Health Benefits Of Fasting Mimicking Diets Transcript

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Introduction to Fast Mimicking Diet

In this lecture, we are going to be talking about the fast mimicking diet that is offered by L Nutra to join us for this. I have Doctor William Hsu, a distinguished endocrinologist with a 20 year history at Harvard's Joslin Diabetes Center, and he is the chief medical officer for L Nutra.

Thank you so much for joining us. Doctor Hsu, how are you doing today? Thank you. Carolynn. Thank you for having me on your show. So tell us a little bit about what the fast mimicking diet is, why it exists, why it might make sense for someone to use.

Yeah. I'm fascinated in diet. It's, we call it, in short, fmd. So fat American diet, was given birth to, by professor not too long ago at University of Southern California.

Over 25 years of NIH funded research, to, provide a five day, a complete nutrition kit that mimics many of the effects of fasting. So, in other words, you can actually consume what's in the box, right?

What's, provided for, in this in this, medically tailored meal, in five days, that can mimic many of the benefits of a five day long fast. As you can imagine, five day fasting is extremely difficult, even though science and technology have demonstrated to be very helpful.

But, it's it's it's not useful if nobody wants to do it. So the technology has involved, with lots of science to demonstrate that one can actually consume the nutrients in, in this, in the FMD, but still get the benefits of fasting.

Yeah. So I actually tried it, a little bit ago, and there is no way that I could do a five day fast. It doesn't appeal to me.

How the Diet Works

And I, I personally don't have an interest in doing that, but this program felt doable to me. I thought, you know, like, there's real food that I get to eat and, I was pretty amazed at the technology myself, and it didn't really feel like fasting at all because you are eating continuously throughout that five days. You're just not eating, eating very much.

And then of course, it's really specialized, food. Can you tell us more about what people you know can expect when they're doing the program? Yeah. And so first of all, it's really not a Di, even though we call it the fasting that we die is really a misnomer.

It's really a science. So, so the the idea is every cell in the body has these nutrient sensors, whether they are the years and eyes that can tell whether there's protein, there's amino acids and glucose coming in.

And these sensors generally are very activated when you eat the food, when you're eating nutritious food. But now with this technology, what what happen is that these sensors don't pick up the signals so you can actually consume these nutrients.

It's like flying under the radar. It's like not activating the the thermostat. So the cells think that you're actually, fasting for 5 to 5 days. What you can expect from the FMD is actually something that's familiar to your eyes.

There seems they are bars. They're vitamins, but they're scientifically formulated to to actually fall below that threshold of nutrient detection. And that's where science really intersects with tradition.

Well, tell us a little bit more about that science. What did the studies show? Can you tell us what those studies looked like and what the science is a little bit more?

Yeah. This is where I think FMD has such a differentiation from any other nutrition out there. We have published over 18 clinical trials and there are 14 ongoing, that we're working on right now.

So these are, studies done with, renowned universities around the world. We have over 130 patents around the globe. And so, it really started in laboratory science and then went into clinical research and then clinical trials demonstrating effects.

So the I'll briefly tell you, especially in the area of cardiometabolic space, for example, three cycles of this five day SMD five days in a month. So that means for the rest of 25 days, you actually go back to eating whatever you're eating.

No drugs?

Clinical Trials and Weight Loss Results

No, demand on every day. Lifestyle change with five days per month. What we saw in a three cycle study was that people lost weight in this five days. Now, the weight loss is a very common topic, but I think the differentiation here is that if a fad actually drives, visceral fat loss, so that means you're losing belly fat.

And yet the most important thing is that with FMD, you're not losing muscle. This is actually really, really important. Right. So it's a fat driven weight loss is focused on the visceral fat, the worst part of the fat in the body.

And yet it preserves lean body mass. Now the reason for that is because it's not like a a low calorie diet where you just take a low calorie every single day for a month, two months, three months is just five days of intense stress to the body.

And so in this stressful situation, you can imagine that the body is going to secrete these, these kind of, kind of regulatory hormones or these, hormones such as growth hormones, because it's a stress in the body.

You're not eating. And so that growth hormone is going to maintain the muscle, mass in the body. And plus, FMD is also specially formulated to preserve lean body mass with a special composition.

So in the end, what the studies show was people lost the the way they want to lose, but they preserve lean body mass. And that and that is shown in three cycle study, in four cycle study and six cycle study.

And now we've just recently published a 12 cycle studies all showing the same. So even so the goal is that you do this once a month, right? For five days.

And so when you say three cycles, that's three months of doing this once a month or six months. And so what you're saying is in those studies that even when you're repeating this every month, the weight loss is all that visceral fat, that sort of metabolically unhealthy fat that people carry, in the midsection and they're continuing to preserve muscle mass or lean mass, even when they're continuing to do this on a monthly basis.

That's correct. And three months sounds like a long time. Six months sounds like a long time. But when you think about this, is five days per month is not every day.

In fact, we did a study, where we did four cycles. Right. So that's four and five days per month. So five times four is 20, 20 days versus the every single day Mediterranean diet.

So one of the most tested diet in the world is to 20 days versus 120 days. In the end it was the same weight loss. And but the major difference was that in the Mediterranean diet study, people lost a third of their weight loss was due to muscle loss.

While in the PhD arm, there was virtually no loss. And this is the differentiation. That's that's amazing because that's what we're always shooting for, right?

With weight loss, regardless of how we're doing it, whether it's using a dietary strategy, whether it's using a medication, is we want to preserve lean mass.

So that is pretty phenomenal that this is this is able to do that. I think you hit on an important point to which one of the things I always teach, when I'm teaching other physicians or my patients is when we come up with nutrition strategies, they have to be something we can stick with long term, right.

And so that's there's lots of really aggressive nutrition strategies that that work. But people are not able to sustain them for years. But the patients I've utilized this program for love exactly what you're saying, which is that it's five days, right.

Like, okay, I can commit to five days and you can sort of pick which five days in a row of the month you're doing this. So, you know, if you have a big work conference or something may not be the time you're doing.

You have family in town may not be the time you're doing it. But it's really a flexible strategy for a lot of people. Yeah. I remember in my clinic when I was taking care of, patients and needing to lose weight.

May they be people who. Who had diabetes or without diabetes. When you ask them to commit to a six month, nutrition program of weight loss and hyper caloric diet where they have to reduce their calorie diet, they always tell you, sure, doctor will do it.

Why It Preserves Lean Mass

And then what happened, you see, is that the motivation actually just decreases, right? The the hour after the the hour after the visit, I just keep dropping right to two a week.

Their motivation is down to have. And then the month later they totally forgot what they committed to. Yeah. And I'll challenge you that. We call that motivation.

But there's actually biology behind that. Right. Because when people start to cut calories and lose weight, metabolic rate goes down in hunger goes up. Right.

We have ghrelin, which is that hunger hormone that goes up when we're consistently dieting every day. And our satiation, our feeling of being full goes down.

And so that's one of the things that I think we're starting to recognize as a challenge when we help people lose weight is that there's these hormones at play.

And so we feel like we gave up. We lost our willpower. But really biology just came in and made us hungry. And we learned that through through the days of of GLP one agonist.

Right. Like those epic others where once you overcome their biology, weight loss comes. But however I mean, it's also not a perfect solution because even with GLP one receptor agonist common drugs, for example, and others, you're still losing that muscle mass, right?

So can you tell us more? Oh go ahead. No no no go ahead please. Well, I want to know a little bit more about the science behind why this is able to preserve muscle mass when a lot of other strategies, don't do that.

So what's different about, al-Nusra and fasting, making that does this. So let's go to the composition. So this is when science meets pragmatism. Right.

So since there's only five days, and what we try to do is, is not so much driving the weight loss, but how can we make the cells really rejuvenate itself.

Right. So the company al-Nusra is actually named after longevity through nutrition. So you can imagine all these

new tries actually longevity through nutrition.

And so what the scientists and al-Nusra, including the founder, Professor Walter Longo has found, was that there was an intersection between fasting, nutrition and longevity.

And so, in other words, when you begin to fast a law order mechanism, organisms such as Isa fruit flies or mammals, they actually live longer. So there's a really a unique relationship between fasting longevity.

But the problem is that you can fast everybody all the time. It's you also need the nutrition arm, and it turns out is the amount and intensity of the fasting.

And also the feeding after, that, that fasting that really completes the picture of cellular rejuvenation. Allow me to explain. So in 2016, a Nobel Prize was given to Professor Toomey for discovering this mechanism of cellular autophagy, which is triggered by fasting.

In other words, in nature organism, we've always seen times where there was poverty, there was starvation. I mean, this is just part of your part of, you know, life on Earth.

So you can imagine that during that time of caloric restriction, what happens? The cells have to shrink. In fact, the cells think that it's going to die after a couple of days or without food.

The cells need to find where the source of energy is, and certainly it's going to look for fats.

Fasting, Autophagy, and Longevity

But in addition, it's going to look inward inside the cells and and thinking that, well, what can I burn as a source of calorie in order to survive? So is it going to go to the nucleus whereas the brain of the cell.

Of course not. Because the cells would die. It's going to look for, you know, more disposable components of the cells. For example, older mitochondria, for example, misfolded proteins, older cellular organelles.

So that's what the cells go to after 3 or 4 days of fasting. So the cells is going to live up as a source of energy, hoping that new source of food will come in the next day.

Now. So by that process, the cells actually got rid of a lot of the older, more worn out, more dysfunctional parts of the cell. Think about when food eventually shows up.

It could be six day, seven day, eight day. What happens? The cells ground and back. Now you just re completing re completely recycle. Some of these older parts are replaced with new parts.

That's called cellular rejuvenation. The scientific name is called cellular autophagy. Won the Nobel Prize in 2016. So the mechanism how FMD actually triggers all the cellular mechanism is exactly hacking the system to mimic that fasting effect the cell shrink, and then when food comes back again, you actually replace them back.

And so thereby I often say that weight loss is actually a beneficial side effect of fasting. I love that. So the main sort of focus of this was more on longevity aka living longer.

Right? Like health. And then the side effect is that there's weight loss. And that's exactly right, because you don't want to shrink the cells and not replace them back.

You actually want to replace them back. Right? So think about exercise. Right. You're turning upon the muscle. And and you give us some time to heal with rest and nutrition.

The cells heal back again. Same thing. When you fast you shrink the cells. You get rid of some of the older components. Right. And then and then when food is available again you grow them back.

And in the process you're getting rid of a lot of the bad stuff. You're getting rid of the excess calories. And this is how the mechanism of cell rejuvenation is very different than a long term, low calorie diet that that leads to weight loss.

This is also very different than suppressing appetite for, you know, three, six, nine, 12 months, with a drug. The mechanism is altogether different. In fact, most recently, we published a paper in Nature Communications, the three cycles of this FMD three cycle again, five days times 315 days of effort per year of this FMD was able to was demonstrated to lower biologic age by two and a half years and kind of like, you know, like this because the result was independent of weight loss.

So even if you don't lose weight, you're getting health benefits from this. That's exactly right. You're actually lowering your biological age. So whatever your age is with g cycles, we've demonstrated that the FMD can lower that biologic age score by two and a half years.

So I think this is really an amazing way to look at, how do we really drive healthy? Longevity. One of the things I emphasize with my patients is that all of the weight loss interventions that I use are to improve health, and I my motto is sort of I help people lose weight to treat and prevent medical problems.

Right? This is not about esthetics. This is not about being a certain size. And I think that what you're hitting home with your program is that, in the studies, people do often lose weight.

But more importantly, there's this health benefit. And so the it's worthwhile to do fast mimicking even if the scale doesn't change, you might be adding two and a half years to your life.

And this is really a such a concept change here because, I mean, you and I both know we've been in the medical field for so long, each one of us treats a different disease.

And the endocrinologist, I'm supposed to take care of people with diabetes. The heart doctor takes care of the heart. Oncologists take it right. We all kind of treat disease separately, except for the family physician that treat everything.

Right. But but in the end, when you think about it like we don't have Alzheimer's when we are 30s, most people don't. We hardly see cancer other than use kind of, you know, the, you know, very specific cancer.

Biological Age and Health Benefits

But we're all, young generally as you get older, right? Your body's ability to repair goes down. Diabetes use the not we use not to, you know, used to not see them until people are in their 50s and 60s.

Now we're seeing younger. But you can imagine a lot of these are age related conditions. What if we can change the paradigm a little bit? What if we can help the cells rejuvenate?

Well, what if we can lower a biological age, right. So the concept of biological age is different than your chronological age. You could be at any age.

You could be 40 years old, but you could have a body of 45, or you could have a body of 35. So what if we use these autophagy process, right? What do we mimic fast in order for the cells to rejuvenate itself, and thereby that every cell is under the stress of no food, and it's going to react by recycling those worn out parts with new parts to autophagy.

Maybe we can then reverse many of these age related conditions. Yeah, that's that's really powerful. And I agree, you know, as part of what attracted me to family medicine as a physician and what attracted me to, specializing in obesity medicine was looking at the big picture.

All of these things are connected. And that's one of the things we're highlighting in this summit is we have cancer

and Alzheimer's and diabetes and other experts coming on talking about how weight and metabolic health affects all of those things and increases the risk for that.

But I agree with you that there's this underlying, process, this sort of metabolic disease that we can treat that improves all of those things in one fell swoop.

Right. And so when we can find the things that connect everything in medicine, as opposed to trying to wait for Alzheimer's or wait for diabetes or wait for cancer to treat it, when we can do things proactively.

Again, that's why I became a family physician, right? Like, what can we do big picture wise to prevent those things? What other what other science do you have for us on fast mimicking.

Is I think the first and foremost area is in the area of, metabolic health. Right. When you fast, one of the most direct benefits is going to be metabolic health.

So, remember, I show you that we have studies in three cycles or six and 12. It, we've designed it so that the six cycles and 12 cycles were actually tested in people with type two diabetes.

And, so the six cycle study, I think is quite interesting. Was run at, was conducted at the University of, Heidelberg in Germany. And so this was a study, we call it randomized controlled study.

So sort of, where you take a group of people, you just assign them randomly to either the intervention of FMD or to standard care, and you just follow them for six months and see what happens.

Now, remember, again, six months does a like a lot, but here is five days per month. And then people go back to eating whatever they were eating for the rest 25 days.

In the end, when you compare the results between the intervention arm and the control arm, we saw a whopping 1.4 81C drop 1.4. Wow. I mean, comparable to many of our medications, right?

That's exactly right. So hemoglobin one C is a three months glucose marker. And it's tied to complications and so on so forth.

Diabetes Outcomes and Medication Reduction

So we know, for example, a point drop in hemoglobin LNC equals to about 30% reduction in complications and further down the line. So 1.4 is very respectable.

But at the same time people lost about 22 pounds of of weight. Again, I always call. That weight sorry, 22 pounds. And people with type two diabetes. That's right.

And it's much harder to lose weight in people with type two diabetes. Right. But in that study, 22 pounds. And I think the best news is that they preserve their lean body mass.

Think about that. Right to ability to drive fat loss, preserve the lean body mass. We also saw a 59% reduction in insulin resistance marker Homa er. So which is really shows the efficiency of your body's ability to use the insulin effectively.

And the insulin resistance was down by 59%. Yeah. The best news from the study in my mind as a clinician, was that the people who took the fat, the two thirds of them reduced their medications.

I would imagine. Right. Because if you're bringing the A1, C down 1.4 points, that probably means you can. If you're on multiple diabetes medicines, you could get rid of like one of them, right?

At least that's exactly right. So so the current paradigm of care, if you go to your doctor is if your glucose is not well

controlled. What what did the doctors do.

They increase your drug. They add drugs. But in our in this study people actually had to reduce their medications because their A1 c dropped, their physiology changed.

So who should be very happy? Well, the doctor should be very happy because now we're truly practicing healthcare, not sick. Yeah, we're getting less medicine.

Number two, you have. A safety question then. Because when we're talking about type two diabetes and we're talking about medication, we're talking about fast mimicking, there's probably some people who need to proceed with caution, if they're already on a medication that lowers blood sugar, if they're on insulin, or maybe a sulfonylurea.

Do those people need to take special precautions, discuss this with their prescriber before they do it? If they're on some of those medicines that lower blood sugar or.

Yeah. Carolynn, you're you're exactly right. And this is why in the diabetes study and later on now we actually have a program option for for our listeners is that we've created L Nutra Health, a separate division, from the maker of Poland, where if you have diabetes, you enroll in a program.

In a program, either your doctor have to supervise this, or we provide the telehealth doctors that will manage the medication de-escalation. So we are in the business of diabetes remission, meaning getting your sugar to to a good control with less medicine.

So the El Nitro Health is a program that's designed to drive diabetes, remission or regression. In other words, we want, we no longer want diabetes to be managed with just better glucose level.

We actually want to get rid of the medicine. That's been such a model of care for for as long as I can remember. So I think just to highlight, if someone does have type two diabetes, they should discuss this program, and be supervised probably by their physician.

Or they can reach out to the al-Nusra team, and find someone who can help navigate possible medication changes that could need to happen. If they're needing less medicine on this program.

This is such an important emphasis because it works. We have put together a comprehensive program called Neutral Health to help people to drive a rejuvenation of their body right through treating the root cause of diabetes.

And so to reverse their type two diabetes through a comprehensive program where you will have, doctor who specialize in lifestyle medicine, they'll have a dietitian to basically be your personal coach.

Supervised Program and How to Get Started

Throughout this 12 month program, you'll have an app and many connected devices to support you. And then, of course, the program will be centered around, this very unique, fast American diet program.

Wonderful. And if people want to find that, where can they go? Yeah, they if you're interested in this and you certainly if you have diabetes and you should not do this on your own, come to Lnutrahealth.com. El Dash health, which is the sign behind me here just at dot com Wonderful.

Well, is there anything about fast mimicking or the program that you feel like we didn't cover in our talk? A lot of people when they hear about fasting, you know, Carolynn I think they're they're scared.

You know, I just wanted to, to to say that, we actually first every single day look at when we sleep, we fast. In fact, we should have spent a little bit more time not eating.

And and I think we have now over, 600,000 people who have tried fmd, around the globe. And now we've established this special program, neutral Health to with medical supervision, so you can come off your medications safely, but also because there is actually actual food that's scientifically developed, you're not going to it's it's ten times easier than just going through what, what are we I.

Don't know where you got that number from. I would say it's 100 times easier. Just be a person who likes. A. Because there's no way I would ever fast for five days.

But, when you have real food and it's it's not all like bars, like it's like real food. It's based in plants. It's based in nuts and fruit and olives.

Then it feels really doable for five days. Yeah. And the whole point is driving really, you know, familiarity. Right. So rather than put it in a pill form or drug form or injectable, we, we put it in something that, you know, you can accept.

This is part of your lifestyle. To do a couple of cycles in a year lowers your biological age. Also drive potentially drive reversal of many of the the underlying causes of age related conditions.

Well wonderful. Thank you so much for being part of our Doctor Talks program today. Thank you. I hope that your listeners will enjoy the learning about this, this true innovation in livestock medicine.