How To Fast To Reduce Inflammation & Rejuvenate Immunity Transcript

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Introduction to fasting and inflammation

Welcome to the Conquering Chronic Inflammation Summit. I'm your host, Dr. David Jockers. And today I'm really excited for this interview. It's all about fasting for inflammation and immune rejuvenation with Dr. Joseph Antoun.

We talk about senescent cells. We talk about inflammation, aging, and we talk about strategies you can take to basically not activate the nutrient sensing pathways.

Fasting, mimicking diets, fasting strategies that turn on autophagy, turn on self healing, cell cleansing. So clean up and get rid of the old damaged senescent cells.

If you don't know Dr. Joseph Antoun, he is the CEO and chairman of the board at L-Nutra Inc. You can find his website prolonlife.com. Or they have the five day fasting mimicking diet.

And they're doing a profound amount of research when it comes to the fasting mimicking diet, how it impacts all the various cells of our body, including the immune, the immune cells, and how it's been able to be shown in research to downregulated inflammation, to improve the aging response and actually reverse the your biological age and so much more.

So really promising strategy. Definitely take notes and check out prolonlife.com. And with that said let's go into the interview. Well Dr. Joseph Antoun, always great to connect with you.

I love the work that you guys are doing at L-Nutra and ProLon Life. And, just all the research that you guys are getting involved in and the phenomenal results you're seeing with the fasting mimicking diet.

And I also love your knowledge when it comes to inflammation, inflammaging, senescent cells. And you know, that's where I want to get started. Let's talk about chronic inflammation and inflammation.

Aging this term inflammation aging that you know is starting to pop up in the natural health world. Well, thank you, Dr. Jockers. this is this is a topic that we spend a lot of time on, obviously, whether it's inflammation or autoimmune or anything related with, getting the body for, for folks listening to us today, inflammation is a process that accelerates aging, right?

And it happens with aging itself, and it gives it a kick even to age faster. It happens with a lot of chronic diseases.

Inflammaging and senescent cells

People with diabetes, they don't think they they don't they they don't realize that they're suffering from a high inflammation, in their body. People with, with other, other chronic diseases that are not directly, you know, a direct correlation or direct directly caused by inflammation.

So, it's it's a major process. I always say it's like the engine of the car when it's heated, you know, a lot of things will go wrong in the car and, and inflammation and inflammation are, this is what we witness, why we age.

and and it starts slow with aging. It starts going exponential, and it starts kicking us further into biological aging. So it's very important to intervene early and take some measures to slow down the process.

when we age, obviously, the immune system starts to becoming less young. We, started amassing old cells. We call them senescent cells. These are cells that are there.

They become dysfunctional. They're old. The body's not easily taking them out. And they become what we call the

zombie cells. And they triggered a lot of inflammation in the body.

And this is important in a lot of the anti-aging investments now are going into how can we get rid of those senescent cells? you know, there are even products that are being researched called senolytic.

So it's very important that the more we age, the more these old cells are sitting there triggering a lot of inflammation and accelerating aging, that we get rid of them.

to date, we don't know of any intervention that can do that except for fasting. And this is why we're focused on this talk about fasting and inflammation.

There's a lot of research on molecules and products that is in clinical trials or in clinical trials. But the only intervention that we know today, which is beautiful because that's the only natural one as well.

It comes with much less side effects than injecting chemicals or swallowing pills. But this is one where fasting has multiple benefits on aging, which we can talk about. There's, metabolic benefits and cellular benefits to slow down or reverse a lot of the chronic inflammation.

Yeah, really powerful stuff. Most people don't realize that for a product, for any sort of product to actually, you know, be FDA approved, right? It's got to go through a lot of different studies, you know, like you were talking about preclinical and clinical trials.

And so there's nothing out there. But fasting has been shown to have this amazing immune regenerative effect. and let's talk about you mentioned, you know, these cells as they become senescent, how do immune cells age when people think about immune cells are not thinking about, you know, they're thinking about short term life spans.

But these immune cells do age over time and they can become senescent as well. They do. And even the pool of young stem cells that can lead to, to rejuvenating that immune system also gets depleted.

So you're getting all these cells, and you have less power to get rid of the old ones and have the younger ones replace them. So, you know, we've talked about fasting.

Fasting is so critical for, multiple stages of inflammation. So there's, there's what we call intermittent fasting, right, which is fasting between zero hours and two days.

And we're going to talk about why we stopped by two days. And then you have after two days of fasting, you're talking about prolonged fasting. And in the in the intermittent fasting stage, you have a lot of, a metabolic benefits that can help with inflammation.

How fasting affects immune cells

There's, some factors in the blood that actually are decreased with fasting within three, fasting, the pro-inflammatory like inflammation. And there are factors that actually are increasing and are entire inflammatory.

So we see that. And and also when you start fasting, the body is basically, you know, compensating for the calorie deficit, so doesn't want to fuel an extra process that heats the body.

Right? When you're when you're in inflammation, you're producing severe kinds, you're a little bit increasing the temperature of the body. And this is all calorie consuming processes.

And so when you first the body tells the white blood cells, hey, I cannot have you being in and in replication, producing pseudo clients and being active.

So I'd like to slow down that process. this is very important because that, for inflammation, the inflammation we see

that totally happens with aging but is very important for autoimmune diseases as well.

And this is where it even in the old, old books of medicine, fast was a big intervention for autoimmune disease for those who have like so yes, yes. And lupus meaning visual chronic disease.

The Republicans a natural disease or autoimmune diseases. when you fast, you directly see the spots decreasing because the body cannot fund calorie wise, the excitement of the white blood cells replication, the heat.

They they they the, the, the secretion of pro-inflammatory factors. Now when you cross. So that's the metabolic benefits of fasting, inflammation when you cross they two now the body is telling the cells, hey, I'm depleting my reserves.

I'm breaking down the facts into ketones. I'm depleting my glycogen. I'd like you to rejuvenate. I'd like you to search for intracellular sources of calories.

And this is why we split fasting into two phases. But for a long fasting phase is where the body is asking the cells to do autophagy, and rejuvenate from inside.

And when you and so the so the cells are looking for intracellular detoxing and fixing etc.. That's why it's a little bit when the cells detox a little bit increase the RPE temporarily.

Right. Some people say well it just fasted in training as a transition. I had a little bit of or CRP kept maintain instead of going down, you know, after the intermittent phase is actually maintained.

This is the body detoxing and rejuvenating and sending a lot of the and organelles. But then when you cross that phase after day four and five of fasting, the body is actually not doing trials and saying, hey, all cells 37, trillion cells.

I cannot sustain all of you. I'm going to do three hours. And guess what? I'm going to start healing, sending to apoptosis what we call it. the cells that are old, that are nonproductive, I just want to keep the younger cells that use outcome.

So the body starts killing the zombie cells that we've talked about, the older cells that are there, you know, creating inflammation and irritating the immune system and pushes the younger stem cells to replace them.

And this is the third magical intervention with fasting. Now, the problem is not a lot of people can fast for five days or six days, know that it's all healthy.

And this is why the National Institute of Health stepped in and said, you know, they they invested the first $10 million into actually our research. We used to do research on water fasting, the benefits of prolonged water fasting.

And they actually, gave us funds to develop what we call the fasting mimicking diet or fasting with food, which is a big oxymoron. And we'll explain how you can fast with food.

The product is called proline. Now, PRL one, for promoting longevity. And it's a five day nutrition that you can consume so they can help you go through five days of fast.

So it simulates the benefits of fasting in the body, but you're eating calories so that you can sustain five days. There's 91% compliance on its cost from almost less than 1% compliance.

When you do.

Fasting mimicking diet and nutrient sensing

Five days of forest water, fast takes you all the way to 91 compliance, 91% compliance rate, and the entire goal is

how can we feed the body while keeping the cells in a fasting mode?

Yeah, which is really interesting because obviously you're getting the autophagy benefits, the stem cell benefits. You're doing this five day process and you're fasting, but you're actually eating food.

And that's because you guys have found the benefits of fasting are the impact on nutrient sensing pathways. These various nutrient sensing pathways, things like IGF one, insulin like growth factor one, insulin in general, the mTOR pathway, which all block autophagy.

So they block that deep cellular healing process. And you know, what you guys have found is that you can actually eat a certain amount of food in the right ratio, that you guys have obviously done clinical studies to, to verify and not activate.

So you're still getting some nourishment, but you're not activating those nutrient sensing pathways. 100%. And that was the purpose we started studying.

And this is, two decades of research. We've spent over $48 million on developing the fasting and and testing it, which is across 18 universities, partnering with us on testing this clinically.

and started we just started our 32nd clinical trial. So this is what we're talking about now has at least 31 clinical trials. You don't see that a product's almost never on the same product being tested and tested again.

And now we just, we're issued the 134th patent on it as well. So this is a big, we call it Nutri technology effort. That's it. A lot of universities, the sort of health us to come and say, how can we mimic all these positive benefits of fasting while helping people eat?

And so it started by saying, how can the body clean up as the body recognizes that there is food and and the body does it first at the systemic level, it secretes insulin every time you eat carbs.

And insulin tells the cells, hey, this carb. So we're not fasting. And then when you eat proteins, the body secretes IGF one. You mentioned that it's an insulin like growth factor.

So these are two systemic, secretary hormones that tell the body that there's food. So the the food that we design and there's 77 ingredients. It's all plant based super easy to use, non-GMO, gluten free.

So we're talking about we're not talking about a drug. We're not talking about artificial. We're not talking about chemicals. We're talking about a plant based, high premium clean nutrition.

And we study it to not over spike insulin and over spike IGF is a minimal spike that happens when you consume prolonged fasting. And we can die. So the body's like I don't know.

I'm not sure I don't think I ate. So let me stay in a fasting protective mode. Now when it comes to the cells, as you mentioned, the cells have nutrient sensing pathways.

They have radars that tells them, hey, there's food passing by and those radars are the PCA editor and the rice pathways. So we devised the nutrition to go around the pathways and or when it goes through the pathway.

And there's an over trigger that sensing pathway. So the cell is getting nourished. Is that sensing the food. And if from a from a biochemical perspective so it's not going off fasting it stays in a fasting mode.

We actually just finished, the first autophagy trial in humans. And it's very difficult to measure autophagy. And humans, we know how to do it in mice and easily. And.

Yeah, we we partnered with the university of San Antonio. We just finished, an autophagy trial and prolonged showing a major spike in autophagy and cellular rejuvenation, despite the fact that we're feeding the body again

with, with the fasting.

That's interesting. What are the biomarkers you guys are looking at to measure autophagy? They are influxes that they use. So when the cells start doing autophagy the lysosomes are very active.

And they started, you know, consuming the breeze and organelles. And there's there are things secreted there that I use in that process that we call them, you know, are in flux.

And this is what they they mark. And this is what. And it takes every individual and every test individual takes the labs. They're a couple of weeks to finish testing per every individual.

it was, it was, it was a remarkable process. I wasn't familiar with it initially because, and I've never heard that any one of the products and for those hearing us today, you know, we talk about intermittent fasting, the shorter one or supplements that can induce autophagy.

I haven't seen anyone, testing a supplement and having positive data, autophagy in humans. There's a lot of discussion in the marketing discussions. here about the joke is also, it's important to note is that we've seen refugees starting after day three and four.

It wasn't happening on day one, 2 or 3. as you and I know, the crisis was going to happen in the body in the first couple of days, to, to trigger the cells, to rejuvenate.

It's happening in most patients, in most, consumers was happening around the FDA for justify. Why then that is a fallacy that our researchers, developed the food to sustain the body on fasting mode up to five days.

Yeah. That makes sense. That makes sense. Well that's great. That you guys are doing so many of these clinical trials and really being able to document when these things start to happen.

And let's talk about how fasting can help damaged organs, autoimmune conditions a lot of people are listening or dealing with chronic health issues. And so let's talk about how fasting strategies including fasting mimicking diet can really help support them.

Well, well yeah. And I covered the inflammation, which is the natural process of aging and how to take the zombie cells out. Now we can talk about, you know, autoimmune, you know, for example, a lot of people suffer from inflammation because they have an autoimmune disease.

And actually a lot of even more people suffer from inflammation. They're not diagnosed fully and are immune, but actually they have a mild underlying immune activity.

That's the trigger. That's that's big. It's like diabetes and prediabetes, right. For forever. if you go to your doctor and you have a blood service, 139 medicine will tell you, oh, you're not diabetic yet.

Autophagy and cellular rejuvenation

And but, hey, it it it eats well and they send you back home. You actually, you know, there's no difference between the 139 and the 140 or the, what, 41?

Same with autoimmune disease. There's a lot of underlying now, with all these environmental changes with, with the leaky gut, we're eating a lot of, a lot of food that's actually inducing a leaky gut.

And we're allowing molecules to get into our body that are triggering inflammation. This is very big. This is why we see, you know, Hashimoto's and reasons how come autoimmune diseases are on the rise if the reason was genetic, you know, I don't think we evolved this much as a human race and that and in 30 years.

So, we know that our immune and subterranean conditions are increasing, fast because there's leaky gut, there's

environmental toxins that we're suffering more, more than ever from.

And we're suffering from other chronic diseases that trigger inflammation like diabetes, like insulin resistance and all of those. So this is where fasting and a fasting mimicking diet, comes in, whereby, it actually hits the root cause, the root cause of these processes.

Right? Whether it's food, when you consume five days of plant based nutrition is a big gut healing that happens, the leaky gut processes, the inflammation, the cellular rejuvenation to rebuild the line, the line of the gut.

Actually, Stanford and University of Miami are both, they have just finished, an alternative colitis, trial with the facility between diet and Crohn's disease, along with the fasting.

And, you know, we have multiple trials that we've shown with kind of, microbiota, microbiota change that is induced by fasting. And there's one major preclinical that we've done showing that there's stem cell rejuvenation in the gut to actually rebuild the gut line.

So this is critical starting from there. Then when you get into the bloodstream, we know that mimicking fasting is going to decrease a lot of, pro-inflammatory markers and increases, actually.

Does that inhibit and, inflammation. the general thing here to simplify it for everyone listening to us, if the body is fasting, it doesn't want to fund any process that replicates cells like immune cells and or any process that increases the temperature or the inflammatory base of.

It's like when you don't have gas in your car, you don't want to go fast and you don't want to heat the engine. That's that's the same analogy here. And so we see the body directly taking these measures when, when, we tested the fasting mimicking diet on multiple sclerosis.

now we've, we just finished ulcerative colitis and Crohn's. You directly see the immune system. Actually, it barely decreases because the body's getting rid of the T-cells that that are attacking the organs. See?

Barely increasing, and then it increases. So the body's saying, hey, I have, by mistake. I have white blood cells creating inflammation, attacking organs.

Let me get rid of those. I cannot sustain them. I cannot fund them. And let me bring what we call naive T cells. New, white blood cells that are not triggered to go and attack the organ.

And that's probably a big root cause mechanism that fasting, supports inflammation live. And finally, because we've talked about settlers getting cells, getting healed, getting rejuvenated with fasting, what we're saying is the damaged organ.

So when you when, if you have an autoimmune disease and you have a damaged and attacked organ, we see those cells living artificially and therefore healing faster.

So you're basically working on the root cause. You're calming the attack and you're rejuvenating and healing the, this is why, I mean, today we brought up the science of fasting and fasting when we can diet to the benefit.

But if you read, you know, you and I went to medical schools and, and that you, you know, schools that if you read the books of autoimmune and inflammation 100 years ago, it had fasting to it.

There's nothing. And I've seen a lot of consumer studies pictures of pro-lifer. So you have to sort or other conditions. The decrease is unbelievable.

But they one is an inflammation. By day six you see the reduction of the inflammation that's happening. And it's fast and visual because, you know, fasting taps in that day that the root causes of the inflammation.

Yeah really powerful stuff. And you know the more we realize about what's happening in the body as our body gets thrifty, the body knows how to heal itself.

There's an incredible intelligence within us and knows what to do.

Autoimmune disease and gut healing

We just have to provide the right environment. And that's really what's happening there. By not triggering these nutrient sensing pathways, we're creating an environment where the body just goes into a deep healing mode and starts to get rid of all of these damaged, senescent, malfunctioning, immune cells.

And literally regenerates ourselves from the inside out. And it's really remarkable to see, to to see what's happening in the gut microbiome. And I know you guys are doing research on that.

And, you know, microbiome researchers have been saying forever, hey, you know, a healthy gut microbiome is a very diverse gut microbiome. And so they were always say, well, to have diversity, you've got to eat a very diverse array of, you know, plant based fibers.

Right. And that is one way to improve diversity. But what's interesting is actually reducing food, and going through a fasting phase or a fasting mimicking diet also has been shown to improve the diversity in the gut microbiome.

100%. We've studied the, the fasting American diet. I mean, the beauty with the fasting we can diet is that you're giving, as you mentioned, you're giving plant based diversity sources.

so we're turning I got my microbiome that was used to a lot of toxins dealing with toxins. That was very, you know, breach and inflated. And we're giving it a plant based 77 ingredient.

So the fast moving line has 77 plant based ingredients that come in there. And it's a variety of sources, all plant based. Again, whether it's it's just to make it more, tangible for people, the more that it's the minestrone soup that we have, tailored, to mimic fasting, whether it's tomato soup, whether it is, you know, artichoke, whether it's the macadamia sauces within the fast bar, these are all plant based, diverse sources that nourish, the right microbiome.

Right. Diverse microbiome. This is the detailed description. Is the right diverse land based microbiome that helps the gut human. Yeah. Yeah. Absolutely. Yeah.

And what's what's so great about the fasting when we can diet is really that compliance level as well. like you were saying, you know, doing a water fast, you can get amazing results.

A lot of people have gotten amazing results doing that. However, the compliance is so low to get the average individual to do something like that, it's it's almost impossible.

you know, somebody has to be very motivated to do it. And the great thing about the fasting mimicking diet is, you know, you need a level of motivation, but you're getting you're getting nutrients into your body.

And very few people notice side effects like hunger, cravings, because of kind of the macronutrient profiles in there help stimulate satiety levels. And most people feel good as they're going through it, which, you know, is is is obviously documented in 91% compliance rate, people finishing that sort of thing.

And, you know, and let's talk about your typical protocols and strategies that you like to use with the fasting mimicking diet. Yeah. And I'll, I'll get to it.

One just final chapter because, you know, I am hammering, you know, one up what every root cause inflammation we define the chapter is aging. Right. And and as we know, inflammation increases with aging.

And since we're talking about fasting, doing a metabolic reset and the intermittent fasting phase, and then when you cross the two and the three, you're getting into some rejuvenation.

We went and we started studying with the fasting, mimicking that with prolonged impact, the biological age, sport within the body. Yeah. You know, so for those listening to us today, this is the next biggest thing in in health care.

Can I keep your biological age younger than your chronological age. Right. If you're 55 and listening to us today, if we can keep you at age 50 or 40 7 or 45, as you can imagine, when you were at that age you had less inflammation, probably you had less insulin resistance, you had more muscle.

He had more stem cells that can replace old cells. So a big goal of prolonging the fasting mimicking by was how can we from a metabolic reset perspective and a cellular rejuvenation perspective, can we even hence a bio age score?

Or can we reduce your bio a score? And and indeed, after several medical trials and looking at correlates, there's a big, bio age score developed by USC and Yale University is called the bio eight score.

That's a fino age and attracts, you know, it actually was developed by the U. S government has sponsored a 21 year, trial looking at people and seeing them aging, and then some of them dying.

We're talking about above 8 or 9000 people. And they saw with if you have this profile in your blood, then you develop cancer and you die at that age.

If you have this profile, you're more prone to diabetes, etc., and they do multiple blood test. It's called the enhanced study. And we were able to get those data USC and Yale.

And they actually reversed, you know, the the blood. So now at every the blood profiles. So not every age if you have this blood profile we can tell you what's your bio age.

And we can tell you what's your risk of developing the big four killers Alzheimer's, cardiovascular disease, diabetes and cancer. And so we brought the profile on now changes that happens to the blood.

And we we applied those to the bio age score. And now we can tell people what is their bio age. And this is again based on the only factual longevity.

12 it's not simulated. It's not an epigenetic clock. It's a female aged two biological, aging clock. And what we saw is that if you do sleep crawl on cycles per year, your develop your decreasing.

Or if you do three parallel cycles, which is the protocol we recommend to answer your question, what is five days. So all we need from you is 15 days out of 365 days.

So this refers. Any space it out by at least one month. Typically. Yeah. Typically you do one flow once they g g1 to G5. And then you can you can you know you go 25 days of the rest of the month.

Biological age reversal research

You go back to your, your your nutrition. You can do the second parole on the second month and the third on the third month. Or you can just follow if you want to get a faster results.

This is what you do. Month one five days a month two five days a month, three five days. This is what gets you the faster results. If you if you want to get the results, throughout the full year and you're more interested in rejuvenating yourselves, meaning for a longevity perspective, you can do it.

Month one have three months space in between. And then let's do and then have, sorry month four and then month eight and then month 12. So you can do it three times per year and follow that protocol.

And if you go to the Parole on Life website, the official website of parole until life. Com you can see two protocols once a month for three months. Or you can do it once every quarter to follow both protocols.

so so we started that if you do the three problems you're reversing, you're decreasing the bio age score by 2.5 years. And we just published that result in one of the sub journals of nature.

Nature is the number one science of the, Science Journal of the world. it took years to publish it because it was, you know, nature was nervous. And I said, this is not an easy conclusion to, to say in natural intervention that awakens the doctor from within.

This is you mentioned that you said the power, the healing power of the body. And if anything, fasting is one of the biggest triggers of the healing power of the body.

If you do three times the prolonged fasting that we can that we're showing on average now, published, in one of nature's journals, that you can, gain 2.5 years of bio age, score.

Yeah, that's profound right there that you can reverse your biological age with that, as your body's regenerating, these getting rid of these senescent cells and regenerating new, healthy cells.

So really, really powerful. And what what other exciting research are you guys working on? I know obviously you've got a number of studies that are, you know, still in the works.

where do you see your research going and what do you see being published? You know, over the, over the next, let's say 1 to 5 years. a lot of focus. So we took the four big killers again, diabetes, vascular cancer and Alzheimer's.

This is what's killing 90% of us in the US. 90% of us will die. And it's one of four conditions. And unfortunately, there's no pill that you can take for any to reverse it.

So and unfortunately, also for all of us who went to med school, we never focus on lifestyle interventions. And if you look at those chronic conditions, a lot of the triggers a lifestyle related.

And this is why we exist. So we said let's use food is the only product you consume every day of your life on average, say three times, right? How come nobody tailored food for longevity?

And this is why we called the product Prolog promoting longevity. This is our consumer business unit. We when you go to prolong life, you'll see a product portfolio that all our aim to slow down aging or reverse the bio age of the body because this is what you want to use.

You want to use the product you consume every day in your favor to help you live a healthy, long life, rather than what's happening today. It's killing us, you know, with the gut and with diabetes and with cancer, etc.

and then on the medical side, we have a medical business unit that's researching food formulation. When you're sick, you're still eating. So why don't we tailor food to empower your body to for a better disease management?

and a big, focus of ours on diabetes. put in a very simple way, most diabetic type to get diabetes through, getting older, accumulating fat that becomes a stubborn fat gives you insulin resistance.

You're losing your muscle. The muscle burns carbs fast. That can be notion of I'm losing my muscle. I'm a little bit. Or the older I have, insulin resistance by gaining fat takes me to diabetes and so guess what's the only intervention known today to little bit reduce your bio age to protect your muscle?

This is a very big problem actually. And three trials are showing you with active lean body mass. This is huge because again that was mpix angle between you lose a lot of muscle.

You chronic diet every day you lose muscle. But fasting is a push for the muscle. And when you do it with food withdrawal and you're nourishing the muscle that's being pushed by the growth problem to grow.

So it's a big it's a big thing. So you're bio age reversal, muscle protection and melting the fat that is stubborn. With fasting you can see how the fasting and you can diet is actually working on the root causes of diabetes now.

And we're seeing amazing results. We published two human trials now on the fasting mimicking diet. what is showing that within six months we're not talking six years or five, six month.

The fasting, we begin like two thirds of patients either reduce the dose of their medication or take at least one medication out. Two thirds. Right. Yeah.

For for those with diabetes, all the discussions where the doctor is, it's a progressive disease. We start with metformin.

Diabetes remission and clinical results

We add another drug, another drug, another drug and then insulin for the first time. We're talking about regression here. I'm saying that within six months two thirds of the patients will drop a medication or decrease to those they 15 9% reduction in insulin resistance, which is striking 22 pounds of weight loss.

And we know that that stubborn weight is so valuable to take out. And a 1.4% decrease in HbA one C on six month old. Is that the only. That just with the fasting mimicking diet. That's not even.

Is that that's not even necessarily changing their diet outside of that and adding an exercise. No. Because that failed. Right. Every every diabetic based on hears from his doctor or her doctor that you should diet every day, you should exercise and they fail.

They develop and learned helplessness. It's too difficult, right? And that's the beauty of the fasting. Mimicking lives only five days per month. And in all the trials, we never change the lifestyle in between.

We never tell them to exercise more, eat healthy. Yeah, no other change. And this is why it's so profound. Because fasting is working under the root cause of diabetes.

So we talked about aging. Reverse the body image of the cells muscle perfection and melting the stubborn fat and insulin resistance. So it's it's it's very powerful.

It's practical to do if you ask diabetic patients they're stuck. They say it's impossible either I take medication based on chemicals and injecting my body and it's not reversing my disease.

you know, I'm a PhD, and, and when I was doing my rotations at Harvard, I used to ask my attendings if this medicine works, why we're refilling it every month, why there's no end date for the prescription, because it just says you have to refill it so they see learned helplessness.

I'm on medication for the rest of my life, and it only increases and it only creates more side effects. Or I had my dietitian and my doctor telling me, eat healthy every day, and it's very difficult for me to eat and exercise every day because of my lifestyle, because of my stress, because of my income, because of so many reasons right where I live, etc..

And this is where we believe the fasting mimicking diet now makes regression and remission possible. Very excited about it. Five days in the last five days a month for diabetes.

We do it five days a month for six months in a row. And then we to maintain the benefits. We do it once every quarter after that. So for aging it was three times spaced by for a month.

Or one time a month for three months only. And now for diabetes I do it once a month for six month and then once every three months just to maintain. So it's, it's a big and I would just published last week in Diabetologia at one of the top medical journals in diabetes.

We publish our 12 month data showing that actually we went against, you know, so basically people were on metformin and lifestyle changes. And then we added the fasting mimicking light to the protocol.

And it took the regression rate from 8 to 10%. As we know only 8 to 10% of patients regress. It took it all the way to 56, 58%. So we was talking for the first time.

A diabetic patient has more than 50% chance of going backwards. This is this is life changing. This is disease modification. We call it medicine. It's a disease modifying.

You're changing the story of diabetes, not with the fasting mimicking diet. And we just launched a special website for diabetes and prediabetes. We called it a neutral health elevation neutral longevity through nutrition.

And that's neutral health that for those who have prediabetes or diabetes, and they're fed up using drugs and chemicals in their body, ended up being, dependent on medication for the rest of their lives.

you can go there. It will help you through the fasting. Then we can. By then, we have our own, dietitian team, and we send you a scale, and we take care of you every month.

And the proper way to support you on your journey for the first time of freedom, potentially in diabetes, or at least regressing backwards from the disease.

So, that would be our focus for 2024. So diabetes regression and remission program 2025, we're going to potentially launch the cancer nutrition programs.

We've been doing a lot of research on cancer. Actually. We started as a company. As I said, it was water fasting, research on cancer. a lot of benefits that we see from fasting, with cancer patients too, that supports fasting, enables the body to better deal with the chemotherapy, rejuvenates the cells to attack cancer, the decrease the side effects of of chemo and the interventions on the body.

So many benefits that we've studied over the years, and now many other labs in Europe are studying the fasting mimicking light, for cancer patients. So we're going to launch hopefully in 2025, the cancer nutrition protocols as well.

These are the two big focuses. after that comes Alzheimer's and autoimmune diseases. As I mentioned, Stanford University of Miami just finished our two leading RNA and disease conditions.

we haven't seen the results yet, but they'll be out soon. And, as we've seen with other can with other autoimmune anecdotally, this is the first time we do different illustrative models on them.

But, we know that fasting, as we mentioned, works under repositories of autoimmune meals for themselves. And if they're positive, we're going to launch an autoimmune, fasting mimicking diet program as well to support patients.

better manage those, those conditions. Yeah. That's, that's that's really great. And with all this research now, you guys are actually being reimbursed by insurance companies, right?

I believe, Medicare is that is that correct or is that in the works? Yeah. So we, we have a sub company under us. So, yes, the fascinating thing that is now being considered by multiple health systems for reimbursement, we haven't gotten the official reimbursement under fasting when week.

And I say that filing it's filing multiple payers. But we do have a company that we also, Javed with and own the majority of which develops food for every day we call them, but they're medically tailored.

So we call them MTM medically tailored food. Think about it as, you know, a freshly or a HelloFresh that comes to your house, but it's medicated for your health condition, so that company is fully reimbursed by Medicaid, has a full code for reimbursement, and now has signed with over 120 plans, health plans.

you know, Aetna's and United and Blue Cross, Blue Shields, etc. across the US to support the patients, of those insurances with accessing those medically determined.

So this is food that we shipped to your house. We should you ten meals a day. You consume them.

Future research and food as medicine

You're fully paid if you're Medicare eligible or Medicaid eligible, you're fully reimbursed. You don't have to pay any dollar, no co-pay, no deductibles.

this is how powerful medicine, food as medicine is today. It was worth it was saving the government so much because it prevents and or help, with, regress these diseases that the government gave it for free for people to even abuse it.

It was much more cost effective than using the medicine, and coming back to hospitals for readmission. How do people get access to that? the company is called Nutrition 4 Longevity, and it's N4LHealth N4LHealth.com and, you can go there and you can, contact or you can purchase your Medicare meal if you're eligible and, or if you don't know if you're eligible and the numbers to call and, they'll talk to your caseworker and help you get your food for free.

Well, this is great. I mean, so many of us in the natural health space have been saying, you know, food is medicine. We've been saying that. We've been saying things like fasting is the most ancient, inexpensive, and powerful healing strategy known to mankind.

But you and the company, they're L-Nutra, and, you know, your various companies are really doing the research, getting the clinical validation that shows exactly what's happening.

And now obviously getting that out into the mainstream. And so really, really powerful stuff. Really excited for what the future holds with this. And guys, you can check out Dr. Joseph Antoun’s work at prolonlife.com.

It's where you can get access to the 5 day fasting mimicking diet as well prolonlife.com. So definitely check that out. Of course we'll have it in the show notes.

And any last words of inspiration here for us? Dr. Antoun. Yes, I, you know, what you and I share, a life probably is our passion to say, you know, we went both to med school trying to help patients, and we were a little bit, disappointed with, with, you know, just, being taught that everything has a just a disease, and, and it's a little bit of genetics, and it just happened.

And we see people after they're sick and we give them pills and and the pills help with, with a lot of conditions, but not with chronic ones. And we get disappointed.

And we started looking for a journey to find something that's more effective, actually more natural and more effective. And, you know, food is medicine, and food is, again, the only product we put in our body.

So it's very important to, use it in our favor. And, and that's, that's the biggest thought maybe from today is think about how important everything you put in your mouth multiple times a day.

This is what's going to is the the habits that will repeat for today is what determines and our outcome in a major way. And it's the quality of food that you consume.

And it's fasting. It's when you don't eat. And this is not sci fi. This is not a new trend that people ask me. All is

verified. Is that a new thing? This is just a rematch in with our ancestors aid for hundreds of thousands of years, right?

We were never born with abundance of food and eating late at night and and eating things that are fried and including butter and dessert and stuff. We were we were born to eat from a diverse ecosystem, and we ate and we stored fat only when there was abundance.

This is the spring summer, and then winter comes in and it was less food. And and this is when we consume it and we rejuvenate and spring comes back. Our body has to go through these phases.

We when we store the excess, we get to take that excess out and go through the rejuvenation with nature. And with spring, we lost that. We became we spoiled our body with food continuously.

And this is accelerating our aging, and it's accelerating diabetes and cancer and Alzheimer's and autoimmune diseases. The solution is within us, and it's within our lifestyle.

We were able to accelerate the solution by giving you a 5 day super fasting effect. And we made it simple and easy by giving you the box that has the nutrition, you can consume it over 5 days.

You'll get the benefit of accelerating the correction, with ProLon or with, L-Nutra Health. and we, you know, I recommend I strongly recommend people check it out, read the signs on all the websites.

There's a bottom of science. You read all the randomized clinical trials of the benefits of, of the products. And, definitely, if you're eligible for those, meaning if you're not, you know, too old or too frail or, or pregnant and lactating.

So these are the, the initiative that fast when you're, again, too frail or you're growing a baby as a mother or lactating, if you're not one of those, or you have an allergy to plant based sources, then probably you should consider ProLon seriously in your life.

Yeah, absolutely. You guys are doing wonderful work. Again, check it out at prolonlife.com. Thanks again so much Dr. Joseph Antoun and we'll see you all in a future interview. Be blessed everybody.