How to Fast Without Sacrificing Muscle Transcript

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Introduction to fasting and autophagy

I'm not talking about a five day water fast, which, you know, needs to be supervised, carry some risks with it. But even the thought of fasting for a period of time, why it's important is it cleans up your body.

If you think about the topic called autophagy. where basically what you're doing is your cells are cleaning out the debris of the byproducts of your metabolism.

And why that's important is that debris, if you build up enough garbage, your immune system starts to look at it and goes, hey, that bad stuff. We need to respond to that.

This is the Longevity CEO, where we explore the science of metabolism, cellular renewal, and the future of longevity. Hi everyone. Um, and welcome to another episode of the Fasting and Longevity Summit.

This is your cohost, Dr. Joseph Aintan. And in this session, I have a big, big pleasure to talk to Dr Jim Leval, who's, um, a personal friend and a person that I've shared a portion of my career with.

and he walked the walk with us from the early days of fasting and longevity and then is now carrying his own movement. with his metabolic code and other approaches, scientific and medical approach to longevity and staying healthy longer.

This is going to be one of the most interesting sessions. I really invite everyone to tune into it.

Dr. Lavalleu2019s background in longevity medicine

Dr. Laval, thank you very much for your time today. Oh, I'm excited about being on this interview. I've been thinking about it all week because I know when you and I start talking, you know, Start to fly.

So I'm excited and revved up ready to go. Yeah, and and to just frame the discussion Would you do would you say a few words about your background yourself your expertise and your passion?

And then and then I'll start asking two questions and we'll take it from there. Sure. Absolutely. Well, I mean my passion is Since the first time that I started working with individuals 40 years ago, I believe that, you know, people deserve vitality at every stage in life.

So it doesn't matter whether they're six years old or 80 years, old, or beyond, let's hope, right? With longevity. I click testimonial. How old are you, Dr.

Lavelle? I'm going to be 64. To me, look 40, 45. This is just to frame this discussion. Dr Lavalle has unlocked. a lot of pillars of aging and make sure you listen to him today and listen the recommendation.

Well, I appreciate that, Joseph, and I don't have any filters on, so this is the real me. So, so, you know, uh, my background was of course being a clinical pharmacist and I taught 18 years at the college of medicine and pharmacy at university of Cincinnati.

Um, and really brought in a lot of the pioneering work, writing databases on natural compounds, doing personalized work on people, starting in the mid eighties.

And so I always had this passion for that. and then, that evolved from working with very big organizations. CVS, Rite Aid, Long Stride Chain, McKesson, to having probably the largest clinic in the country doing this kind of work in Cincinnati.

We were seeing 300 to 400 people a week where we were working on personalization and programs that help people drive the best potential health for them.

But over the last 20 years, actually acting as the academic co-chair for the American Academy of Anti-Aging Medicine, which obviously is dedicated to longevity and anti-aging, chairing the International Peptide Society, working with athletes in all five major league sports, Working with military special forces, just got back from doing an education program with them.

And all of this, I think, Yo it all works out whether you're a high performer. Meaning that you have a lot of demands on you are you just trying to perform for your life so you get to enjoy the benefits of a long healthy life.

That's been my focus. So, you know, working with the metabolic code platform and kind of looking at algorithms that can help people determine, well, where do I need to begin with my chemistry?

There's some basic things I know we're going to get to, but now what areas of my metabolism are the most disturbed and how do we start to correct them?

For most of us in the U S it all starts about eating too much, too often too late, picking the wrong foods. And, you know, developing insulin resistance, and then, doing programs, we did a program with, for example, lifetime fitness, which, affected almost 250,000 lives.

So I've always been about how do we create the ability to scale wellness?

Why fasting matters for cleanup and mTOR regulation

And when I, you know, first started with you, Joseph, what I saw clearly was, You know the projects that you were working with on, with Alnutra and Prolon, this was something that would scale, wellness and longevity for individuals, something they could be.

implemented across a large population with very good science behind it. And so that's kind of the, you know, the net. Still have two practices. I have one in California, have in Texas.

So I'm active with always seeing people. That's how you learn, how to do things. Then, of course, as you knew, we met a few weeks ago at a fountain life project.

So doing things with groups like Fountain Life as well. So very excited about the future of longevity and wellness. And appreciate you for that. And let's hit the core topic here, fasting and longevity.

You've been at the forefront of both. Can you explain a little bit to folks listening to us in this episode, what are the types of fasting, and what is the right way to fast?

And why we talk fasting with longevity? What's that interconnectivity? I know you track a lot of those practices and you implement them with their clinics.

Absolutely. So now why is fasting important? Well, from the most basic standpoint, when you fast, it doesn't, I'm not talking about a five day water fast which, you know, needs to be supervised, carry some risks with it, but even the thought of fasting I'm for a period of time why it's important is it cleans up your body if you think about the topic called autophagy where basically what you're doing is your cells are cleaning out the debris.

of the byproducts of your metabolism. And why that's important is that debris, if you build up enough garbage, your immune system starts to look at it and goes, hey, that bad stuff.

We need to respond to that. So why fasting is important first is it allows for that signal of autophagy or the cleanup. So that's one. The next thing it's really important to understand is that it helps to regulate a compound in your body called mTOR.

And if you continually signal this compound called MTOR, which is anabolic, it tells tissues to grow. But if your always in the process of triggering IGF-1, Which is kind of a growth hormone analog, along with mTOR, it actually is going to accelerate driving, you know, uncontrolled growth in tissues.

So we know that. I wrote a book, a chapter in a books called Diabetes and Cancer, Epidemiologic Links and Molecular Evidence, right? And in that, we discussed the fact that as IGF-1 gets out of control, that's kind of a big feature of what happens with people that are pre-diabetic or insulin resistant or diabetic, which is a problem with 50% of our population, Which then leads from that insulin resistance to cancer or to diabetes to Cancer.

So we want to regulate mTOR. mTor isn't bad. You need to have the signal to make muscle and keep your muscle as muscle is the currency of aging, but you don't want it uncontrolled.

So for example, after a fast, you'll see a rebound of your growth hormone, which supports rebuilding your tissue. But for that time while you're fasting, your shutting it down to kind of create regulation in your body.

So when I think of fasting, I'm an Italian in a traditional Italian family. You ate breakfast at 7 a.m., you ate lunch at noon, and you had dinner at 5 or 6 p.

m., about a 12-12 window, which is what I you know, eat 12 hours, don't eat twelve hours. And then if you could have a food that doesn't spike your nutrient sensing in the morning where you can extend the fast but get nutrition, then that adds a little extra benefit to it.

But what I have found is when I watch people that come into our clinic that are ardent 18-6 fasters, when you hear 18 six, 18 hours of fast, six hours a feeding window, Their labs don't look that great.

They tend to actually show more stress hormones, more triglycerides, higher cholesterol. And I think we have to bust that myth up. I mean, if we're talking about a once one day a week fast, I can understand doing something like that or two days a.

But what we've got in the market right now is everybody going, oh, well, it's 18 six every day. And then the other piece to it is you ask, then, the extreme is, is the omad, right?

The one meal a day that, that a lot of people are practicing. And, and I want to, you've, mentioned two things, which are probably going to shock a little bit.

The listeners white, he talked about proteins and emptor and aging and cancer. I wanna talk about that because people. You know, people think carbs are bad and proteins are great, right?

And everything is good at moderation and everything's bad at a high dose. And we're going to talk about that. Right. Then you talk that about fasting being good, but it's the right way to fast, which is 12 hours or 14 hours.

Correct. Not leaving the body starving in the morning and essential organs for 18 hours and 20 hours, and 22 hours then binge eat at night.

Protein, carbs, and the myth of extreme fasting

Because that's that doing more harm than the benefits of fasting we're gonna talk about both which one you start with because i think the concept of. of eating and balancing that with fasting and making sure that the MTOR and the IGF are regulated.

And, you know, based on Walter's longer studies, we have a big meta analysis is like that 130 to 150 IG F is where you balance having, maintaining muscle, which is a great organ of longevity and not pushing You know, the biological age, we're going to talk about this because a lot of us are over protein is aiding ourselves.

And then let's talk. About the right way to fast after that, if you don't mind. Well, I think the first thing, and I'm a

convert, like when everybody goes really low carb or they go ketogenic and they feel so much better.

First of all, it's typically short lived. I've talked to enough people who stayed on ketogenic diets and after they're on it for four months, they don't feel great anymore.

But I always call that putting a bandaid on a bullet hole. Because what it's telling you is that your glucose and insulin receptors are now dysfunctional because you cannot tolerate carbohydrates.

And when you keep the metabolic inflammation or metaflamation signaling low in your body, glucose, insulin, and glycogen live in a beautiful relationship where you're storing glycogein on muscle, you are utilizing glucose.

An insulin is properly signaling in, in you body which is reflected in A healthy hemoglobin A1c long-term glucose control number and a better fasting glucose.

And remember the higher your glucose goes, the more your lipids will get dyslipidemic because of the inflammation process that occurs from that. The first piece is we know once you're over 60, it's probably better to take in more protein.

We agree on that, but I think where people are missing the boat is that carbs, fats, and proteins are healthy and good to do. It's necessary for proper metabolism and energy production and your brain needs glucose.

It's just a fact. And your heart and your kidneys. Every organ in your body needs it, right? Everything's running on that. This kind of bro-science of, oh, it's only about ketones, is just that, It is not really rooted.

Your body would not utilize, would have a need for insulin. If you didn't need glucose, right? I mean, you know, when we look at ourselves as, as we've kind of altered ourselves over generations, the need for glucose hasn't changed.

People ate carbohydrates in a healthy way. Just look in the blue zones, if you look into blue zone. And it's the one thing that I'll say about when talk about the Blue Zones is you have to remember that if your going to eat more carbohydrate, You have move more.

And it's, you know, when you're in Sardinia, and you are walking up and down hillsides, You know? And so a little bit of this is, hey, if I'm going to sit on my tail all day and I am not going move at all, I not gonna incorporate exercise as a global part of my healthspan strategy.

Well, yes, if you sit, you never move. Yeah. If you're, your reading carbohydrates, he may end up gaining weight from that, but you know what? We all should be moving.

And, uh, in the second phase to it is, is that of course. You know, there's a social context of why the blue zones work and that we create relevance for people as they're aging because they are maintaining their vitality and we can gain wisdom from those folks.

So those are important concepts too. But I do think that in general, you know I know for myself, I've cut my protein portions down. Um, from what I used to do is I'd call a recovering bodybuilder.

Right. I'm happy about that. Yeah. I've tried to incorporate more. Can you explain to people why you're saying that? Why you cut your proteins? Yeah, first of all, I think for one, if you are eating a lot of protein, you signaling much more IGF-1.

You're going to signal much nutrients. IG-F1 is an insulin-like growth factor, so it pushes the body to age and to grow. Exactly. And remember, and I love what you just said, Dr.

Long is not saying Low IGF one is good. And we already know, I mean, did I wrote in the textbook, we know high IG F one isn't good, so it's being in, the bell curve of moderation.

So if you're always stimulating nutrient sensing by high protein meal, you'll always stimulate. More IG f one. And so it's important to balance that out, right?

To not overdo it. And, and so that's really the reason for doing that. and then the other piece to this puzzle, of course, is the timing of food and making sure that you know, you're not eating all the time for one.

So people do one of two things right now today. They either eat all the time, which is continually stimulating cortisol, insulin, and glucose, what you don't want.

You know, you want to eat. All day long. And even nibbling all day, long is going to have that effect. Um, so you wanna have established meal times, maybe an established snack.

If you're working out or you know you've got a long day. And at the same time, you don't want to starve your organs because I know we've discussed this before.

We know based on studies on animal studies that when you go too long without eating, use starve the organs of the nutrients it needs. And you get the new trends through, through the blood that's being delivered to the Oregon's to be able to.

Clean up that, you know, whether it's the liver, the kidneys or the pancreas or wherever it is, You're not getting that type of response. And so it important to understand that there's a balance to these things.

So if we put both concepts that you talked about that we don't need to eat all the time. Fasting is good but long fasting is bad. Probably the recommendations that you're hinting at is you'd rather people fast for 12 hours overnight, which is a natural circadian fasting, but we have breakfast, right?

There's a lot of studies here for everyone listening to us that skipping breakfast Again, we'll talk about skipping breakfast. Could be good, could be bad, depending if you binge eat or not and how long.

But in general, skipping is not a pro-longevity intervention. And the more you front load your food intake during the day, the better you are. Because like Dr.

Laval said, you're going to walk during day. You're gonna exercise. you gonna burn it. Versus when you fast, opposite of the circadian fasting, your starving your organs during your day and then you just binge eating at night.

A lot of the eighteen six and oh my this is what's happening to their body in the morning the brain is active but no calories for the break. The heart always needs to pump the kidneys all the essential organs are looking for calories and they could find no colors and by the way is when you get a headache is why you got fatigue.

Circadian eating, meal timing, and avoiding late-night food

And then you're starving the organs when they need the calories and then your load the body in the afternoon or before sleeping when the buddy almost doesn't need that all this calories in at night naturally growth hormone is high it's an aging factor anabolic.

When you add to that IGF an insulin because you ate late during the day so your body is just getting all the signals of aging and food storage at nine is how you develop.

You know pre metabolic disease and how you push your body to age so to put it all together in a simplified way Dr. Laval is saying fast but do the natural 12 to 14 hour fast.

Now many people can benefit from fasting longer to lose the weight but that's will compromise a bit longevity and this is where You know i've been working for a while and this all comes from what the longer on it.

Fasting mimicking intervention meaning can we feed since we're saying it's important to eat something in the

morning or it supporting to do fasting with food.

Can we eat can you give the buddy special formulation to make fasting while giving the nutrients that the organs needs in morning. And this is a separate discussion about prolon and the fasting mimicking diet that we're covering during the summit.

I don't know if Dr. Lava will touch on it, but this the essence I'm trying to simplify so people don' get lost. Okay, I should not eat, i should fast, then fasting is not good.

No, it's fast the right time, 12 to 14 hours. If you want to fast long to get autophagy and rejuvenation, do it with food because then you're merging fasting and longevity together.

I think that's a great summary, Joseph. And look, I, think, um, if you had to ask people the question of, would you give 15 days a year up in order to improve the likelihood of a healthier health span 15, days out of 365 days?

That's I think it's a pretty good equation, right? And the 15 days of parole on it, you're hinting at that and I'm not hitting. I'll get into it right now for you because I've been an advocate.

You know, I'd been in advocate I have lectured, just full disclosure. And I do it because i believe in it and i recommend it. So the point being is that using the fasting mimic diet, what you're effectively doing is resetting your metabolism.

You know, if I had to say it in the simplest form, by in that five days, when you are turning down your nutrient sensing and stimulating autophagy, When you look at the data that comes out of it of better glucose control, better lipids, people are more satisfied.

It resets their satiety, at least in your subjective survey data. it was amazing that people thought about eating smaller plates of food and they got fuller quicker and making the relationship with food.

a much better relationship with food. I think that that's really important because one of the biggest things that I see overall is that because of chronic stress, people end up overeating.

They get triggered by the elevations in cortisol, by reward cascade, where before you know it, the plate of food becomes a bigger plate, a small glass of wine becomes the goblet of and then comes the snacks in between.

And then when we try to countermeasure for that, we swing all the way to the one day a meal or the 18-6 fast, instead of really trying to narrow into a therapeutic window of, well, what is it healthy for me to eat?

I mean, obviously I was very intrigued by when, when L-Nutri developed the morning shake that extends your fast, but yet gives you nutrients. I think that's really an important concept.

Um, because, you know, here's what I see when people were fasted and they're doing 18-6, their morning cortisol's are higher. Their morning glucose is higher and what's happening is, is you're breaking down muscle in order to keep that, that glucose level up.

You're actually becoming catabolic. by doing that and and so it makes more sense to really. Think about what am i trying to accomplish is food is a lifestyle meaning that i want to eat the healthiest foods possible.

I want them to be clean. I should structure my meals. One, it's gonna be more cost effective for you and everybody's worried about the cost of food today.

So, you know, effective, cost-effective food that also ends up creating a benefit for your metabolically. And I think people aren't thinking that way with food yet and they need to.

I mean, obviously we see the blue zones and we understand how people are eating there and that's great. we need

to apply that here in the US, which is an environment that's much more stressful.

And so that is what we needed to really focus on is how do we apply You know, fasting mimic diet, like I said, would you give up 15 days a year, five, you know?

And it could be more, right? We've talked about how some people may want to do that more. Maybe even if they did it less, but applying that five day sequence of giving yourself digestive rest, reducing nutrient sensing, stimulating the cleanup procedure for your body.

It's incredibly important for people to understand that concept and that You know, basically you, you don't need a lot of calories to keep your muscle tissue on.

I've learned that, I'm a 205 pound guy. Uh, operated around 1800 calories and I haven't lost any muscle at my age and certainly don' have a bunch of saggy skin.

Fasting-mimicking diets and metabolic reset

And I think the secret has been the fact that for myself and also thousands of patients. over the years that it's understanding your relationship to food and just how important it is.

Yep. I mean, this is key and 73% of Americans have a certain level of overweight, but now the new statistics are showing that 90% Of Americans has certain type of metabolic issue, right?

You talked about mental inflammation. You talk about, we also call it inflammation, a little bit of high cholesterol, little high triglycerides. It's all driven by lifestyles.

And we know that, and the stress is creating multiple eating per day. And I think this is such a core concept here today to balance fasting and nutrition.

If you want to fast longer, do it with nutrition formulations, with the fasting nutrition is what we're trying to say. So that the life balance is set back and so that your body is aging gracefully.

There's no over push into growth factors like insulin and IGF. There's no over acceleration of debris and deposits in the cell which creates more inflammation and accelerates aging.

And there's a body recognition of, we didn't talk about the hallmarks of aging, the senescent cells, these are what we call them the zombie cells and everything else.

The longer sessions of fasting pushes the body to clean those or send them to apoptosis and get rid of them. As we know, once we have a lot of debris in the cell, a lots of senescent cells, aging becomes exponential after that age 60. It accelerates itself.

The ambiance, the environment is the body saying, oh, this is a new setting, let's go and accelerate it. So, you know fasting is critical at balancing those.

I know you're an expert also in performance health. I don't want to miss today not talking about it. That's probably what a lot of your career has been about and culminating now with the metabolic code.

Can you talk a little bit about what is performance, health, why it's core to longevity and the foundations of what has then the Metabolic Code and how could people benefit from all this?

For me, my center in Cedar Park is Laval Performance Health Center. It doesn't matter whether you're struggling with an autoimmune condition, you are obese.

Your body really needs to be able to operate at its best performance. And operating at its best performance means

that the markers of aging, whether you're an athlete or you are just an executive or someone, for whatever reason, you've already retired.

The markers for aging stand. If your insulin is high, it's a problem. if you making bad actor lipids, that's problem, if your glucose is higher, its a problems.

And so the metabolic code was about identifying these key markers of aging in the traditional evidence-based literature. I'm not talking about unvalidated labs or things that are kind of cool and hip in their longevity space.

And I've got nothing against that. That's how you push innovation. But there are plenty of markers that are in the traditional medical realm of evidence that we can track and we really add our expertise to.

So the way that I look at performance health is, for example, if you have a 85 blood sugar, you're in pretty good shape. But if have 95 blood sugars, your doctor tells you it's normal, but you a 60% risk of being a person with diabetes.

And then if you have a 95 blood sugar and your kidney function is starting to kind of lower and you're blood pressure is borderline high, and have lipid particle size that's like you are making BBLDL cholesterol that allows you to attach to the inner lining of your arteries, And your mean platelet volume is elevated, which is a marker for metaflammation.

Now all of a sudden I just lined up five things that relate to my insulin resistance. that is affecting and accelerating my inflammatory aging. And that was the concept behind the metabolic code is identifying these acceleration points and people's metabolisms and starting to factor them together.

Now, in terms of performance health, There's no doubt a person who's training four hours a day, cause they're a professional athlete has a different goal.

They're being paid for a living to perform at their best. And so it becomes incredibly important that they recover. more than even how hard they train.

And how you recover is by managing your chemistry. We've had many discussions about this, Joseph. I can't think of how many times we've talked about athletes and how if they took a break from their training, maybe it's in the off season or it is at the mid-season break, and they did a five-day fasting-mimic diet to reset the inflammatory signaling and metaflamation.

Right? That it could help in terms of their tissue anabolism coming out of the fast and their repair and they're ability to kind of take control of those parameters or levers that you're pulling on metabolic performance.

So for me, performance health simply means how, and this is what people are listening need to think about. How far are you away from your best See, right now, and Joseph, you know, being trained as a medical doctor, what we get trained in the traditional medical system is we have a line of demarcation that says you have have disease or you don't.

And the reality is there is so much trend analysis. I know we geek out on this all the time. You know I can't think of how many conversations we've had about this.

What we're not doing is looking at the trend of where you're moving.

Performance health, metabolic code, and muscle preservation

And to your point, 50% of the US population by 2030 is predicted to be obese. You know, it's 73% overweight, 90% with some type of meta-flammation or metabolic imbalance.

And you know all you gotta do is look at the, look, think of The Wave that happened with Ozembic in Manjaro.

people flocked to it and you know and which was a good thing and a bad thing right people weren't getting answers for their insulin resistance so they thought if they just took that that would be the answer lo and behold they're losing too much lean mass because they didn't change their lifestyle so if you start to combine 12 12 14 10 extending your fast in the morning utilizing something like a Prolon and also using other aspects of what El Nutri has developed, I think now you get all the benefit, and I've done this.

I mean, work with this a lot. You can't expect anything like, you know, Ozempic Monjaro, great medications that have been developed. Fantastic. But to just use them for weight loss and not change your lifestyle and get committed to longevity and performance health, it limits that success.

And people get disappointed because they see their appetite come back and then they eat a lot after they get off of it. Then they gain their weight back.

A lot of them coming back to Prolon to protect the muscle and the rejuvenation. I mean, this is muscle is critical for metabolic rate and burning the carbs, like you said.

Yep. Well, sparing muscle, since you mentioned it, what is fascinating is that people go on ProLon and they actually can, they don't lose muscle and in fact may even gain muscle in the process.

And people have to realize when you use those medications, the GLP-1 agonists or mixed aganists, You're going to lose the same amount of muscle as if you get a low calorie diet.

So it is estimated, and this is in the studies that were developed by the drug companies themselves. I'm not saying anything negative. Just reporting the data, 20 to 30% of your weight loss.

when you use those medications and you're not doing anything else, like, you know, utilizing ProLon to counterbalance that, 20 to 30% is lean mass loss.

And it's the equivalent as if you did low calorie dieting. So you don't want to lose 20, 30 percent of your lean, mass on a diet. You want not lose lean mask and only lose fat mass as much as possible.

That's a critical point that we're trying also to disseminate is the importance of muscle and performance health for longevity, right? And I know you have your protocols with sometimes for those who want to do the injections is how to prolon or how do proteins with them and train their muscle to preserve their muscles.

And this is going back to the IGF balancing, how not also to increase the protein in a way that's also accelerating aging and the fasting Alternation with these with with such nutrition kit could create that balance hopefully one day measuring i g f will become part of the same way we measure.

You know hb1 c and glucose and insulin can become pot of a metric of longevity i think i'm i can this would reveal a lot to. And expose a lot in this marketing and enforced hyper protein station i call it order diabetes protein that's happening out there and people are lost because there's very few.

ethical, science-based innovations and interventions. Anyone in nutrition can write a book or start a podcast and people are lost. I do a lot of podcasts and we're trying to do lot education and the first feedback is like people completely lost Fasting is good, fasting is bad, proteins are good proteins, are bad and and we're trying through the summit that we are trying to this continuous education to bring the true ethical science behind what to do and how to and when to.

in order to quantify these concepts for people. Well, I think you bring up such an important point, Joseph, because I've battled that a lot. I get on guest as a podcast every once in a while, and there's so much confusion on what to do.

For example, even with the use of those medications and eating a high protein diet, you limit the success of it because you really need starch, you need carbohydrate in order for those medications to work effectively.

And you know, so I'd see so much misinformation out there and mainly, like I said, a lot of times I ask people, even the big name podcasters, I asked, well, how many people do they see?

No i know for me even now in my slow periods of time i probably see thirty people week working with their chemist reason at my peak i was saying three hundred people a week and i think when you see people and you what really works.

That's the folks that I say, you know, start to listen to them because they're in the front line. We can all read a study and extrapolate on a story on how it might be, but if you haven't seen it work, and I think that's why my hat's off and why I've only supported Al Nutra and Prolon and Volter's work and your work is because of the dedication and the commitment to getting the science right, doing studies, publishing those studies showing the evidence.

It's very few and far between, unfortunately, that that happens. And I think it's key to kind of get rid of the misconceptions, get read of what I call bro science or the myths that are out there so that people can actually start to live their lives in that with that thought of performance health, health span, longevity, Look, what the last data showed, we're living four years less than we used to.

It's bottom line. So we got to get some science and get them some guardrails on what we are doing so that people can start to kind of not make it such a what I call a hypersensitized event as to what should I eat and how should eat, right?

It shouldn't be that confusing for folks. So appreciate it very much and right on point. Just to conclude, I want to ask you two questions.

Key takeaways on fasting, stress, and longevity

Number one is what do you think are the three, you know, if you want summarize the discussion today, what would be two or three highlights of it that you can mention so people kind of go and digest and adopt in their lifestyle?

Sure. I mean, the first one is learn about fasting and the science of fasting, and don't assume that the extremes are the way to go, that in fact, extremes tend to disrupt your metabolism.

So learn what the importance of fast is for your Clean up your chemistry so that your cells can remain vital, healthy and send appropriate cell signals.

That's going to limit senescence or those rogue cells that as you're aging want to pop up and throw out a bunch of inflammatory compounds. So learn about that science.

And the second one is is whether you choose to fast, which I think is smart, utilizing fasting mimic diet, all the tools that you have. I mean, look, with El Nutri, you've developed some amazing products.

They really are. You got to think of it as a lifestyle of being well. Think about incorporating exercise and stress management into your lifestyle if you're noticing abnormal eating patterns because of stress response.

Do a metabolic reset think about doing a five day commitment to yourself so that you can reset the circuit breaker box in your brain for that reward cascade is to me.

managing appetite, managing your metabolism, reaching for performance health, all starts with understanding your relationship with food, that 12-12 cycle or even 14-10 cycle that people should be doing and not eating late at night.

Don't go to bed on a full stomach, right? Those are probably the key things I would say that are important. That's probably, you know, the biggest advice I give people when they say just one thing, if you want to do one things, just don't go to sleep on a full stomach.

It's going to accelerate your anabolic states, fat storage and aging. And it's so damaging that's actually even

counterbalancing the benefits of potential skipping, prolonging fasting in the next day.

it is unbelievable how damaging late night eating is. Dr. Laval, I appreciate you very, very much. Thank you for your time today. A lot of great lessons for people to adopt in their life, and hopefully we contributed to increasing their health span today, appreciate it very.

Thanks for having me, Joseph. It was a pleasure.