May be self-pay, may be insurance approved versus getting involved in in a neutral outcome.

I mean, what have you seen? What are your observations? What are you doing in the clinic? I think for too long, patients and clinicians have settled for management, chronic management of of diseases.

Right. Take 3 or 4 different medicines for blood pressure, you know, 1 or 2 medicine for cholesterol, maybe 3 or 4 different drugs for diabetes. We settle because we've been too low.

You know, we just want to control symptoms and signs. What we're seeing through the program is by addressing cellular aging, right. And lowering the biological age by really driving cellular autophagy.

Real-world outcomes and patient support

That's renewal on the level of the cells by really reprogram metabolism where you're losing fat preserving muscle. But they are addressing these root cause.

What we're seeing in the program is people are reducing their dependance on medications. They're really reprograming their metabolism. And this is where we're shifting from from a secure model, truly, to a health care model.

And I believe that there are listeners out there. They're looking for that kind of solutions. And we provide the evidence that is safe and efficacious.

And, we would like to be part of your health care solution. And again, I really encourage everybody to look at what I

consider the most scientific food is medicine program called Dash Neutra and Neutra health.com.

I'm under a tab right now that says there's two programs, the Diabetes Remission and Regression Program, a 12 month coached program using the five day diet program.

And then there's one for cardio metabolic health. You're not a type two diabetic, but you're in that great mass of Americans and people living in a Western country that, lab work is just disappointing, and you're stuck and you're looking for a solution.

And here is, again, the most science backed solution. So you are enrolling new people. If somebody were to reach out via the website, they could get in to.

Absolutely. We are increasing the capacity because more and more people are really looking for a non-pharmacological approach to chronic diseases. And we're ready for you.

All right. And I understand that people that are involved in the reverse to diabetes type two diabetes program now, once a quarter, you do a Q&A for them, which is very kind of you.

I think education and then empowerment is really part of the story. And so, I also meet with them one on one as well. And and, and quarterly engagement Q&A sessions where I present the science and the publications, they're just increasing dialog.

And I believe that when people increase their knowledge, they feel empowered and they'll have more strength and more motivation to take care of their own health.

Yeah. And just so people remember, if you get involved in this program and one of the perks is contact with doctor Hsu. Yeah. I mean, the former Chief Joslin Diabetes Center, a board certified endocrinologist.

You know, it's not usually the kind of access you get when you pick up a juice back at the local, you know, organic store, and you're making some effort on your health.

This is a whole new level beyond it. I heard about prolong and Al Neutra in 2008. Light bulbs went off and very fortunately attended a conference in USC and met Doctor Longo in the team.

And I have done this program, so many times, and it's only getting better and better. I just keep asking, can I buy the crackers? I'm sure lots of people say, I can I get the alma, you know, unfortunately, we've got a nice array of products under the proline name.

But again, you remember the sizing. We're talking reversing disease. It's the L neutral outcome site you want to go to. So I appreciate you taking the time.

I'm sure it's always such a pleasure and an honor to speak to you. And, the company is just exploding with such great science. There's new papers. We haven't even talked about the made headlines around the world and last month.

But we'll save that for a future interview, if that's okay. That's kind of thank you and appreciate that. Or you bet, sir. And stay warm. Thank you.