Paleo Solution - 356

[0:00:00]

Robb: Hey, folks, Robb Wolf here, another edition of The Paleo Solution Podcast. Today, I have two experts on elite athletic training, HRV, allostatic load, and quite a bit of world traveling too. I have Dr. Daniel Plews who is also teamed up with Professor Paul Laursen. Guys, how are you doing?

Daniel: Doing great. Thanks, Robb.

Robb: We have a little bit of shenanigans getting the show going but we're off and running now. Guys, Dan, let's start with you. I think I mentioned before we started recording that a lot of folks are interested in kind of career path questions. Dan, we'll start with you a little bit. How did you find yourself to be doing what you're doing currently?

Daniel: Yeah. I guess, it's quite a long career path. So, it all started when I was quite young. My passion has always been in endurance sport. My dad was a very keen triathlete and endurance person athlete himself. So, I always had that passion and interest. And he introduced me to the sport of triathlon from the very early age. I think I did my first swim-run event when I was just nine years old. Yeah, so that kind of just, well, brought forward my passion for competing and for sport.

I went through the ranks of the British triathlon team, with the national junior champion and went to compete internationally. And I went to Loughborough University, but mostly I was -- Yeah, I was there mainly because I was more of an athlete. I was on the world class, what was then called the world class program funded by the lottery. Basically, that I was sent there to train with the squad. And I was a very bad student, I have to say. At least that's how I was. Yeah, so, I was a very bad student and I did way more training than academics at that time.

But went and finished my degree. I then have the opportunity to do a scholarship, which was another performance center, which was at Leeds. Yeah, that was a masters-based program to do the scholarship there. And then at that time that was when Alistair Brownlee and Jonathan Brownlee who they're first and second in the Olympics in Rio in the triathlon. They were just juniors, so that was quite interesting. I guess, I went out more the coaching aspect well within the -- It was a coaching scholarship more than an actual sports science but honestly my masters was in physiology and sports science. So, I kind of did a lot in that.

From there, I went to Singapore for four years. First, I went there as a triathlon coach. I was just doing triathlon coaching. And then I moved into actually working for the Singapore Sports Council working purely in moving away from the coaching and into the world of sports science, sports science role. I did some, I did a lot with cycling, rowing, bit in triathlon, but most importantly, what I did there was I met the Prof.

Paul: Yes, we did.

Daniel: Yeah, we did. So, at that time, Paul was -- He was just starting in New Zealand and, obviously, we hit it off quite well. And then Prof brought me out to New Zealand to do a PhD with him. And that PhD was in heart rate variability. So, I came over, started my PhD. And then within six months I got called into working with the elite New Zealand running team. And then I was, yeah, I did my PhD, finished my PhD and continued to work in the running team. I was there for nearly seven years. So, there you go. That's the whole story, quite a long one.

Robb: It's a good one. I like it. But, Paul, how about your background?

Paul: Yes. It actually resembles Dan's a little bit in the fact that we started really from my sport passion and my triathlon passion growing up. So, Canadian, growing up into triathlon as a sport in the early days and doing it to the best of my ability and wanting to be a professional at it, traveling the world around, Australia, New Zealand and trying to get onto the world scene in Ironman, triathlon in my early 20s and then not, having a challenge living that dream in not really working out.

And meanwhile, I was doing sports science at the same time and flunking out of that. So, doing better at triathlon than I did at sports science. But, I guess, having enough failures at the triathlon brought that same passion back to my studies, really wanted to learn about it a little bit more.

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And then I did, yeah, found some good professors that pushed me through in my bachelors and masters at UBC in Vancouver and that won me a scholarship out to the University of Queensland in Australia to do my PhD in interval training out there. I did that for three years. And some of my work caught the interest of an institute that was forming and becoming very strong in the world at that time, the Australian Institute of Sport, and I did a lot of work with them, I guess, as a professor in Australia for about, I guess it could be six years there.

And, yeah, that work got me my -- That's actually, that's where I met Dan. I was working out at Edith Cowan University and we did an affiliate program up in Singapore. And that's where, yeah, the Plews and I kind of met and we hit it off.

We had these similar interests in triathlon, did some work together, and then shortly following meeting the Plews, I got poached by the New Zealand Olympic program, High Performance Sport New Zealand.

I was charged really with building a sport physiology team that was going to service and support our national athletes in New Zealand. And Dan was the first one, first fellow that I really wanted to bring over and build my team with. The topic that we picked was probably something we'll talk a little bit more, and that's heart rate variability. Yeah, it was an emerging useful indicator of fatigue at that time but not really understood how we could use it optimally but there was lots of promise. And, yeah, that's kind of where our paths met. Dan came over, I guess, about seven years ago into New Zealand, and yeah, I guess, we can kind of talk about how our interest in heart variability and our learning ultimately evolved.

Robb: Yeah. I think most people these days are probably reasonably familiar with heart rate variability, but can you guys break down what that is maybe just a little bit of the history and why it might be informative for someone who's coaching athletes?

Daniel: Should I do that, Robb?

Paul: Yeah, I think you're the best of that one, mate.

Daniel: Okay. So, heart rate variability. What is it? Like you said, I think it is becoming a more, a term that people are getting to know a little bit more. So, what it measures it is say -- It's a measure of the autonomic nervous system. So, autonomic nervous system stands for -- It kind of is the, it's your regulatory system that you have no control over. So like if you walk in a room your pupils will dilate. Like things that just happen naturally.

What's important within that is that there's two branches that we mostly considered when it comes to training and stress and that's the sympathetic branch and the parasympathetic branch. So, the parasympathetic branch is kind of what we call rest and digest. It's going to be more of your relaxation side. So, as we all sat right now we'll be more predominantly parasympathetic hopefully. We haven't been exercising or we're not really frightened. We'll have heightened parasympathetic dominance.

However, conversely, if we get stressed or we exercise, the sympathetic side will be activated and that, the sympathetic side, is your fight or flight, which is also, fight or flight response, which is linked to, it can be linked to exercise stress and all those sorts of things. But where heart rate variability comes in is that HRV

actually is the sort of marker and the measure of what exactly the autonomic system is doing.

So, even when we sat here right now, our hearts are not, even if it's 60 beats per minute, it doesn't mean that each gap is one second long. It actually change, the gap between each beat is changing all the time. And that is, in essence, heart rate variability. So, in looking at the timing of the gap between each heart beat and how that varies and where that come in is that more variations of greater heart rate variability is linked to more parasympathetic activities so more of your rest and digest relaxation side.

Whereas less heart rate variability, so less variability within the heart rate, is linked to stress in sympathetic activity. And you'll know that if you ever feel, when you're exercising, your heart is quite continuous. It's like the beat of a drum. If you're like that at rest it's actually not a good thing. It's a sign that you're quite stressed.

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Most of the first heart rate variability studies came out in *[audio cutout]* health, all cause mortality and a lot of poor health is linked to people who have lower heart rate variability in a nutshell.

Robb: Got you. Yeah, that's a fantastic treatment of that. So, there's clearly some huge health implications here but for the hard charging athletes, particularly in the United States, we have kind of a weird culture in some ways that's very laudable on the one hand and also kind of ridiculous on the other. Most of the folks that I hang out with do jujitsu and MMA. They're former wrestlers. And there's definitely this sense that if I just work harder that's going to be how I succeed.

And clearly, there's some issues with that. I've actually found HRV to be pretty helpful in showing how folks are just grinding themselves down to a nub. But, I mean, really how does the HRV score help you guys to inform your day to day training and even the longer mezzo cycles and macro cycles when you're planning out, say, like a multi-year process?

Daniel: Yeah, well, I guess, you can look -- I mean, HRV, you can look at it in two ways. You can look at it on micro level and you can look at it, as you said, more on a macro level. So, on that micro level, there has been up some research and some great studies done that suggests that changing a training based on heart rate variability, it can be more beneficial than just following a normal program. So, for example, you would take your heart rate variability in the morning, it is abnormal, so in abnormally high or abnormally low you would change the training accordingly to do maybe a recovery session or a lighter session.

Some of the apps like heart rate variability for training, for example, that also encompasses some subjective markers at the same time. So, you do your heart rate variability, you do your subjective markers and then it will give you kind of an acute idea of what you should be doing on that day. But on the other hand, what we found in the work that me and Prof did and Martin Buchheit with our PhD was that we found that--

We found it to be more beneficial on a macro level, is that the heart variability responds differently to the type of training that you're doing and you should expect it to respond in a certain way. And if it's going in a different way it means you're probably not adapting that well to the training stimulus and then you might want to consider changing it. That's certainly how I would use it with the rowers that I was working with in the New Zealand rowing team.

Robb: Nice.

Paul: The only thing I'll just add on to that, just to kind of echo some of the things that you were saying there, Robb, with your jujitsu athletes and whatnot that are really training hard all the time, we see that very often across the board within the, I guess, our culture in the western world. Phil Maffetone and I wrote a paper on this one, Fit But Unhealthy, a training and eating paradigm. You might have seen that.

And really we're, yeah, we kind of put this model forth where if you're always, you got this brain that's motivated by that, that no pain no gain mentality, and you're always pushing really the sympathetic system and the HPA axis, you kind of see this downwards spiral in, I guess, central nervous system function or at least the central nervous system more towards that sympathetic branch all the time.

And heart rate variability nicely picks that up for us. So, it can be a nice little feedback system to let you know you need a little bit, you need to take off some sympathetic stressors in your life whether that would be improving your sleep or improving your nutrition or reducing whether it's life and work stress et cetera, and having those kind of come off until it rebounds back.

Robb: Got you. Given the fact that HRV is really giving us this macro picture of kind of total allostatic load, like the full stress load that we're experiencing and that kind of interpreted through the relative allocation of sympathetic versus parasympathetic stimulation, how does that inform your nutritional approach?

Daniel: Do you want to go, Prof?

Paul: Yeah. I'd say we're actually -- We're looking at that now. We've got a few studies that are underway that are going to hopefully get a little bit more insight into that, studies that are comparing the effect of switching from a traditional higher carb base diet more towards a keto level diet.

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And how heart rate variability might fluctuate and detect, I guess, improved health. And, I guess, blood glucose is a classic sympathetic stimulator, right? So, I would say if you can get your blood glucose level under control that's definitely one factor that is going to have an influence on -- It's going to be a contributor to improve central nervous system function and by actually taking away some of the sympathetic stress.

Phil and I put that into our Fit But Unhealthy training and eating paradigm where on the one side of that figure that we have where the high glycemic, highly processed refined foods is, it produces more sympathetic stress, more inflammation. So, yeah, I guess, diet has a real potential, it's a real potential contributor to the central nervous system and potentially could be picked up by heart rate variability.

Robb: Go ahead, go ahead. Please go ahead.

Daniel: Yeah. I was just going to say, because I was just going to give it more content. Just so the listeners can get an idea what me and Prof, what we did is that me Prof, we had real time -- We actually looked at real time blood glucose. We're using a DEXA scan and we did real time heart rate variability using Firstbeat and we were collecting heart rate variability in the morning.

It is astonishing just in ourselves at least. Obviously, we can't say this is the same for everyone but likely this is how the HRV would respond to levels of blood glucose and how stress would -- If you are feeling more stressed, how the blood glucose also would go up. And even in, I actually did a presentation and just before the presentation you could see blood glucose goes up, HRV goes up. Everything is kind of interlinked which is why for us it's really fascinating as to why the diet really did show it can help with your general wellbeing.

Robb: That makes a ton of sense. How much have you guys -- Now, it sounds like you're studying this in a pretty rigorous way right now but I've kind of noticed that oftentimes the thing that gets studied is kind of what the coaches have already been fiddling with and they've got some ideas about what they're seeing and then we just want to get a little bit more rigorous about that. Is that kind of where this comes from? What do you guys or what have you historically done nutritionally based off that HRV score? Like if you played around much with

some of the kind of keto adapted, fat-adapted phases or using some targeted carbohydrates at various points, like how are you guys slicing and dicing all that?

Paul: Yeah. I think, definitely, that's -- Definitely seen that. This paper, again, I keep going back to it, Fit But Unhealthy, it really stems from our observations in the high performance program in New Zealand and, of course, Phil Maffetone's observation in hundreds of athletes that he'd seen. You have people that come to you and they are -- They have these unexplained illnesses that we globally name the overtraining syndrome. Nutrition is one of those areas that is, we believe is a large confounder and a large contributor to it, that highly processed high glycemic refined food diet.

It's the first thing that we try to pull away and change, obviously. And we see a change in physiological function. We see a person, an athlete that returns back to health. And, yeah, I guess, that's, like you said with the coaching that is, we see that on firsthand.

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But it's hard to actually form a study, a concrete study where you're going to take 20 over trained presenting athletes and then run them through a two-month period of adaptation and measure them. It's easy to say that but the reality is it's not an easy study to kind of perform. So, you're right, Robb, in saying that we see this at the coaching level first. And the big thing that fluctuates with that also is your fat oxidation. So, your fat oxidation rates, the ability of your mitochondria to burn more fat relative to carbohydrate is a big rock. It's a big change, something that's happening behind the scenes and yet probably controlled by that insulin, of course.

Daniel: I guess, it all starts for me, it all starts with me and prof, it's amazing how even we start in ourselves. We really encourage people that self experimentation is just the best way to find out and start yourself on a journey of learning. Since I've changed, I did a 3:55 for half Ironman, the fastest time I've ever done whilst I'm working and considering I used to just train full time. And I swear all of it is just because I'm a lot healthier and the diet has really changed the way, has changed my ability to recover and do things.

And like in the athletes that I coach, I've seen massive changes. I guess, for me and Prof working in High Performance Sport New Zealand, it was a little bit frustrating that we could see like just athletes who -- We have a duty and care, I guess, of athletes to be fit and healthy and, I think, it is achievable. You don't have to be one or the other. And that's what we need to strive for.

Robb: Australia, New Zealand are interesting to me because they have a real opportunity to bypass all of the last like 60 years of really goofy nutritional science, nutrition recommendations but man they just -- It's kind of funny because most of the rest of the world doesn't like the US healthcare policies, gun laws, healthcare system but, man, they sure like adopting our nutrition. I'm like you guys don't like anything else we do so why are you so enamored with our nutrition?

And I've actually been working on kind of an open letter to the health authorities of Australia and New Zealand because it's like: Hey, you guys are largely secular westernized countries. The notion of evolution doesn't give people a rash. And so you guys could really leap like three decades ahead of where the US is on this stuff and just bypass a lot of issues. But I'd still need to write that paper. What do you guys think about that?

Daniel: That's for sure. It's just so hard to change though. It really is. Like our own cognitive dissonance of once someone's mindset is, you just won't shift. And sugar tastes good. It makes people happy.

Robb: Indeed.

Daniel: Why do you want to cut that out?

Paul: That's right.

Robb: Butter tastes pretty good too but it's not the same.

Paul: It's not. Both of them, the medical profession and nutrition professions, the experts get taught a certain thing in school and why should that change, right? Yeah, it's difficult for others on the periphery that maybe been taught something different. I believe we've been taught how to experiment and learn and that our opinions and our beliefs and flaws can change. And when you come across people that don't have that same belief, it's pretty challenging and that's certainly, I think, we may have experienced that a couple of times in our time with our former employer.

Robb: Right, right. Guys, are you generally following like a classic nutritional ketosis that would be straight out of like kind of the Phinney and Volek recommendations? What exactly is the approach that you're using? It's first question, and maybe we could break this into a second one. But I'm also curious if you are finding this more fat-adapted approach more and more appropriate for the longer duration activities? Like I've been fiddling around with lower carb fueling my jujitsu activities and I eat fewer carbs than most of my

contemporaries but if I dip into that legitimate kind of keto range, 30 to 50 grams a day, I start kind of falling apart.

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But if I throw in some targeted carbs before training I seem to do pretty well with that. That kind of middle ground. But I'm just curious what you guys are recommending and then also maybe where the boundaries are where you see that straight up keto approach working and then when we do need to add in some carbs?

Daniel: Do you want to go first?

Paul: Sure, sure. So, for me, I mean, yeah, I've got some -- Well, I got about five athletes, three of them are world class level in terms of Ironman triathlete fellas. I would say two of them are on a, they'd be on a pure keto diet and they tolerate that less than 50 to 70 grams, kind of in that range. And don't forget they're eating a lot and they're training 20 plus hours a week. And they're pulling out some decent high intensity sessions, L4-L5 work and they're having no issues at all, probably about a two-month adaptation period.

But I've another athlete. He's struggling a little bit and he needs -- Well, we're experimenting right now with a little bit more carb. And we do, I would say, periodize the carbohydrate and not necessarily with high intensity effort but when performance matters and when the race is on the line we'll push a little bit more carb in the diet towards those. That's my general practice. You, the Plews?

Daniel: Yeah. I mean, I think, even with me and Prof, we're like always measuring ketone levels and our blood glucose. Where you at? Where you at? Paul is a little bit more ketogenic than me. He's always higher with ketones. And then the one time his ketones were higher than his blood glucose.

Paul: I remember that session.

Daniel: For me, I'm kind of -- I am a little bit more whole food but it really depends on what I'm doing because at the moment I'm training for Ironman, I've got top Ironman in a few weeks, and I really, even though I'm 25 hours training a week, I cannot be ketogenic. It just absolutely kills me. So, I'm a bit more whole food and my carbohydrate intake will still be between 100 and 150 grams, which is not ketogenic but it's still pretty low.

But then if I'm not training, I will try and be a bit more ketogenic and I'll institute a little bit more intermittent fasting. Because I just don't eat as much but when I'm training 25 hours a week I do need to each as much, I need to eat a lot more.

And then with my athletes, again, they are more whole food than ketogenic and they -- The thing is, with endurance, if we were to measure ketones during the day, they would be, for most of the time, they do one fasted session in the morning or they do a long session without fueling and they'll be in ketosis, exercise induced ketosis. But that ketosis will then last for the rest of the day.

I even find that in myself, is that I will use the exercise to get me into ketosis and then it will pretty much hold but I'll never really wake up in ketosis, not the same for the athletes. So, I guess, that's the difference for me and Prof. And the same with Prof, we will introduce a little bit more carbs three to four days out of an event and then obviously carbs during the event as well.

Robb: Got you, got you. So, I mean, there is still just a huge amount of individual variability on this stuff. Clearly, genetic factors, maybe some gut factors influencing all that and we're just barely starting to peel that onion knife, I feel like.

Daniel: Yes. It's about finding your own sweet spot. And that's the real key. Everyone is individual. I mean, I've read some nutritionist's advice to athletes in the past and it's all about, and literally it is about, "Don't eat that type of bread. Not enough carbs. Don't eat that. You can get more carbs this way." It's like getting as many carbs as you possibly can which to me is just insane. It's all about finding -- Literally, I've read this one advice from a nutritionist and it was all about what things to do and why should they change what they're eating so he can get in more carbohydrate. It's just insane.

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Robb: Which, I mean, once you hit like pasta and bread, how can you not get enough? Rice, pasta, bread, noodles, I could put a thousand grams of carbohydrate down pretty easily doing that. So, yeah. It will kill me but I could do it.

Daniel: Well, yeah, most people, I mean, a lot of people get up, they'll have cereal, a sandwich for lunch and then some kind of pasta for dinner. That was me when I was competing with the national team. I used to just packing with carbohydrate. And I was actually -- And I really struggled to keep my weight at race weight because I had to really restrict what I was eating. Whereas now, I'm lighter than I ever have been and I don't -- I'm never really that hungry. I just eat when I'm hungry and I'm much happier.

Robb: Right, right.

Paul: And I was the same. I was a two-liter Coke a day and I believe, going through university, I believed that I could do that because I was training 20 hours a week

and that was just fine for my body. That was still high carbohydrate and because I was training that much that was going to be just fine. Obviously, like the Plews mentioned as well where he's getting his fastest time now, at age, I've achieved my fastest Ironman Sub 10 at age 45.

Robb: Nice.

Paul: Yeah. It was a real eye opener for me when I -- Yeah. It seems common sense now. And when I look back at what I was doing it was just ridiculous but you're influenced by those and others around and it's time to turn the ship around.

Robb: Absolutely. I remember doing some horrible shakes in my power lifting days where I would take like four cups of white rice and a can of tuna and powdered milk and regular milk and blend this all because it ended up being cheaper than like the Gainers Fuel that you could get at that time and it was absolutely horrible. And usually within about 20 minutes of consuming this ratchet concoction I was hungry again and then within two hours I was like in a hypoglycemic shock.

I spent probably the first 25 years of my life kind of bouncing in and out of kind of that hypoglycemic event. While I was eating one meal, I was planning the next meal because it was almost like an emphysemic with an oxygen bottle. I knew I was going to get into trouble if I went too long between eating. That's another feature that's really appealing to me about that more strict ketogenic level where I could go a day and not eat and not be hungry but totally functional.

But even when I'm motoring along with that 100, maybe 120 grams of carbs a day, I have pretty good blood glucose control but I can still get into some dodgy situations. Like I'd still need to eat more often, like I'm not quite as robust in that regard. What do you guys think about that?

Paul: I mean, are you asking like how was the stability of our, I guess, energy levels and whatnot through the day with ketosis?

Robb: Yeah.

Paul: And fasting and stuff? Yeah, for me, I think, kind of like what the Plews said, I'm pretty -- I don't have too much trouble getting into that ketogenic state, decent ketone levels, kind of when I measured, above, typically above one. And I can go through my day for fairly long periods without eating. Yeah, whether it's skipping breakfast and just having a Bulletproof coffee or the like, fatty coffee, and just having a big huge dinner at the end of the day, doesn't affect me too much. But I know that the Plews might be a little bit different there.

Daniel: Yeah. When I'm training, I'm definitely -- I mean, I do eat more, I guess. Definitely more than Prof. What I really like is that I'm not -- If I don't have the opportunity to eat I don't have to eat. Recently, on my new job, I've been traveling quite a lot and a lot of the time when you're traveling it's really difficult to get good food. I'm happy to be in the position where I don't have to eat if I don't want to eat and I can wait until I have the, until I get a perfect time where I can actually get some good food, which I think is just so powerful and so useful. I don't have to eat plane food. I can just not eat it and then wait until I'm somewhere where I can actually eat good food.

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It gives you that flexibility and that ability. Whereas like a few years ago, I would have been just eating everything because I would have been scared of me not getting meal for a while.

Robb: Right. Nice, nice. Okay. I always like confirmation bias. That helps a ton. Guys, before we wrap up, I know you both, in addition to the elite side of this performance story, I know you're really passionate about the health and longevity story. And this has been kind of tradeoff scenario in my head that I thought about a lot for probably the last 15 years. But what do you guys do to kind of keep an eye towards that health and longevity access? Clearly, maintaining our metabolic health, muscle mass, immune function seem like really big considerations. But what are you doing to kind of goose that health and longevity access?

Paul: Sure. I'll go first on that one. I guess, the one that strikes me first and foremost is I've just returned home to Canada and, I guess, you could say I'm situated now in what would be called a blue zone. And I just am aware of the longevity research that's shown the potential benefits of being in those so-called blue zones where you're in a small town kind of community feel without big commutes and whatnot to work, et cetera.

There's no driving. I could walk my daughter to school down the lane. And, yeah, live in a clean environment. Standard stuff with getting activity, and love my endurance training and continue to do that and, yeah, just being around family and community. And then, obviously, the diet stuff. So, those would be -- Yeah, I think those would be the big ones. Standard stuff as well in terms of controlling my screen time and just very aware of all the different factors that go in towards longevity and doing my best that I can to try to stick to those guidelines.

Robb: Great, great. Plews, how about you?

Daniel: Yeah. For me, I guess, one of my important mantras is you can't manage what you don't measure and that's kind of the approach that, well, we both take to a lot of even the longevity side of things. It's like what are the things that matter for longevity, is allowing stable blood glucose. You can measure that and we do measure that. Sleep, we measure that. And we do measure that. Stress. Heart rate variability, for example. We've measured that and we do measure that.

So, life for me, if I was going to pick from three big rocks that you can measure to really improve your longevity and know what's going on, that's what I would be measuring and I think you have to start off firstly with knowing what matters and then measure what matters. And from a longevity standpoint, I think they're the really important things. And then all those things that Prof was talking about then, limiting the time on the screen, family time, community, long drives and sat in traffic and stuff like that will be things that you know will stress you out and things that you should try to avoid. I mean, everyone will be slightly different.

I was traveling two hours in a car to the rowing center for nearly seven years and I'm looking back now, I think, that was quite a heavy stress for me. I think I heard or read a paper the other day that he was saying that sat in traffic in rush hour is almost as stressful as doing exercise on your sympathetic nervous system but the problem is you're not getting any--

Robb: You're getting no upside, yeah, yeah. All downside, no upside. That doesn't surprise me at all. Reno, where I live, it has one spot where there's some traffic. The rest of the time it's super easy sailing. But if I find myself in that one spot I just about lose my mind. And then if I'm in Atlanta or San Diego or something where there' legitimately bad traffic, I'm just like how do people deal with this? Like I would shoot myself.

Daniel: On the side, I was traveling around Australia last week and I had a day in Sydney. Oh my lord, I could not wait to get out. Sorry for the people living in Sydney where it was just so busy. But now, I'm fortunate that I do a lot of work from home and when I do work out of home I'm very close to where I work so the travel time is limited. But, yeah, I just can't be dealing with that.

Robb: Right, right.

Paul: And you probably got about 80% of your listeners right now, Robb, they're just shaking their head going why am I in this traffic right now?

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Robb: I have noticed that since my commute to my office used to be 15 minutes and now it's like four, I don't really get much podcasts done anymore as far as listening.

Daniel: My two hours in car drive, I did it twice a week. When I was working with rowing, it was my podcast time. And now I'm just nowhere near as good as I used to be. I need to, I definitely need to get into that.

Robb: I've been listening to podcasts while I do dishes in the evening after the kids are in bed. Otherwise, I don't prioritize it any other moment. It's interesting. Guys, it's been a huge honor having you on the show. Can you let folks know where they can track you down on the interwebs, social media, all that type of stuff?

Paul: Go ahead, the Plews?

Daniel: I go first. Okay. So, we do have our own website that you can track us down, which we could have revamping. There's going to be a lot more exciting things on there and that's www.plewsandprof.com. So, that's kind of health, longevity, performance, nutrition, big focus on triathlon, Ironman training, coaching. Look us up on there. I'm on Twitter. You can find me at @theplews. Yeah, we also have a Facebook page, Plews and Prof as well.

Robb: Cool.

Paul: And I'm PaulBLaursen on Twitter.

Robb: Cool. Well, guys, it really has been a ton of fun chatting with you. I know we got off to a little bit of a shaky start on all of our side but it was a phenomenal time having you on. I actually took a ton of notes and I'm going to start fiddling around with some more of the stuff you talked about. Butare you guys going to be out and about at any big events where people can track you down in the next, say, like two months?

Paul: Not me for two months, Robb. I'm hunkered down and writing my book right now and building stuff with the Plews.

Robb: Nice. Awesome.

Daniel: Well, apart from IronMan Taupo in a few weeks. I was almost going to a NRL conference but, unfortunately, that was the same time as the Ironman Taupo. But I'm always out and about in the sports sphere. So, I will, if anyone follows me on Twitter, I always tweet and let people know where I'm going.

Robb: Awesome. Well, guys, take care and thank you again for coming on the show.

Paul: Thanks for having us, Robb.

Robb: Okay. Take care. Bye.

[0:42:40] End of Audio