

Intermittent Fasting Expert Interview: Transcript

Krista Scott-Dixon: Well, let's set it up with some context. I mean, your free e-book on your experiences with intermittent fasting is available on the PN website. And we've linked to it in lots of places in the guide.

So for the listeners who don't know you, and I can't imagine who that would be, but let's imagine there's a listener who doesn't know who you are: Can you start off by giving them some context about who you are and how you came to exploring intermittent fasting, and I mean I'm thinking like lots of things, right, your exercise history. I mean, you describe yourself as a professional dieter. Your life situation. What spoke to you. And anything really you want to talk about.

John Berardi: Well, it's not so far-fetched that people wouldn't have heard of me because at the last PN team meeting, actually, I was talking to two new team members, two new young women on the team who, after I walked away, leaned over to Erin, who, as you know, has been with PN since the beginning, and they were like, "Who was that bearded man anyway?" Because you remember, I had the big beard. And she was like, "Uh, that's JB", so they had no idea who I was.

So people within PN don't even know who I am, let alone outside. Yeah, for those of you who don't know, and that's okay, my background is basically many, many moons ago I got a PhD in exercise and nutritional biochemistry, I've been a competitive track athlete, a competitive bodybuilder, so performance and physique manipulation has been a really long part of my history, as has a scientific approach to looking at them. And then of course, you know, along with Phil Caravaggio, I started Precision Nutrition. Also, many moons ago.

And you know, through PN. You know, if folks are listening to this, they probably know what PN is, we've just got a tremendous amount of coaching experience and education experience of coaching clients and working with professionals.

So, you know, really, if there's something to have been done in this field, I've, I've done it, or dabbled in it, that's for sure. And, germane to this conversation, over a decade ago now, probably closer to twelve years ago, I became really, really interested in intermittent fasting.

And sort of that led to the creation of the free online book, and a lot of the stuff that's come since.

The intermittent fasting book has been downloaded over four million times now, so I have to believe it's one of the most influential resources on intermittent fasting that's been in the industry.

Krista Scott-Dixon: Wow, I didn't know that. Good for you. Four million downloads. That's really impressive and I'm happy to hear it, because I think that your treatment of the topic — which we'll get into in a second — is such a thoughtful one and it really comes a lot out of your experiences with self-experimentation. That's something you've always had a value of, I know back in the day you were doing other self-experiments, like going vegan for a particular period of time, or whatever.

So I mean, you've always been big on self-experimentation and for you, what's been the value of that, and what are some of the other things that you've tried as self-experiments?

John Berardi: Yeah, so, you know, I always have a bit of a caution when it comes to self-experimentation. Because what I think I actually prefer is guided experimentation.

I think it's really difficult to do experiments. You know, you have a PhD. Also, and not to deify the academic process because there's some flaws to it for sure, but the scientific method itself is primarily what we're taught when we go and get advanced degrees. And for me it's just knowing when you're doing laboratory work how challenging it is to isolate and control variables and then draw meaningful conclusions that aren't just superstition from those data. I mean, it takes a whole team. It takes a very particular approach.

So the sense that the average person, or the average individual — and that includes me in the process, like, I'm just one person working on a thing — is going to tease out meaningful insights about how our bodies work and about what diet or what particular small change to our diet is going to lead to a causal effect on our body composition or our health. I mean, that's a tall order. It's a tall order to try some stuff out on yourself, and that process to lead to meaningful conclusion.

What we're far more likely to get is superstition. You know, like, “I wore these underwear when I pitched the no-hitter, so I should wear these underwear every time I pitch.” That's what we're ending up with.

So that's why we see a lot of people who are so heavy on a particular, and sometimes a drastic, nutritional approach, is because they haven't done self-experimentation. They've done self-*superstition* and that's why I think guided experimentation is far more valid. You know, I think [Richard] Feynman said, “The hardest thing is not to be fooled. And the hardest person, and the most difficult thing is, that we all tend to fool ourselves.”

And so that's one thing about this, I always have people in my corner. As you know, a year and a half ago, I was diagnosed with an autoimmune situation. People are like, "Who's the functional medicine doctor you're working with?" I'm like, I had like six people that I talk to on a regular basis about this, because I want to make sure I'm getting objective, insightful points of view, because even me trained in the scientific method and having done lots of research projects, am prone to superstition about this. It's just too hard to tease it out.

So anyway, I mean, that's my overall take on self-experimentation. It's nice in theory, it's a groovy thing to talk about. But in practice, it's just way, way harder than then people suggest it would be. And even people who are like, "No, no, you don't understand, I'm very meticulous." Well, being meticulous and recording things in in lab books or however you do it doesn't necessarily mean you understand the impact of all variables on the outcome that you're trying to get to. And that you've controlled all of them in the process.

That's why it's great to have some help and support there, but I mean for me things I have experimented with, obviously I did the six month intermittent fasting experiment.

You mentioned the vegan one. You might remember the experiment we did with Nate Green, the *Bigger, Smaller Bigger* one, where we tried to mimic what some martial artists do, where they might gain a bunch of strength and mass during a training camp, then they cut weight and lose 20 pounds in a matter of four or five days and then they pack those 20 pounds back on in a matter of 24 to 48 hours. So that was another fun experiment we did.

The stuff we did with eggshell membrane and joint health and joint pain. So there was some noise, a bunch of years ago, about how, you know how when you hard boil eggs that little membrane that makes it difficult to peel the eggshell off of the egg white, that thin layer? There might be some things in there that actually help with joint degeneration, fluid in your joints, and things like that. So we tested that on myself first and then we tested on PN folks, and we did like joint-challenging activities for people with reported joint pain, to see if this could help with that.

The list goes on. Manipulating urinary pH with green food supplements. So this is a long standing history of me doing a bunch of personal manipulations to see essentially what scientists do, answer questions that we have, and then turning that into something a bit more, where we might test that on 30 or PN readers and subscribers, and then after that, take it out into the scientific community for peer reviewed, placebo-controlled trials.

That's kind of been my thing for the last few years. I was so heavily entrenched with that in academia, but not interested in being in academia as a career, and then I came out into what people call the public sector, and I'm like, but "I still have questions. I still like testing things. So is there a way we can do this?"

That looks a little bit like self-experimentation to start with, and then becomes something more that really can positively contribute to our understanding of how the body works.

Krista Scott-Dixon: And let me just circle back around, having given this context, let me sort of circle back around to the first area of questioning, which is OK, so you believe in self-experimentation for all of these reasons and you have all these caveats around it, and you have a history of doing other ones in the past. And something says to you, “Try this one.” Like, devote six months of your life trying this one, gathering data, making a bunch of trade-offs and sacrifices, or whatever. What was it about fasting that inspired you to go all in on it?

John Berardi: It's a great question. And you know, I think it's really easy to lose what we might call a sense of place and time, when we talk about things like the intermittent fasting project. When you read it, it doesn't seem dated. It feels like it could have been written yesterday. But in fact, when did we do that 2008? Something like that? 2009?

Krista Scott-Dixon: Yeah, it was about ten years ago.

John Berardi: Yeah, so you have to think about what was happening at that time. And at that time, what was happening was everyone believed — and modern people can laugh at us ten years ago — but literally everyone believed in health and fitness that eating small meals frequently throughout the day was the path, to robust health, to physique transformation. I mean, you remember this. It was a foregone conclusion. There was no debating this fact.

If you told someone you ate infrequently, they immediately judged you as not evidence-based, not doing the right things for your own health and fitness. Nowadays, we know that if someone says, “Oh, all the research has shown that eating small meals frequently throughout the day is the way to health”, you would call them *not* evidence-based. But back then, that was the evidence-based conclusion, based on a limited body of literature.

So what was happening was, everyone was saying this, we were teaching it at PN, and then, there were a few, I don't know I guess, and this is how all these little movements start, contrarians who were saying, “No, no, there might be another path.”

And there wasn't much data yet. But there were little nuggets here and there that you could discover. So in little dark recesses of the internet, you would find people talking about the benefits of fasting. Not for religious reasons, [but] for the reasons that people in health and fitness would be curious about it: for fat loss, for muscle gain, for improved longevity, for quality of life, all this kind of stuff.

So as that movement grew, and still, I mean, this is small, it's really small, you're just hearing all these anecdotes, you know, people saying “This really changed my life. This is really positive. This is really beneficial.”

And so I got really, really curious, so I just started reading all the sources, you know, a mutual friend of ours, Brad Pilon, was writing about it, Martin Berkhan was another one who was a real early pioneer on this. I just started reading everything they were saying and listening to the people who were following their protocols and stuff.

Then some little bits of research were being published finally about it. So I thought, “Man, I'd love to give this a try”, like the groundswell of interest in a particular idea that seemed diametrically opposed to the prevalent idea of the time was really intriguing to me. That was really the impetus for me wanting to do this. But you know, I didn't want to just do it, like I wanted to try it and document everything.

And again, place and time and environment, generally I've enjoyed a really positive reputation, as has PN, over the course of my career and the course of PN's life. So I thought, “Man, if PN started talking about this in a really open, non-judgmental, non-dogmatic way, I think we could really lay out a path for people to see that this is a matter of personal preference, not a matter of rightness or wrongness.”

In other words, you could achieve your goals, eating small meals frequently or bigger meals infrequently. And we're not, you know, dark renegades hiding in the corners of the internet, talking about this. We're a well-regarded, mainstream group. If we talk about this, publish it, share our experiences, talk about the research, we might help people land in a more moderate place on this subject, rather than constant infighting.

You know, nowadays it's vegan versus carnivore. But this was that debate. This was the same debate ten, twelve years ago. So it's really important to recognize that place in time. It would be like nowadays us doing a project on this very thing: Dr. Berardi goes vegan for six months, and then carnivore for six months, and shares his bloodwork, and shares perceptions of energy and cognitive processes, and documents body composition, it would be the same. It held the same kind of interest then as what I think would be today if we did that kind of vegan versus carnivore experiment.

Krista Scott-Dixon: It's so interesting you mentioned history, and I'm really glad that you did, because I think that coaching is still a relatively younger industry and the people in it are younger, and so there's often a sense of, like, a loss of history, in a way, it feels like so many of the things, the conversations that we're having right now are so new, right.

Like the keto diet is another great example of that, which, as we know, has been around, technically, for thousands of years. But in modern terms, since the 20s. And so there's often this sense of, like, "This is a completely new question that we're all struggling with as human beings."

John Berardi: The 1920s, by the way. 100 years ago, 20s.

Krista Scott-Dixon: And I, and I love that you mentioned the context of the dogma, because it really was the received wisdom of the day. We insisted on it as a practice in our PN Coaching program, which is, like, when I think back about it, seems so crazy to tell people who are mostly interested in fat loss that they *had* to be eating every two to three hours, like it just seems a very counter-intuitive claim.

But I'm also glad that you mentioned the refutation of one's views, or the disruption of common wisdom, because I came to the question sort of a similar way, which is that maybe 15, 20 years ago, someone asked me a question about athletes performing during Ramadan and my immediate response before I read any evidence was like, "Well, no, of course, their performance is going to suck during this time. It's impossible. You can't do it, they're losing muscle mass, blah, blah, blah."

And then I was like, "Before I run my mouth, I should probably like, dig into the research." Which I'm really glad I did. And what we discovered, of course, is that yes, there's individual differences in performance by sport type usually, or when they trained or whatever. But a lot of people during Ramadan actually get healthier, despite the fact that there's a lot of eating and drinking outside of the fasting periods, so that was really interesting to me, and that, along with the research on caloric restriction extending lifespan, was what piqued my curiosity. But like you said, it was so antithetical to what we thought and believed at the time. So I salute you for being so willing to go there.

With that in mind, I'm kind of wondering, what was your first experience with fasting like? Did you also have some level of fear that, like, "Oh my god, in the next 24 hours, I'm going to lose all my muscle mass or break my metabolism or something?"

John Berardi: Mm hmm. Yeah. I mean, I think, probably not, because I tend not to go lightly into these kind of experiments, which is another example of why guided experimentation is better than self. Like you need to know how to prepare, like not only emotionally for the threat of muscle loss or whatever, but also practically, like what are the steps required to do fasting appropriately?

Not just try it in a ham-fisted beginner kind of way, which is how we'd all approach this, right, but like, appropriately do it with best practices. It's kind of like with the vegan thing nowadays. A lot of people do take downs of a vegan diet using poorly executed vegan diet as the straw man to take

down, whereas, I mean, there's some fairness to that, because most beginners will do a poorly executed vegan diet.

But we have to define our terms. Are we talking about a poorly executed or well executed one? And there'd be different argument pros and cons to each. The same was true here. So I wasn't that worried about it. But again, it was because I had prepared. You know, I had spent months reading up on this, best practices, I reached out to people. I asked them, like, "What mistakes did you make in the beginning? What did you learn?"

For example, one thing was just don't go too hard too fast. You know, it's so appealing. There's a little element of all-or-nothing or hardcore elitism in every single one of us. That idea of, "All right, well, if we're going to do this fasting thing. Let's do it all the way." That was a mistake. That's what I was cautioned against. Go into this water slowly and build up your tolerance for fasting before you go try a five-day, six-day without food, water-only fast.

That's only a recipe for disaster. So that was really how I prepared emotionally, and also practically. Who are the people who are *coaching* this? And again, not just the people who are *trying* this, which is what we see the internet inundated with, but who are the people who are *coaching* this, who have enough experience to say, "Oh, I learned this a long time ago. You can leapfrog these little beginner mistakes."

For me, I felt pretty good about it. My first fasting experiment was just a single day. Like, can I go one day without eating food. I did it on a Sunday and, you know, Amanda my wife and I have four children now, but back then, it was pre-kids, so it was just me and my wife hanging out on a lazy Sunday and me not eating.

That was the first experiment. And that was the first trial of intermittent fasting. I just did that once a week. But that was all part of what we documented in the book, even prior to that, I just did one, like, on a random month, and then I'll maybe try one next month and do little tweaks throughout the day, like would I drink coffee or green tea, or have branched-chain amino acids during the day, which was again the popular dogma of the day. Like, you won't lose muscle if you use branched-chain amino acids while you're fasting. Nowadays branched-chain amino acids are out of favor. So people would mock that aspect of the book. Why would Berardi do BCAA, as everyone knows, dot, dot, dot, BCAAs are worthless, right? But at the time, that was the inherited wisdom, that everyone believed that was best practice.

So anyway, that was my initiation, just a one day fast, somewhat randomly. Then when I decided to actually document everything, it was, you know, a regular weekly one day fast, and then I progressed with limited time eating windows during certain, every day of the week, and various other things as folks know who experienced the book.

Krista Scott-Dixon: Yeah, and I'm really glad you identify it as a continuum, because it when we updated the guide, I really started thinking about the *whole* continuum, not just starting with fasting. But in fact, the ways in which some of our very common PN practices — like eating only when you're hungry to 80% full — is actually kind of a form of fasting a lot of the time, because sometimes when you're not hungry, you don't eat and you might go quite a long time without eating. So you're technically fasting.

Like, maybe you get up one morning and you're not hungry and you don't get hungry until noon, and maybe your dinner the previous evening was like 6 PM. Now you've just fasted, but not in a formal way, in a very loose, intuitive open-ended way. We've actually laid out this continuum from the most simple to the most complex and the most, you know, “dip your toe in the water” to the most “get the fire hose in the face” kind style of fasting. So I'm really glad that you located this on a continuum and make the point that it doesn't have to be all or nothing.

I think a lot of people see something, I'll just use Leangains as an example, because it is a very detailed protocol. It's not just fasting. It's like, fasting, and training and timing, and all of this other stuff. And in the book you give very detailed information about all of that. Can you talk a little bit about why it is so important to match the client to the program, and the other skills that you had that made it possible for you to do these more advanced protocols?

John Berardi: I'd even challenge the notion of advanced there. We can talk about in that context in just a second. You know, I think what the brain will immediately do with the concept of a continuum is presume the left side is the beginner side, and the far right side is the advanced side. Right? So there needs to be obviously some coaching around the idea that, no, no, this isn't beginner to advanced; this is really a matching of goals and self to the program.

Detailed intermittent fasting protocols usually should accompany a set of very detailed specific goals. Right? And if you don't have those, if just “getting in better shape” is your goal, then the intensity of your protocol's requirements should match that, right?

So eating when you're hungry and listening to appetite cues is probably great for almost everyone who just wants to look better feel better. If you have a specific, “I need to lose X amount of pounds by X date because it's my job”, then these kind of heavily detail-oriented protocols are the match for that.

Rather than it being a beginner, intermediate, advanced, it's more like, does your goal set match the protocols you're trying? We should talk about that, you know, I had a very specific goal when I did the intermittent fasting book. I had been a track athlete in high school. It had been many years since then. In all those years since then, I was interested in building muscle and strength. So I had competed in bodybuilding and power lifting.

I decided to return to track competition and I was too big, too, muscular, you know, I mean it's "Ha ha, what a horrible fate. I had too much muscle", you know, but it was a really real thing. If I tried to sprint, I would get injured, , that weight and level of muscle development. So for me it was, can I, are there protocols that I can use that will help me lose weight, that included muscle mass and fat mass, so that I could be lighter for an upcoming track season.

So I had a time deadline. I had a specific weight in mind. For me, that's where the detail orientation of the protocols came in. Here's the training protocol I'm going to use. I mean, I contacted our mutual friend Stu McMillan who's trained the silver medalist in the hundred-meter from the last Olympics to do my track program.

I wasn't messing around. I was doing high-level training stuff, so I needed a commensurate kind of nutrition protocol to go along with that. So that's really the context there. You know, I was training for track and field using programming from a world class track coach, having to manipulate body composition at the same time, right, trying to lose as much fat and lose some muscle. Also, while still recovering from my training. So that was really the context there, so you can imagine more detail might be required in your nutrition protocol.

Nowadays, I don't think about food anything close to how I did in that in that book, because I'm not doing the same things.

Krista Scott-Dixon: That's a really useful perspective, and I really appreciate the language, your care in using the language. In our certification, of course, we talk about nutritional levels and one of the conversations we've been having is, should we even get away from the word levels? Because that implies like you would inevitably graduate upwards and if you weren't a Level 3, then you were kind of somehow less advanced; when in reality, it's exactly as you say, it's a level of detail specificity.

And I would add gravity and consequence, so Level 3 is like, this is your job, like someone pays you money to have this body, in whatever way that manifests. There's a lot of skin in the game; you have to have extremely detailed and rigid — not rigid, but highly structured — protocols, because this is how you make your living. So I'm really glad that you framed it in that way, that's really useful.

And OK, so let's keep talking about pushing into that more extreme end of the continuum. So you have this chapter, which is really my favorite chapter in the whole book, "The Twice Weekly Fast: When Things Go Horribly Wrong." Because up to that point things have been going pretty well. You've been learning stuff and feeling good and everything looks on track.

John Berardi: Oh yeah, I'm gaining muscle, losing fat, everything's happy, except for like once in a while, I feel a little hungry. You know, that was the worst, right.

Krista Scott-Dixon: Yeah, everything's looking good. And then you're sharing your indicators, you're showing your body weight change. And it seems like things are just swimming along. So you think "Hey..." [*laughing*] It's that mistake that anyone drinking tequila has always made, right? One is good; ten must be ten times more fun.

So you decide to do a second fast day in a week. Walk us through that experience and what's the "horribly wrong" part of it.

John Berardi: Yeah, well, you know, again, like they're, on the one hand, like, oh yeah, when you're drinking tequila and you think you should go harder there, it's not always obvious it's a terrible idea until, in retrospect, right?

So at the time. I mean, the most researched fasting protocol at the time was alternate day fasting, where you would literally — and it still is, I mean, that's 12 years later, it still is — the most researched intermittent fasting protocol, where you eat one day, don't eat the whole next, eat the next day, don't eat the whole next.

So, with that being a viable plan out there, for me it didn't seem so weird to be like, "I'll just fast two out of the seven days, rather than half of them, just only two out of seven, I'm being moderate here, right?"

That was what I wanted to test. And also, there was a goal attached to it, because after having done the 16/8, where you fast for 16 hours of the day and eat during an 8-hour window. I had had a really positive fat loss outcome, but I was actually gaining a little bit of lean mass. So my body weight wasn't dropping. So I was like, "Oh, maybe if I do this two day a week fasting thing my body weight will finally come down a bit more."

Again, it doesn't feel that extreme. There's some people just literally only eating half the days of the week. So this should be fine.

And it wasn't fine. Highlight key difference here, you know, key difference being most of the alternate day fasting protocols are done in non-exercised or lightly exercising participants and here I was, training sometimes twice a day. And this is the big cautionary tale about interpreting research on a certain population, and bringing it into another population. It's one of the hardest things to do when there's a dearth of research. You're like, there's no research, except for this one thing and it doesn't fit my situation, but it's a better clue than nothing. So, meh, give it a try.

In my case, it was just, my body weight plummeted, my training suffered, my energy levels were horrible, I couldn't be around friends and family. It was terrible. I felt like I was near death. There was even a point where I thought maybe there was some food I was allergic to or something,

because literally you know 75% of the day, I just couldn't get off the couch. And all I could do was dream about food.

That was certain early indicators that this was too extreme of an approach. But again, I don't want to fetishize the extreme-ness of the approach here, what we're really talking about is, I was in too-negative of an energy balance and, you know, the best body of literature on negative energy balance and really highly active people is the literature on what's now called REDS, but it used to be called female athlete triad.

But the idea of young female athletes, a high volume of training, a low amount of energy intake, extremely negative energy balance, messes with bone mineral density, messes with menstruation, messes with all kinds of health outcomes.

The same thing happens in men; it just happens a little bit further into a negative energy deficit, and that's what I was experiencing, sort of the equivalent of that. Testosterone levels plummeted, all my non-essential functions, thyroid, everything was dramatically down.

And interestingly, and this is a side note that we can dig into in a few minutes if you want, but lately I've been having some really deep conversations on this with people who are observing folks doing long term intermittent fasting, and they're finding that sometimes, or frequently, this is the outcome: A big drop in reproductive health in men and women, and in some cases a really, really long latency period where it doesn't come back, even after they stopped fasting.

So it's been kind of a fascinating thing, like fasting may have a very negative impact on a host of physiological functions that aren't immediately obvious, and it may last long after the fast is ended.

Krista Scott-Dixon: I'm so glad you mentioned this for a couple of reasons.

One is that I've been talking to a lot of women who have been in a similar situation and are wondering, "Why isn't my period coming back?" Because I think the impression that we have is like, "Okay, well, I'll start refeeding, and I'll bring my body fat back up or whatever. And then everything should be fine, like this should be more like a machine, right? Just adjust the inputs and outputs and get us ticking back along." But it doesn't work like that. And it was certainly the case, in my experience, it took maybe a couple of years, at least for normalization to occur. And it's very common, I think, in a lot of women.

But the other thing I'm really glad you brought up is that it's not just a female problem. It's more apparent in women, I think, because of you know menstrual cycles, that are often like, either they're there, or they're not, or they're disrupted or they're not, but in men. I think it can be a little subtler.

And as you say, it often takes longer, especially if you have someone like a younger guy. He has such a huge reserve tank that it takes a while before you start to notice the depletion. Whereas, maybe an older man might notice it more rapidly, so I think it's important to emphasize that these same mechanisms occur, you know, across all of the sexes.

John Berardi: Yeah. And I think we're going to start to see this crop up. I think we're going to start to see this crop up with the current wave of plant-based eating. I think we're going to see a lot of people who are doing it with great intentions and with the very best of their ability, but they have limited ability. And they're going to follow this, and they're going to try their best and things aren't always going to go great for them and there'll be a lag period once they decide that this may not be the plan for them.

Some of them will go and get advice, and they'll find a way to meaningfully make this work in their lives. So this isn't me ragging on veganism or plant-based eating, because I'm going to say the same thing in a second about carnivore eating, but I think we're gonna see the same thing happen. I think we're going to see people following these things, doing it with beautiful intentions and the best of their abilities, and they're going to be hurting themselves over, we'll call it the mid term. When you're in your late 40s, like me, three to five years isn't long term. It's mid term.

And you'll see these consequences over the mid term, and like you say, there'll be a real sense of confusion, frustration, "I don't understand why my body feels ruined, or at least is non-responsive." And I think that's what people mean by "broken", like, "I used to be able to just change these inputs, a little bit exercise a bit more, I lose a few pounds. Eat a bit less, I lose a few pounds and vice versa, but now I feel powerless. Like, I feel out of control of my body."

That's what I think we're going to see a lot of from people doing these extremes. Now, it's not to say that carnivore or plant-based eating or intermittent fasting wouldn't be valuable in certain contexts with certain kinds of people.

But again, they're being billed as unmitigated goods. You know, like, "This is *the* diet for X, Y, or Z thing." And again, I mean, I've been in this field too long. I've measured too many things. And I've talked to too many people to not say this out loud, that these kind of extreme things, even if your body's losing fat today, can cause internal changes that take years to turn back around.

Krista Scott-Dixon: Yes, and the context is so important. I feel like this is a recurring underlying theme in this conversation — context, context, context. And there's such a massive difference between someone who is highly active, maybe even competitive, right, so then you have not just the stress of training, but the stress of competition and performance and expectations and all that kind of stuff.

John Berardi: Travel and everything else. Yeah.

Krista Scott-Dixon: Exactly, travel across time zones. Versus maybe a study participant who's, like, on the edge of type 2 diabetes and needs to lose 60 pounds. We have an article on our blog, which I think is a bit older now, [Dr.] Spencer Nadolsky wrote about it, it was about a young guy who presented with ostensibly some kind of thyroid disease. It turned out, he'd been just training really hard and doing intermittent fasting, and that would be a completely different study participant than again, you know, some postmenopausal sedentary woman or something like that.

And I think one of the populations that gravitates to these kinds of “diet hacks”, if you want to call them that, tends to be people who are already active, they're already fit, they're already relatively healthy, they're already high-performance relatively driven people, and anything new that they try, like you kind of crest the roller coaster ride.

John Berardi: It is the perfect storm right, yeah. Yeah, it's true. And, you know, the idea of context, you know, it's being talked about more and more, which is a lovely thing. I'm sure it's knocking right on the door of being clichéd, and then meaningless, as most things are when they're talked about too much.

But you know, it's so critical. And the difficult part is, every day we learn more about what context actually means. Like, for example, I've been doing some stuff recently with the quantification and qualification of the gut microbiome and there's new data suggesting that if you have high levels of one very specific bacteria, which is generally considered a beneficial bacteria, you have a lower incidence of obesity and type 2 diabetes. Folks who have very little of this bacteria, when they supplement with it, their markers for cardiovascular disease and obesity and diabetes all go down, bloodwork shifts, and it's from just one bacteria. There's data that this other combination of bacteria in a certain ratio can help with a whole bunch of things, or hurt if it's in the other ratio. And you know, I don't want to even lean in on what those are and get so specific about that.

The point is, we don't even know what the context is always, and this is the frustrating part for people who work in the field. And again, if you're trying to get control of your body when you feel frustrated, out of control, this isn't a hopeful message, and I apologize. You know, we just don't know enough all the time yet.

We do know lots. And we do know there's certain things and best practices that are worth trying. But, I mean, I just consistently find it fascinating to know that all these things we know about calorie balance, for example, and diabetes, and we immediately associate that with insulin and sugar. But, oh, wow, there's actually bacteria in our gut that make it more likely to have an insulin and sugar problem than not. And so it becomes really fascinating.

It continues to underscore for me this very common phenomenon. Whenever I put a post on social media, someone's like “Oh great, you mentioned a thing. What do you recommend?”

Nowadays I just have a stock response, frankly, it's sitting in a document on my desktop computer that I copy and paste from. And it says, "Sadly, I don't make recommendations on social media. There is too much context and individual differences, and individual preferences, for me to be able to make any meaningful recommendation that any one person or group of people could benefit from. If you're curious about what I do, here's what I do, but I can't recommend that for you. There's too much other stuff involved." So this is kind of like the *caveat emptor*, the buyer beware.

When you're on socials, especially when you're in pain, whether it's physical pain or mental, emotional pain about your body, it's so tempting to be like, "Make a recommendation, famous expert, that I can go try." I need you to know that that's a mistake. Any expert that's willing to do that, I think they're exceeding the boundaries of what's reasonable, but it's not their fault. It's up to you to be the guardian of your own health.

That's why reading our book on intermittent fasting, or someone else's treatment of plant-based diets, or "take this probiotic or this vitamin", that we each of us is personally obliged to do a better job than asking for general recommendations and then going and doing them, because they may not be at all what's appropriate for us.

Krista Scott-Dixon: And that's something that's so hard to see when you're in that moment of crisis and pain and suffering because you just want someone to fix you. Like, "Just give me the magic bean, please just fix me, make all this stuff go away." It's so hard to step back and have that that nuance.

I don't want us to finish this conversation without getting to what's changed, because this is something we were talking about before we got on this call. We've now, you and I, I mean, both of us feature our experiences in the intermittent fasting book. And we've had over ten years to reflect on them.

For you, what has emerged as kind of a "now and then", like, what are you thinking now about intermittent fasting that has evolved for you in the last decade?

John Berardi: Mm hmm. So yeah, I mean for me. I've actually grown over the last decade. I'm trying to think of the best way to say it. It's really to abhor fixed protocols. I've really just grown to have an intense allergy to the level of precision that most people recommend training and nutrition protocols with.

I get why that's emergent. If you're a beginner and you don't know how to do very much in this domain, it feels really, really helpful for you just to be told where to stand, which joint to bend, and what food to stuff in your mouth. But for me, again, and this is having a level of expertise that a lot of the folks listening won't have, I've just really grown to dislike the kind of specificity. Even the kind of specificity that's in the book, for example.

I'll talk about what that means practically. If I ever share my diet, for example, right? This is how my days usually look. I usually wake up around 6:30 in the morning, make all the breakfasts and lunches for our four children and then Amanda and I will drive them to school for about 8:30.

So for me, personally, I just have some tea while I'm doing all that and then, so, the first two hours of my day is not eating. And then we'll go to the gym right after we drop them off from school, and we'll do our morning workout.

So I won't eat a proper food meal until after that's done, which usually comes around 10:30 or 11. Most people will be like, "Oh, you're doing intermittent fasting. Share your protocol", you know, and it's like, well, maybe, but that feels like a fetishization of an intellectual concept. What I'm really doing is eating when I'm actually hungry.

I tend not to be hungry before my workout. But I'm very hungry after my workout. So that's how I do it. That's really kind of my approach nowadays. But sometimes, I will wake up very hungry. And then I might have a little something that morning. Or, other days we might not do this exact, like the weekends, for example, aren't this exact plan. So I may do something very different. Some Saturdays. I may not eat until one or two o'clock and why one or two o'clock?

"That must be the magical growth hormone window right?" No, no, it's because our youngest is three. And that's when she has a nap. So we'll usually do fun activities with the kids in the morning and I may not be hungry yet. Then when we put our youngest down for a nap and she's asleep, I have an opportunity to make a meal. That's when I have it.

So for me, less is about this kind of magical physiological optimization that really is just kind of made up. It's our human attempt at controlling an uncontrollable world. And more about practicality like this. I think of it as this dance between real life and best practices. Right? So what are the best practices generally, for me to maintain a good body composition? Be strong? Have robust health? And, how did those fit in with the context of my family life and the other things that are important to me?

And then I plan accordingly. A really good example is, so it doesn't stay so lofty and theoretical, is, you know, again, I talked about my autoimmune situation. I'm working with a practitioner now, who made a set of supplement recommendations. So he's like, take this in the morning with breakfast and this with lunch and this with dinner, and then sip this thing between meals and then it was a pretty rigorous set of recommendations.

And so I was like, "I don't like this. It doesn't quite fit into my life. How do I navigate this and sort of make it smoothly kind of feather in to the actual context of my life?" So then that's what I did. I got out my notebook, which I keep next to me at all times, and I just wrote down: Here's his

recommendation. Here's what I'm actually willing to do. Here's when I actually eat my meals. Here's when I have to take the kids a place or, you know, do something for myself.

And so then I create a plan that's kind of a hybrid of what he recommended, and what I functionally, practically, can do in the context of my life. So it's not disruptive, because I know at this point in my life, if it's disruptive, I won't do it consistently, which is the same as not doing it ever.

So how do I make sure I can do this every single day? And it's this slight give and take, you know. Sure, I might be compromising two or three percentage points on their perfection continuum, but I'm making up for it with a huge leap forward on the consistency continuum. So that's really how I think about all these things.

I do fast. Some days. If you want to call it fasting. But for me it's just like, "No, I eat when I get hungry in the morning. Or when my daughter's laid down for a nap." So that's kind of what I mean about the fetishization of these concepts, because people will look at my diet and they'll so desperately want to Beautiful Mind it, and come up with some equation for why I do all the things I do, totally failing to recognize that there's a human life, that this is living within the context of, if you know what I mean.

Krista Scott-Dixon: That's such a beautiful thought to end it on, because it really is exactly about that. And I think as we get older, we get a little bit stronger in ourselves and our understanding of what really matters. And who am I, as a person, like what do I know about myself, and my routines and my values and all these kinds of things. And how can I plant my flag, so to speak, and say "OK, here's my set of requirements and criteria and I'm prepared to be a little bit flexible. But here's what I know about myself and my life."

And then, what can I bring into that, that demonstrably helps me and that I can do, as you say, consistently almost every day.

John Berardi: Mm hmm. And then there's the push and pull, right, because you'll go out and you'll seek out that thing that enhances your life in some powerful and identified as important way, but it won't fit, right, you'll get the advice and you'll be like, "Oh, that doesn't fit."

Now I'm in a bit of a conundrum, right? Do I have to remake my whole sense of self to become the person who can do this new thing, or do I reject the new thing? But that's just binary thinking. That's not required. What we can do, is something in the middle.

How do we do this dance, this push and pull, this, you know, receive a bit of this and give back a bit of this, so that we can live the right kind of life for ourselves, and bring in the things that

advance whatever, whether it's personal development or health development or whatever we're trying to achieve. And I think that's the gray zone, that's so very difficult for a lot of us.

But if we can consistently remind ourselves, “This is what I'm trying to accomplish”, like an overall sort of positive momentum forward, we can remember, “Oh, there are these positive things in my life already. I don't have to sacrifice. How do I add these in so that I can get some of the benefits of both, but fully recognizing I may not get 100% of the benefits of both, but that's okay, if the net is still a gain.”

Krista Scott-Dixon: Yeah, I think that's a great note to end it on. Dr. John Berardi, thank you so much for sharing your expertise and your wisdom, and taking the time to really continue to educate us all.

John Berardi: Thank you. I appreciate it. It's always fun to loop back and discuss your work. I was on another podcast recently where someone asked me about something I wrote in 2000, 2001, something like that, which is now 20 years hence. And it was really fun to reflect back on, like what I would do differently, what I would say differently, what I've learned in the interim — more than fun, it's really instructive and it's a great reminder that in 20 years I'll probably want to edit everything we just said in some way and to not be so definitive.

And I think that's a great parting lesson for everyone listening, who either works in the field or who's just trying to figure out things for themselves. This is what you think in this time and place. In the future, that could change. It should change, actually. So how can you maximize the moment while being open to what you have yet to become?

Krista Scott-Dixon: I think that's a tremendous thought and maybe we'll schedule a time to burn this recording 10 years from now. *[laughter]* All right, once again, thank you so much, JB, I really appreciate it.

John Berardi: Thanks, Krista. It was a pleasure to chat.