Introduction to fasting and mental health

Well hey everyone, welcome back to another wonderful episode. We are going to get into one of the issues around food and mental health that gets, not as much attention as it should.

It's something that lots of people think about, whether it is for weight loss or for trying out, you know, how diet affects different mental states. But we're going to talk with Doctor Joseph Anton all about that and fasting, mimicking diets and thinking about ways that that diet affects things like our longevity.

Joseph, welcome. It's been great chatting with you a little bit before we hit record here. Thanks so much for joining us. The depression and anxiety Solutions Summit.

Thank you. Drew. And, and I mean, nutrition is essential now to mental health. And I talk about it about fasting and nutrition. So this is an important topic for for this seminar.

Well, it's really wonderful for me to hear you say that. Just having been, you know, pushing this idea of nutritional psychiatry within the clinical world of just at a minimum, we've got to start asking people what they eat and understand that is an aspect of their mental health and their brain health when we're taking care of them.

And it's kind of ridiculous that we haven't been, just your, real expert in the notion of fasting. So I thought, why don't we just hop in and start right there?

Can you tell us what what, is fasting and what are the different types of fasting? Yeah. You know, I've been we've been researching, fasting in nutrition in the in the medical way, though, and for, for the last 28 years.

And, and brain health is directly related to what you eat and what in the is us not eating as well. So I'm as passionate about both. But also talking about fasting.

You know, fasting has to, if you want two times the fasting between zero hours, two all the way to two days. We call it intermittent fasting. And and then anything after two days, we call it prolonged fasting.

In the intermittent fasting, why we cut off for two days. Because this early 48 hours of fasting, the body has enough reserves in terms of glycogen and fat to break down into, you know, substitute for the lack of calories.

So the first reaction to fasting the first two days is the caloric response when the body taps into whatever it's safe and put it back into the system.

And, and this is how you compensate at the first level when you cross day two and you're hitting the three, the body is telling the cells, hey, I am in a crisis.

I'm depleting my reserves.

What fasting is and how the body responds

And now I need you to look for reserves within the cells. Look on the intracellular compartment, find sources of calories as well, rejuvenate and be at your best performance because we're in a stressful period.

So after day three, the stress based response on the cells induces the cells to repair and rejuvenate to be at their best performance as a survival mechanism.

It's called autophagy and or self itself rejuvenate self repair. And it won the Nobel Prize in Medicine in 2006. This is

a pretty it's a pretty well now established phenomenon where the cells are rejuvenating to survive.

I always think about it is, you know, eating of the, the dead cells and the, you know, the garbage. But it sounds like there's also a big repair mechanism that goes along with this.

Definitely. And, you know, think about the example I always use is, is if you have a company and say you need $1 million to run your companies, like the body needing 8600 calories per day, right, or 2000 and suddenly you don't have money, right?

So there's no revenues so fat. First you say, oh, can I save some money in the bank? I go to my checking account. That's glycogen, and I go to my savings account.

That's fat. And then I go to on my credit card. That's your liver with their glucose. This is so there's three phases of tapping into your reserves. And after you do that you get to look inside of the company, say, okay, I have some internal budgets that we allocated for travel that I can rest here, etc..

So you look for intra company ways of finding savings or reshuffling funds, but at the same time you're going to say, hey, I'm going to fix the company, we're going to sell.

We could have better market going to be cost effective than our technology. We're going to perform better to survive. So it's a combination of restoring some of the funds and some of the cells, meaning receiving, you know, some of the breeze organelles and starting tapping into those.

But there's a repair mechanism to survive as well that happens within. And so this is why fasting, the science of rejuvenation of the cells, is what made fasting very popular in the last ten years.

They now estimated close to 7% of the population in the US practiced certain kind of fasting. And it was that uncovering the science behind rejuvenation and repair cell repair that made it very popular.

And, but it's more difficult, right? So getting into day three of fast, day 4 or 5, day five of fast is obviously a very difficult endeavor. The same way if you have a CEO of a company, if you give him zero money, if you do, you, you know, they'll give that to him.

It's very stressful. Nobody wants to go through it. You know, another example I use is, is if you watch Car Race, you know the cars win and they're getting, you know, the wheels are getting like, you know, tear down and engines overheating.

So you give up on the Pit Stop. So prolonged fasting is like the pit stop. The mechanics come in, they check the car, they see what's going wrong. They change the tires, they add more, you know, the oil or the change or whatever.

Whatever is wrong gets fixed. And then you get the car back on track, healthier and to last longer. And that's the connectivity between fasting and longevity and the health of every system.

So imagine we have 37 trillion cells. And when you do a prolonged fasting, every cell is impacted. Every cell in the body requires calories and minerals and vitamins.

You know, I had not thought was it's a really you know, we think about, you know, interventions. What the medications or therapy or, supplements. Right. You know, we're touching a few cells.

So the idea that you do something. Yeah. Not eating. And actually every cell gets a message. Hey, everybody tune up. Everybody do some repairing. I find it very inspiring.

I hope everybody, you know, listening since, you know, our audience is really focused on depression and anxiety. Joseph. And and we'll talk in a moment, everyone, about how actually fasting and some data that Joseph and his

team have really relate.

You know, depression can also be associated for a lot of patients, loss of appetite, you know, whether or not fasting in a way that kind of has the hopefulness or the intention around a fast that's, you know, intended for longevity or kind of in, a milieu of a lot of nutritional support to address that fast.

And that of is very powerful because the brain, as every brain cell, as every other body cell goes through that rejuvenation, it's very important because we see it recede with our patients.

We see it with with a lot of people reporting to us. Fasting has a major impact on mental health and depression and anxiety because you're rejuvenating the cells.

You know, when there's a this balance for multiple level of benefits. Let me let me go through those. As you can see, I'm excited about this topic. I'm excited. Excited about mental health.

I mean, that's one of the really cool things I think right now. And it's so fun to have, someone such as yourself thinking about mental health and where we call this a solution summit, because it's not every patient, but we've all had clinical scenarios where something like, let's say, intermittent fasting or something like a fast, or something about shifting into some type of dietary pattern or getting involved with a program that helps create some framework or structure for a period of time.

Absolutely. Transformed somebody. Yes. And and I think sifting through the kind of wheat from the chaff, so to speak, if we can say that these days in wellness, right, to understand that, you know, there are multiple benefits and there are experts like yourself who, you know, have been thinking about this in terms of helping people with their brain health and mental health.

So, yeah, tell us all about it. How does, what are the levels you see in terms of the benefits? Yeah. So this starts in the microbiome and in the gut.

When you fast, you know, you're helping you know, helping the, the, the GI tract system decrease inflammation, the repair and close the leakage. Because a lot of the mental health issues we're seeing today, it actually getting linked into leaky gut will leaking.

Autophagy, repair, and longevity

So so are autoimmune diseases right. A lot of the Hashimoto increased a lot of the molecules getting into our body through leaky gut. Some of them now are crossing even the blood brain barrier and increasing inflammation in the brain.

So it starts even there. Then you go into the blood when you decrease with fasting insulin, insulin growth factor we call IGF any decrease inflammation.

And we know that this is very important for brain health. You know, Alzheimer's. So they would call it a tibialis type three. Call it Alzheimer's, diabetes type three.

It's a degenerative age related link to growth factor and insulin and IGF growth in the body. So when you decrease inflammation when the the three sorry molecule crossing the first the gut brain got the gut blood barrier.

But then the the blood brain barrier, you're helping the brain actually go into a lower inflammatory less stressful, less a push if you want a the then with fasting, one of the ways the body acts when you fast, you break down the fat.

As we mentioned, you break down the side into ketones and ketones are very similar to the brain, right. The brain is is a fat organ. And and the ketones, the big chain fatty acid is what the brain loves the most.

And it's a big risk. And actually a lot of people use ketogenic diet too, as a treatment for multiple brain condition and or in the short term for like a brain boost.

But it's a natural way of the body switching into ketones to feed the brain. It's one of the survival of fasting is you develop ketones out of your fat to keep the brain up and to fuel the brain so that you keep walking and you find the next fruit or vegetable or the next.

So the ketosis is important also for the brain, when you're fasting, the rejuvenation, honestly, that we talked about, especially after day to day three, is helping rejuvenation in the brain.

When we did at our company, I'm the CEO of a company called a nutrient, which is longevity. Oh, that's neutral. And we started when we started fasting and nutrition and the impact on the brain.

We started developing what we call the fasting, mimicking nutrition, because it's very difficult for it for a person to fast on water only for three, 4 or 5 days.

The same way, if you're the CEO of a company you don't want to be without funds for, you know, days or months, etc. so we spent millions of dollars and 12 years of research to develop the fasting mimicking nutrition to be able to nourish the body but keep the fasting benefits of the cells.

And we even went all the way to partner with University of Palermo in Italy to do a randomized clinical trial on the impacts of fasting, prolonged fasting, five days on the break.

And because we saw a lot of benefits from a lot of other clinical trials, people reporting, I feel better energy, I feel higher self esteem, I see lower level of happiness.

We saw all these depressive and upbeat signs and so we did a clinical trial that to receive Palermo looking at people with anxiety and depression. And we saw it better, you know, self esteem, happiness level, energy level.

And this is because of the reasons we mentioned. You have a rejuvenation of the brain. You're feeding the brain ketones. You're probably decreasing the toxins within the brain or coming into the brain and the level of inflammation within that environment.

But longevity and how we age is something that we've come to understand so much about. It's not exactly our focus, but it's certainly, motivating. You know, sometimes it can be a hard motivational or struggling with anxiety and depression.

You know, so many people are kind of optimizing, and we're not, like, feeling very well. But I'm wondering if you can share some of how what we eat and, and perhaps maybe in a motivational way, some of why treating depression and anxiety is good for our longevity.

For sure. And and you know, I always say we're always better when you're when we were younger than our age. Meaning even if you haven't any dysfunction in the brain or anywhere in the body is better deal with it when you're younger than your age, because the younger you are, the more stem cells you have, the more rejuvenation power you have.

And so one of the ways we're fasting is related to longevity and to helping health conditions is a key to autophagy. The rejuvenation of the cells that we talked about, it keeps the age of the cells younger than their age.

And the younger cell is a more as a better cell. Better performing cell is a cell that can rejuvenate, is a pool of cells that have more stem cells to come in and rejuvenate the body.

So I mean a simple way. When you were 20, you cut your head by accident in the kitchen. It heals in 2 or 3 days. When you're 65, you cut your head and you're lucky if it heals in a couple of weeks because you have less younger cells, you have a lower power.

And so and the same way I'm trying to link here, that regardless of what health condition you have, you better deal with it when your cells are younger.

And this is how fasting comes in in here, the prolonged fasting that's keeping breakfast. Well, we talked for about three three days and beyond which what we recommend that you do with the fasting mimicking nutrition that and water with the fasting mimicking diet or the name is prolonged.

It helps rejuvenate the cells keeping your biological age younger and therefore you coping better with a dysfunction happening in the body, whether it's the brain or otherwise upsets.

And the other side is intrinsic benefits. With the fasting and making nutrition. You're nourishing the brain. You're bringing ketones at the same time to the brain, which we said, the brain loves.

You're decreasing inflammation, you're decreasing insulin in the blood, and you're decreasing the toxicity coming and the leakage happening within the system.

So you're helping the cells cope with it. You're giving a sense of energy and a sense of a in the body that helps people, potentially struggling with those conditions.

Fasting benefits for depression and anxiety

I like also the kind of idea that, the sooner we start taking better care of our mental health, because often with that comes, you know, less inflammation in the sense of less depression, less worry, less anxiety, usually better sleep rate that usually when depression and anxiety are treated by very definition or sleep quality is excellent because sleep disturbance is quite disturbed by these conditions.

I'm wondering, when you see people starting to kind of shift their diet more towards, these types of diets, can you share some of, like the foods that you see people adding in that kind of augment?

You know, some of the programs you're talking about? Yeah, we, you know, we focus on two types of nutrition. There's the fasting, we make intercession that we talked about, which is a five days of plan based, a very precise formulation that gives you the same benefits of fasting, although you're eating and it's hundred percent plant based, it's gluten free, non-GMO, no chemicals.

It's one of the cleanest, healthy premium formulation. It took $48 million to develop it. Now, 134 patents. We just started our 40th clinical trial, and it's probably the most studied now nutritional formulation ever in history.

And and the goal was to nourish the body while keeping the same rejuvenation and repair mechanism as fasting. And, and we had to study how the body processes food, how insulin and IGF get spiked after we eat to to tell the body that you're not fasting and how to mitigate those spikes with food, and then at the cellular level, how to trigger this nutrient sensing pathways.

The pKa, the rest of the tour pathway so that the food is coming into the body and is not declaring through the blood any growth hormone on the growth factor and within the cells is not telling the cells.

That is not having the readers of the cell tell the cell that you're eating. So we keep a fasting signal while you're eating, and it's all done with the plant based health nutrition formulation.

That's the fasting mimicking diet. This is the product we call proline. We have over 15,000 doctors now prescribing it in the US, and over a million people could be, you know, that that have gone to a million users of proline.

And it's growing pretty fast. The other set of nutrition that we studied is to slow down. If you so withdrawal on your rejuvenating the body is for autophagy after day three and rejuvenating the bio age of the cells.

We have another portfolio of nutrition that we study to have the the the body age slower. And that's reversed by

age but age slower every time we eat.

The problem is every time we eat with age a little bit because carbs increase in. So that's a growth factor. Proteins increase. IGF is another growth factor every time we eat with a little bit age biologically.

This is why the centenarians one of the biggest common denominator for people living hundred beyond is the is kind of restriction in cell. And the less you spike, the less frequently spike insulin.

Guess the slower you age, the slower you age, the younger the age of your cells is, and therefore the better you cope with your health conditions. So we developed a special protein that doesn't spike.

It's an IGF. We call it the al protein. For longevity of that protein we developed actually a fasting bar. And it's fasting shake. And this could be very helpful for people with, with in the morning to replace breakfast to give you high level of meat chain fatty acids for the brain.

It's a fasting and making bar called the fasting bar at a fast significant shake called the fasting shake. And and instead of other omega which nutrition to help the gut and the brain at the same time with the omegas that that that they need. So, all this nutrition is focused on how that the spike insulin IGF and how to rejuvenate the cell, it within the body so that the body is these younger and cooks better with age related condition and or other conditions that you may encounter.

When people are on those programs, you know, there's such a, push for real food and so do they get coupled with real food or is it just recommended for this period?

They they only eat the food products. Yeah. When you eat prolonged the five day fasting mimicking diet. It's the only approach program. You don't. If you eat anything else, the body will recognize the food.

Then you would not be. So yeah. Like if, satiety or food. Nutrients. Say. It is a plant based natural. So so they are eating food but it's tailored. It's a very specific plant based formulation of food, that mimics fasting.

But it is real food. It is plant based. It is healthy. There's no chemicals, no artificial. You just instead of buying your food from Whole Foods, you're buying the food from people and you go to prolong life.

That's how you get your food. And then you eat it for five days in your body. There's no that you're eating and you go through the rejuvenation process.

A lot of people also love the weight loss. We didn't talk about that. You lose, 5 to 8 pounds during those five days because everybody thinks you're fasting.

So the body thinks you're not eating and your body goes to fat and gets most of the calories it needs from from your fat. It's a way to trick the body into fast weight loss as well.

It protects lean body mass. So it's people love it for, losing only fat and and protecting lean body mass and rejuvenating the body. And probably this is without impacting the brain.

It's also psychological support to people with anxiety and depression. They feel I'm losing weight. First of all, they feel that they completed the diet.

It's only five weeks, right? So they achieve something. There's a sense of achievement that we see in many clinical trials. People say, hey, every time I diet, I fail because at whatever day 67 I stop, right?

This is prolonged. It's only five minutes, so it has 91% completion rate.

Fasting mimicking diet and clinical research

Everyone can do what most people can do anything for five days. So the sense of achievement helps with people with anxiety in the presence of feeling like achieve something, they feel they lose weight, obviously decrease in inflammation markers, decrease in sugar, etc.

so they feel that metabolic health and weight loss help them also get better with high sense of energy and protecting the body mass. Plus, as I mentioned, the ketones are great for the brain.

When the body goes into a deeper fat and cell rejuvenation and autophagy is key in this regard as well. Yeah. I also wonder, you know what you're talking about for some people, especially people who are maybe struggling with motivation or energy or there's a lot of information in nutritional psychiatry.

As I sit around, you know, whole foods, eating more Mediterranean style diet. And if that's new to you or you're not somebody who, you know, I've had a few people just say they're not interested in cooking.

And I think sometimes we just need to honor that. Some people would, maybe especially for like five days, prefer to have a very kind of stringent meal plan that has some researched and documented benefits and get the satisfaction of completing something and which is, you know, in a lot of ways, functionally, is a little bit of a easier lift than, hey, you know, let's go start your kitchen and cook a bunch of healthy food.

So it's, I really look forward to hearing more about some of the research you all are doing, and especially around depression and anxiety. Have you all looked into neurotrophic factors like Bdnf and the effects of fasting and fasting mimicking diet?

And I'm just kind of curious on the neuroplasticity level, what happens? There was my next set point actually is very well, very well documented. The impact of fasting on people, very well documented.

So a lot of the the, the what I want people listening to us today to, to understand is fasting works as a stress and response to the, to the stress. The first response is to send the rejuvenation BP.

And that's also increases its stress response as well. And it's very well documented that fasting increasingly Venus increases neuroplasticity. And the neuro coping with the in general.

And coupled with autophagy meaning rejuvenation within the cells, this is probably is leading some of the benefits. Yeah. It's such a nice new way. And, to think about mental health and brain health over the last 20 years and also, I think one of our themes in the conference and the summit here is thinking about, hopefulness and beauty naturally as a molecule of hopefulness.

You know, when we're stressed out, it's there's this kind of hopeful molecule, I feel, that's there to repair my brain, to help give birth to new brain cells.

You know, it's it helps me learn things. It's. I can share my screen and show you some of the data. Some people would love to see it scientifically. Yeah.

We'll we'll we'll we'll have to get into that more and get into the data and, and also maybe some of the, the materials that we can share and link to in the conference.

So everybody can get a sense of some of the research that you're doing. I think it's also wonderful that you all are, along with the food product and doing some research, you know, so many supplements and so many products out there, you know, make a lot of claims or piggyback on other people's research or, you know, there's a research about this ingredient they have. So, and I love the idea, that you're kind of, really exploring what can happen with these, foods, especially as we're seeing, again, for I'm a big supporter of real food.

I still, you know, increasingly, it's hard to ignore the fact that 60, 70, 80% of the calories that people consume are coming from, foods, food programs, pre-prepared foods.

And, you know, for us to, understand there's a variety of recommendations that can be made there, some better than others. And also, you know, a lot of different ways that people approach eating when they're struggling with depression and anxiety.

And one of the things I like about this conversation, and I hope everybody listening appreciates, is, you know, there are a lot of options out there. And exploring them is something that, you know, I really want you to hear encouragement to do.

Just so we ask everybody in the segment a little bit about their own mental health and mental fitness. And I'm just kind of curious, I mean, you spent so much time in this world thinking about longevity, thinking about brain health and fasting and fasting, mimicking diets.

Can you share a little bit about, you know, anything from your experience of kind of, you know, you run a company and, and or busy guy of what you've done to kind of optimize your mental fitness?

Yeah. That's that's a wonderful question. Obviously, CEOs are lonely first, right? They're at the top of the pyramid and and working 24 seven from HR perspective.

They cannot become friends with their own employees and hang out with them. And CEOs are lonely, lonely, stressed individuals. And is very important to take care of your mental health in different ways.

The way I do it personally, exercise definitely is very important. Increase in serotonin and increase in, so that's that's critical nutrition. Very, very important.

I love my morning fast power fasting shake.

Nutrition, weight loss, and brain support

Just nourishing bringing ketones in the morning when I need to think and and work the most. I do prolonged three times per year for rejuvenation. And mainly flexitarians.

So I eat mainly plant based fish as a main animal source of protein, and very rarely I do. I do red meats. It's very important to, you know, if you're a believer to pray.

And if you're not to practice yoga, I. These are two sides. I, I like to say like, pray to your God or go to yoga class like one of the other people I like.

That's a good result. Everybody should follow that this weekend or whenever you're watching. Like, that's a really good directive. I like that it is. And there's a lot of trials now showing the relationship between me, even people, you know, that people of faith live longer on average than people have.

And there's a lot of epidemiological data studying that. And it's, it's that relaxation to the brain because think about it, it's brain health is key to longevity.

If you if you're a less stressed and more relaxed, what are you going to do? You're going to sleep better. You're going to eat better. You know, exercise.

You're going to spend more time with friends and family. You get be more productive and on purpose. These are the five pillars of longevity. The five pillars of longevity are food, exercise, stress, sleep, and social capital.

And mental health defines all five of them. So it's critical to to be in the right mental shape, to be able to eat healthy and exercise and produce and and and sleep better and stress less.

So this is key. And and I tried to do all those practices as much as possible. The, the definitely doesn't work all the time because, you go through a lot of working hours and a lot of stresses throughout the day, but staying on

purpose, this is my fourth weapon.

Also staying on purpose, not letting any any detail of the day get you really down. Ingredient trends, you know, always keep the ultimate goal, the ultimate mission.

On purpose. You always get to protect yourself with the right friends, with the right coworkers, and build the right culture within the company that helps you feel that this is your second home.

This is the play not to come to stress or to come because you're dragged to it. This is the place to come to produce and to to support and to change the world.

With it and this lovely combination of prayer and or yoga and eating healthy and exercising is are my are my keys to success here.

Personal mental fitness and closing thoughts

Well, it's, it's a wonderful set of, I think about those. I call them the tenants of mental fitness, as I have kind of explored this as a clinician and thinking about setting up frameworks and getting to, you know, I feel really fortunate, having worked with a number of CEOs and, and seeing exactly what you're talking about at work, that as we invest in a sense of purpose and have self-awareness and understand our kind of roles and different settings, and also engage in these lifestyle medicine, foundational principles of taking care of ourselves, you know, we're having a better life span.

We're having a better health span. But you are also really, promoting much more of the culture and community that we want where we're doing, as you said, trying to do some good here in the world.

It's, it's such a treat to to get to speak with you a little bit and hear about your knowledge and some of the work that you're doing with, Proline and Al Neutra.

And to hear more, really, also what's meaningful for me, your encouragement for all of us to keep taking care of our mental health, that that's what matters the most.

It doesn't matter how long we live, if we're not feeling good, if we're, you know, struggling and suffering with our mental health. And so part of the solution summit, I'm just so grateful to include your inspiring message, everybody.

You heard it straight. Straight from Doctor Juice of Anton's mouth. Pray or get to yoga class today. Which is maybe not what you were expecting to hear from him.

And that's one of the wonderful, wonderful reasons we've passed these experts together to talk about this is to really think together around all of the solutions, to have you hear the hopefulness, to have you hear about maybe some solutions you hadn't thought about, like investing, mimicking diets and how fasting can maybe impact your mental health in ways that you haven't explored.

Just like a lot of times I see people who've not tried therapy or they've not tried a medication or they've not tried better sleep hygiene, they've not tried some of these more kind of ketone focused fasting or ketogenic diets.

And for some people they're incredibly helpful. So it's really wonderful to get to speak with you. Everyone. Please continue to engage in the summit. Share this.

Great, great talk with friends and family. And I look forward to seeing you in the next episode for the Depression and Anxiety Solutions Summit. I'm doctor Drew Ramsey.

Doctor Joseph Anton, thank you so much. Thank you, Doctor Drew.