Introduction to the Summit and Guest

Hey. Welcome to the Beyond Infertility Summit. I'm your host, Dr. Aumatma. And today we are talking to Dr. Joseph Antoun, who passion it is to enhance Human Longevity.

He is the CEO of L-Nutra, a company that makes a product called ProLon, which you may have heard of. And we're going to have a very interesting conversation with him about fasting and how it impacts fertility.

He has a very impressive bio before taking on this role. He was the CEO of Health Systems Reform, a boutique consultancy aimed at elevating public health through reforming health systems, strengthening healthcare management and improving healthcare delivery.

He was the co-director of the Center of Health Policy at the University of Chicago and adjacent Professor of Health Policy at Buck Institute for Research on Aging.

And so many amazing accomplishments that Dr. Antoun has been part of. They are really leading the way in doing research in nutrition. That isn't happening elsewhere at this moment in time.

So Dr. Antoun is going to share a lot of their amazing research and how fasting can really support entire aging, which in turn supports fertility. So let's get into it.

Let's talk to Dr. Antoun. Dr. Antoun, Welcome to the Beyond Infertility Summit.

Types of Fasting and How They Work

We're so excited to have you here, and I'm excited to learn more about fasting and how this could support fertility. Let's jump off with the types of fasting.

What are the different ways that people could fast and the implications of this? Yeah. Thank you for hosting me. First. And it's a critical question because now fasting is the number one diet in the U. S.

Close to 8% of people in the U. S. practice certain kind of fasting. And so it's become very popular in a lot of misconceptions behind it. So I'm happy to clarify, we've been doing fasting works for 23 years, so happy to clarify the types and the benefits of each.

So in general, there's two types of fasting. There is what we call intermittent fasting, which is anything that needs zero hour with no food all the way to two days for 8 hours.

Right. And then there's something called prolonged fasting or periodic fasting, which then you go over two days and typically it's 3 to 5 days. Now, why we're talking about this two day in a switch, why the classification?

Because, you know, below or above two days, because the body goes through a transition. The first two days you have enough reserves in the body to compensate for a lack of food.

So you have fat storage that you can tap into. You have glycogen as well. These are reserves and the liver also can dump some calories into the system.

So I call them the savings account, the checking accounts and the the credit, the glycogen. You go first to the glycogen, that's your checking account.

Then you go to your savings accounts that's fat. And then the liver, it can credit you some extra calories and this through glucose glucagon. So the first phase fasting, the intermittent fasting, a lot of people do the 16 hours, 18

hours or eight once a day, but they all kind of the body compensates by losing weight and tapping into the reserves, which is important because 73% of Americans actually are suffering from a weight related or lifestyle related or metabolic related issue.

And and losing here some weight will help a little bit with the blood pressure will help little bit with the blood sugar will help a little bit with the cholesterol, etc., etc..

Now, when you cross the second day, the body tells the cells, I'm going bankrupt. Right? You're consuming very fast your checking and savings account.

I'm not in danger. And therefore I'm going to ask every cell because every cell lives on calories to rejuvenate and go into an optimal stage of performance so that we all survive as a unit called the body.

And so cells after day two and especially after day three, stability. The rejuvenation process is called Autophagy Induced By Fasting. This phenomenon won the Nobel Prize in Medicine in 2016.

So very well now documented in science. And I think it was a big weapon for our ancestors is to stay healthy long right that we don't they used to die out of short you know acute diseases but they were not dying mostly out of the chronic diseases and aging, etc..

So lack of self rejuvenation is very important and we're going to tie it to fertility because a lot of reasons it's not the top two reasons for infertility are related to metabolic health and to aging.

And you can resolve both in help with metabolic health, which creates insulin resistance and rates of PCOS increase the non spiking of hormones. And probably the other speakers have focused a lot on those with you in here, but with no other intervention would do except for prolonged fasting is to put the body biologically younger and we know we're more fertile if we're younger versus if we're older.

And so that's the key. And the relationship between fasting and infertility, you know, the short term, fast, intermittent, you have all the metabolic reasons.

If you do a longer, fast, you're kind of helping the cells, including the reproductive system, to go biologically younger. I mean, I do have a story here that I wanted to add.

Yeah, please. Of it. Right. When I first started working on fasting and I'm talking like over a decade ago, it happened that my father and I were sitting in a chair and in business lunch and we had two other folks, two other guys that were in the chicken farming business, and we were just my father was interested in investing that business and we were talking about, oh, they have actually big chicken farms and they lay eggs and they were talking about the egg yields and all of that and how to optimize nutrition for where the chicken to lay more eggs per week.

So they were talking a bit. Then they looked at me, they asked me what I worked on and I was studying fasting and rejuvenation and they were completely unimpressed.

And I thought we had the biggest discovery in the world that fasting can help people reverse that aging by age. And they were completely unimpressed. And when I asked them why they were unimpressed, they said, because in the end, the chicken farming business, actually, when the chickens start decreasing the egg laying system, that's the reproductive system.

When they go from six eggs per week to 3 to 4 or two, they actually put them on a three day fast. And when they put them on a three day fast, the animal metabolism three day in animals is equivalent to five days in humans.

Fasting Mimicking Diet and ProLon

When they put three, they fast, they lay their feather, they rejuvenate new feathers and their egg yielding the

reproductive systems goes from 2 to 3 x per week back to 5 to 6.

Not quite six, not quite optimal. Six out of seven. That's out the way. But a good 5 to 6 for like a very known practice of fasting for enhancing the reproductive yield of chicken.

And then we in human never knew that up until the science of fasting uncovered this. Yeah. So yeah, that's really fascinating. So it's almost counterintuitive because when we think of fasting, we're often thinking of like restriction, right?

We're calorically deficient for a period of time. And normally when we think about pregnancy, for example, most of us have this idea of like eat more, right?

So that like fertility period before conception, we it feels counterintuitive to say like, oh, fasting can lead to more reproductive potential rather than less so.

Do you have any thoughts on that? I'm very curious how we can understand this better. It's because fasting comes at a price. It's so water fast, right.

Has a lot of benefits that we talked about. You know, weight, metabolic and sailor, rejuvenation and aging. So but it comes at a cost. Exactly. Which is the deprivation I'm depriving, you know, the body and I'm putting it into a stressful situation.

So that's rejuvenate. So the stress is a cost. And this is actually why we as a you know, and I'm a CEO of a company call L-Nutra, which we do a food nutrition that gives the benefits of fasting so that actually get the benefits, the metabolic benefits, the rejuvenation benefits.

But you don't deprive the body before. Certainly we don't deprive the body and we use the this is called the fasting nutrition. You don't deprive the body when you want to lose weight in a healthy way or you want to improve your blood sugar control, etc..

And that's exactly what actually our biggest innovation is, that fasting mimicking diet, the fasting mimicking that which was served by the National Institute of Health and Taxpayers.

Actually, you know, everyone in the U. S. who pays taxes, there's a good chunk of those that go for research. And under an organization called the National Board of Health in the National Board of Health looks at top most promising innovations in the U. S.

and they fund us. And we were one sequence of over $20 million. This is rarely happens very rarely happens in nutrition because of the science behind fasting is a fasting has tons of benefits.

We don't want to deprive people all the way and have them go to extreme stress of fasting. Can you develop a nutritional intervention that gives the benefits of fasting, weight, muscle protection, metabolic health, rejuvenation?

Without all of these side effects of I'm feeling super hungry, I'm have a headache, I'm depriving my body before I become pregnant. And this is how we did.

We develop the fasting mimicking diet. We put 18 universities together, USC, Stanford, University of Miami, University of Milan at universities came together and they started testing this new formulation an all plant based natural five days you get a box at your home.

It's called prolong the low end in every bit of five boxes in it. And then every day you open a box, you eat the food, all plant based vegan, and then it helps to get the benefits of fasting while you're nourishing the body.

That's amazing. As amazing and I have done a pro on fast before and it feels very I've done a lot of different fasting and so it feels very different than other types of fasting where you are in deprivation mode.

I remember being hungry but not not like hangry, like it wasn't to the point of like irritable and it was just like a physical like yeah, a little hungry instead of what often water fasting will lead to that.

That was the purpose. Roland mimics fasting not by deprivation or starvation. It mimics fasting by nourishment. So that day, on day one, you have 1100 calories and they do three, four or five, 800 calories per day.

And it has all the plant based protein, essential amino acids, has complex carbs as your vitamins, your minerals. So it's a nutrition program that still gives you the benefits of fasting.

And we had to learn how the body detects food and then how the cells what are the receptors on the cells that detect food. We had to design a special precision formulation that does not allow the body from the hormonal perspective to recognize this food and the cells.

The radius of the cells. How three major radar, as we call the nutrient sensing pathway pathways, because they sense the food. They said nutrients have to go around them and get to nourish the cell while helping the cell, doing the rejuvenation and enhancing that process.

Actually, the fasting mimicking diet in many aspects and hence even the benefits of fasting while decreasing the side effects. Hmm. Wow. That's is incredible.

I am I have so many questions, but I want to talk a little bit about the cautions that maybe people, especially those trying to get pregnant. And you said 800 calories on most of those days.

Why is the prolonged fast limited to five days? Is there a reason for that five days? And can people just do it for a whole month or two months or however long they have in their mind?

Yeah. And again, this is this is decades of research and in a lot of clinical strategy to clinical trials actually. So we studied why five days you don't want to go longer because then you bankrupt the body, right.

So exactly that number five, you don't want to do less than two because you don't rejuvenate your cells. It will be in fasting only. So we talked about that.

How Fasting Supports Fertility and Rejuvenation

You don't want to do ten and 12 at 13 because exactly what you said, you depriving the body that so five days was the right amount of get the benefits while still the body is in rejuvenation and flourishing actually when you finished prolonged and a lot of people talk about that and you've done it and you would have felt you don't feel the pressure.

You actually feel higher energy, you feel higher, you're excited, you're happy, you're confident. You just lost fat. And this is critical actually, even for fertility for all.

It helps you lose fat only recall preferential fat loss and it protects the muscle because the muscle actually when you do fasting growth hormone increase and so the muscle is invited to grow, people think with fasting you get to lose muscle.

Actually when you fast the body is shifting investment into the muscle because you going to go and find food and so but because it's not a water fast you're nourishing withdrawal on the muscle so there's a call for the muscle to grow, then you're nourishing it.

So you maintain lean body mass. So it's at the five days we need to prolong. Now we have over a million consumers the most to come. And things that people talk about is the feeling great, strong, reinvigorated.

So rejuvenation is that a deprivation? But if you do ten days of frozen or, you know, then you're going to start getting deprived. And this is not what we want.

And you don't really do prolonged while being pregnant. This is important way we're saying you do carry on to get your biological age younger to the fat, hopefully help with insulin resistance.

We have trials showing a major drop in insulin resistance, actually one trial showing 69% drop in insulin resistance. If you do polar once a month for six month.

So five days, month, one, five days, month to five days monthly all the way to six days. We're seeing a major drop, insulin resistance, 59%. We're seeing a better control of sugar.

We're seeing HB once you dropping by 1.4 points out of metabolic positive metabolic changes that happen there, we know that age of the cells, the cells are doing a bio age is what we call autophagy in rejuvenation.

Now we have data to support that. Plus we just published two weeks ago a major article in one of nature's papers, Nature is the number one science. Join up the word nature.

Communication is a it's a paper under nature. We just publish an article showing it 2.5 years on average of bio age reversal when you do three cycles of pro one.

So if you do three points per year, you know, 15 days only per 365 days, it changes that the body goes through have reverse and byways score by 2.5 years and metabolic reset and age reversal.

Reinvigorating the reproductive system is a very it's one of the youngest system. Right. And it needs that youth and it needs that vibrance to increase fertility both in men.

Absolutely. Absolutely. And there is there are some tests that are coming out that are able to measure essentially like epigenetics, that kind of indicate what your reproductive age is.

And then there's other ones that are like general aging. How well are you aging? How much does how old does your body think you are rather than how old you actually are?

And those tests are very interesting because on average, the women that will potentially struggle with fertility are going to be the ones that are 30, but their body thinks they're 40.

Right? Like if there is a huge discrepancy between your biological age and your reproductive age, then the body's like, Well, I'm not doing this. I'm already 40 or, you know, and then like there are lots of women that also have premature ovarian insufficiency or failure.

That's where the ovaries are not producing or not having enough follicles to actually grow and ovulate and cycle, which makes fertility very challenging, of course.

So in those women I can see the potential of doing this and reversing their age and kind of supporting their rejuvenation to the perspective of, hey, we now have instead of your body thinking you're 40, it's thinking you're 35.

That's a win. Yeah, 100%, I think. You know, I'm I have an MVP, you know, went to to top of the ethics courts right at Harvard. And I used to disrespect all this like, oh, nutrition and lifestyle and supplement like in and after decades of work on this I just the and they remember one time there was a big aha moment in my head is like you know infertility is increasing diabetes is increasing cancer is increasing, Alzheimer's is increasing, obesity is increasing.

So why everything is increasing, we're spending more on health care. It's all goes down to our lifestyle is that are changing more stress less sleep we're picking up weight we're becoming insta resistant and we're aging faster.

And I'm trying to explain here to everyone listening men and women is because of this stressful lifestyle, because of all the changes in your diet, in your sleep, in your happiness, were less happy.

It's accelerating the age of your body. It's making you feel down, including your reproductive system. And therefore,

plus also it's impacting your thyroid, right?

It may not be at the level where you doctor it is. Then, you know, you have an issue with the thyroid. It's just it's creating adrenaline fatigue. The entire engine of vibrance in the body is being cut down and your age is accelerating faster.

And this is why you get into it's and I'm saying this to how people understand that there's things that they can do and that matter. They can put in their own hands, like prolong life, eating healthy, like sleeping better.

They will resolve the vast majority of their problems. Because when you go to your traditional doctor and again, I'm coming from there, it just is going to go back to, oh, it's genetics or oh, it's you have maybe one disease that we don't find a disease is they don't screen.

For some this is almost like failure and vibrance filter. Therefore it's genetics or it's idiopathic and it's okay. We'll go with sad doing IVF or we started doing this or we started doing that.

And yes, this is all important and yes, this can help. But before you get depressed and before you feel learned helplessness because what happens in a couple at the end of the year like they got into this and learned helplessness this.

I'm helpless. No, you're not it just go back and think about the reproductive system is a young in is a young system within you and it responds to your vibrance, to your youthfulness.

You get to go back, become younger, and you become younger when you work on five pillars, you nutrition and again within nutrition, eating healthy but very important, you do three cycles of fasting, of a prolonged fasting to reinvigorate that vibrance.

It's your exercise. Make sure you exercise. It's your stress, it's your sleep, and it's your happiness. Work on these pillars and your body vibrance, the healthy longevity, get reinvigorated and that, oh, you're going to health for it's ultimately going to help your risk of diabetes, your risk of cancer, your risk of Alzheimer's, all those things that I never learned in med school.

And again, I'm proud to say that's a Harvard is Hopkins. I was director of health policy, University of Chicago, all the top schools. And they never say now, up until I went into lifestyle medicine and learned that most of the things we struggle from are coming actually from things we can change within our mice.

And we weren't here to think about those and go to starting date and work on your body, vibrance your body aging. And then if you don't succeed, then yes, there are medicines.

Yes, the injections in this you can do more to to to succeed. Yeah. Yeah, I completely agree with you. One of my favorite quotes is fertility is an outpouring of vitality.

So when we have that vital energy, that vital state, then fertility just happens. It's a byproduct or a side effect. It's not something that we have to actively work at if we have all of the other things working at optimal.

Who Should Avoid Fasting and Safety Considerations

100% and you know, these like PCOS and this and sperm weakness and mean why they're increasing of their genetics right why and if they do it by why they increase its a lot I related is would changing our lifestyle with decreasing our vitality or decreasing our vibrancy would a faster it we're depleting our body and this is exactly that in a lot of that is sub disease by the way is thyroid fatigue is the testosterone and the estrogen is not spiking in the body because of the insulin resistance.

It's like an ice syndrome that is between a disease and between a healthy lifestyle and a lot of us are stuck there. Right. Your tradition of the perfect doctor would not diagnose that and will tell you, like, you know, we're going to do

injections.

We're going to do pills, we're going to do, you know, and do injectables. Mpix Also, now, it's a huge trend and then you get to lose muscle. You're going to be less vibrant afterwards.

So it's very important to understand that you work on five pillars. Again, your nutrition, your exercise, your stress, your sleep and your happiness. And you need to see a goal of rejuvenation within your body.

I'm very biased towards prolonged of day fasting, mimicking, and I have because that's the only thing that I found in life. And I toured the world before I joined Electra and prolonged to find a way to reverse the bio age of the body.

And I didn't find a natural way to do it and fast things like awakening the doctor from within. Right. Is this is so many philosophers, so many old medical books that were talking about fasting and every divine religion recommends that it's one way to put the body in check.

Right? It's like when you drive a car in a car race, the engine is heated, the wheels are getting the brake. You go to pit stop and the mechanics come in, they check, they change it, or they change the wheels.

And this is what FRC is, is every day you are putting junk into our body. We're putting artificial stuff. We're stressing where and you go you fast. You're just giving your body and your soul a break and you're telling them, rejuvenate, clean detox and then lose the weight shed these, you know, bad stuff in the body.

And now we have better hosts for fertility. Now our better host for a vibrant health outcome. Yeah, absolutely. What was really interesting about doing pro on when I tried it out was I didn't actually see the weight loss till after I finished the five days.

Right. And it was almost like the longer 3 to 4 weeks after were the biggest weight loss. And I was like, but I'm not doing anything different. I'm not eating any different.

Nothing's changed, right? Yeah. I just did this pro one thing. It didn't seem to do anything at the time. I was like, Yeah, I feel good, yeah, yeah, whatever.

And and then to see the impact of a few weeks later and be like, Oh, what's happening? Like is this melting of. Genes, the engine, it's your cells are younger, right?

You're a better performers. You start burning fat as you go because, you know, we when we talk about weight loss, what most food companies missed and now all of these injectables, they would go BS into.

What they miss is that it's about the muscle, not just the intake of the right. The muscle is what burns the corpse, it's what it burns. And if you lose the muscle, if you diet every day, you lose the muscle.

If you inject the GFP ones the same like that, you lose the muscle. It's when you do the fasting with prolonged where you're just losing fat, you're protecting muscle and you're bringing your cells to a younger, more vibrant age.

So your engine is now a better burning engine is more free and more to because you're less fat, fat. It's typical it puts you the you're never been a performer.

And then with time you like, okay, I don't need so much food, I'm faster, I perform better, I do my task and you start losing that weight sustainable.

Yeah. Yeah. It's pretty incredible. I'm a believer. I want to say I'm biased, but I do see the value of doing a fasting mimicking diet if it is indicated right.

So I think everyone can safely do it except there are some people that are like calorie deficient. Yeah, I had a patient probably she has a one year old now.

So this is probably two, two and a half years ago she basically came in, we looked at her bloodwork and I was like, your protein deficient? And she's like, No, a protein.

And we go through her diet. This is like completely protein deficient. She didn't even get enough calories in her daily day to day diet and she had premature ovarian insufficiency.

And that's where we were like, well, you need to start eating more, you know, like adding protein. And I think now if she wanted to have a second baby, I would definitely think the fasting mimicking diet will help her now.

But I think when she was in such a deficient state, I maybe would have given her some time to replenish before starting. And thank you for bringing that.

There are four profiles that should not do the profile right? Food profile. If you are depleted, right. If your BMI is low, you're it's like you're already on a chronic low calorie and low protein, so you're needed.

Then you get a need to get nourished and then you can do it after for just five days to rejuvenate the cells. Right. And if you're already pregnant and lactating, you don't want to be growing a baby and fasting at this same time.

Number three, if you are too old, right? This year, 1992, and plus you have chronic conditions at the same time. So you're you have an old age plus a chronic conditions.

We're not talking about this today because without your facility. So that's not okay. And then if you have allergies, if you have allergies to nutrition, there's you know, a lot of the prolonged ingredients are derived from what we call longevity, nuts, academia, almonds, etc..

So if you have allergies to those, you shouldn't head to the problem. Other than that, I'm going to push back a little bit because a lot of people say, well, should I fashion?

I know we are all living in fad today. We are eating all the time and that's the wrong thing to do. I think that our ancestors and humanity live with hundreds of thousands of years on planet Earth, where there was food, where we could hunt, or when there was the season of the fruits and the vegetable.

There was no food otherwise. And that's elicited so important. Even nature goes to the spring, summer, autumn, winter, rejuvenation. Spring. Right. Even it's a secret.

Yes. Every single living and even the birds, they hibernate. And then it's. There's simplicity in us. We get it from time to time deplete. So then we rejuvenate it in the right way.

It's like companies grow, keep hiring, keep growing, and then suddenly they touch, you know, and a wrong revenue. But it is like, okay, no, we've got to go restructure, right?

Clinical Research, Longevity, and Closing Thoughts

Restructure your laptop, the word on it four weeks ago to reset it. Right. So it's the cycle of life and eating all the time is getting us into disease all the time. We have to interject.

And this what we all were saying three times a year, we're not saying should always fast. Not at all. You should be always be nourished. Sydney Times out of the year this is the seasonality every four months do you do your parole again unless already pregnant and already or have allergies to it or have.

So in terms of doing pro on is it they're doing three months back to back or is it you're doing one and then four months later you do the second one and then four months after that you do your third. One.

The answer is it depends on your profile. If you haven't met the public health goal that you when they reach fast, let me know I'm insulin resistance.

You know that I'm you know, I need to shed some weight, you know that I have the metabolic, you know, reason to do it. They do it three times over three months.

It's never in their know as up in five. These is always just five days a month, 5 to 35 days out of 35. These are three we actually just a few months ago at trial crawl on five days a month over four month versus 120 days consecutive Mediterranean diet.

So the training diet is ranked as the number one diet in the world by them, not association and the U. S. News and World Report. So we went head to head just five days a month versus every day the best diet.

And we're well and most cardiovascular benefit. We were a little bit superior, uncertain, uncertain. You know, especially the muscle was cyclical here and I cannot repeat it enough.

We got to protect our muscle. The muscle is the engine of virus is the engine of longevity, is the engine of performance and the engine that burns the car.

And in people who didn't train, they had lost a little bit of muscle, people who did prolonged maintain lean body mass. So it was it was critical finding an outcome.

So so if you had that metabolic objective, you do prolong once a month for three months. If you're just doing it for vibrance, for healthy aging and longevity and you don't need to accelerate their metabolic health objective or lose a lot of weight fast, then you can do just once every quarter for three times pre beautiful.

Got it. And then you said that prolonged can increase growth hormone which I'm I'm I was having a little bit of like huh I wonder if this would help men that seem to have low testosterone levels which is starting to feel a little bit like an epidemic.

There are a lot of men that just too are testosterone deficient. So I'm curious if you've seen that or if there are any studies happening with that in terms of doing pro on and then seeing outcome where they have better testosterone levels?

We haven't tested pro specifically for people with low testosterone, but what we know is that after you do pro line, when you lose fat and you protect lean body mass, that puts you in a better state of performance.

And if you keep exercising after that and that we just launched the longevity protein, by the way, that called that. So for those who do that and they become more active, we know that muscle and less fat in men can help testosterone level and you'll help that.

Sure. So I would assume that would be a positive side effect. But we have never directly tested ghrelin for people with no testosterone. Yeah, I think that would be really interesting to see.

I'm sure you guys get like so many requests for studies because the application of this can be really vast. Yeah, we're currently doing 16 clinical trials all at the same time.

This only happens in big by the farm and biotech companies. We are very blessed with our founder. I don't know if people know Professor Valter Longo, who's time top 50 Most Influential People in Health, and he's the author of The Longevity Diet.

If you ask, Chargeability is the number one experts on Longevity Nutrition. So because of those discoveries and the fasting mimicking diet, a lot of universities actually talk to us to collaborate on using prole on for, you know, certain health objectives.

And so we're running 17 trials now cancer, diabetes, autoimmune Alzheimer's, etc. and we're publishing the results when they come. But we haven't tested yet.

Testosterone deficiency. If anyone is interested to hear and let us know, we'll be happy to help men and women. Actually, we haven't done a full, you know, trial on this.

But it's very interesting because, again, it's becoming very prevalent. Yeah Yeah, absolutely. You mentioned cancer. So is this safe for people that have had cancer previously and maybe are now trying get pregnant?

Yeah, I mean, we actually do trials with growing unfortunately active cancer. Yeah. Yeah. And assume it would be safe after but when you have cancer, talk to your doctor is not something that we want to tell you.

You know, of course you should do it. Of course, the different cancers, different stages, different outcomes differ emission stage. What I can say is that there's no reason besides if you're, you know, the forties, as I mentioned, and or if your doctor knows that you have health condition that prohibits you from going on a fasting regimen.

But actually and if you're in remission, you've already had a lot of toxicity in your body from the chemo, from the immune therapy, etc.. One way is to induce autophagy and rejuvenate the cells to help actually get back the vibrance of that.

So these are things that we only we have over eight clinical trials on the use of the fasting mimicking nutrition with. So this is not something that I don't want to position here for health outcomes or to prescribe for those folks.

Sure. Yeah. Yeah. Okay, go back to your doctor. But this is something that we're paying a lot of attention to. Yeah. Yeah. And it makes sense. I mean, cancer is a little bit of like cell death gone awry.

So if there is something that helps weird cells die, then that could be a really good thing to like help lower the. Yeah we call them the zombie cells.

When you age, when you get a lot of toxicity, there are some cells that are just there. They got enough damage, they don't do much. They actually create a lot of inflammation in the body.

They are not salvage salvageable and they're not dying yet. We call them the zombie cells and we see them a lot when we're an older age. Right. And they create a lot of information.

We call it inflammation being the more you age, the more you have those cells that are hanging around, they're not dead, but they're like almost dead.

They don't produce the calories without into where they coming in. Because right this when you look at the faces of people that were moving with age, we see that changes in our skin.

And so so one of the use of we do the fasting mimicking attrition is to help put the body into a difficult position on day three. Right by I think three days of fasting, the body looks at the cells and triage.

The one is going to perform and as unit we keep it the one that's not going to perform, we're going to kick it out. We're going to kill it because, you know, we see this a lot of company restructuring, a lot of things, you know, in nature sometimes say, you know what, the thing that doesn't perform, I cannot hang when times are difficult and I cannot hang on to it.

So we do see that we call it the regeneration now is like, how can I get rid when I'm fasting for a longer period? The body's trying to get rid of underperforming or damaged or toxic thoughts.

So good is amazing. Picking your brain about all things fasting. I am very excited to have you on this summit because I think that we don't talk about fasting enough, especially in the fertility world.

And it's something that I certainly believe in for the right people at the right time. It can be amazing and transformative for your fertility. So thank you for being with us today.

I appreciate you. And a lot of people think fasting is a depletion. Actually, fasting is a reinvigoration as intermittent fasting as they tell you. I feel the best in my life, ask ProLon as they said them feeling the best coming out of it.

It's a cycle of life. We get it sometimes. When you were over 80, I got to stop trying to reinvigorate and the reproductive system response to most of it because like the white blood cells, like mean this is young cells, they like to respond and rejuvenate some and hopefully we have help today.

At least one couple if not many. I think many actually. And hopefully we can change the life and help them grow their families. Yeah. Thank for being with us.

Everyone's.