



**Steph:** Hi Elly. I'm so excited for this conversation today. Obviously I know that you're very passionate about plant-based living and of course how it's possible to optimise a plant-based lifestyle for athletes in particular. But before we dive in, tell us how you got to where you are today and why you're so passionate about this topic.

**Elly:** Yeah, thanks Steph. I'm so excited to be here as well having this conversation and so excited for everybody who's about to launch into LCHF Endurance for the first time or potentially the second time. But a little bit about me. So I guess my athletic pursuits and my nutrition has sort of probably gone through their own journeys over the last decade or two. So in my twenties I was a runner dabbling in half marathons. And during my twenties I'd also gone through periods of playing around with plant-based nutrition, so reducing animal products, removing meat, keeping eggs in, things like that.

And it wasn't until my later twenties that I decided that I could finally embark on full marathons. But at the same time I decided to take a purely plant-based approach to nutrition, so some allowance for some grass-fed butter at that time, but it was predominantly plant-based. And I was training for my first marathon. There were a lot of other things going on in my life, so I was also really stressed both by my work environment and relationships in my life. And I was experiencing a lot of digestive challenge, which later on down the track I found out that I had parasites and incredible dysbiosis. So for me, the timing which I decided to go purely plant-based, with training and life stress and digestive challenge, it was just the perfect storm, which meant that plant-based wasn't going to work for me at that time. My hair started falling out and my gut health just continued to decline.

And so I sort of made that commitment to myself that I would be plant-based again, but I would do it when I was in a position where I could support my body without having to be reliant on supplements that just really shouldn't necessarily be a requirement on a plant-based protocol. So that's why I'm really passionate about working with individuals, and athletes in particular, on educating them about when it's the right time to try and go plant-based. And also what to do when you are plant-based and you're an athlete, because for me, one of the reasons why I started to look into plant-based nutrition was because of my concerns around finding the most sustainable approach to food yet the most sustainable approach to creating a food supply that would out-see us and out-see our children.

So I wanted to reduce the amount of animal protein that I was reliant on so that I could hopefully inspire others to not necessarily completely remove animal protein, but just slightly reduce it. But if we can't just slightly reduce it and maintain health, then there's no hope in hell that we're going to have that beneficial impact on food sustainability. So that's why I come back to doing plant-based well and doing it sustainably so that we can have that long-term impact on food sustainability for the masses.

Steph: Yeah, I love that. I know what your answer is going to be to this question, but I'd love for you to address, can we be a healthy plant-based athlete?

Elly: Yeah, it's a really big question. I guess the short version of the answer to that is that we definitely can be a healthy plant-based athlete. We can be, if we take the time to be aware of what's required to be a healthy plant-based athlete. So I think the same goes for most athletes, but there's just that little bit more attention that needs to be paid to nutrition by someone that wants to be a thriving athlete and that wants to be predominantly plant-based.

So what I mean by that is that first of all, you have to be aware of where the potential gaps are going to be in your diet. So be aware of the fact that you're probably going to be insufficient in B12. Insufficient amounts of B12 coming in through the diet, if not none coming in through the diet. So you've got to be aware of that. You've got to be aware of where you're going to get your iron from, where you're going to get your zinc from. So it's that awareness of I can't just take a scatter gun approach to my nutrition, but during the day I really have to make sure that I'm lining things up so I'm getting adequate micronutrient intake and so that I'm getting adequate macronutrient intake. So I would say first and foremost, absolutely can be a thriving vegan athlete, but you have to be aware of what it takes to be a thriving vegan athlete, which means you have to be invested in your nutrition and what you eat.

Steph: Yeah, go on.

Elly: It's that willingness to be engaged, that willingness to understand, to educate yourself. And there's obviously lots else that you can do and I can go there right now, but first and foremostly it's that willingness. It's that commitment to, okay, I'm going to understand what is food, what's in my food and what do I need to eat day to day.

Steph: Yeah. I see a really positive side to this because what I see in the athlete space is the training program and the training peaks and the Strava and the logging and the everything. The meticulous awareness to the physical component. And then yeah, I'll eat whenever or I'll just grab whatever. And in Western countries, that whatever is very often a refined carbohydrate and very inadequate from a nutrient density point of view. So all athletes, regardless of their goals around plant-based or not, taking that next approach and applying the same passion that you do about your data and your training stats to your food and to your macros, and to your micros, I think is where we're at from a recovery, performance and longevity point of view.

Elly: Absolutely. A hundred percent. I first was interested in sports nutrition like when I was a teenager because I was looking at athletes like these incredible endurance

athletes having to work for hours on end, not knowing that the difference between them being fourth, fifth, sixth or on the podium would really be what you do differently outside of the training track. Most athletes are pretty committed to getting up and doing the training, like following the training peaks as you said. But athletes are going to be doing their best and doing it for the longest, not just being athletes in their twenties but into their thirties, forties, fifties and sixties, they're the ones that pay attention to their nutrition, to their recovery strategies, to their lifestyle habits.

And I think athletes are starting to become more attuned to that. People are starting to become more aware of the impact that nutrition has probably because they're hearing from other people about how much better they feel and how much better they recover and perform when they do start to pay attention to their nutrition. So you're right. Every athlete is going to benefit when they start to pay more attention to what eating.

Steph: Yeah. Awesome.

Elly: I think also there has to be this willingness to not just understand what to eat but to engage in what you're eating. So buy food, prepare food, eat homemade food as opposed to being completely reliant on out of the packet, off the shelf from the restaurant type eating. And perhaps even more so for those that are wanting to go plant-based because, let's talk about protein for example. A lot of the protein sources I would recommend plant-based athletes look to as things like hemp protein options. So hemp seeds, hemp powder, organic, non GMO tofu and possibly some room for some tempeh. Things like quinoa, buckwheat.

But when you're out eating and reliant on the restaurant to put your meal together for you, there's not always those options there. Yeah, like the plant-based options might be pasta with some Napoli sauce on top of it or the plant-based options might be the baked sweet potato with the legumes and lentils. Those things are okay in isolation but when that starts to become meal on meal, then you are going to find yourself in a state of deficiency like this overarching state of like protein deficiency, not to mention potential risk of lack of iron intake, lack of zinc intake, over consumption of carbohydrates which is totally going to derail your goal of becoming a fat adapted athlete, let alone just a healthy athlete.

Steph: Yeah. So I want to connect those dots because you've answered the question that it is possible to be a healthy plant-based athlete. And I agree with you but I also agree that it takes work. So if you are making that decision that you want to move towards plant-based or be 100% plant-based, and I know you will agree Elly, I encourage you to do the work, to educate yourself. And yes, to get in the kitchen because that's your magic pill, right? Learning to cook and developing that beautiful relationship with what you put in your body is going to be a huge part of your health, but yeah, performance and longevity in the athletic space.

So let's connect the dots because yes, a healthy plant-based athlete is one thing, but similar to what you've been saying, what I sense is it's very easy for us to be filling up on carbohydrates. So then how do we look at being a healthy fat adapted plant-based athlete?

Elly: Yeah. So yeah, if the trap is to rely on carbohydrates, and a lot of that being processed carbohydrates on a macro nutrient level, the solution to being a healthy and thriving plant-based athlete is to take that reliance away from the carbohydrate on the plate. The build your plate guidelines that we can give somebody is probably like one of the best tools that they'll have in their little bag of tricks when it comes to plant-based nutrition.

On your plate, the hero should be the non-starchy vegetables. So these are the super nutrient-rich mineral dense things like spinach, kale, broccoli, cauliflower, Brussels sprouts. And that really should be forming the bulk of your plate.

Then we're looking for protein and we can get enough protein on a plant-based diet if we're aware of where we're getting that protein from. So some of the go-to and probably the most celebrated sources of protein on a plant-based diet are lentils and legumes. So lentils, chickpeas, kidney beans, black beans. Now don't get me wrong, these are a wonderful source of protein to include in an overall plant-based protocol, but they can't be the only source of protein that we look to, especially if you want to be a fat adapted athlete, because foods don't come in isolation is just one macronutrient, right? So there's not many foods that are purely protein or foods that are purely carbohydrates. And if we look at legumes and lentils, they're that combination of protein and carbohydrates. So if we want to be fat adapted, we can't rely on lentils and legumes as that protein source. They can certainly be part of the picture, but they can't be the only part of that protein picture.

So alongside lentils and legumes, we can look at some other less carbohydrate dense protein sources. So like I said before, hemp powder and hemp seeds are a great addition. Hemp powder in a smoothie, hemp seeds in a salad or on top of a chickpea stir-fry for example. We can look at tofu-based or soy-based products. This is another area that there's a lot of question around and I celebrate people questioning it rather than just going straight in and eating an abundance of soy. But we really want to separate what is the soy that is going to help contribute to our goal of getting adequate protein, adequate iron, a broad range of amino acids versus what is the soy that is going to potentially mean that we're eating more in the way of processed foods and more in the way of poor quality foods. So I put soy on a bit of a spectrum. At this red end of the spectrum, we've got soy protein powders, soy milk, soy cheeses, soy.

Steph: Soy burgers.

Elly: Yeah, yeah, yeah. Thank you. Soy burgers, soy sausages, whatever.

All of that processed soy stuff. And the key or the green end of the spectrum, we've got organic, non GMO tofu, organic non GMO tempeh which are really the sources of soy that you could include in your diet and along with miso as well.

So, that's my take on soy. You want to include that which is going to really support your protein, amino acid requirements in a relatively healthy way. But don't prioritise those that are just processed and potentially full of a lot of other rubbish.

Steph: Yeah. Vegetable oils as well.

Elly: Yeah, exactly. Vegetable oil, salt, sugar, thickeners, emulsifiers. So much in there that your body just really doesn't need to deal with. So we want protein on our plates. And then what I find a lot of athletes are also forgetting about or afraid to put on the plate, the quality fats. So these quality fats, so avocado, olive oil, avocado oil, coconut oil, coconut milk, coconut cream, nuts and seeds, nut and seed butters. These fats on the plate are what's going to provide that feeling of fullness and that feeling of satiety in the absence of all of the carbohydrates that might otherwise be there on a traditional plant-based plate.

So your question was around how do we avoid that trap of consuming an abundance of carbohydrates? Well, the answer is to make your plate that beautiful, I guess representation of non-starchy vegetables, quality proteins and anti-inflammatory fats. And then you use those carbohydrates strategically to support your training recovery to support your race day efforts.

Steph: Yeah, and like you're probably preaching to the choir to a degree here, but there are still people that are afraid of fat that you and I see in clinic almost every week. And so it is a good topic to explore because what you can't do is cut out the carbs and then not add anything back in. Right? So they work in that seesaw. So if you lower your carbohydrates, you don't change your protein, you want to make sure that you're filling up, getting beautiful blood sugar control, satiety and all the health benefits of the right sorts of fats.

So that's probably a really good topic for us just to explore briefly around what does that mean? Like, I've heard you say avocado, but the fat conversation is quite confusing because of products like vegetable oils that have been unfortunately celebrated for far too long when they're the exact foods we need to be avoiding. So just give us a rundown of your top plant-based fats that we could be building our plate with.

Elly: Yeah, well go back a step as well, because I think there is a lot of fear in some plant-based communities around fats, particularly saturated fats.

Steph: Right.

Elly: And so there's this further demonisation of things like coconut oils, coconut milk, coconut cream, because of this fear of the impact that they may have on risk for cardiovascular disease. So I think even within the plant-based vegan community, there is potentially more fear around quality fats. But what we have to remember and what we somehow forgot throughout like the sixties, seventies, eighties, nineties and noughties is that fat is actually a requirement just like cholesterol is a requirement within our body. So we need fat to support cell membrane integrity, to support beautiful glowing skin, to support cognitive function. So it's a requirement in the diet, not just like this optional extra that's going to help us be able to live longer. So remember that.

But in terms of my favourite fat sources, avocado, you can't go past just because I think in salads and things like that, it does provide a replacement to things like cheese or fish or if that's what you're used to having in a salad. And obviously it goes really nicely on things like tofu, tofu scramble, and I think the list goes on in terms of how you can use avocados.

I also really love the inclusion of nuts and seeds because of the Omega-3's that we get in there, but because of all the beautiful minerals and vitamins that we get within things like pumpkin seeds or pepitas, or sesame seeds, which are a great source of calcium as well. And obviously we can get sesame seeds in the form of tahini, so they come in this really nice, versatile source of fat that we can use.

So we've got avocado, we've got nuts and seeds, specifically pumpkin seeds, hemp seeds, sesame seeds, almonds and walnuts. I don't know if I can put that all in one category, but they're all one category. Oils, so my go-to oils are avocado oil, olive oil and flaxseed oil. Some which can be used for cooking and some which are perfect for putting on top of salads, on top of bowls, things like that.

When it comes to quality fats, we can't disregard the fact that on a purely plant-based protocol, there is going to be a lack of EPA, DHA in the diet. So we can of course get Omega-3's through our diet, but those Omega-3's, in order to do their job in the body, they need to be converted to EPA, DHA and that conversion is really going to be affected by just eating plant-based sources of Omega-3's. So I often like to encourage seaweed products or an algae derived Omega-3 supplement. Now obviously the supplement discussion is usually one that we would save for the one-on-one consultation, but I think we can't deny the fact that there are some supplements that are going to be really, really beneficial on a plant-based protocol, especially for athletes wanting to perform at their best. And an algae derived Omega-3 EPA, DHA supplement is one that I often recommend.

Steph:

Yeah, I would agree. And I think it's really important to have that conversation because again, we're aiming for health first, performance will come from that. So just acknowledging what could be lacking. And of course we'll do the vast majority via food, but I'm with you in that for a plant-based approach to be healthy and sustainable, there will be some accompanying supplements. But I also just wanted to reiterate your point before around, yeah, in the plant-based space, the constant demonisation of saturated fat is actually a very big concern for me because of that brain focus. We already know that if we don't take a B12, which I'll talk to you about shortly, we run the risk of quite significant deficiency, which can look like neurological symptoms when we're talking sort of two, three years down the track.

And then we're afraid of saturated fat so we're not providing ourselves with those beautiful building blocks for our brain, as you said, and our hormones and so on and so forth. So we have to stop demonising whole foods and acknowledging that in the saturated space, especially with that unfair correlation to cardiovascular disease, we had it wrong. We literally had it so wrong for quite literally 50 years. And so we can unlearn things. We just need to look at what the research looks like now and acknowledge that nature has it right. So those coconut products that you mentioned, coconut oil, a really important inclusions, but you want to always start with the Omega-3, which is why that beautiful balance is so important.

Elly:

Yeah. And we can't disregard the fact that communities for centuries have been raising their children on coconut products. Coconut milk, coconut cream. I hate to sound like sort of all hail the coconut, but if you go to islands and you think about what it would have been like to be like hunt together on an island, you would look at the coconut, at this beautiful gift from God if you believe in God. But it's got water, it's got electrolytes, it's got fats. There's so much nourishment there in the coconut

that we can't disregard that it absolutely fills the part of our diet, but it just can't be the only fat in our diets.

So like you said, we place priority on those Omega-3's and we make that the majority of the fat that we consume, but then there's absolutely place for us to be having coconut oil in a nut and date ball, or coconut oil in the pan when we're about to make a stir fry. So yeah, there's definitely room for it.

The demonisation of that, particularly within the plant-based community, like you said, there's this concern and question mark around cognitive functioning impairment, especially as we get older. But also what about the hormones? What about the impact of reducing fats, reducing saturated fats on hormone production? For women, this is such an important discussion. I didn't mention that before sort of coming out of my hole and being able to go back into doing plant-based well, so after I'd sort of fallen into that hole of marathon training and being stressed and being overworked and all of that, I didn't have a period either. So I proactively started including more fats in my diet and 100% that is what helped me to get a natural cycle back.

Steph: Yeah.

Elly: It's a function of hormones.

Steph: It's sort of a segue again, but like the other thing that is wrapped up in that saturated fat conversation, and like you said around the coconut, is they often don't believe in the hunter gatherer approach because of course historically we ate a lot of animal products and then the argument is that we only lived to the age of sort of 39 or 40 back then. But I mean we've really got to look at how different the world was back then and that we didn't have modern medicine, which is life saving and in the right situation. And that we're obviously having to hunt for our food and there was a lot more environmental and external threats. So we've just got to take that with a grain of salt and acknowledge that there's a lot of new science, that for those that have studied sometime ago or unfortunately studying now where the curriculum is quite outdated, you got to get into the research to make sure that you're not stuck in the anti-saturated fat movement, which is being disproven at this point in time.

Elly: Yeah. Yeah. And look, Steph, one of the reasons I love actually talking about how to do plant-based well is because we can sort of put aside that conversation of, as hunter gatherers, did we eat a lot of meat? Did we not eat a lot of meat? Are we designed to consume meat? To not consume meat? It's very controversial, but what we can look at is, well, moving forward, what do we need to do?

Moving forward, how do we do plant-based well? Because a lot of people are starting to understand that they do feel better if they do eat a primarily plant-based diet or they're starting to appreciate that the way that we produce meat is just not healthy and not sustainable. So maybe meat at every meal is not sustainable either. So there's no denying that people are wanting to take a more plant-based approach. I'm not saying 100% plant-based, but people are wanting to take a more plant-based approach so we've got to understand how do we do that well.

Steph: Yeah totally. And that's the argument that we always get. But what we've been doing at The Natural Nutritionist since 2011 I believe is predominantly plant-based. Never am I recommending animal protein at every meal but that conversation gets lost in those that are quite biased to 100% veganism essentially.

Elly: Yes.

Steph: That's another conversation.

Elly: Exactly. Did you want to come back to some of the other perhaps requirements that we need to be conscious of when it comes to the plant-based protocol? Because I think we've had a look at protein sources and I guess hopefully debunking that myth that we're not going to get enough protein on a plant-based diet because we absolutely can. We've had a look at fats and what role fats play in the diet. So we're getting to micro nutrients. Like B12 is the one that we talk about a lot and that is because we can't get B12 in a plant-based protocol. So there are B12 fortified foods like nutritional yeast, but I'm not a fan of those. Not because I don't like the taste of them, but just because I'm not a fan of the B12 analogs that are there in that fortified product.

So I do recommend a good quality B12 supplement and it's always nice to have some testing done along the course of your journey so you can understand where your B12 levels are at before you start supplementing. And then you can track and monitor that over the course of your plant-based journey. So ideally test your B12 along with some other markers and then supplement as you go. It might be a higher dose in the beginning and then a lower dose as you progress. But B12 is something that can be stored in our body for up to two years. So sometimes the signs of B12 deficiency don't actually start to manifest for a few years into the plant-based protocol. I only know one individual who got away with not supplementing with B12. So don't try and think that you're that hero who's going to get away with it on the plant-based protocol. Go and get your B12 levels tested and then assess what level of supplement you need for the short-term and then of course into the long-term.

Steph: Interesting.

Elly: So, B12.

Steph: You test B12 and active B12 in this athlete?

Elly: Just total B12.

Steph: Okay.

Elly: An athlete who's been plant-based for over 20 years and levels as required.

Steph: Okay. But only one. So for the majority, yeah, no guessing. Let's get some tests. So yeah, over to you.

Elly: Yeah. And this individual has been eating some eggs and some butter and things like that over the years. So getting like some traces of B12 in. But for the vast majority, get tested and supplement as needed.

Elly: So B12. Iron is the next one that always comes up. You should be able to maintain adequate iron levels on a plant-based protocol. So you're getting things like your tempeh in, even tofu, green leafy vegetables, seaweed products. But if you don't know what your iron levels are like before you go plant-based and they were already quite low, then that's just going to decline and decline and decline until you really feel the low iron and go and get tested.

So this theme that hopefully is becoming apparent is that get tested before you decide to go plant-based. Understand where these key markers are at and then start to work on them. So B12, iron. I would get zinc tested, I would get vitamin D tested as well as copper. What else have I missed?

Steph: You go.

Elly: No, you go.

Steph: I was just going to say there's obviously so many more tests you can do, but in the specific nature of checking where you're at as a bit of a stock take before you dive in, I think you've covered the basics from a plant-based priority. There is of course more testing you can do like an omega-3 index with your practitioner. But by this point in time, I hope you're also understanding that it's really nice to get that personalised support because you know how much B12, how much iron and the list continues. Right?

And so getting that really personalised support can help dial in your nutrition and look at that supplement protocol because we're all so different. Just one example is female athletes of menstruating age are going to have a really different iron requirement to our male athletes. Again, just one example. So that's why we're not giving any sort of more personalised recommendations because we can't. It's about getting that one-on-one support.

Elly: Exactly. And also getting that one-on-one support so you can understand what's led to the low iron or the low B12, the low vitamin D. Because if we're in this imaginary scenario, the individual is not plant-based before they go and get those tests done. So if you've got low iron, low B12 and you've been consuming animal protein until that point, well then we know that it's not diet. So we have to figure out what else is it. And I'm thinking gut, like all signs pointing to the gut if we've got low levels of those nutrients before taking on a plant-based approach to nutrition.

Something else that I always talk about one-on-one is the importance of gut health and the importance of getting that in a really beautiful place before you dive sort of wholly into the plant-based protocol. So yeah, it's that investigation to not only understand where your levels of these macronutrients sit in regards to your requirements as an athlete and what you can do to raise those levels, but understanding what caused those low levels. So you can negate that, like nip that in the but before you take on an approach to nutrition, which is going to potentially impact the levels of things like B12, iron, zinc.

Steph: Yeah. And that might lead someone to not be in a dissimilar position to you where the first time you tried plant-based, you weren't ready because of all the external situations. And it might be slightly different that someone else has quite low stores.

So low B12, low iron, low zinc, which is quite common for us to see in clinic, to maybe doing a bit more work on the gut and getting those foundations really strong before you strip out all the foods that would otherwise provide you with those nutrients.

Elly: Yeah, exactly. And let's think about it on a timeline. If you've been eating animal proteins for 33 years and suddenly you decide that you want to become plant-based, well I see nothing wrong with you taking like a three to six month journey to becoming plant-based. If you've got a long-term view of being plant-based, then take the time that's required to set you up for that. It'll be worth it in the long run.

Steph: That's great advice in of itself because of course we have documentaries like The Game Changers, meaning that every man and his dog is vegan today and tomorrow. And they just go to Coles and pick up the plant-based sausages and the fake chicken nuggets and replace that with the meat that they were having in the state that they were cooking and so on and so forth. And then no further thought required. And that's not healthy and nor is that sustainable because I have a huge issue with the over consumption of soy because it's a monocrop and it's really impacting our environment and our soil quality. And that again is a whole other conversation. But we can't have healthy plant-based food without healthy soil.

So we can't be relying on these monocrops and these fake foods and then the low nutrients that that then provides us. So three to six months, absolutely take your time, make sure you're starting from that place of optimal health. And then checking along the way with not only your practitioner but regular blood tests that you know that you are continuing to be healthy when there is that potential that your stores are depleting over that two year period.

Elly: Yeah, and it actually breaks my heart to see so many people inspired and engaged to do plant-based off the back of documentaries to then try it. For some people that I've spoken to like three or four days and they give up because they felt so terrible and then we've lost that person. So they go back to eating poorly produced animal protein for lunch and dinner seven days a week. And so we've lost them. We've lost that person who could have potentially started to consume like 90 or 95% plants. So just a little bit of time, a little bit of thought into preparing for eating more plants will I think do the whole world a lot of service.

Steph: Yeah.

Elly: And it is a really in-depth topic of conversation. I don't even know all of the answers right now in terms of the most sustainable way of producing protein, because of the impact of monocrops, monocultures. So yeah, that's another big conversation.

Steph: Yeah, it's going to be mixed bag, but yeah, we'll talk about that another time. I think it's such a wealth of knowledge, like I know that our athletes would have already learned so much and there is so much more where we could explore. But I think setting the scene today is so important. So thank you again for your time and I'm sure we'll speak to you again soon.

Elly: Thank you so much for having me. I really appreciate the conversation, opening it up for people.

Steph: Awesome. So we'll pop some details below on how you guys can reach Elly. And yes, absolutely, please do reach out for her to learn more.

Elly: Thanks Steph. See you again.