The Science of Medically Supervised Water Fasting Transcript

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Introduction to fasting and diabetes

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But those patients are going to fast somewhere between two and three weeks on average. During that time, they're going reduce their insulin resistance.

They're gonna normalize their blood sugar levels. And interestingly enough, about 80% of them will be able to achieve normal bloodsugar without medication.

Now, obviously they have to do some dangerous and radical things like eat well and exercise and go to bed on time afterwards to maintain those results.

But that fasting can do the same thing that diet and lifestyle does, but much more rapidly. And the thing is it does improve adherence. If people get out of pain, their inflammation goes down, they're digestion starts working, They feel better.

They're more willing to collaborate and cooperate with diet and lifestyle changes than they are when they feel like absolute crap all the time. This is The Longevity CEO, where we explore the science of metabolism, cellular renewal, and the future of longevity.

Hi, everyone. This is your host, Dr. Joseph Anton. And today we have a very special episode with Dr Alan Goldhammer. He's a unique doctor with a uniquely approach to chronic conditions.

I've known Dr Allen for a good five, six years. Personally, went to your clinic or your establishment. It's at full establishment and you're probably one of the few that I know in the words, if not the one that in today's world is losing long-term fasting to reverse multiple chronic diseases.

And this is what we're going to focus on today is the use of a longer fast, medically supervised fast because the longer you go, especially when you're on water, you need medical supervision.

This is Dr. Allen built. He built a full care team that specializes in fasting and long term fasting. for medical condition, what we call now medical fasting.

Dr. Goldhamer and TrueNorth Health Center

And it's a pleasure to have you today. It's going to be a wonderful episode. So thank you for your time. Glad to being here. Dr. Allen, do you want to tell us a little bit more about yourself and how you got here before we talk more the substance and long-term medical fast?

I've done this all my life. Forty years we've been operating the Truner of Health Center in Santa Rosa, California, which is specialized in medically supervised water-only fasting.

And so this is all really I have ever done, all I ever know, and all that I really have been interested in. This idea that health results from healthful living and that you can actually cause health just like diseases can be caused, health can because, and the focus of causing health from our viewpoint has always been diet, sleep, exercise, And it turns out fasting is a way of undoing some of the consequences of dietary excess.

And what got you to it? Did people say, this is an insane idea, you branching out of medicine and deciding to build

a full, I mean, it's almost like a hospital that you have there that I personally visited, medical personnel, you have all kind of patients coming from different cities, different countries.

It was pretty interesting. And can you tell me how did you get into that? Yeah, well, we're a 79 bed inpatient facility, as you said, with a diverse multi-doctor staff that treats 1200 admissions a year for fasting.

And, you know, mostly what we are treating are the disease of dietary excess. So people that get overweight and develop visceral fat and developing inflammatory conditions related to hypertension, diabetes.

Yeah. autoimmune diseases and lymphoma. That's probably a bulk of the patients that we treat. Because we have more people than we can handle, we cherry pick out the people we think we're most interested in.

We do fasting from five to 40 days on water only, and then we supervise refeeding and recovery. This is a really involved, carefully monitored process.

And that's how we've managed to do it 25,000 times. And so far, everybody that walked in has walked out. We've published a fasting safety study. The truth is, True North Health Center is really a human subjects laboratory that is disguised as a clinic.

And mostly we're researching, you know, trying to figure out how to use fasting more effectively, what conditions respond to it well, and then how do document and publish in curvy journals the results of what we are seeing.

Because it's really quite startling what doing nothing can do when you do it intelligently. I mean, that's amazing. I don't know, you're at 79 beds now and 1200 admissions.

And this is where the disclaimer as well as on TV, do not do this at home, right? All of you listening here today, if you hear one of the health conditions or you are interested, talk to us.

Talk to Dr. Allen. If you want to do something at home, that will be the fasting with food. Don't do the long-term water fast on your own. This is why Dr.

Allen exists and his facility exists because you got to be supervised. So before we go into specifics, Dr Allen, you mentioned what are the health conditions that you, based on experience, can benefit the most from the Long-Term Medical Fast?

Well, not surprising. Conditions that are rooted in dietary excess tend to be the conditions that respond the most dramatically to fasting. So obesity and its downstream consequences, particularly high blood pressure, cardiovascular disease, type 2 diabetes, autoimmune disorders in general, and the cancer that we're working with most is lymphoma.

And we have published some case reports and we've got a lot of people under study right now. It does seem to be a responsive condition. So we are excited to see some of the long-term results that were able to demonstrate.

Can you talk about if I'm, you know, I have a little bit of a high blood pressure, pre-metabolic or early diabetic.

Who benefits from long-term water fasting

I've a metabolic syndrome let's say and I just got diagnosed, crossing the line towards diabetes. What would you do if I come and knock on your door, how would approach me?

Well, the first step is to get a proper medical history, take a look at the lab, see what's going on, assess the medications, because in order to do long-term water fasting, you have to first wean off medications.

With the exception of some true hormone replacement therapies or thyroid or something, everything's gonna be stabilized and discontinued before you introduce long term fasting.

So that can take… My every medication, my blood sugar, everything. But the good news is when you go on a whole plant food SOS free diet, it doesn't take very long before you have to withdraw the medications because people are not being medicated for their conditions.

They're being mediated for the diets and their lifestyles. When you change the diet and lifestyle radically, you get radical changes in the presentation.

So blood sugars, blood pressures, inflammatory pain related conditions tend to to be modified dramatically. And so we can, in a controlled setting, withdraw medication safely, and then introduce water-only fasting for between five and 40 days.

You put them first on a plant-based regimen? Low-calorie plant based? Exclusively whole plant food diet. Oh, okay. It's also SOS-free. S. O. S. is the International Symbol of Danger.

it stands for the chemicals added to food that make people fat sick and miserable. They include salt, oil and sugar. So salt? And what was the O? O, oil.

Oil and sugar. Okay. Yeah. So basically a whole plant food diet. If you do that, it's remarkable what happens. Did you say oil, even olive oil? All fractionated oils, including olive oil.

Olive oil may be less bad than other oils. It's still 9 calories per gram, 100% fat, not something we're going to use as a health promoting routine. So it's not for the nature of the fat.

Just more to drop the calories and make sure they're not just living on the plant-based. Our target is 15 to 18 percent of calories of fat, 10 percent in calories from protein, the balance coming from the whole plant food complex carbohydrates as a general rule.

And how long would you put them on this non-SOS if you want? Well, generally the way it works is we'll do screening ahead of time. You know, half our people are out of state, 15% come from foreign countries, so we'll work with them a little bit remotely, get them on the diet, and then they'll wean down their meds, depending on their medication profile and their health history, it would depend on how long that takes.

Sometimes it's a few days, sometimes it is a couple of weeks. In some cases it might take several months to be able to carefully ween, particularly people who are on neuropsychiatric drugs and other things that take a while to get up.

What you try to do is get them off the meds with a very healthy plant-based diet and then go fasting clean with no med except if they need something for thyroid or another hormone replacement.

Yeah, I mean, there are some exceptions. Like with thyroid, what you will generally do, is reduce the dosage typically in half, monitor their function.

Interestingly enough, the need for medication reduces after fasting. Partly there's not as much of them. You know, some of these patients are losing large amounts of weight.

Some of it's because many people are placed on medications inappropriately. They don't actually have a biological need for the medication they're on. They're using it symptomatically.

And so sometimes once those symptoms are resolved, the need of medication is eliminated. But it's easily monitored and appropriately corrected. The point is though, drugs can become greatly potentiated during fasting.

Drugs that you can take in a feeding state healthfully can be devastating in the fasting state because of the change in physiology. Even simple things like nonsteroidal anti-inflammatories and other things can have significant effects on kidney function or gastrointestinal function that you wouldn't see necessarily in feeding.

Preparing patients and managing medications

That's why if a person's on ProLon or they're taking modified fasting, they can do it at home. They can it safely. We don't have these same complications.

With water-only fasting, that needs to be done in a restive state. You don't have 600 or 800 calories to compensate, so you're going to get more gluconeogenesis if you are too active.

It's a much more involved, much complicated process than, say, the modified fasting. However, when it's appropriate, It's very effective. And particularly if you're trying to get a tumor to break down, if your trying deal with resistant hypertension, If you are looking to neuro adaptation so you can get people to eat differently.

Water only fasting has a very powerful intervention, but it's not simple. It is not something that can be easily done without a little bit of support.

So, man, I want to get into different conditions. So if we continue with the diabetes one, what is it typically a stay at your clinic for a diabetic or pre-diabetic to be kind of…

So if the hemoglobin A1C is starting at 10 or less, which is our target goal for Institute Water Only Fasting. If they're coming in with a hemoglomerin A11C of 16, we're going to be doing some dietary stuff and getting them prepared, ready to able to adapt to fast.

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They're more willing to collaborate and cooperate with diet and lifestyle changes than they are when they feel like absolute crap all the time. And what's the compliance rate?

Is it a painful process that people go through? I mean, this is water fast. Can you tell us a little bit about that? Yeah, it's an intense process, but not a painful process.

In fact, quite the opposite. Many people coming in with really terrible pain syndromes and including addiction to pain medications that we have to wean them off of, and generally that response is good, But it is very intense and it, its transient.

So you get some low back pain, you got some headache, back goes away, You might get skin rashes, detoxification symptoms, palpitations, irritability, sleep disruption.

Sounds wonderful, doesn't it? But they're transient symptoms. They come, they go, and they move through. But we're in a controlled setting. We're being seen twice a day.

You know, we are going through a whole intense – we call it education. It's actually brainwashing. So that, you know after they are done, their willing to make these diet and lifestyle changes.

This is really an intense immersion program that they undergoing. Once you get into the fasting state, once you go

through those first few days, Where you're into ketosis, your brain converts to burning beta hydroxybutyric acid instead of glucose and all of these changes.

It's actually a relatively pleasant process for many people. I have patients that come up and they write screenplays. They do all kinds of things when they're fasting.

So very different environment. Before learning anything about fasting, before even getting interested, this is 20 years ago. When I graduated with the master's in health policy at Harvard in Boston, and I was moving for my first job out of state, just happy I had graduated, packing up.

My mom comes in and we're moving, I just forgot to eat a little bit. It went one day, two days, three days. Then I moved out-of-state. literally seven, eight days and no food.

And then I couldn't go back to food and I found it like really pleasant. You know, once the ketones start going and you're going through autophagy, just autopilot.

I literally just started thinking, hey, let me see how long it can last. They lasted 21 days before I started getting two bites on an apple and then bit by bit I went back.

I had to repeat my driver's license, and it was just the stress of reading the thing and then doing the things that got me back to food. An important point, though, is that long-term fasting, if not followed by careful refeeding protocol, can lead to refeeding syndrome and very serious complications in death.

medication, as you know, if you don't appropriately manage medication that can be a really serious complication. And that's the mistake that people make when they're fasting is they are too active so they get dehydrated or they come off the fast inappropriate and then they end up with problems from refeeding issues.

Here it's very important to clarify to whoever is listening is Dr.

Fasting for diabetes and metabolic syndrome

Allen and his hospital or big clinic is or inpatient, the focus is You have lymphoma, you have autoimmune, the meaning is because long-term fast doesn't come with any side effects.

It comes with you're going to lose a little bit of muscle. You're gonna feel the fatigue a bit. Your gonna metabolic rate. And these are things I'm going ask you how to adjust for those.

I know you can adjust. But what we're trying to say, I am trying help people not to go at home and do on their own 10, 14 days fast, right? So these interventions, are more balanced towards giving you short-term, drastic benefit because you have a health condition.

He doesn't do this for somebody who just went to fast and is healthy and it is. So this is an important intervention, a very serious intervention but a effective intervention.

A couple of points. Interestingly enough, we just did our first study looking at cardiometabolic changes in healthy people. And it turns out the magnitude, the change in normal intensive, supposedly healthy people is actually even larger than in sick people.

So it may be the people to get some of the best benefit of fasting or preventative application with short-term fasting. As you know, with Prolon and with the fasting, we're recommending people do three times per year the five-day fast.

want to challenge them before I forget about it is that we did a DEXA scan study where we actually tracked people's body composition changes after long-term fasting, and a lot of the old wives' tales are not true.

For example, if you look at people baseline after fasting and then at six-week follow-up, The bone mass is not reduced, despite the fact there's, you know, bed rest.

The lean mass percentage was higher at six week fault than it was at baseline. What goes down during fasting is primarily fat and preferentially visceral fat.

And the fat continues to come down even after lean tissue is replenished during recovery. So this is a not a situation when it's done properly where the people are depleting their lean masses.

They are in fact predominantly mobilizing fat in viseral fat, No, I agree. And the percentage lean body mass would be, because you're losing more fat, and this is an important theme and we see it a lot with Prolon, right?

Is fasting acts more, doesn't act like a low calorie diet where the body is tapping into muscle and fat together, or a Wagobi or an Zempig where you are losing both proportionally.

Fasting acts as a stress and the stress preferentially goes to the fat. and protect clean body mass. Why? Because also it increases growth hormone, the stress factors, and the growth hormones and stress factor go and tell the muscle, hey, you got to maintain, right?

We're in a stressful situation, we're going to need you to go find food. This is human evolution. And the body, if you have a little bit lower calorie, this is why most of the chronic low calorie diet are not working in the long term.

You downgrade your metabolic rate. You lose a little bit of bone, you lose little muscle. And this is what we're seeing with the wagobe and ozempic as well.

They're mitigating, they're mimicking the same effect. Fasting does the opposite, goes after the fat and tries to spare the muscle Now, I agree with what you're saying is proportion of the lean body mass is less decreased than the fat, but you will have a little bit of a decrease.

And this is, I said all this to introduce the notion of refeeding, where it's important to go back and say, okay, now that we reset your body, we're going to give you a bit protein and some training so that you gain back your muscle mass without gaining back the fats faster.

In one of these examples of 15 days fasting, you know, a person lost 18% body fat, 4% lean tissue, 55% of the total body load of visceral fat though. And the lean tissues, of course, is replenished while fat continues to come down.

How water fasting feels and why supervision matters

So you can reproportion your body, but the problem with water fasting is you do need to rest when you're doing it because your biggest burner of glucose is your brain and your muscles.

If you are overly active, you increase the glucose need, that's going to increase gluconeogenesis to meet that glucose demand. Otherwise, beta hydroxybutyric acid becomes the dominant fuel in the brain.

And so water fasting creates a unique opportunity to make that conversion possible. And obviously, we're a softer version of what you have. We do the five days, and we do it once a month.

And I just interviewed today two of the first patients, and one has cut half of their medications by month four, meaning just five days' time, so 20 days.

And then the other person is going to be off medication on all medications on month one. Again, not everyone's going achieve that. When we say month, we just mean five day, four times, that's not the full.

The secret in here is threefold and I always explain this to the patient and the same is happening probably with

you, Dr. Allen, is protection of lean body mass, which is the fastest burner of calories, right?

So we're helping you reset your taste buds to eat healthier and better and a plant-based and all of that. But at the time, we are keeping the engine. engine of the burn there.

Number two is the insulin resistance and tapping into the visceral fat. The number three, which is why the summit is called fasting and longevity, is autophagy, there's rejuvenation.

You know, when you go into fasting, and the prolonged fasting whether with Prolon or what Dr. Allen does, What's happening in the body has to make some tough decisions, right?

And guess what the tough decision are? They're going to tell the cells to rejuvenate, the Nobel Prize in medicine and autophagy. And what we see is the buddy is telling old cells, this senescent cells and zombie cells.

You know, I got to get rid of you, you just consume calories. you're not producing anything there. and the senescents cells are very detrimental because.

They induce what we call exponential aging. They start producing some, you know, they start to irritate the immune system and you have a higher inflammation called inflammation.

You start create this accelerated aging ambiance in the body and by getting rid of those cells, by rejuvenating the current one and pushing the stem cells.

You're getting a younger biological age you and the younger you is always away from the onset of the chronic disease or a better way to deal with them if you have them and that's a very important is why we titled this summit the fasting and longevity some of these are the key things.

Your muscles are preserved, you're more vibrant and younger with autophagy, and at the same time, we reverse the metabolic or reset your metabolism, which is 73% of Americans now are overweight.

And 90%, the latest statistics of America, 90% have certain metabolic issues, whether it's inflammation, overweight, cholesterol, triglycerides. This is why this prolonged fasting is working so well, because it is tackling all the three, like Dr.

Allen, It tackles the essence of the disease. The pills are just compensating for the behavior for nutrition. So, I mean, as I see it, the advantage of ProLon type model is that, you know, it's practical, It's safe, and you're able to do it on an outpatient basis.

the advantages to the long-term water-only fasting is it gives you a much more intense response, particularly for patients where whatever else they're doing isn't working well enough or fast enough.

Yeah. And so I want to talk about autoimmune. Can you talk a bit about why fasting can help auto immune diseases? Yeah. So what I can tell you is that what we see in terms of all measures of inflammation, whether it's, you know, the acute phase reactive proteins, whatever you want to look at, when you fast, it has a profound impact on inflammation initially increasing it and ultimately significantly decreasing it.

Body composition, muscle preservation, and refeeding

We just published a paper actually in Lancet, preprints, that talked about this increase in inflammatory inflammation that happens during fasting. We have another study now in that population looking at where are they at six weeks post-fasting, and of course not only does it normalize dramatic reduction in overall inflammation, So the inflammatory process is part of the healing process, but the net effect of chronic inflammation that fasting has is quite profound.

But you know, you can get a little bit confused if you just take one little time point and look at one biological mark

and you have to really look the big long-term picture to get a sense of what fasting is actually doing.

Of course, in managing rheumatoid arthritis, ulcerative colitis, ankylosing, spondylitis asthma, eczema, psoriasis, these conditions respond profoundly consistently to the combination of fasting and then of course a health promoting diet as well.

Obviously, you can't go back to greasy, fatty, slimy processed foods and expect to have the same lasting effects. You know, I get a lot of people sending us pictures on their psoriasis, on there, you know with polon on they're on, their skin, because you can see them easily on the skin.

And I bet with, with your clinics is the same. So you've, had patients with psoriasis said SA, what else? Well, we've actually published some great pictures on plaques psoriasis, you know, showing before, during, after, without the use of medications, really quite impressive.

Seborrheic keratosis that drop off during fasting, they make very great pre-post pictures. Basically, any of these autoimmune diseases tied to gut leakage tend to be responsive to fasting.

And I'm sure you see the same, the classic conditions. To add, we know there are three, I mean, there're multiple dimensions how fasting impacts autoimmune, but there's three big ones.

Number one is the leaky gut. And you mentioned that, you know, every day the food that we're eating is damaging the gut lining in our intestines. So we are leaking.

This is why it's called leaking. We're leaking molecules that are not supposed to get into our blood. When they get in, the immune system attacks them and the system sometimes does a mistake and cross-matches those with one of our organs and this is why it starts attacking us.

This is, this why autoimmune disease is increasing. It shouldn't increase if it had, if, you know, we were thought it was genetics, right? I mean, why, it's increasing, its environment, It's what we eat, is what would drink and all of that.

So the fact that you're fasting, your helping the healing of the dot lining and you decrease that leakage into the blood and by the way now there's leakage in the brain and a lot of discussions about whether Alzheimer's is a type 3 diabetes is merged with some leaky gut and some autoimmune process as well.

So that's the first benefit. The second benefit is we see that The body, when you fast, does not allow high calorie expenditure. And one of it is when have a hyper excited immune system replicating the T cells, attacking, raising the body temperature a little bit, the buddy shuts down that.

It's like, hey, I don't want you to attack. We need to save calories. So we see the attack going down very fast. As we know, fasting induces autophagy and healing.

The damage organ, that's number three, is trying to heal faster. There's a better call for rejuvenation within the cell. Three major impacts. I think there's another one.

And that's that there are both exogenous and endogenous toxins that accumulate within the cells of the body. You know, PCV doxin, pesticide residues, you know all kinds of various substances, much of which comes from the consumption of animal products that are biologically concentrated with those substances.

Fasting for autoimmune disease and inflammation

not really toxins, technically, but these are intermediary products of metabolism that in high concentration or in the wrong location or whatever can have detrimental effects.

You know, cholesterol is not a toxin, that you plug up your blood vessels with fat, it's probably not good thing. So I

think that, in fasting, you rapidly mobilize and process these materials.

and its inflammation level across the board, whether it's autoimmune or not, what you're describing is 100% true and an autophagy is part of detoxing as well and part, you know, getting, so it is the entire inflammation, level of the body that gets moved with it.

I have an interesting theory. I haven't seen too many people discuss this, but the very same biochemical changes you see with fasting are often the same ones you have with exercise, which is very interesting because in fasting you're resting, and in exercise you are vigorous, both of these interventions have one thing in common, they both deal with the consequences of dietary excess.

So whether you're exercising or you are fasting, BDNF levels increase. Every little marker that you see go up with exercise also tends to go with fasting.

I actually always say it is, we call it the intense training that says they do it three times a week is exactly like fasting and the walk-in everyday fasting is like eating healthy.

And they're both eating healthy and exercising every day a little bit is the right course of action. And then you interject with stress. This is why the intermittent stressful exercising with intermittent fasting or a bit prolonged, they create another level of betterness.

How my heart is going to respond when it's under stress is gonna actually develop new vessels. It's gonna rejuvenate. So it's taking the entire body to the next level and we do it with intensive exercise or fasting.

You know, I guess then our 40 day water only fasting is more like the ultra marathon. Yeah, your 40 days of CrossFit is a big… Well, Moses, David, Elijah, Jesus, and our patients fast up to 40-days, so…

I actually had one physician call me and asked me… They were doing a modified fast, they were giving a program like more so. They're eating a little bit of plant-based at a certain point.

I had a physician called me once and ask me if we also teach them how to park the Red Sea. Oh my God. It's all in the rift. But this is, I mean, and fasting has been part of the human diet forever.

So it's not a new notion. We ate and we did not eat throughout human evolution. This is very important. And our ancestors, imagine winter times, right, when they had to migrate.

Um, and then war times, et cetera, etc. I would draw when there was an excess of heat or not. It was a lot of days where food was scarce. And then a little of this where, where there is no food and the buddy is set up to store and also the cycles of winter and summer.

You store, then you spend and what's happening to us today, we store store stores, stores store. We age faster and we end up with chronic diseases. When you think about it, fasting is a biological adaptation.

All the humans that couldn't fast died. That's why everybody, I mean, what is fasting? It's basically converting brain, your biggest burner of glucose, from burning glucose to burning fat, specifically beta-hydroxybutyric acid.

So that mechanism is so critical to human survival that anybody that didn't have that capacity didn' make it the first time spring came late. An average 70 kilogram male can fast on water only around 70 days or so.

not that you necessarily should, but the point is this is so inherent to our structure. All we've done is take this ancient biological adaptation and applied it in a very unusual modern environment where people have dietary excess.

Fasting, exercise, longevity, and tradition

There's never been dietary access. It used to be only the kings got these diseases because they were the only ones that could eat the highly processed foods.

Now everybody's eating like a king and we've got a whole situation where 72% of people are overweight or obese. If you're not overweight, you are abnormal.

The fastest way to, I always present, there's a slide that I present where, you know, a person hitting another person in the head and it's causing pain.

And they say, what's the solution? It's like, stop hitting them, right? And then when you overfeed the person, like what the solutions, no, it just stop that feeding and give them a period for them to burn what they stuck.

But I think this is why the summit, this why we're bringing the best in class doctors to come in and the beauty is we're not coming to bring more chemicals or more additives or artificial fads.

We're coming in to say, for the first time in history, the science of longevity and science through healing diseases is merging with the signs of natural interventions, natural human evolution.

And by the way, religion is joining. Altogether, fasting is the only word that is common to all divine religions. And this is, we got to bring back humanity to what we're supposed to do, which is eat healthy and then do intermittent fasting and sometimes prolonged fasting.

The Jews, the Jains, Hindus, Christians, Muslims, everybody has a tradition about fasting. They may not agree on everything, but that's one thing that is in common.

And it's interesting, we've brought together a lot of the pre-Index Medicus fasting literature, because there's a whole lot older literature and the new stuff.

In fact, on our website, fasting dot org, it is a fasting compendium website. People can go in there and search that literature. and really review what's really been done, particularly on the long-term fasting, not so much all the stuff you guys are doing with the intermittent fast, but the longer- term, water-only fasting.

That literature has been brought together reasonably efficiently, so that's a nice resource for people interested in long term fasting Well, it was a pleasure to have you today.

This is probably a session that's going to shock a lot of people, first about how a center like yours exists and what it does and the power of prolonged fasting.

You have done the approach of supervising people inpatient and make sure they're safe and they can do it safe. We've done that approach up doing a modified fast with food so that they could do at home.

And it's done, we've, you know, God bless Walter Longo. was spent 23 years and there's been there've been a lot of attempts to bring back fasting to the world but the science that came out of USC and Valter kind of gathered that critical mass and then many other people like yourself who rallied and said yes we have also the proof and we the effectiveness and I think this is becoming very factual and part of every human's life hopefully.

If there's doctors that want to learn and see water-only fasting, we do offer internship residency where no cost to the doctors. We provide them room, board and training and they can get experience actually seeing people get well and watch this fasting process go through its course.

And how long can they be? It depends on what level of skill they want to acquire, but some of them are here for a month or two to see some people through the cycle.

Some are in here as long as a year. We're a formal ND residency training site. we have lots of different opportunities depending on the doctor and what they're trying to accomplish.

But they can get a chance to get some real hands-on experience actually utilizing this if they wanted here in our facility in Santa Rosa. For those who want a read more, it's a True North facility.

If you want Google it, then you can read it. TrueNorthHealth.com. Yeah. We'll appreciate you very much and thank you for your time today. You're good.