Introduction to the Fasting and Longevity Summit

Hi everyone, and welcome to this new episode of the fasting and the Longevity Summit with Doctor Talks. This is your co-host, Doctor Joseph Anton, and I'm interviewing another co-host, actually for The Saints of the doctor, Jason Fung.

And I'm not sure he needs an introduction. A very familiar face in the world of fasting and now getting into the world of longevity. But, Doctor Fung, this is going to be a special epis episode with you, as usual.

Thank you for, for your time today. And I really look forward for for this session with you. Thank you. It's great to be here. Although you have millions of followers, maybe very few people around the world might not have or around the world of longevity or fasting might not know, you that well.

So I want to make sure that we spend a few minutes on introducing yourself to anyone listening to us today. If yes, you may do so. Sure. So I'm a nephrologist.

That's a kidney specialist. And, I'm mostly clinical. And, a few years ago, I started to get very interested in the question of diabetic kidney disease.

And it occurred to me that really, to prevent that from happening, you really had to reverse the type two diabetes. At the time, everybody was saying it's quite difficult.

It's impossible. It's a chronic, progressive disease. But at the same time, it was it was clearly not true because people who lost weight awesome, reversed their disease.

So I got very, very interested in the question of weight loss. And, clearly the standard approach, which is to count your calories didn't work. Everybody had tried it. And, it didn't work.

And it was silly to keep saying that this is what works. This is what works, when clearly it was what didn't work.

Jason Fung's Background and Shift Toward Fasting

And every single trial that's been done, really in the history of nutritional science did just looking at calorie restriction has failed like nobody's able to maintain that weight loss long term.

So I started thinking about other ways to think about weight loss. And, you know, one of the important factors that wasn't really talked about so much is the hormonal changes that happen when you change your diet, because there are, you know, there are clearly very different, things that happen in the body when you eat, say, a piece of, you know, brownie or cookie versus when you eat salmon or eggs, for example.

So even though they're the same number of calories, the hormones that the body responds with are completely different. And to pretend that that's irrelevant for human physiology just flies in the face of common sense.

So that's where I started to think about fasting as fast and as very, you know, as a way to really bring down the, hormone insulin, which is one of the key hormones when you're talking about body weight.

You know this because people who have a lot of insulin or to take insulin at high doses gain weight. And people who have don't have enough insulin lose weight.

So clearly, it's a very, very important hormone for weight loss. And, and that's where I start to talk about it and think about it. And the more I read about fasting, the more beneficial it really seems.

And that's why I started to, blog about it. And I wrote a book, a couple of books about it and saying, like, look, let's look at the science. Let's look at the data.

And, a lot of people started to follow it and got tremendous results. And that's really one of the reasons why, I'm here is just because I, I really, question the whole science of why at the time, people said fasting was very bad for you, but in, in essence, is actually very, very good for you for a number of reasons.

Thank you, Doctor Song. And I think you were one of the early voices with, with Doctor Valter Longo and a neutral in general to start talking, fasting through the word.

There have been historically multiple waves of doctors who tried to bring fasting to the world in the early 20 years, etc., but the science was not there.

And, and it was, you know, kind of a little bit put down, I think today there's a, there's an aggregation of social influencers who have credibility, like yourselves and their opinion leaders that have pushed the, the, because I've educated people on designing sentiment, fasting, the science coming from preclinical and clinical trials and multiple universities all came together to create this critical mass of trust and information and education that allowed a lot of people to pay attention to this topic.

And adopted, you can go ahead. Yeah. And I think that that's, really a, you know, where we are today because, you know, social media allows people to sort of share what happens to them so they don't no longer have to, you know, they just listen to their doctor, for example.

And if the doctor doesn't, you know, no. Then the patients don't get the benefits. And really, people are able to find stuff online and, you know, try it for themselves.

So the, the beauty of the whole, you know, the information age is that it's not curated, and that people who, who find the information are able to act on it.

You know, and I what I did was try to put out sort of credible information keeping to the science of it and how it can help people. I'd like to explore with you to make this that very cost effective interview some of the time perspectives and information perspective.

I wanted to ask you, what do you feel are the top 3 or 4 benefits of fasting and what what do you want people to know? If I'm new to fasting or I'm interested in fasting, what should I know and how should I start?

Yeah, I think the top 3 or 4 things, you know, sort of benefits is, first of all, fasting has, sort of a huge number of benefits, but it's very simple in its essence. Right?

That is, if you don't eat, your body is going to use the calories that it's stored away. So body stores away calories, food, energy in the form of fat and in the form of sugar. If you have too much starch.

And we have type two diabetes, if you have too much stored fat, you have obesity. So all you're doing is you're allowing your body to use what's stored away.

Just like if you went to the Costco and you bought a lot of food and you put it in the fridge, but why do you have to go to the grocery store every single day?

You don't, because you can just go into your stored food, which is your refrigerator, and take that you need it. Right? So the same thing on the body, if you have body fat and you don't eat, your body will take the calories out of your body.

So I eat that for energy. Well, that's very good because now you're going to get rid of some of the, body fat and you didn't need to eat. So the whole idea, again is very simple.

You're using your body fat for precisely what it's there for, so there's nothing bad about it. In fact, it's very good. So the whole idea is that you can you can get these benefits.

Core Benefits of Fasting: Weight Loss, Diabetes, and Autophagy

In terms of, you know, type two diabetes reversal because you're using up the, the stored sugar and weight loss, which is you're using up your stored side.

So those are the two main benefits. And, you know, if you get people to lose weight, there's actually tremendous health benefits, you know, huge. And nobody really denies that that that's from, you know, heart disease and strokes and cancer and, you know, joint disease and back pain and, you know, the list goes on and on and on for the benefits of being able to lose some weight.

In addition to the weight loss type two diabetes, there's a third sort of very interesting and new thing with fasting, which is it's haffajee, which is this idea that when you don't eat, you're going to switch your body and do the sort of maintenance and repair mode, and you activate a process called autophagy where your body eats itself.

That's what's the name means auto south of the gene, which is eat you eat yourself. And that sounds really bad. So people thought it was a terrible thing, but in fact, it's actually a very good thing, because if you think about how you rejuvenate yourselves, what you try to do is you've got to get rid of the old cells and you've got to grow your new ones.

So what fasting does is it reduces all your nutrient sensors that have insulin, IGF one, mTOR and at the same time pumps up your growth hormone so that when you eat again, you're primed to rebuild those cells.

So you're getting rid of old cells and you're rebuilding new cells, which is rejuvenation. People who talk about things like rapamycin, for example, which locks mTOR, only one of those pathways, it affects them, but it doesn't affect insulin like growth factor, which I think like IGF one, which I think is a huge factor.

It doesn't affect insulin and it doesn't increase growth hormone. So you're getting so much less benefit from doing something such as rapamycin, which is funny because then I see all these people talking about how great rapamycin is and then saying, oh, well, you shouldn't fast, but you should take your.

And I was like, well, that doesn't make any sense to me. You're getting so much more benefits in terms of longevity from science and even people like, David Sinclair, who's he's a great, you know, sort of a rock star researcher in longevity.

I mean, he talks about fasting all the time because he realizes, some of the benefits. I listen to an interview, and he was saying, yeah, he does it himself all the time.

And, you know, he talks about these other longevity genes that get turned on something, things like serotonin and so on. So, so huge benefits. So not just your weight loss, your type two diabetes reversal, but now more and more science behind the autophagy, behind these, activation of these longevity, promoting genes.

I think this is very important because we build a society, we build medicine. I mean, it's interesting, you and I, to doctors and we're saying, you know, I have always to listen to your doctor and come to something, you know, it's it's we live this society where pill is a solution to everything.

And you hinted at for mice and there's other, you know, metformin in this experiment in now, I mean, there's a lot of individual GLP ones, right? The biggest one today, the GFP ones, there's a lot of the build system.

What I want listeners to understand is most of the time works on the receptor, on one receptor which, which does a fractional thing and induces side effects when you over skew one receptor.

And the beauty of fasting is such an upstream intervention that actually allows the body in a natural way, to cope

with it. Because our ancestors were hundreds of thousands of years, had to go through years of fast food.

So the body is built to deal with it and is built to deal with it on the upstream intervention. So all these receptors, all the things all the way from microbiome to the epigenetics, are all activated in a synchronized way, in a natural way to do a positive defense mechanism.

As you were explaining, rather than using a pill here to do that, and then cover the side effect there and get a fractional, and we've seen it and we've heard it so many times people are saying you can get autophagy with, this pill or that pill.

I don't want to name them. You know, the only the only product that was tested for autophagy in humans is prolonged the five day fasting mimicking diet.

And I've yet to see in a true randomized clinical trial other supplements showing that they can do so. We see it on their website. We see that their claims we never see it published and showing the, the rejuvenation.

So, this is an important message that this is one of the natural way to get a lot of the benefits that actually you get to add the metformin plus that it provides.

And to close all that shut down the receptors and a potentially a GLP one if you want to lose weight. On top of that, all these three combines in an artificial chemical way with side effects.

Maybe we'll get to the fraction of the benefits of fasting. Yeah, absolutely. And I think that, you know, there may be, other things that we haven't even discovered yet.

Right? It's it's it's, you know, the whole science of autophagy is sort of is relatively new. Even amateur is relatively new science. You know, and they're always discovering new things.

However, when you're talking about treatments, then you go back to sort of like you want to go to the things that have been tried and, you know, tested and really work.

And, you know, fasting has been around for thousands of years. So, you know, there may be more benefits that we simply don't know. Yeah. But certainly it's it it makes sense that if especially in these days where there's a lot of this problems of obesity or there's an epidemic of urgency, there's an epidemic of type two diabetes, those benefits, are already huge in, you know, the side effects, are going to be minimal as long as you do it in a sort of rational, way, because people have done it for thousands of years.

So it's like we know how to deal with it. You. And the second thing that it amazes me as well is, is, you know, with such a convoluted system that we have to, you know, when we talk to fasting, people like, you know, there is that potentially believable?

Is it skeptical? They were saying if you over eat and now you're obese, and then with time and with aging you become diabetic, I guess what's the solution is you ask me, Simmons is like pills which were never how can you go back and go off that?

He says it's diabetes and prediabetes and obesity are the consequence of aging and overeating. This alone should be stopped eating. You. This is like, okay, if if somebody if somebody says, hey, every time I, I punch a wall, I have pain in my head.

You tell them, stop punching. And then and then if somebody overheats, I guess I better the solution like that to. Yeah slow down your in or intimately stop your eating.

And that now is the is the least believable you know answer that we need to justify whereas the entire system of a $600 billion diabetes management and all the medication in the dialysis machines and all of that is not helping any patient go backwards and getting cures, fasting is hitting.

I always call it the tree of diabetes. Like you mentioned the weight loss, because that's the insulin resistance. And the weight is the aging factor, the autophagy for the diabetic patients.

We thought we talk about autophagy for longevity, but autophagy for diabetic patients is as important because getting the system a little bit younger to better deal with it, deal with the health condition and muscle protection.

That's probably one of the myths that I know. You are very passionate about people saying, well, I don't want to do fasting to lose muscle. I'm going to slow down my metabolic rate.

You talk a little bit about that as well. Yeah. So it's it's interesting because there was a very, interesting study from one of the fasting clinics in Germany, the British clinic, where they put people on a ten day fast.

So that's very long, fast and, they measure, muscle mass by bio impedance, which is basically like those scales, and it shoots an electrical current through your body and measures fat because fat and lean tissue sort of are different in terms of, the way they conduct electricity.

That's how they calculate the body. So the thing is, when you fast, you lose a lot of water as well, and you lose the muscles lose glycogen because glycogen is a storage of energy.

So glycogen is like a chain of glucose. The muscle has its own glycogen. So when you don't eat, the muscles are going to use energy and use glycogen continues glycogen.

So your muscles may actually get smaller. But that's not loss of muscle tissue. It's loss of muscle glycogen which will be restored as soon as you eat.

So the thing is that what they did was they there's all these studies, they were to say, oh, if you fast, you lose muscle. And the numbers are like, insane.

Like, I've seen studies where people fast for like five days or something and they'll lose, like, you know, 10 pounds of muscle mass. And it's like, okay, well, that's not really believable because, you know, your muscles get stronger or weaker based on how much you use them.

Right? So if you exercise, you use it, you build more muscle. If you don't use your muscles like astronauts or if you're bedbound, then you lose your muscle. So use it.

Get stronger, don't use it. It'll get better. So even if you use it and don't eat, they were saying that you're going to lose all this muscle mass with the.

And then when you ate again, what happened was that all that muscle mass miraculously came back. So okay, so when you fasted but kept the same activity, you lost all this muscle when you ate but kept the same activity, you gained all this muscle.

Fasting vs Drugs and the Muscle Loss Myth

So how do you gain like 10 pounds of muscle without exercising? I'd love to know because I'd love to do it. It doesn't happen that way. You're just gaining and losing this muscle glycogen.

So what? The bench and your clinic with did was like they tested not this bile impedance, but they tested muscle strength. So they actually told them to do wraps and you know, grip strength and all this stuff.

And what they showed was that, you know, they, they looked at two different sets of muscles, the, you know, the, the skeletal that like the, axial muscles like that, that lift you up when you're standing and so on, and also the sort of grip strength and so on.

And I think it was the grip strength or something. It actually the, the strength did not decrease when you're fasting.

In fact, one of the muscle groups and I cannot remember exactly which went up by like 30% or something, people were stronger when they're fasting. Why?

Because probably because of sympathetic tone and some of these other things. So I don't think they gain muscle, but they were. Warming and the girls were pushing the barbell.

That make sense when and we didn't have food thousands of years ago. The body is saying, let me break down fat ketones, let me increase the stress hormone.

And that's invest into the muscle so that we keep walking and finding the next fruit or vegetable. Otherwise we're self compromising ourselves. Yeah. And then fasting wants to feed the brain with ketones to stay up and not go that not saint and wants to increase the tone for the muscle.

So they keep going and find the next fruit and vegetable rather than deplete the musculoskeletal system. Exactly. So, so that's you know, to me that makes a lot of sense, but yet you still have all these people out there saying, oh, fasting causes muscle loss.

And it's like, why would your body be so stupid? Like, truly like if you store energy calories in as a form of fat, right? That's what the body does. We all know that.

But when you don't eat, your body's going to start burning down your, your muscle. So you're going to store fat and burn muscle. So in other words, it's like, you know, storing firewood for the winter.

And then when it gets cold, you chop up your sofa and throw it in like you'd be stupid. Like, how do we survive as a species if we are just that stupid?

And, you know, the problem is that there's not a lot of critical thinking sometimes that people just parrot this, you know, there's a lot of bias and, you know, against fasting because people, you know, don't think about it or do it.

So they think, oh, it's news or must be wrong. Sort of thing. And, yeah, it was basically one of those issues where people latched on and said, oh, it must be, this must be, this is just like, you know, for a while they're doing studies on fasting where they'd have somebody fast, you know, 16 or 24 hours and then eat double.

I'm like, why would you do that? Like that's crazy, like clinically. And I think that's the thing that these people were not clinicians clinically. You'd never do that.

So sure, you're going to burn some energy when you're fasting and then you're going to gain a lot of energy, which is calories when you're not fasting.

Like there's no magic in this. So it's like the same thing. People just didn't think clearly. They just thought, oh, well, the fasting itself is some kind of magic.

It's not magic. You're letting your body use its body fat. That's it. And glycogen, which is in the supply conversion and. Yeah, exactly. So, I mean, we the good news is science is on the side of fasting and, and, I mean, I've personally shared with you a couple of articles that we tested on the fasting mimicking nutrition and muscle.

And we have specifically went after the young male athlete. They show that even in that crowd who is, very elastic and could lose a lot of muscle or win a lot or gain a lot of muscle, we do the randomized clinical trial, and we showed that you actually protect muscle performance and muscle function, as you mentioned.

For those people who lose a little bit of, and extended, you know, biometric, measurement, if they see muscle decreasing in mass, that's not muscle cells, that's the glycogen, that's the storage.

And is there anything with the fasting making that you're feeding muscle under a high growth hormone environment. And we're seeing a lot of actually sometimes much better performance.

And this is a very important point because millions of people today are sacrificing their muscle with GMP ones with chronic dieting, chronic restriction and the JLP ones.

And now recently we had a new trial last week showing bone density decrease. I mean that's within GLP one. So going back to the same story, I think a lot of people attack the natural ways that are effective.

They want to sell you another drug or another way that they want to sell and ends up being the long, the long, the prevention, as we know historically.

And they started the, the, the, the session was saying it's difficult to comply and have long term side effects, whereas fasting triggers that protection reaction is a short term feasible solution, and is the natural way that the body had to go through, through thousands of years of evolution.

You know, people always say stuff like, oh, well, maybe it works, but people will never do it. I'm like, did you tell people to do it? Because, you know, in the old days, people did it when you told them they did it.

Like they think it's easy to do chemotherapy. No, but you tell them to do it and they do it. Why? Because they need it for their treatments or surgery or whatever.

You know, all these dialysis, all these things that we do in medicine that are quite difficult, right? They're not easy things to do, but they know that it's good for them.

So they do it. Same thing with fasting. It's like we don't tell them. And then we assume that they can't do it. It's like, but you think that somebody will, you know, go undergo triple bypass surgery.

It's like, oh, they'll just cut them open, crack open their chest. And and there's like, that's a lot. But they'll do it because they, they know that it's good for them.

And the doctors tells them it's good them. Whereas we don't even tell people, oh, that's good for you. We just get this, oh, people won't do it. I'm like, star like, we underestimate, you know, sometimes the medical profession just underestimates the intelligence of the average person, right?

They think, oh, people are so stupid. Like, it really is very, this very paternalistic sort of. Well, we know it. I'll be honest at them, but they won't do it.

So we going to talk about it and then it's like, come on. Like you're not giving anybody the benefit of the knowledge. Just tell them what it is. If they don't do it, they don't do it.

If they do do it good, maybe they'll benefit. Yeah, it's it's quite striking. Sometimes it seems that they would they will prescribe a thousand other injection of GFP one agonist.

Right. And if people are exactly biologic in their body and pay for it to lose the, and you can do it in a much easier and natural way, it would be, it would be, it would be with the fasting, whether it's intermittent or the prolonged one.

I wanted to ask you, I know you recently wrote a book on cancer as well, and and you became passionate about that topic. And I wanted to ask if you had a little bit of the data of fasting in cancer or cancer treatment and, and if that's a next horizon for, for, for, for potentially cancer treatment as well.

It's a very interesting topic, and it's a much more complex topic. So some people try and, you know, say, oh, it's just this or it's just that like it's just genetics or it's just this or just that.

It actually isn't. It's a very complex topic. And that's what the book was about, sort of complexity of it. However, the fasting does clearly have some benefits in terms of, you know, the risk factors for cancer.

So if you look at the risk factors for cancer, obesity is a very big one. The fact that obesity really are tied almost

with, tobacco smoking as, cause of cancer, there's like 13 different types of cancer that are called by the World Health Organization obesity associated cancers.

So it's not that it's not well known. Everybody knows that agrees that it plays a role. So therefore if you can lose weight then and then these include things like breast cancer, colorectal cancer, pancreatic cancer very bad ones.

And the thing is it's you know, that that's a risk factor. Then you can do something about it.

Fasting, Cancer, and Fasting-Mimicking Diets

Because if you lose the weight or type two diabetes, reverse diabetes, then presumably you're going to decrease the rate of cancers, that happen. So it is it is, you know, certainly one of the balls.

And the question is what role to the plan. And that's where the research has it's it's super, super early. I mean, there is a little bit of data, you know, you've done, you've done, several of the most, you know, the most important studies showing that you can, have sex on these cancer cells, by, by nutrition and the thing is that cancer cell metabolism is quite different than normal cell metabolism.

So when you fast, you force your body to feed off body side. Basically. And the cancer cells can't do that nearly as well as the normal cells. So a normal cell will switch over and just use body fat as, as a source of energy.

Whereas the cancer cell cancer very there's a good chance that it's going to be it's you're going to slow down the growth or even kill it, by limiting the glucose that's available, because a lot of these cancer cells really need super high or really thrive in this super high glucose environment.

Whereas when you fast, you get rid of the glucose because it's a short term energy source and you're switching over to fat metabolism, and therefore you may impact cancer cells, cancer treatment.

And the thing is that why not. Right. It's like, people always worry about this thing called cancer Carchex. Yeah, but that's actually a very, very different disease.

Nobody really knows what it is, but it's not calorie restriction. So the thing is, when you have cancer, your body actually the cancer actually breaks down your muscles and your fat to feed itself.

That's not just simply, that's not just simply, normal weight loss. Normal weight loss doesn't happen like that. Those muscles are protected and the fat gets broken down.

So it's much different and why that happens. And you know what causes it. There's a lot more research to be done. But you know, it's not a reason that early in the in the treatment you might not apply some of these, factors such as fasting to reduce your risk of cancer.

Once you have it, it's a much more difficult sort of thing to get around. You can use it along with chemotherapy, for example. You know, you fast before the chemotherapy.

That's sometimes that's very useful. And wanted to ask you, but, lately I saw your increased interest in and the fasting mimicking technology. You and I spent years talking about that and watching and building the science and watching the results.

A lot of people today are trying to fast with food, with the goal of fasting, with sort of fasting, mimicking technology. Do you want a little bit give your, your perspective on it.

And with nations around that as well. Yeah. And this is where I've sort of, changed my mind as more and more science comes out. And the thing is that there's two ways to do a longer fast.

So if you're doing a short, fast, like 16 hours, then there's not really any reason you have to take any food. Like

your body can easily handle that 20 hours a week in 24 hours.

But when you're going for five days, for example, which is the electrons for five days, then there's two ways to do it. You could do water only, right?

You could just have water and herbal tea, for example. No calories, zero calories. And that is sort of the sort of purest way to do it. And that's what I always thought was, you know, good, because that's the purest way to do it.

And so I did it. I it's it's not particularly difficult, but it does take a little doing. The however, a lot of science has come out where they don't do that.

And in fact, there's actually very few studies on pure water fasts of that length. So if you look at, your data, your data has sued, but it's a low amount of food.

It's not like 2000 calories, it's like a thousand and sometimes down to 500. But there are other diets that have done that science to to diet. It's also a type of fasting.

You see, because again, on a fasting day you take food. A couple of the other studies that came out, they don't they don't name them, but like they don't give a name to it, but they've also done, you know, long fast some, some of them ten days, but again with a bit of food.

And the idea is that you don't need to turn down your insulin. I just want you don't have to turn it all the way to zero. Maybe just turning it down most of the way is good enough and maybe better.

But in either case, that's how that's what all the studies have. The all the ones have has a certain length, right? Once you get past a day or so, you find very few studies where they just put zero calories.

So if that's where the science is heading, hey, I think that you can get most of the benefits. By having a little bit of food during the long fasts. Like I said, not necessarily all the 5 to 2 diet which Doctor Mosley had popularized is a shorter fasts with still with food.

Right. But he had great results, like some of the studies are quite impressive on the 5 to 2 diet. And again, the other thing is that certain clinics, like the butcher clinic I mentioned in Germany, which has been around I think for like 100 years, there's been a it's been there a long time and it's a fasting retreat.

People go there and they stay there and they fast for ten days. It too is not a full water only source. They give you certain things like juices and all these other things, and you can quibble about whether you should take juice or not with all its fructose.

That's not the point. The point is that it also doesn't do that where they don't do a full water only source or, you know, for extended periods of time.

So because the science has moved that way and a lot of the traditional practice also like these fasting clinics and so on have moved that way, I've sort of thought, well, hey, if you get good results, who am I to argue?

Like what? Why would I argue with 100 years of clinical experience at the beach in your clinic for the studies that are all coming out now in terms of doing the longer fast with a little bit of food support, like it actually, if I if like, I don't have the evidence to say that doing a water only long fast is better because that data actually just doesn't exist.

So I can either go with what's proven both historically, clinically and in the studies, or I'd have to just say, well, I'm going to stick to guns, be a terrorist, you know?

But I actually have no good data behind me either. From a scientific standpoint or a clinical standpoint, because I haven't been practicing that long.

It's also the water long, long days of only water fasting has a lot of positive that we talked about, but also starts getting into a lot of negative side.

The body needs calories at the end of the day, needs minerals, needs vitamins and normal operation of the body. The brain has to keep operating the heart.

Pumping the kidney is is too drastic. I was comparing it to a company with the revenues. Right. So yes, the CEO restructure the company. That's autophagy.

It's healthy, but at the same time, the best employees, they will leave because you cannot pay their salaries. Say that you that you cannot buy your ingredients to sell them next the next month.

They cannot do any marketing. So going sometimes very drastic on the body, you know, it's a set of homeostatic environment going so drastic sometimes is too much to the fasting with food probably is mitigating that and keeping the pressure on, rejuvenating the cells, but actually nourishing the body to help it go through that to that phase.

Yeah, I agree, I mean, I think that there's certainly, a role for all of these sort of things. And if you're getting most of the benefits in making it, you know, if you're getting like 90% of the benefits, but making it, you know, 50% is hard.

That's the net benefit. So like that really is. So that's why I've sort of changed my mind recently, about, you know, that's what happens, right? When when more science comes out, it's, you know, and it was it was clear that nobody was doing a study of water, only fasting.

So, you know, as a science sort of changes, understandings change. And, hey, you know, try it. I've actually so I've, I've started to have people do it sort of in this sort of modified way.

And I'm seeing pretty much the same or better success. Even so. Is it the problem? The problem five is. That the problem five days. Yeah. So I you know, I've asked people or I asked people just to sort of if they don't want to buy it and just to sort of follow the idea of it just on their own.

And again, I don't see that it's much worse than the longer one. So, again, I think that, you know, my own feeling is that you're getting the large majority of the benefit, but making it quite a bit easier.

So because you're making, you know, the relative amount that you're making it easier is more than, you know, any, any sort of maybe benefits that you may lose.

And that's again, questionable. I don't know that you lose any benefits. I really don't like that the studies are not there. Nobody's compared to five day water, only to a five day sort of.

We didn't. Yeah we did only in animals. And in animals that were showing actually a little bit better in many instances. But in humans, the reason why we don't see that, because a lot of the imports, they say it's unethical to ask people this long or it's unethical to do it when you have an alternative with food.

So, we wanted to compare fasting, mimicking it to water fast, but a lot of it was called. And then this is, you know, getting close to why, to expose people to water fast this long when you have a better technology or you can do it in a safer way and you think about safety or hypoglycemia, etc., and this is what we're seeing.

I mean, in mice and mice, you can do anything. I mean, in that sense, when we did water fasting versus the fasting mimicking diet or the pull on, we seen better rejuvenation, especially stem cell regeneration in the GI tract, because you're feeding the stem cell regeneration and you're keeping the right microbiome.

Doctor Fung's Personal Longevity Habits and Closing Thoughts

Something we don't talk about with a lot of fasting is depleting the entire microbiome. It's water. Right. And when you do a plant based fasting rejuvenation, you're actually helping the right bacteria, helping closing the leaky gut

that you're helping all the downstream benefits from that as well.

So, to conclude today, I wanted to ask you, what do you do for your longevity? Like a doctor fun himself. You know, what other things what do you do? How you eat, how you exercise?

What do you do for your own, health and wellness and longevity? I mean, I try to stay away from sugar. I mean, I don't not eat sugar, but I and compared to sort of when I was 20, it's sort of like 90% less than what, what I used to eat in terms of sugar.

Right? I mean, when I was 20, I didn't really think about it. It is basically good I eat it, so I do, do that. You know, from a dietary standpoint, I do stay away as much as I can from refined foods and sugar.

And I think that's a lot of gets you a long way. So I again, I don't not need it, but it's it's just down from what I used to do quite a bit. And then I do the fasting.

So I do sort of occasional long fast like five days plus, plus the shorter fasts, often, 16 hours, and then sometimes 24 hours on a, on a pretty regular basis.

My longer fast the last few times I've, I've added some vegetables on the, like day four, day five sort of thing, with because of the same thing. Right. The, the sciences has sort of, shown it.

And then the other thing, you know, the other things are sort of common sense stuff that we should do, exercise. I try to exercise, although I don't do as much as I really should, you know, and, you know, trying to keep a community is important.

Like some of these other people have talked about the importance of sense of purpose. Right. Because this is for your mental health, having, you know, friends or, you know, I've recently picked up tennis, which is not just good exercise.

It's probably not as good exercise as running, which I also did, but it's much more social. So you're getting sort of it's a gain, it's more enjoyable.

But you're also sort of hanging out and, you know, so having a sense of people you can trust in the community around you and so on is actually quite important.

I think that, you know, when you, when you look at a lot of these, people who live a long time, they usually have these supportive, people behind them.

So that's that's what I tried to do. You know, whereas before I did a lot of sort of running or, solo stuff because, you know, my time was limited. So if you want to get a lot of exercise and for short period of time, running's pretty good.

And, you know, weights are pretty good. But it's not very social because I didn't. I ran by myself. Right. So, whereas things like tennis are actually much more, I think, something that you can enjoy for a long, long period of time.

So that's those are the things, I mean, having having that sort of, you know, idea, you know, it's not just a diet. It's not just the exercise. We all know you should follow a good diet, right?

Cut out the junk food, cut out the cut out the, you know, the chips and the French fries and the, you know, the sugar. Like, that's not that controversial exercise.

That's not that controversial. Like, everybody knows you should do it, but it's a matter of some of these other things that are sort of coming to the forefront, which is community and so on.

I know, doctor, Dan Buettner talks about it in the blue zones and so on about the sense of community. I think he's absolutely right. I think the people who live the longest really have a sense of why they're here, whether it's taking

care of your grandkids or, you know, doing something like helping the world by volunteering, by, you know, educating, which is something that, you know, you and I do.

And then having that community around you, those, those sort of source sort of things, I think actually wind up being just as important as the sort of, you know, what some people like to do.

Oh, I eat this percent carbs and I fast for X number of hours. But the softer things like having having friends, making sure you're connected to your family and stuff, that's probably just as important or more important.

It's just hard to measure it. Yeah. So we agree that social capital, I think it's it's nutrition, social capital on the top to then exercise and stress and sleep.

This is when we study the centenarians is what we observe. Is social capital and happiness is the mother of all when you're happy. And when that said you eat better, you sleep better, you stress less and you exercise more.

Yeah. So I fully agree with you on that concept. Doctor Fong, I want to thank you very much today for your time and valuable information. Hopefully we change somebody's life today and inspire people to embark on a journey of fasting and longevity. Appreciate you very much.

Thank you so much.