

Nick Paterson of Low Inflammation High Fat Living
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Ivor Cummins 00:00:24 Welcome to today's podcast, and today I'm going to be talking to a person in Finland. Nick Paterson is his name. And he set up many years ago the LIHF website, Low Inflammation, High Fat Living. So today we're going to talk a bit about his experience, what he's discovered, his research and how successfully he's been on a quite very low carb diet. Great to meet you, Nick.

Nick Paterson 00:00:50 Thank you very much, Ivor. It's good to be here.

Ivor 00:00:53 Yeah, great stuff. And you know what, I was looking through your website there. It was Shaza actually on Twitter who suggested I talk to you.

Nick 00:01:02 Thank you very much Shaza. She's done it again. It's the second or third interview I've had, thanks to her. I try to keep a bit of a low profile on Twitter. But she certainly pushes my message. So yeah, thank you very much as if you're listening, you've done it again. She gets no pay for it.

Ivor 00:01:23 She's an enthusiast like the rest of us. So, thanks Shaza. So I was just looking through your backstory there. There's quite a lot of parallels of mine. It was 2012 when you were overweight and kind of pre diabetic, so was I, you went and researched it, so did I, and you lost a similar amount of weight, or you look pretty heavy, I must say in the photo, probably bigger than I was. And another parallel actually, your Finnish extraction. And on 23andMe.com, I'm actually overwhelmingly far northern Europe extraction when they did the genetic tracing test. So there you are.

Nick 00:02:03 Very good, very good. Yeah. I'm actually half Finnish, my mother's finish, and I'm married to a Finn. I now live in Finland, but I live as you can tell from my accent, I lived most of my life in the UK. And I got a degree in mechanical engineering and then I joined the Air Force. I was in the Air Force for about 10 years as a pilot, flying all around the world. And then I left and I went briefly into the aerospace game. I worked for an American aerospace company, larger American aerospace company, traveled again all over the world and went to the United States a lot, mainly in Maryland, where they were headquartered. And then I set up my own engineering design, consultancy and I went into something called finite element analysis. It's a mechanical, well, you can do all kinds of stuff with it. You can analyze mechanical, bending structural strength, you can do thermal, you can do vibrations, dynamics, all kinds of stuff.

- 00:03:13 I had that for about six, seven years, and then the crash came, 2008 and I lost that business. I lost everything that I built up. I literally started that in my bedroom, that business, with nothing. And I built it up to something like quarter of a million turnover, employed six people at its height. We were doing analysis in all kinds of industries, aerospace working for Airbus, doing undercarriage design, nuclear industry, working on nuclear decommissioning, we worked on the Joint Strike Fighter, we worked on marine offshore projects, you name it, we did it. And it was fascinating work. It was good stuff. And finite element analysis it's something I did it undergraduate level, something I got into it, and it's kind of reflected in my approach to this diet thing. I'm very much hands on. I'm an engineer, if I see something I want to pull it apart, and I want to find... you know, I see a phone, I want to break it open and work out how it works. You know what I mean?
- Ivor 00:04:20 it's funny how common that is in engineers, particularly the most technically apt ones. When I was a kid as well, I remember one of my oldest memories as a kid, my father, when we had an old television and replaced it, he was obsessed with us. And he allowed me to take it apart and pull all the circuit boards out. And I knew nothing obviously of electronics. I was probably around six, but I took the whole thing apart. So it's a common thread.
- Nick 00:04:47 It is. And that's been my approach to this diet thing. As you correctly say, in 2010 actually, I met an old friend of mine who happens to be a doctor, and he'd gone low carb and he'd lost a lot of weight. I said, "What the hell are you doing?" He said, "Well, I'm eating a lot of fat and very little carbs." And I said, "You're kidding. How can you survive without carbs? I thought carbs are essential for life?" And and I was getting very overweight, very overweight. My wife overheard this conversation. She started immediately. This some sort of spark went off in her mind. She was overweight, probably about 10, 15 kilos. And she started already in 2010. I am a skeptic. I'm very skeptical about anything. I thought, "This is just a fat," you know? Two years went by, she was getting fitter and fitter, healthier health, I was getting worse and worse. I was getting really bad. I woke up in the middle of one night with good, I was throwing up and I had a panic attack. And my wife took me to a hospital and they couldn't find anything wrong with my heart. It was racing and all this night, "What is going on, Nick? What the hell is going on?" And then I realized when I bought my next set of trousers that they were bigger again, I thought, "Now

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something has to change.” So you know, my wife is doing something right, I'm doing something wrong.

Ivor 00:06:11 Yeah, and that's a common problem. And we see as well not to get into conspiracy, but industry and many quarters in nutritional research are pushing very hard against low carb for obvious reasons.

Nick 00:06:25 Yeah, yeah. Now, there is a reason why I chose low inflammation and not low carb. And that's mainly dairy. Because when I went low carb, I lost six kilos on it plateaued. And I almost gave up. And if you look on my blog, I give the story on there of what happened. I almost gave up because it just didn't work. I cut the carbs and it wasn't working. And it wasn't until I cut the dairy that the final 20 odd kilos went. So to me, from my point of view, I'd achieved a state of low inflammation through dropping dairy and the carbs. I mean, don't get me wrong. You know, there's no way I can go back to carbs and start drinking the beer again. It's just not going to happen. But the biggest effect for me was dairy. So this really caught a spark with me. Why wasn't low carb working for me in that sense? And why was the dairy a problem?

00:07:29 My research, to cut a very long story short came down to casein, casomorphin, which is a byproduct of indigestion. I believe that it's the cause. I don't have any more evidence than my own research. What I've actually tested by drinking whey, and I haven't actually taken casein, but I drank whey, which is the other principle protein in dairy, and that had no effect at all. And I've never gone back to dairy. My daughter, who was born about the same time as I went low carb, she's now eight, as soon as she got off breastfeeding and got onto solids, we started testing with milk. The first experience she had with double cream, when she took it down was she threw it straight back up. It's just violence reaction. We then started giving her butter. And she got a rash on the back of her hand. It was really obvious. By the time she was three, we tested everything. And we could see that when we gave her butter, she got the rash. And we took the butter away, she didn't. So she's inherited something from me. She's been dairy free all her life.

Ivor 00:08:47 And you know, dairy, a lot of low carb type people love their cheese and their dairy and all that kind of stuff.

Nick 00:08:54 I was one of them. Because I thought it, when people said “low carb” it was a green light to eat as much cheese as you can. Which is what I was doing, but I was doing the very worst thing I could possibly do.

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- Ivor 00:09:07 Yes, in your case. Myself and Dr. Garber call out in our book, “Eat Rich, Live Long” that’s specific exception, not universal. But for certain people dairy can be a major block to weight loss and also inflammatory. I mean, my own sponsor, David Bobbett, from Irish Heart Disease Awareness, has the sensitivity also that it’s impossibly animal fat protein, but primarily, I would say dairy seems to spike his insulin.
- Nick 00:09:36 I think it’s the casein. I think it’s the casomorphin. And we need more research on it. We need to talk about this.
- Ivor 00:09:45 Absolutely. Because many people can be totally tolerant of that. But the exceptions, kind of proves the rule, I guess. And the other thing is, there’s the casein types. So there’s a lot of data beginning to come out about casein, I think A1, A2, I think it is.
- Nick 00:10:01 Correct. I have clients, we’ll come on to what I do for a living in a minute, but I’m a personal trainer. And if I have a plateau with clients weight loss, it’s almost inevitably dairy. Take the dairy away, the weight loss continues unless they have inflammatory histories which we can come on to as well.
- Ivor 00:10:23 Oh, yes.
- Nick 00:10:23 Yeah? We could come on to that. But if they’ve gone low carb, which is great, and it’s not working, I say, “Are you still eating dairy?” “Yes.” “Drop it.” “Yes.” Weight loss continues.
- Ivor 00:10:38 Right. And actually, the first time I saw this really besides the paleo people many years ago, who eliminated dairy just because it wasn’t paleo, without a whole lot of science, was Professor Noakes in his book called **Out Dairy [Inaudible 00:10:53]** as a block to weight loss. Not sure if he talked about inflammation so much as a barrier to weight loss or a plateau problem. And I think he perceived that way back as the energy density is very high, it’s very edible, very tasty. But I think more and more like you say the other physiological effects particularly to do with the casein can be very problematic for certain people. So it’s a really important one that people know about, and not kind of flail around with low carb and kind of get into a failure mode and then back off from it.
- Nick 00:11:29 Exactly. Because I was blaming the low carb, I was saying, “This is bullshit, I’m eating as much cheese as I want. I’m eating as much cream as I want, and I’m still not losing weight. What’s going on? Tell me.” And then you know, nobody had the

answers. It's just, "Just stick to your less than 30 grams a day and you'll be fine." Well, I'm not fine. And drop the dairy and Hallelujah, my ketones went off the clock. I was like six on the ketone scale and weight was coming off at two kilograms a week just by doing that.

Ivor 00:12:02 Wow. And in my case, the dairy certainly I've noticed in latter years, if I want to trim weight down because I see that you're totally ripped, that is one difference between us, I'm still kind of nice and roundy. But if I want to lose weight or when I do want to lose weight, I could be traveling a lot. Sleep pattern is impacted, weight creeps on, too much indulgence. Cutting out the dairy is a key measure that I can take to start trimming back down again. It's one of those things, there's no doubt.

Nick 00:12:37 We need to have that conversation. So for me, I try to get people to think about low inflammation as a state to be in. Do whatever it takes to get into a low inflammation state. Now, if you told my younger self at 20 to eat 30 grams of carbs a day, he would have laughed at me because I could have got away and I did get away as most of us do, with 100, 200 grams, 10 beers a week, you know? I wasn't putting on the weight. So for somebody of 20 something who's young and in fairly good shape, you can say to them, "Okay, for now, 200 grams a day and some dairy will keep you low inflammation, but that will probably change when you hit 30. When you hit 30, your insulin sensitivity is not going to be as good as it was, the dairy may affect you even more. So then you will have to change, you will have to do something. The states of maintaining low information changes with your age, you can get away with things when you're younger, but you can't get away with it in your 30s. It's just a fact.

Ivor 00:13:42 Yeah, and I always remind my kids, I have five kids here. Yeah, myself and my wife were obviously both low carb, etc, etc. We're not kind of food Nazis. So they can still have treats on that. But we just keep a gentle controlling force. And another thing I picked up on from your website, which I 100% agree with, is you have to have some basic understanding of the mechanisms and how this works in order to be successful. So we always keep reminding them exactly that point, you're going to be fine until you're 20, and as soon as you hit your 20s and beyond, then the weight will start piling on. So just understand how and why, and you'll know when the time comes.

Nick 00:14:32 Right. And the other thing I hope we get onto is insulin resistance because I believe even from what I'm seeing in my

clients, I believe that insulin resistance starts at a very early age long before you see blood sugars going up. And if we were measuring insulin resistance in teenagers, you know, HOMA-IR, and seeing it going up every year as they hit their 20s, you know, you've got plenty of time to do something about this. You can show in black and white, look at the numbers, you're becoming more and more insulin resistant. If you don't do something, you're going to end up like I was in the 30s, you know, pre diabetic, from even diabetic. And we need to we need to start educating. I mean, you're doing it with your kids, I'm doing it with my daughter, she's eight, she already understands carbohydrates, she already understands good fats, she can make a bag of sweets, last six months. She's already got that discipline. So it has to start from home. It has to start with the education.

- Ivor 00:15:36 Absolutely. And the HOMA-IR is, I mean the fasting insulin can be a little bit misleading. It's a noisy measure. But the HOMA-IR, when you put the two together is a very good simple measure without doing a two hour insulin or an OGTT.
- Nick 00:15:50 Exactly. And it's... well, do you want me to talk now about what I'm seeing in my clients or should we go on to that later?
- Ivor 00:16:00 Well, yeah, let's just run through insulin resistance briefly. It's obviously a huge interest of mine now for seven years also, but briefly what the HOMA-IR is and some of the mechanisms around it, and then we move on to the histories and the inflammation model that you have.
- Nick 00:16:16 Well, for me, the HOMA-IR is just a very simple calculation. Well, okay, it might not be simple. There's two models, there's the first one, then the second one. The second one is nonlinear, and you need some software to run that I believe. I don't have that software. But the first one, the HOMA-IR model one is just the simple calculation that you can do yourself or you can just go online and do it. Basically, it just tells you the relationship of your insulin to your blood sugar, how much insulin you're producing relative to your blood sugar.
- 00:16:46 Now, what I'm seeing in my clients is that... I by the way, insist all my new clients now (I've been doing this two years) all my new clients, I insist on blood test to do this, because it is a major driver of how they're going to lose weight if they want to lose weight, and it also affects their performance in the gym. There's no doubt about it. And they haven't got a clue. I mean, I'm

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telling my clients that they're insulin resistant, and that's the first time they've ever heard this in their life.

- Ivor 00:17:18 Tragic.
- Nick 00:17:19 No doctors telling them because the doctors only looking at HbA1c, if he's looking at that at all. And they're perfectly normal. I'm seeing clients with 5.1, 5.2 HbA1c, perfectly normal, fasting glucose perfectly normal, all fine, but the insulin resistance, his insulin resistance (HOMA-IR) is like 2.9, 3, 3.4.
- Ivor 00:17:42 Yeah, and above 1 really being questionable and certainly towards 2, being pretty much insulin resistant.
- Nick 00:17:49 And again, from my website, the client A story, I refer to as client A because she doesn't want her name mentioned. But her story is on there for everybody to read. HOMA-IR 3.4 when she joined me, obese, she had fasting blood sugar 5.8, she had no idea about insulin resistance. She didn't know what it meant. We've now worked hard. She's now down to 1.2, 1.4 in HOMA-IR. She's lost 25 kilos of weight. She's much more informed. She understands the importance of insulin rather than the blood sugar. Everybody's talking about blood sugar. Why aren't we talking about insulin?
- Ivor 00:18:33 Yeah, exactly Nick. But the other thing is that the HOMA-IR, I mean every six months you can go in and get a fasting insulin and fasting glucose and get it. And it's fantastic and all the doctors should be looking at insulin with anyone who has any potential to be pre diabetic or obese, for sure.
- Nick 00:18:50 Here's the thing, Ivor. The people that I'm telling, you look at them and then some of them aren't even particularly overweight.
- Ivor 00:19:00 Now, that's a key point. And again, David, my sponsor David Bobbett has a particular fixation with that and he's absolutely correct, unlike Robert Lustig has shown. We have more people who are not obese, very overweight who have metabolic disease than we have the obese and the overweight. And all of those TOFIs or Thin Outside Fat Inside with visceral fat and insulin resistance, are a huge risk for cardiovascular disease and all the other diseases a modernity.
- Nick 00:19:30 Can I can I tell you one thing? Before I came on air, I rang one of my clients up. His name is called Glenn [Inaudible 00:19:39]. He's the latest story on my blog. He has lymphoma. Stage four. I

did an interview with him. He's been my client now for nearly a year. His back was to the wall, stage for lymphoma, he had to go and they were going to give him autologous stem cell treatments. So they're going to remove his stem cells, freeze them and keep them to one side, while they absolutely batter the hell out of him with chemo. They were going to give him six to eight weeks of full on chemo that would have killed every single cell, white cell in his body. So all the immunity that he's built up over his 40 years on this earth will have gone. And they warned him that this treatment... "the treatment alone could kill you." I've interviewed him. The podcast is on my website if people want to hear that.

00:20:43 During the time that he's been training with me, he's been in and out for various small chemo sessions. As soon as he started training with me, I said, "Right, you want to go into the low inflammation diet. You want to try and get as close to meat and water as your constitution will allow you. Try and do that to begin with and then we can add some stuff in later, but do that." Within weeks. He said he was feeling better. He just said, "This is great. I can think straight," blah, blah, blah. He was performing wonders in the gym by the way. Stage for lymphoma. He wasn't overweight. He was a little bit overweight. His waist-to-height ratio was about .52, and it wouldn't move. It was stuck. It wouldn't come down.

00:21:24 So, to cut a very long story short, he has two or three chemo sessions, were up and down on the training because he's on steroids and all this sort of thing. But the all the time he says he's feeling better just by changing his diet and doing some strength training. Then I asked him just before this major chemo was program to start, I asked him, "Have you ever had any blood sugars done?" "Has anybody done a lipid panel on you?" He said, "No. What's that?" I said, "Well, can you just go and check your blood results that you've had and go and see if you've had any?" So he went through them. They did all kinds of tests, but he never once had any lipids or blood sugars. I said, "We need to do some." So we went to the labs together. I had some done myself, he had his done. First time ever he's had HOMA-IR. This guy isn't overweight, he has stage four lymphoma, which by the way is now in remission, they've canceled that, thank God, and he's coming home. He's just had 10 treatments of radiation therapy and he's coming home soon. And they've canceled the the big chemo.

00:22:29 The results of his bloods were very interesting. He has very severe insulin resistance. He's not even overweight. I asked him

just before I came on this show, "Do I have permission to talk about this because I think it's significant." And he said, "Yes, you do." Because I gather a lot of data, biometric data on my clients, we sign an NDA, I can't talk about it unless I get the permission. He allowed me to tell you this today. It's the first time it's being told. He had very high instances, like three, HOMA-IR. He's not obese. Not obese, but his waist-to-height, interesting. his waist-to-height is stuck at 0.52. It won't come down.

00:23:11 Now, is it the treatment? Is it the chemo? Is it the drugs that's driving this? It could be? It could be. But what I said is, "Let's get this treatment over with, get you home, get you fixed, we'll start training again, and then we'll come back in six months and see if your insulin resistance has come down." But my point is this: throughout his treatment, nobody talked about diet. The doctors didn't talk about anything about diet. In fact, when he was going into hospital first time, he said to the doctor, "I'm actually a little bit concerned about the nutrition that I'm going to get in hospital." The doctor said "Oh, don't worry. I know hospital food is quite bad. But we have a fridge full of," you know, "We have biscuits, we have fizzy drinks. Hopefully that'll help you get you through your chemo." And that wasn't what he meant. He meant like, "How am I going to get some decent meat and eggs," you know?

Ivor 00:24:07 Yeah.

Nick 00:24:08 That was the only conversation about nutrition, and there was never been a conversation about his insulin resistance or his blood sugars at all.

Ivor 00:24:56 Yeah, and I know the Cancer Dream Team now in America, a huge team of top top people run by a professor, his name escapes me at this moment, but they are remorselessly going after insulin's action, insulin receptors as the next big thing in cancer. And the person, Lewis Cantley possibly is his name. He's around 70 years old, I believe, but he looks around 40. He said he is scared of sugar. So basically on camera he said, "It scares me. Not only does it drive cancer forward, but arguably also is causal in initiating." And he was very clear. And he leads the Dream Team I think in Stanford, an incredible array of cancer researchers.

Nick 00:25:41 So the sugar and the insulin, what's their greatest concern do you think?

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- Ivor 00:25:46 The greatest concern is the effects that sugar and refined carbs have on driving hyperinsulinemia and all the other problems, I guess. As foodstuffs, he said they scare him, but his real focus is on the insulin receptor. And I think the second canonical pathway of insulin action IRS-1 and they're looking at... basically they have drugs that can suppress IRS-1, but bought they don't really work, because if you eat a normal crap diet, the cancer basically, you're going to raise insulin anyway.
- Nick 00:26:21 [Inaudible 00:26:22]?
- Ivor 00:26:23 Yeah. So what they found actually and published on is, if you combine the synergistic suppression of IRS-1 with a low carb ketogenic diet, that square in the animal models, they're getting dramatic results.
- Nick 00:26:41 That's very interesting. Go on.
- Ivor 00:26:42 Oh, yeah, sorry. So I guess it just certainly resonates. And insulin, in fairness in cancer, this is not, well, it might come as a surprise to some cancer people, but insulin and IGF-1 and everything around the proliferate effects of insulin in the body are intimately tied into cancers are many cancers express large amounts of insulin receptors. So it's not like, take a fad diet for cancer. In many ways it's technical common sense that you do not want to provoke insulin if you have a challenge of that nature. I noticed though, that the cancer people, especially in Ireland, I had a little run in with them on Twitter, and they were violently argumentative against anything to do with sugar or carbohydrate being bad in cancer. They really opposed any discussion of diet. They're okay that obesity is linked to cancer increase, and they're okay to blame the victim and say, "Well, if you're obese, you'll have a higher risk." But they do not want any talk of diet, driving or possibly helping with cancer.
- Nick 00:27:55 What's behind this, Ivor? What's behind this? Why? Why don't they want to talk about this?
- Ivor 00:28:01 00:28:01 I think there's a concern on their part about quackery, because there is some genuine quackery out there in cancer of course, you know, miracle cures. There's also the problem that a lot more people I think are presenting, talking about lower carb, low sugar and ketogenic diets to help. And they really resent that, because they're there to give treatments, you know, with various drugs or radiotherapy or surgery. And I think they find it very upsetting for more and more patients to come in talking

about diets. I think it really irks them. And there's probably a lot more going on as well.

00:28:40 Another thing I think is common to diabetes and obesity researchers around the world and nutritionists. It's basically if we now acknowledge that low carb, or anything like that could be helpful in disease, it means everyone was wrong for the last 50 years, and arguably, put people from the frying pan into the fire. So I think there's that sense of maybe guilt mixed with accountability or being called out. Maybe.

Nick 00:29:11 I think you're tight, Ivor. I think there are lots of people who have put their skin in the game in the wrong game, and they're going, you know, they can't back out, they just can't back out. Whereas people like you, me and everybody who's sorting themselves out, we have our own skin in the game. We're not funded by anybody. Everything that I do, my own research is all funded by my clients. I'm not sponsored by anybody. I'm only interested in the truth. I'm only interested in digging out what works and what doesn't work. And it's been absolutely fascinating. I've been doing this two years now with my company ultimate fitness. And it is amazing, once you start looking at insulin and insulin resistance. What a big say it has in everything. In performance in the gym, weight loss plateau, to the extent that it whatever exercise you do, almost doesn't matter.

00:30:08 And I'm just been reading this book by John Little, do you know John Little, the co author of "Body By Science?"

Ivor 00:30:14 I know the name, I haven't read the book, but I'm familiar.

Nick 00:30:17 He just bought out a new book called "The Time Savers Workout" and it's fantastic. It's the first book I've ever read about exercise that actually admits in chapter three, chapter three, being entitled Stress, Insulin, and the Non Responder is the first book that actually admits that there may be a cohort of people who will never respond to exercise because of insulin. If I can quote from this book, "a study out in Finland revealed that there exists a portion of people who simply do not respond to strength training, and some people who simply do not respond to endurance. There are even those who simply do not respond to either. The researchers in Finland took 175 sedentary adults, and put them on a 21-week exercise program. The subjects were divided into groups that jog, walked, lifted weights or combine the three activities. The fitness and muscular strength of the subjects were measured prior to and that the conclusion

of the study and to the surprise of the research is the data was all over the place, running from a minus 8% to a plus 42% gain. There was no there was no correlation, there was no sort of one thing works better than the rest.”

- 00:31:35 And then the further research, to quote just a few lines further, “Jamie Timmons, Professor of Systems Biology at the Royal Veterinary College in London, he says in her review, it's actually a heat I checked. It's actually James Timmons of the foregoing study indicated in the Journal of Applied Physiology. And I actually tweeted this the other day, “That there will be millions of humans that cannot improve their aerobic capacity, or their insulin sensitivity, nor reduce their blood pressure through exercise.” I'm kind of seeing that, I'm kind of seeing non responders and I'm seeing those that respond the best have the lowest HOMA-IR. That is amazing. I'm gathering that data. And every day I'm gathering more and more data to see this and I support what is said that there are there are people who are going to struggle because they have insulin resistance. And a lot of this can be epigenetic, it can be inherited.
- Ivor 00:32:36 Yeah. And you know, in your general sense, exercise is great, particularly stress exercise and body weight, you know, training in general, but as you say, there are certain people who will get very little benefit and overwhelmingly, it's what they put in their mouth that would be the major vector to health.
- Nick 00:32:54 It is. But if I can refer back again to this client A story, she has inflammatory hysteresis, what I call inflammatory hysteresis. She's come back down the inflammation curve, and she's stuck. She's one of those people who has lost a lot of weight, but it's got to that point on the graph that I talked about in my post that I sent to you. I think you read it, said you read it.
- Ivor 00:33:19 I did.
- Nick 00:33:19 And if you look at that graph, systemic inflammation against diet, she goes all the way back from B, back down to C. It's very difficult to describe it. It's a hysteresis type of...
- Ivor 00:33:29 Actually yeah, Nick, it just occurs to me, when I put this out, I'll put the graph on the screen as you're talking now...
- Nick 00:33:36 Thank you.
- Ivor 00:33:36 ... so you're so familiar with it. You can talk through, I'm assuming there's a visual.

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- Nick 00:33:40 Oh, fantastic. Right.
- Ivor 00:33:41 But the concept of hysteresis is very important to get to people. And as you say, molecular memory, or you actually say metabolic memory, but the same concept. And you know, if you damaged yourself over a long period, you can't simply go back to eating good food and magically everything's fixed. So maybe run through the whole hysteresis.
- Nick 00:34:05 Okay, right. This graph, I'm assuming this graph is now visual. So when you look at this, on the x axis, we have high diet, high inflammation diet to the left, low inflammation diet to the right. I'm not going to argue about which is which, the particular diet. Is it a vegan? Let's not talk about this. Is it a low carb, is it a high carb or whatever. That's for the individual to decide and work out. But let's assume a high inflammation diet has manifested by something called your inflammation index, which I call the product of your waist-to-height ratio and HOMA-IR. So if your HOMA-IR should be 1 or below and your waist-to-height should be 0.5, in an ideal world, you should be 0.5 on the inflammatory index - the products of the two.
- 00:34:54 If you start on a high inflammation diet, you'll be at point A in your life. As time progresses, your inflammatory state will just increase and increase and increase until you get to point B. When you get to point B, you decide, "I've had enough," you want to make a lifestyle change, you go on to a low inflammation diet. And as you correctly point out Ivor, you can't just come back down to from B to A; you have to come back down from B all the way down to C. Which is the point at which you have some hysteresis, for some people, this will never go. I am convinced now that for some people, this will never go, the best thing you can do is manage it. If you're lucky, like me, you will come back down the curve from B to D. D is where you want to end up, the lowest inflammation state that you can get where everything has been reversed. That's the ideal world.
- 00:35:49 I was lucky. I was lucky. My HOMA-IR is now 0.6, 0.7. I don't know how I did it. I went on to zero carb for about 18 months. I hadn't been measuring HOMA-IR prior to about a year ago so I don't know where I was on that curve prior to that. It's a new concept that I've come up with. But I'm lucky I'm at point D. And it's probably only genetics, genetics and the fact that I could get away with this. If I've continued from A and stayed at B longer than I did, I may not have reversed it.

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- Ivor 00:36:24 Yeah, indeed. And as you say, you have essentially reverse the molecular memory of your past sins and part of that might be genetically you had a capability to do that. But also part of it might be that you're not doing a light, low inflammatory diet; you're doing a very well informed, quite extreme low inflammatory diet, so it is going to have a lot of punch.
- Nick 00:36:49 It's going to have a lot of punch. I'm not zero carb now, by the way. I've added some carbs back in. And you know, my weight has gone up slightly. So I still have to be careful, I still have to be careful. But the difference between me and somebody like client A is again, we see the hysteresis in the weight gain. I can gain two kilos just by looking at a cake. There's no doubt about it.
- Ivor 00:37:11 Yeah, tell me about it.
- Nick 00:37:13 But I can lose two kilos in almost the same time. Okay? Client A, if she takes on two kilos, it won't come back down for another two, three weeks. Because that's the hysteresis effect. She can gain it quicker than she can lose it.
- Ivor 00:37:28 ... than pull it back. Exactly.
- Nick 00:37:30 And it may never come back if you overdo it.
- Ivor 00:37:34 Yeah. And it is tough on those people, because you know, it's frustrating because they hear so much about the magic of low carb, just go really low on carb and eat fat and the weight will fall off. Well, no, it will fall off for some people, and for many people, it will require a lot more diligence effort, and adding in fasting and you know getting nutrients and just a whole range of things. You need a multifactor interventions [Inaudible 00:38:01]
- Nick 00:38:01 Exactly. And that's what my blog post was all about. So if you get stuck at C and you want to come down to D, what are your choices? What can you do? I think you're duty bound to try. Well, one thing you can do is strength train. Why strength train? Because if you do it properly, you're going to empty muscle glycogen, you're going to empty the fast twitch muscle fibers that are full of glycogen, that your biggest store of glycogen in the body much bigger than the liver, your insulin sensitivity is going to go up, and hopefully your HOMA-IR will come down. So you can strength train. You can go onto a very low inflammation diet, you can do two things. And finally, if that doesn't work, you can go on to Metformin. Which I have actually done.

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- Ivor 00:38:47 Yeah. I went through your write up of that. And again, you are starting from such a good place. It's hard to see really beneficial effects.
- Nick 00:38:55 Exactly. And I actually said that in the post and you're quite right. But my points of the whole exercise is to prove that Metformin is okay. It's probably the only drug that I think you can ethically push. And I think, going back to the cancer thing, if lots of people have inflammatory hysteresis, also have cancer, why can't we give them Metformin?
- Ivor 00:39:21 Yeah. And increasingly, I'm seeing publications around Metformin and its potential longevity benefits and even touching on cancer and other proliferative problems. I think Professor Noakes as well, many years ago called out that that was the only drug he was taking based on his research.
- Nick 00:39:41 Yeah.
- Ivor 00:39:41 And I didn't, I don't research drugs much so I didn't look into it too much. I'm happy with real food.
- Nick 00:39:47 I'm happy with real foods. I don't want to push drugs. Don't get me wrong, Ivor. I'm just saying, if you have very deep inflammatory hysteresis, it can be the final thing that you should try.
- Ivor 00:39:59 Yes. And you know, with Noakes perhaps because he had the established diabetes and the family history, he made that decision, I guess, to take that extra step to improve his physiology, which is fine. There is one major drawback though.
- Nick 00:40:16 Did it work?
- Ivor 00:40:18 Well, I don't think he reported on how it was working, because he had no real control. I think with no Metformin, Metformin. From the research, he judged it to be beneficial, perceived it to be beneficial and was happy to take it because of no particular negative effect. Now, there is one major problem with Metformin, Nick, which you may not be aware of, which makes it a very unfavorable drug.
- Nick 00:40:42 You're not talking going to tell me B12, are you?
- Ivor 00:40:44 No, it's the fact that it's out of patent. Can't resist that.

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- Nick 00:40:52 Oh yeah. And it costs like (60). It costs like extremely cheap. It's extremely cheap. It's been around for 60 years. We understand it probably better, well, we don't fully understand how it works, but we understand that there are very few side effects. And, you know, come on, this is going to work for cancer or it's something that we can do for cancer instead of chemo. Let's just, you know, let's have a think about this.
- Ivor 00:41:21 Well, a few years ago, I kind of found out about Metformin and I made the prediction. I think publicly though, I'd have to dig now on Twitter, that if Metformin is beginning to look pretty good, you're going to start seeing anti Metformin articles and studies begin to appear. And I've seen a few of those already.
- Nick 00:41:42 Okay. But anyway, talking about B12, I monitored B12, and mine went up during the 105 days that I did my trial.
- Ivor 00:41:52 Yeah. And if you're taking lots of enriched sources of good food anyway, I'd say that potential effect just won't manifest.
- Nick 00:42:01 The other concern is that it can affect mitochondria and it can affect your strength training. Great yes, probably would. But it should be a last resort. One of my clients come to me, actually I have a client who came to me already on Metformin, is already on low dose Metformin, wasn't diabetic, separate story, because I do have clients on Metformin. What the argument is with strength training is that it attacks the mitochondria in some way and that it makes you weaker. My argument is, okay, if you have tried the strength training, you've tried the low inflammation diet, and you're still at point C on that graph, and you think you can get to point D, so what if your strength goes down? If you get to point D after I don't know, three or four months of Metformin, you might be able to drop the Metformin altogether after that and go back to strength training and your point D again, your hysteresis has been undone.
- 00:43:00 My point is, don't rule anything out. Don't rule anything out. Try something. That's how you learn. Try something. You know, let's go three months Metformin, bit of strength training, and see what happens.
- Ivor 00:43:12 Yeah. And in fairness, any drug I mean, it's always a cost benefit. So you don't need to obsess on the benefit or the cost, you just need to think about the trade offs and see what happens. And Metformin has a very, very good safety profile besides these kind potential issues you talked about. And it's really not like a huge leap to try it out. So I'd say yeah, fine. And research at first

though and read all your stuff and then read everything you can.

- Nick 00:43:40 Exactly! Have that conversation. By the way, I've started a forum on my website, which I would like to tell people about. On my website, lihfliving.com, there's a public forum, it's free. You just sign in, you can talk on there. There's a special section on there called "Help, I have inflammatory hysteresis." And it's specifically for people who get stuck on weight loss. I want to hear those stories because all I've got is my small little collection of clients, which is great. I've got all kinds of clients but I want to hear some more stories. If you're stuck with inflammatory hysteresis, you can't for the life of you break this, especially people like perimenopausal women.
- Ivor 00:44:28 Yeah.
- Nick 00:44:28 If these right hormones all over the place, weight is coming on and they can't get it off, please get in touch and start this conversation. I want to know more. If there's a way of breaking this without Metformin, with or without Metformin. This one guy has already started on the blog, on the forum. His wife is a doctor so he's in good hands, and he started to take Metformin. He has some very high triglycerides. He's young, he's 30, something, he's a little bit concerned, and he likes the idea of inflammatory hysteresis and he wants to reverse this. We think he may have been born that way, you know, he's just inherited some bad genes. But he's doing something about it and he's telling the world about it. If you find yourself you're in that situation, please get in touch.
- Ivor 00:45:18 Oh yeah. And I'll put the link here when I send this out, of course. So just one click and you're in. And, you know, **intro [Inaudible 00:45:25]** I'm currently looking at getting more and more testimonials from, would you believe people who have reversed their calcification, their coronary artery calcification score, and they're coming in nicely, and we just made a documentary and movie, which will be released maybe around November 19. And we are seeing reversals, stopping of progression. And reversals and interestingly Nick, in the medical world, you know, there's many published papers including Heinz Nixdorf, which categorically state the calcification increases progressively and as mathematically modelable and it's inevitable.
- Nick 00:46:02 Well there you go.

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Ivor 00:46:03 [Inaudible 00:46:03] believe it ain't true.

Nick 00:46:04 Fantastic! It's an engineer's disease.

Ivor 00:46:07 Yes!

Nick 00:46:08 I love things that are mathematically modelable. I love it.

Ivor 00:46:12 And in fairness to the guys in Heinz Nixdorf and all those studies, that is what they observed for all the normal people. But all the normal people of course, as you know Nick, are not doing low inflammation, high fat diets. They are not taking Metformin, or K2 or magnesium. They are not actually attacking the root cause of the progression and dealing with it. No one is.

Nick 00:46:40 You're seeing complete reversal of calcium.

Ivor 00:46:43 We are seeing even substantial reversals, like going down 10, 20% in less than a calendar year. I mean, these are...

Nick 00:46:53 Good, good. These are all symptoms of what I call inflammatory hysteresis. You know, a lot can be done to reverse it. A lot can be done. I mean, there is a genetic predisposal to it. I've talked about that on that same post. And there is a link on that post about, are you familiar with the, Overkalix study in Sweden, the epigenetics study,

Ivor 00:47:25 There are so many. Now, I may not know it by name, but you can run through the core of it.

Nick 00:47:30 Very briefly. There is a link at the bottom of that post with the inflammatory hysteresis so the people listening to this can get to it. But basically, they looked at about 150, 200 years of medical history in this village. They chose this village because it wasn't very well documented. The doctors were very meticulous there. For 150 years, they kept incredibly good records. And they were finding that whenever there was a feast or famine, the epigenetic factors occurring in unborn infants at that point due to their mothers was being passed on several generations. So if the mother had experienced feast or famine, they were seeing what is essentially inflammatory hysteresis. They're seeing that further down the line. They're seeing people being obese for no good reason. It's not their fault.

Ivor 00:48:34 Yeah, it's handed down. Yeah, essentially.

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- Nick 00:48:38 Just briefly, my argument is if we got so many people now, insulin resistant, what do you think in the general population ? 70%?
- Ivor 00:48:45 70 is a great figure. American figures for over 45s, from CDC are over 45 years of age adults, around 63 or 4% are pre diabetic or diabetic and that's only using glucose measures.
- Nick 00:49:01 Exactly. Yeah, exactly. Only glucose. Right. Imagine if we use HOMA-IR. Good God!
- Ivor 00:49:09 We'll be 80% of over 45s in America now.
- Nick 00:49:13 Okay. So 80% of adults are going to conceive with insulin resistant, what do you is going to happen to their offspring and their offspring and their offspring 3, 4, 5, generations down the line? We're heading for trouble.
- Ivor 00:49:28 Oh, yeah. And you know, if you look at the obesity graph, if people stopped eating bad processed food, now refined carbs, sugars and vegetable oils just stopped? Well, there's kind of a second order effect, gestational effect, like you've described. So you're not going to suddenly stop the obesity, it's going to overrun with all of this epigenetic built in code that is going to take a generation or two, even if everyone started eating right, to back it back off.
- Nick 00:49:57 Exactly. So you see, this is where people like me need to have an understanding of this. If we're training people, as a personal trainer, you're going to have to understand. It doesn't matter for some people what exercise you throw at them, they're going to have huge problems, and you can't blame them. You know, the traditional PT was just shouted at the person and make them run an extra two hours on the treadmill. It makes no bloody difference. This person has got inflammatory hysteresis and they don't know it. Once everybody's on board with this and they understand it, it's then a case of, "Okay, it doesn't matter quite what exercise you need, let's do the best exercise we can for you, which is to empty muscle glycogen and try and drive up your insulin sensitivity. Let's do that."
- 00:50:47 The other point is strength training confers other benefits. If I go back to this client A again, she was so badly inflamed in her joints when she came to m. She couldn't literally take her right arm and touch her left shoulder and she couldn't take a left arm and touch her right shoulder. She was so bad. So bad. It was awful. She just couldn't do anything. She has inflammatory

hysteresis as confirmed by a HOMA-IR, but now, she's doing handstands on the parallettes.

- Ivor 00:51:23 Hah! Wow!
- Nick 00:51:23 And she can, not only touch her shoulder, she can scratch her bloody back now. So, you know, those are the other benefits that strength training brings that you can't measure. The quality of life, the quality of life.
- Ivor 00:51:38 Yeah. In fairness, there's many, many benefits to exercise beyond directly fixing your insulin sensitivity, or certainly directly weight loss. Yeah, it's beneficial and in a broad brush sense, in fairness. Though interestingly, Nick, would you believe, I have a paper from a few years back and this team were looking at, basically, we know that exercise has a positive neurological effect and that's broadly accepted by everyone. And they wanted to look in and see, "Well, why does exercise? What is the mechanism that links it to neurological benefits and improvements?" And they concluded after all the research, the mechanisms and data, it was quite a nice paper, that it was mediated in great part by beta-hydroxybutyrate. So the ketone body beta-hydroxybutyrate, which is released often with with lots of aggressive exercise, was actually having neurological benefits. And it was funny, they didn't mention ketogenic diets at all. They weren't even thinking about diets. But there you go.
- Nick 00:52:48 No, what they will mention is, "Buy these exogenous ketones."
- Ivor 00:52:53 Yes. Or even a drug that will cause your [Inaudible 00:52:57]
- Nick 00:52:57 Yeah, exactly. [Inaudible 00:52:59] make them yourself in your own body.
- Ivor 00:53:02 And certainly they'll do it by not eating consumer processed foods. I mean, that would be the worst possible way you could get benefits. Yeah.
- Nick 00:53:11 [Inaudible 00:53:11]
- Ivor 00:53:13 Yeah, for sure. Are there any other core things maybe we'd get out? I know you got a hard stop here coming up and do I, but any kind of, or maybe it's to summarize the overall picture, whatever you think.
- Nick 00:53:26 I'll tell you what I've learned, what I learned in the two years that I've been doing this is that you don't need to go running to

be fit. The people that come to me have tried... I usually pick up the people who've tried everything. They've done the running, they've done the marathon running, they've done this, they hate running, I hate running, they've tried the endurance because we've been programmed since the 70s and 80s that aerobics is it, okay, and that we have to spend hours and hours on the treadmill. That is not true. You can have great fitness, provided you get your diet right first. Get your diet right first, then do some very intense strength training. And you can do that for minutes. I do, sometimes 12 minutes with a client a week, 12, 13 minutes, superb results in the gym. Absolutely amazing. Provided you get your diet right. Then just go and enjoy life. Forget about spending time in the gym. I hate being in the gym. I only like going to the gym when somebody pays me.

Ivor 00:54:37 Yeah, and you know, that's true. And again, it might sound quite negative, but we've already clarified there's lots and lots of benefits to exercise. But for many people, trying to fix your weight or other issues, it's not the most effective route compared to what you put in your mouth, and having a low inflammation diet a really good one, and the other factors.

Nick 00:54:57 Exactly. And the other thing is, not everybody is a runner. Not everybody is a swimmer. And not everybody is a cyclist. But everybody can lift weights. My oldest client is 70 and he can lift a weight.

Ivor 00:55:12 And you know what the beauty of that kind of training is? And I often mentioned, Dr. Ted Naiman has very simple workouts where you do virtual skip rope, just to warm up a little for a few minutes. And then press ups, squats, lifts, if you have a bar, but just a few basic strength exercises for a short period. Big bang for the buck. And you can do them watching television.

Nick 00:55:37 Exactly. That's it. And that's what I do, that's what I do for a living. I take it a bit more scientifically. I have eight protocols, I'm monitoring, I'm recording and everything. It's for people who don't want to think we just want to turn up once a week. I changed the protocols, I gather all the data, it goes into a positive feedback loop. And then I look at how I can improve everything and I'm just getting better and better, extracting more and more out of my clients based on the biometric data I gather.

00:56:07 By the way, we don't just look at insulin and blood sugars, we look at lipids as well. So I've got all that data on my clients.

When they go on to a low inflammation diet, cholesterol goes high but triglycerides, LDL, HDL is beautiful, you know? Beautiful, low. We've got to get over this lie about cholesterol as well. But that's something else for another podcast, you know? All my clients who've gone low inflammation have very high cholesterol, but they got beautiful triglycerides. Even the ones with some inflammatory hysteresis still have good triglycerides. We need to be gathering this sort of data and people need to be informed about this. You don't need to go to your doctor to find out about this sort of thing.

- Ivor 00:56:55 Yeah. And as I always say, if you don't measure they don't get fixed. And measuring it, understanding it, is the absolute path to success. You can't just be told to eat a certain diet and start munching away cluelessly because the slightest roadblock, the slightest challenge, and you're going to be lost irrevocably.
- Nick 00:57:16 Couldn't agree more.
- Ivor 00:57:17 Yeah, that is the way to go. And just one final point, actually, you mentioned the cholesterol. I've talked a lot about that. But, the cholesterol ratios, as you say, of course, and other, are much more important than the absolutes. But it's interesting that you see a lot of people getting much healthier and insulin sensitive, and tending to have high cholesterol. And this is coming up quite a lot. But the ApoE4 genotype, I often mentioned David Bobbett, my sponsor, he's funding me to get the message out in calcium scanning.
- Nick 00:57:49 Who do you work for?
- Ivor 00:57:51 Oh, David Bobbett of Irish Heart Disease Awareness. So basically, he was skinny, TOFI, enormous heart disease when he got a scan and discovered then he was diabetic. His fasting was good, his a1c was gold, but his blood glucose was hitting 20 millimole after every meal.
- Nick 00:58:09 Shit.
- Ivor 00:58:09 What he finds being ApoE4 with very high disease as proven by the calcium scan, if he takes the cheeses in excess of fats, it's not just his cholesterol goes up, but his triglycerides go up, his small dense increase and his insulin and his LiPo IR, and kind of all of his inflammatory markers move gently in the wrong direction.
- Nick 00:58:34 Ohh! Because of what? Because of what?

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Ivor 00:58:37 Well, this is the interesting one with ApoE4. So, it's known that this can happen with ApoE4 genotype who have established disease, but what's not separated out is animal fat protein and cheese. So it's been observed with excessive eating of those things. But from what we discussed, and in general, if you actually could isolate it, it may be the cheese is the bad actor in most cases.

Nick 00:59:07 Yes! It could be. The point is, as you said Ivor, it is to at least be monitoring these things. So if your triglycerides are going up and your total cholesterol is going up, and your HOMA-IR is going up, at least you know it.

Ivor 00:59:22 Yes.

Nick 00:59:24 And then you can do something about it. If you're not measuring, you will never know.

Ivor 00:59:28 Yeah, absolutely. Yeah. And obviously the ultimate measure for for all those middle aged, middle risk people out there, including vast millions of thin-outside-fat-inside, like we said earlier, not overweight, not smoking but the calcium scan, if they get it, they can find out the ultimate result for how much disease they have. And then use the measures like we've talked about on a week to week basis or month to month to start fixing that insulin resistance, which is the biggest problem.

Nick 00:59:58 Yup, I couldn't agree more.

Ivor 01:00:00 Great stuff, Nick. Well listen, we'll come back again and chat in a while. But this was a nice one to get the core out there.

Nick 01:00:06 Yeah, thank you very much. Can I just have a quick plug for my personal training website? It's ultimate fitness.fi. If you live in the Helsinki area and you want to do strength training, please get in touch. And my blog is LIHFliving.com.

Ivor 01:00:21 Excellent! And I'll drop those links anyway when I post this in awhile. I've got a bit of a backlog, so it might be a little while.

Nick 01:00:27 Okay. Thank you very much, Ivor. It's been great.

Ivor 01:00:30 Thank you, Nick. Fantastic! We'll catch you next time. Bye now.

[End]