Introduction to Dr. Jason Fung

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? If you store energy calories as a form of fat, right, that's what the body does.

But when you don't eat, your bodies gonna start burning down your muscle. 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, it'd be stupid. How do we survive as species? if we're just that stupid. This is Dr. Talks. Hi everyone and welcome to this new episode of the Fasting and Longevity Summit with Dr Talk.

This is your co-host, Dr. Joseph Anton, and I'm interviewing another cohost actually for the same summit, Doctor Jason Fung. And I am not sure he needs an introduction, a very familiar face in the world of fasting and now getting into the word of longevity.

But Dr Fong, this is going to be a special episode with you as usual. Thank you for your time today. I really look forward to the session with. Thank you.

It's great to be here. Um, although you have millions of followers and it'd be very few people around the world might not have, uh, or around, the word of longevity or fasting might 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 you may do so. Sure, so I'm a nephrologist that's a kidney specialist and I am 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 2 diabetes.

At the time, everybody was saying it's impossible. It's a chronic, progressive disease. But at the same time it was clearly not true because people who lost weight often reverse 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. It didn't work and it was silly to keep saying that this is what works, this was what worked when clearly it wasn't.

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

long-term. So I started thinking about other ways to think about weight loss.

Why Fasting Became a Focus

And, you know, one of the important factors that some really talked about so much is the hormonal changes that happen when you change your diet, because there are, yeah, they're clearly very different things that happen in the body when you eat, say, a piece of brownie or cookie versus when we eat salmon or eggs, for example.

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

So that's where I started to think about fasting because fasting is 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 take insulin high doses gain weight and people don't have enough insulin lose weight.

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

That's why I Started to blog about. It and I wrote a book, a couple of books about, it saying like, look, let's look at the science. Let's Look at data.

A lot of people started To follow it, and got tremendous results. and that is really one of the reasons why I'm here is just because I really Questioned the whole science of why at the time people said fasting was very bad for you But in turn in essence is actually very very good for a number of reasons Thank you, Dr.

Fong, and I think you were one of the early voices with Dr Walter Longo and Alutra in general to start talking fasting to the world. There have been historically multiple waves of doctors who tried to bring fasting into the word in the earlier 20s, et cetera, but the science was not there and it was kind of a little bit put down.

I thing today there's an aggregation of social influencers who have credibility like yourself and their key opinion leaders that have pushed the, they kind of have educated people on the value of intermittent fasting.

The science coming from preclinical and clinical trials on 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 adopt it.

Go ahead. Yeah. And I think that really a, you know, where we are today, because, you now, social media allows people to sort of share what happens to them.

So they don't no longer have to, say, just listen to their doctor, for example. And if the doctor doesn't know then the patients don t get the benefits and really people are able to find stuff online and try it for themselves.

The beauty of the whole, you know, the information age is that it's not curated and that people who find the, information are able to act on it. And 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 very cost effective interview from a time perspective and information perspective. Wanted to ask you, what do you feel are the top three or four benefits of fasting?

And where do want people to, if I'm new to fasting or I am interested in fasting, What should I know and How should i start? I think the top three or four things, you know, sort of benefits is that, first of all, fasting has sort a huge number of benefit, 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 stored away. The body stores away calories, food energy, in the form of fat and in a form sugar.

If you have too much stored sugar, you'll have type 2 diabetes. If too stored fat, obesity. So all you're doing is 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 put it in the fridge. But why do you go to a grocery store every single day? You don't, because you can just go into your stored food, which is your refrigerator, and take it out and eat 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 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 fats for precisely what it's there for. There's nothing bad about it. In fact, it is good.

Core Benefits of Fasting

So the whole idea is that you can get these benefits in terms of type 2 diabetes reversal, because you're using up the stored sugar, and weight loss, which is you are using your stored fat.

So those are the two main benefits. And if you get people to lose weight, there's actually tremendous health benefits, huge. Nobody really denies that.

That's from heart disease, strokes, cancer, joint disease and back pain. You know, the list goes on and on for the benefits of being able to lose some weight.

In addition to the weight loss type 2 diabetes, there's a third sort of very interesting and new thing with fasting, which is autophagy, this idea that when you don't eat, you're going to switch your body into this sort maintenance and repair mode.

and you activate a process called autophagy, where your body eats itself. That's what the name means, auto, self, and phagene, 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 your cells, what you've got to do is you got get rid of the old cells.

Then you're going to grow your new ones. is it reduces all your nutrient sensors, that is insulin, IGF-1, mTOR, and at the same time pumps up your growth hormone.

So then when you eat again, you're trying to rebuild those cells. You're getting rid of old cells and you are rebuilding new cells, which is rejuvenation.

People who talk about things like rapamycin, for example, only affect one of those pathways. It affects mTOR, but it doesn't affect insulin-like growth factor, which I think, like IGF-1, is a huge factor.

And it does not 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 rapamysin is, and then saying, oh, well, you shouldn't fast.

But you should take your rapamicin. Well, that doesn' make any sense to me. You're getting so much more benefits in terms of longevity from fasting. Even people like David Sinclair, who's a great sort of a rock star researcher in longevity.

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

You know, he talks about these other longevity genes that get turned on, something things like sirtuin and so on. So huge benefits. Not just your weight loss or type 2 diabetes reversal, but now more and more science behind autophagy, behind these activation of these longevity promoting genes.

I think this is very important because we build this society and we built medicine. It's interesting, you and I, two doctors, and were saying, You know, I have always to listen to your doctor and come to something, you know.

It's, we build this society where pill is a solution to everything. And you hinted at erpromycin. There's other, metforbin and there's the spermidine now.

I mean, there is lot of end of a GLP-1s, right? The biggest one today, the GLPs- 1s. The pill system, what I want listeners to understand is most of the time works on the receptor, on one receptor which does a fractional thing and induces side effects when you over-escue one receptors.

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 for hundreds of thousands of years had to go through periods of fasting and periods

a food.

So the body is built to deal with it and is able to do with an upstream intervention. All these receptors, all the things, always from microbiome to the epigenetics are all activated in a synchronized way, in the natural way to a positive defense mechanism, as you were explaining, rather than using a pill here to that and then cover the side effect there and get a fractional And we've seen it and we heard it so many times, people saying you can get autophagy with this pill or that pill, I don't want to name them.

You know, the only product that was tested for autrophagia in humans is Prolon, The Five Day Fasting Mimicking Diet. And I've yet to see in a true randomized clinical trial, other supplements showing that they can use autofagic.

We see it on their websites, we see on the claims, but we never see published and showing the rejuvenation. So this is an important message that this.

one of the natural way to get a lot of benefits that actually you got to add the metformin plus the reprimisin to close all that shut down the receptors and potentially a GLP-1 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, the whole science of autophagy is sort of, is relatively new.

Even mTOR is a relatively knew 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, tested and really work.

And, fasting has been around for thousands of years. So, there may be more benefits that we simply don't know of yet, but certainly it makes sense that if Especially in these days where there's a lot of this problems with obesity, there is an epidemic of obesity.

Those benefits are already huge and, 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. And the second thing that amazes me as well is, you know, we have been such a circumvoluted system that we talk to fasting people like, is that potentially believable?

Is it skeptical? We're saying if you overeat, And now you're obese. And then with time and with aging, you become diabetic. Guess what's the solution?

If you ask mainstream medicines like pills, which will never help you go back and go off for that. They say if diabetes and pre-diabetes and obesity are the consequence of aging and overeating.

This solution would be stop eating.

Autophagy and Longevity Pathways

If somebody says, hey, every time I punch a wall, I have pain in my head, you tell them stop punching, right? And then if somebody overeats and gets diabetic, the solution like naturally should be to slow down your eat and or intermittently stop your eating and that now 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 that is not helping any patient go backwards and getting cures.

Fasting is hitting I always call it a trio of diabetes, right? You mentioned the weight loss because that's the insulin resistance and the way is the aging factor.

Autophagy for diabetic patients, we talk about autophage for longevity, but autofagie for a diabetic patient is as important because getting the system a little bit younger to better deal with it.

deal with health condition and muscle protection. That's probably one of the myths that I know you are very passionate about. If you were saying, well, I don't want to do fasting, going to lose muscle.

I'm going slow down my metabolic rate. Can you talk a little bit about that as well? Yeah. So it's interesting because there is a very. Interesting study from one of the fasting clinics in Germany, the Buchenheimer Clinic, where they put people on a 10-day fast.

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

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

So glycagein is like a chain of glucose. the muscle has its own glycogeins. When you don't eat, the mussels are going to use, energy is going use glycosine, so you actually lose Glycoogen.

Your muscles may actually get smaller, but that's not loss of muscle tissue, it's loss muscle GLYCOGEN. which will be restored as soon as you eat. So the thing is that what they did was there's all these studies where you 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, 10 pounds of muscle mass.

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, use it, and you build my muscle, if don't use your muscle like astronauts or if your bed is down, then you lose your musles.

So use, it'll get strong, don' use and it will get weaker. Even if use if and don"t eat, they were saying that you're going to lose all this muscle. But the, and then when you ate again, what happened was that all that muscle mass miraculously came back.

So, okay. When you fasted, but kept the same activity, you lost all this muscle. but kept the same activity. You gained all this muscle. So how do you gain like 10 pounds of muscle without exercising?

I'd love to know because I love it. It doesn't happen that way. not this bioimpedance, but they tested muscle strength. So they actually told them how to do wraps and, you know, grip strength and all this stuff.

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

It actually, the strength did not decrease when you're fasting. In fact, one of the muscle groups, and I can't remember exactly which, went up by like 30% or so.

People were stronger when they were fasting, why? Because probably because of sympathetic tone and some of these other things. So I don't think they gained muscle.

And the growth hormone. Well, in a big sense, when we didn't have food, thousands of years ago, the body is saying, when we break down fat, ketones, let me increase the stress hormone and it's invested into the muscle so that we keep walking and finding the next food or vegetable.

Otherwise we're self-compromising ourselves. So they're fasting, wants to feed the brain with ketone, to stay up and not go, not not faint, and wants increase tone for the muscles so you keep going and find the food and vegetable rather than deplete the musculoskeletal system.

Exactly. 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 muscle.

Fasting vs. Pills and GLP-1s

So you're going store fat and burn muscle? So in other words, it's like 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. How do we survive as a species? If we were just that stupid. And, and, you know, the problem is that there's not a lot of critical thinking sometimes.

They just, people just parrot this, there was a a of bias and the, uh, against fasting because people, You know didn't think about it or do it. So they, they think, Oh, it's news, so it must be wrong sort of thing.

Yeah. It was basically one of those issues where people latched on and said, oh, It must this. it was just like, 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 the thing that these people were not clinicians, clinically you'd never do.

So sure, you're going to burn some energy when you are fasting and you going gain a lot of energy, which is calories, when your not fasting. There's no magic in this.

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 fats.

That's it. And glycogen, which is in the muscle. Yeah, exactly. So, I mean, the good news is science is on the side of fasting and I 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 young male athletes to show that even in that crowd who's very elastic and could lose a lot of muscle or gain a We did a 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 unstandard biometric measurement.

If they see muscle decreasing in mass, that's not muscle cells, it's the glycogen, and that is the storage. And if anything, with the fasting, we can guide your feeding muscle under a high growth hormone environment.

Actually, sometimes much better performance. And that's a very important point because millions of people today are sacrificing their muscle with GLP-1s, with chronic dieting, chronic high restriction and the GLPs.

Recently, we had a new trial last week showing bone density decrease. I mean, that with the glp-ones. 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 sell and ends up being the long deprivation as we know historically, and he started out there.

His session was saying it's difficult to comply and have long-term side effects, whereas fasting triggers that

protection reaction as a short- term feasible solution and is the national way the body had to go through thousands of years of evolution.

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

Like, you think it's easy to to chemotherapy? No, please tell them to it and they do. Why? Because they need it for their treatment. 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.

But you think that somebody will, go undergo triple bypass surgery. They'll just cut them open, crack open their chest. That's a lot. But they'll do it because they know that it's good for them.

And the doctors tells them it is good. Whereas we don't even tell people that fast and good, we just get this, oh, people won't do. I'm like, ah, 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, uh, this very paternalistic sort of, well, we know it'll benefit them, but they won't do it.

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

It if they do do, it good. Maybe they'll benefit, it's quite striking sometimes. It seems that they would prescribe a thousand dollar injection of GFP1 agonist, right?

Fasting, Cancer, and Risk Reduction

And people are injecting it biologic in their body and paying for it to lose the, and you can do it in a much easier and natural way with the fasting, whether it is intermittent or the prolonged one.

I wanted to ask you, I know you recently wrote a book on cancer as well, and you became passionate about that topic. And I want to asked you if you had a little bit look at the data of fasting and cancer or cancer treatment and if that's the next horizon for potentially cancer treatments as It's a very interesting topic, and it's much more complex topic.

So some people try and, you know, say, oh, it is just this or it just that, like, is it genetic or is this just or just. It actually isn't. There's very complex topics.

That's what the book was about, sort of complexity of it. However, the fasting does clearly have some benefits in terms of the risk factors for cancer.

So if you look at the risks factors, for example, obesity is a very big one. In fact, diet obesity really are tied almost with tobacco smoking as cause of cancer, there's like 13 different types of cancers that are called by the World Health Organization.

obesity-associated cancers. So it's not that it is not well known. Everybody knows it, agrees that, it plays a role. Therefore, if you can lose weight, then these include things like breast cancer, colorectal cancer and pancreatic cancer.

Very bad ones. And the thing is if know that that's a risk factor, you could do something about it. Because if lose the weight or cut the diabetes, reverse the diabetics, presumably you're going to decrease the rate of cancers that

happened.

So it is certainly one of the goals. And the question is, what goals are planned? And that's where the research has, it's super, super early. I mean, there is a little bit of data.

You've done several of the most important studies showing that you can have effects on these cancer cells by nutrition. And the thing is that cancer cell metabolism is quite different than normal cell.

So when you fast, you force your body to feed off body fat, 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 a source of energy, whereas a cancer cell can.

There's a good chance that 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 sells 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 cachexia, but that's actually a very, very different disease.

Nobody really knows what it is, it was not calorie restriction. So the things is when have cancer, your body actually the cancer actually breaks down your muscles and your fat to feed itself.

That's not just simply normal weight loss. Normal weight lost doesn't happen like that, but muscles are protected and the fat gets broken down. So it's much different and why that happens and what causes it.

There's a lot more research to be done, It's not a reason that early 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, fast before the chemotherapy that sometimes that's very useful.

Wanted to ask you about, lately, I saw your increased interest in the fasting mimicking technology. You and I spent years talking about that and watching and building the science and watch the results.

A lot of people today are trying to fast with food, what we call fasting with the food of fasting-mimicking-technology. Do you want to a little bit give your perspective on it and recommendations 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 is not really any reason you have to take any food.

Like, your body can easily handle that. 20 hours. 24 hours but when you are going five days, for example, which is the only choice of five then there's two ways to do it.

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

Fasting-Mimicking Diets and Modified Fasts

It's not particularly difficult, but it does take a little doing. 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 date has food, but it's a low amount of food. It's not like 2000 calories. That's like a thousand and sometimes down to 500. But there are other diets that have done that.

5 to 2 diet is also a type of fasting with food, because again, on the fasting day, you take food. A couple of the other studies that came out, they don't name them, but like they didn't give a name to it.

But they've also done, long fasts, some of them 10 days. Again, with a bit of food and the idea is that you don' t need to turn down your insulin, IGF-1.

You don t have to do 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 what all the studies have been.

All the ones have passed 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 is where the science is heading, hey, I think that you can get most benefits by having a little bit of food during the long fast.

Not necessarily, although the 5 to 2 diet, which Dr. Mosley had popularized, is a shorter fast still with food, right? But he had great results. Some of those studies are quite impressive on the five to two diet.

And again, the other thing is that certain clinics, like the Buchinger Clinic I mentioned in Germany, we've just been around, I think, for like 100 years.

It's been there a long time. Retreat people go there and they stay there. And they fast for 10 days. It too is not a full water only fast 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 a full water only fast or fire, 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 out way.

I've sort of thought, well, hey, if you get good results, who am I to argue? Like, why would I argue with a hundred years of clinical experience at the Butchinger Clinic or the studies that are all coming out now?

in terms of doing the longer fast with a little bit of food support. 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 my guns, be a theorist, 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 lots of negatives, right?

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

It's too drastic. I always compare it to a company with the revenues, right? So yes, this year we'll 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.

So you cannot buy your ingredients to sell them the next month. You cannot do any marketing. So going sometimes very drastic on the body. It's a set of homeostatic environment.

Going so drastic sometimes is too much. The fasting with food probably is mitigating that and keeping the pressure on rejuvenating the cells, but actually nourishing the buddy to help it go through 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 and making it, you know, if your getting like 90% of benefits, but making a, 50% is hard.

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

So as the science sort of changes, understandings change and hey, you know try it. I've actually, so I started to have people do it sort in this sort modified way and I'm seeing pretty much the same or better success even.

Is it the Prolon five days? But the pro long five days. Yeah. So I, you know, I've asked people or, or I ask people just to sort of, if they don't want to buy it, then just sort follow the idea of it just on their own.

And again, don t see that it's much worse than the, the longer one. so again I think that, 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'll making easier is more than, any sort of maybe benefits that may lose. And that's again, questionable.

I don't know if you lose any benefits. Like I really don' like the studies are not there. Nobody's compared to five day water only to a five-day sort.

Yeah, we did only in animals. And in animals, it was 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 IRB boards, they say it's unethical to fast people this long, or it is unithical when you have an alternative with food.

So we wanted to compare fasting to making diet to water fast.

Dr. Fung's Personal Longevity Routine

But a lot of the boards call that, that 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.

They think about safety or hypoglycemia, et cetera. And this what we're seeing. I mean, in mice, we can't do anything. In that sense, when we did water fasting versus the fasting when became diet or the ProLon.

We've seen better rejuvenation, especially stem cell regeneration and GI tract, because you're feeding the stem cells regeneration, and you are keeping the right microbiome.

Something we don't talk about with water fasting, you depleting the entire microbiomes. It's water, right? And when you do a plant-based fasting rejumination, You're actually helping the bacteria.

You are helping closing the leaky gut and 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 Dr.

Phang himself, you know, whether it's fasting or other things, What do do, how you eat, exercise, for you own health and wellness and longevity? I mean, try to stay away from sugar.

I don't not eat sugar, but I compared to sort of when I was 20, it's sort like 90% less than what I used to eat in terms of sugar. I mean, when i was twenty, I didn't really think about it.

If it tasted good, i ate it So I do that, you know, from a dietary standpoint, I just stay away from as much as I can from refined foods and sugar. And I think that's a lot of, that gets you a long way.

So again, again I don't not need it, but it's, it just down from what I used to do quite a bit. Then I'd do the fasting. I

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

My longer fast the last few times I've added some vegetables on like day four, day five sort of thing. Which because of the same thing, right? The science has sort have shown it.

And then the other thing you know, the, other things are sort common sense stuff that we should do exercise. I try to exercise, although I don't do as much of like 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 the census purpose, right? Cause this is for your mental health, having, friends or, I've recently picked up tennis, which is not just good exercise.

It's probably not as good exercises running, Which I also do, but it's much more social. So you're getting sort of, it to gain, It is more enjoyable, But you are also sort hanging out and having a sense of people you can trust in a community around you and so on is actually quite important.

I think that when you look at a lot of these people who live a long time, they usually have these supportive. uh, people behind them. So 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. If you want to get a load of exercise in a short period of time, running is pretty good and you weights are pretty.

Um, but it's not very social because I didn't, I ran by myself, right? So whereas things like tennis are actually much more, or I think something that you can enjoy for a long, long period So that's, those are the things.

I mean, having, that sort of, you know, idea, it's not just the diet. It's just not the exercise. We all know you should follow a good diet, right? Cut out the junk food, cut out, the chips and the French fries and you, know the sugar.

That's like, not that controversial exercise, like everybody knows you 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 Dr. Dan Buettner talks about it in the Blue Zones and about the sense of community. And I think he's absolutely right. The people who live the longest really have a sense why they're here, whether it is 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 and I do, and then having that community around you.

Those, those sort of soft sort things, I think actually wind up being just as important as the sort, of, what some people like to do. I eat this percent carbs and 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. I fully agree. The social capital, I think it's nutritious social capitol on the top two, then exercise and stress and sleep.

This is when we study the centenarians, this is what we observe. Social capital and happiness is the mother of all. When you are happy and well-nested, you eat better, sleep better.

You stress less and you exercise more. So I fully agree with you on that concept. Dr. Fong, I want to thank you very much today for your time and the valuable information.

Hopefully we changed somebody's life today and inspired people to embark on the journey of fasting and longevity. Appreciate you. Thank you so much. Thank you for tuning in to Doctor Talks.

We hope today's episode has enlightened and inspired you on your path to optimal health. Each day is a new opportunity to make choices that empower your well-being.

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