

(TC: 00:00:31)

**Dr Hazel: Hello and welcome back to another episode of The Food Medic Podcast. I'm your host, Dr Hazel. Hope you're doing really well and thank you for coming back to join us for another episode. If you're new to the podcast, please make sure to follow our platform, The Food Medic, on social media, where we share educational posts on nutrition, health and fitness. You can also drop me a message if you have any topics you would love for us to cover on here, and if you have any questions you want to submit, you can send a voice note to [ellie@thefoodmedic.co.uk](mailto:ellie@thefoodmedic.co.uk) for a chance to feature on the podcast too. Okay, so getting into today's episode, which is all about nutrition and training, and some of the common mistakes that people often make. I've called in Liam Holmes, performance nutritionist and owner of pH Nutrition, to help us simplify it. Liam has worked in elite sports for over twelve years, and now blends working with competitive athletes alongside the general public. His previous experience includes working at Tottenham Hotspur, the Republic of Ireland national team, FC Copenhagen and at Fulham Football Club. But he also works with everyone from first-time gym goers, new mums, CrossFit members, endurance athletes and anyone looking to improve their body composition, and just be healthier. Regardless of your goals, this episode covers the key nutritional considerations you need to make when it comes to supporting your health and fitness, so make sure to grab a notepad, there's lots to take away from this. I would just love to start by asking you to tell us more about who you are, what you do and what you're passionate about.**

(TC: 00:02:10)

Liam Holmes: My name is Liam, I'm the owner of pH Nutrition, I'm a nutritionist. My background is actually from a therapy point of view, I did sports therapy at university as my undergrad. It wasn't really anything to do with nutrition, we touched on it, but I was very lucky then to, in my third year of uni, go into professional sport and got a placement at Fulham Football Club. So, kind of, dove straight into the deep end, and it was at that time when I was still studying in my last year, I just went down there once, two days a week, but it snowballed relatively quickly. I was involved in a very elite level from quite a young age in terms of my academic career. It was really amazing to be around that, as soon as I qualified, they offered me a role, so I was there full time. It was at that time I was exposed to some incredible people, amazing experts, people that are really progressive in their field. It was then, in my masters in exercise and nutrition science, and back then, in professional football clubs, there was only, I think, one other full time nutritionist, in a football club. I did my masters, and again, timing, whatever was really great. I, kind of, was allowed to take over the nutrition role at Fulham. I ran a nutrition programme and then moved onto Tottenham Hotspur, worked for the Republic of Ireland national team, and then started doing CrossFit. Rode the CrossFit wave a little bit, and that's where I started to set up pH Nutrition. I've diverted away from football and now work in this space here.

I think my passion is just basically helping people to perform better now, the elite sport thing was a huge part of my career, but now that performance side of things is just what I really want. I want people to be able to perform, whatever that is. That could be they want to perform better if they're doing three sessions a week, or if they're doing eleven sessions a week, whatever. There's so much time and money, these days,

into doing exercise and trying to progress but nutrition plays a huge role in that, so hopefully I can just help point you in the right direction and make things a little bit more enjoyable.

**(TC: 00:04:24)**

**Dr Hazel: Yes, absolutely. I love your approach to nutrition, it's very straightforward and matter of fact, and you're not trying to reinvent the wheel, or make things super sexy. Not saying that your account isn't super sexy but we spoke about this last night.**

(TC: 00:04:41)

Liam Holmes: We did.

**(TC: 00:04:42)**

**Dr Hazel: And you very much owned up, you're not trying to do that with pH Nutrition.**

(TC: 00:04:48)

Liam Holmes: Yes, we're not trying to pull the wool over people's eyes, it's not all about sales, and we don't have, like you say, some sexy name for what we do. It, kind of, does what it says on the tin. But that's my philosophy, that's what my approach is, it's trying to simplify things, trying to make nutrition accessible and practical. There's a lot of information out there. I think social media can get a bit of a battering, I think there's some incredible resources out there, but what we want to try and to, is to try and make it simple, and achievable and sustainable for people. That's my philosophy because there's a lot of noise and it's really overwhelming, even for us, that have more of an idea. So, when people are trying to follow something or want to achieve a goal, I think it can be extremely overwhelming, so hopefully we can provide that little bit of a voice, to be able to make things a tiny bit easier.

**(TC: 00:05:43)**

**Dr Hazel: 100%, and so now, you don't just work with elite athletes or cross fitters, you still do a lot of that but you're also working with first time gym goers, mums, CrossFit members that are maybe not competing. What are some of the common trends you see, in terms of what people are getting wrong or some of the misconceptions when it comes to nutrition around training?**

(TC: 00:06:09)

Liam Holmes: I think sports nutrition and nutrition around training, I think people have this perception that it's pills and powders, and nutrient timing and all these weird and wonderful things. Whereas, actually, human nutrition is sports nutrition, it's performance nutrition. If we can focus on health and wellbeing, and eating nutrient dense foods in the right amounts for what we're doing, that's going to help your performance. It doesn't need to have a shiny label and be called some random name, and make your face tingle. I think people could be going into that area when they think workout, nutritional training and nutrition, that that's what they need to prioritise. I think people overcomplicate it. I know this may be a theme of what we're going to talk about today, but actually people can train relatively consistently at the same times, they do the same things, so what we find is that people don't have a structure. All my clients will get a little bit bored of me talking about meal structures, meal timings, and this isn't about taking your post workout shake. It's about, what are you eating leading into your session and what are you eating away from your sessions to help you get the most out of your training? It's something that, for example, we use evening training, all too often people would eat lunch and then they don't think about it, it's not a priority to them. The only time they

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will think about it is twenty minutes before they're session, when they're rushing from the Tube, or whatever, and they're shoving a bar, or banana, or whatever into them before they work out, and then they don't get the most out of that session.

If you can just focus on that structure over the day, so you have a little bit more in the tank going into that hour, or session that you're going to be doing that evening, you're just going to enjoy it more. You're going to get better progress, and I think that's what people miss. I think they miss that, kind of, it's just about that workout window. I think that's where there's massive potential for people to make a small change and see a big effect.

**(TC: 00:08:00)**

**Dr Hazel: Yes, absolutely, and I think, brining it back to the fact that it can enhance your performance and make sure that you get the most out of your session, is really important. That's that really cringey phrase, which is, 'Abs are made in the kitchen,' and, I guess, my question to you is do you think you can be stronger, fitter or leaner without worrying about your diet? Using that phrase as an example, as cringey as it is.**

**(TC: 00:08:27)**

Liam Holmes: Yes, it is, 'Abs are made in the kitchen,' or whatever, it is cringey, but people say, 'Can you out train a better diet?' Or, 'Can you train yourself without worrying about it?' What I like to have people to focus on is, at times, nutrition should be a real priority, at certain times of the year, or even certain times in the month, whatever, you should prioritise nutrition. But having an, 'All or nothing,' approach or constantly thinking about it, I think is detrimental. This might be a bit controversial, I think depending on the amount that you're do and your age, I think you can out train a bad diet. I think that when you're younger, or if you have a really high output, then maybe the quality of your diet doesn't necessarily matter because your output is so high. Sometimes, when we work with elite athletes, it's not, quote unquote, the 'healthiest' approach because sometimes it's a numbers game, and trying to get calories in, and timings and whatever, it's quite hard. But, for the general public, food quality matters, massively. So, you can't just disregard your food choices and eat just numbers. This is a big thing, yes, with calories and macros, but we eat food, not numbers, and, for me, it's huge in terms of food quality. I think, 'Abs are made in the kitchen,' is the wrong thing.

**(TC: 00:09:46)**

**Dr Hazel: The wrong message.**

**(TC: 00:09:47)**

Liam Holmes: It's the wrong message, definitely.

**(TC: 00:09:50)**

**Dr Hazel: Yes, but I agree with you, and I think, thinking about people who are going to the gym and just want to stay fit and healthy, we need to look beyond (TC 00:10:00) aesthetics and appearance because ultimately you want to be healthy and live a long life. That's the end goal, really, so diet quality really matters there. Yes, maybe you can get away for it for a couple of years and you won't**

**gain weight in your 20's and your 30's, but if you want to be healthy and fit, and strong, and have a good heart and a good brain, then you need to worry about quality.**

(TC: 00:10:25)

Liam Holmes: Well, that's it, it's longevity and sustainability. You can do it for very short periods of time, but it always comes back to, like I said, that human nutrition is performance nutrition and you've got to be focusing on the quality of your food. Because, like you say, we don't necessarily know what happens if we chronically eat a poor diet, or if we chronically under eat certain micro nutrients. That's a thing, like you say, you can get away with it, but it's going to catch up with us.

(TC: 00:10:51)

**Dr Hazel: Yes, and I think it's really easy as well, not just in the fitness space but when it comes to nutrition in general, to get really focused in on the main macro nutrients, so carbs, fats, protein and also looking at energy or calorie intake. But, we often forget about micronutrients and vitamins, and our minerals. What are some of the key micronutrients that you think people should be more aware of, or what key micronutrients are you seeing people less sufficient in, in your group of clients?**

(TC: 00:11:25)

Liam Holmes: Yes, this is a really key thing. I'm going to start with some that we find is really hard to derive from foods. So, in vitamin D and omega-3's, for sure. These two, I think, are two that I would put at the top of my list. It's quite challenging to get them from food, and obviously if you live in a country where sunlight is sparse, it's challenging to get your natural forms of Vitamin D as well. But, I spoke about this before, actually, if people even live in very hot countries, that they actually might be vitamin D deficient as well, because they don't actually go outside. Because it's so hot, they just stay in air conditioned rooms and do whatever. So, just because you live in the sun doesn't mean that you're automatically sufficient in vitamin D. So, I would get people to focus on vitamin D and fish oil as well. Yes, you can derive it from oily fish, but it's quite hard to eat enough across the week, but also, it's that balance between omega-3 and omega-6. Unfortunately, our Western diet and the foods that we're exposed to have quite high levels of omega-6. So, I think supplementing with these, or focusing on getting these key micronutrients is essential. But, from food, I think zinc, magnesium and iron are ones that you want to, kind of, have a bit of a checklist across the week, in terms of your food, you want to make sure that the food that you're eating have these in. When we're talking about training and performance, these are depleted during training, we have a slightly higher requirement of these, and these are relatively simple to get from foods, so that food-first approach has got to be there for those.

The last one, for me, is B vitamins. I don't necessarily think people talk about B vitamins as much as maybe they should do. They're such an important cofactor for so many processes in the body, we don't really store them, so it's really important that we have a consistent supply of them. For those that, like you say, have a higher output and are training regularly, I think looking at B vitamins, like I say, from foods first and then potentially a supplementation at a certain time. It's maybe when you're training hard, or you're going through a period where you're feeling like you've hit a bit of a plateau, then that might be something that you dive into.

(TC: 00:13:36)

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**Dr Hazel: Yes, absolutely.**

**(TC: 00:13:50)**

**Dr Hazel: I think especially for females, thinking about getting enough calcium as well, especially female athletes, for bone health, and I'd love to circle actually into that a little bit, when it comes to female nutrition. Obviously, we're only starting now to understand sex differences when it comes to nutritional considerations, in nutrition in general and also sports nutrition, and the impact of the menstrual cycle and different physiological variables. But, women are typically put in very low calorie diets when it comes to losing weight or leaning up. Sometimes these can be 1,200 calorie diets for a long period of time, and sometimes they might just stay on that with no guidance and no ones going to help them out there. What are some of the risks of a diet that low in calories?**

**(TC: 00:15:30)**

**Liam Holmes: Yes, where has 1,200 calories come from?**

**(TC: 00:15:33)**

**Dr Hazel: I don't know.**

**(TC: 00:15:35)**

**Liam Holmes: Who's made this up? Someone's just randomly said because it is everywhere, it is, 1,200 calories, that's just, like you say, what women should eat to lose weight, it's pretty crazy. Yes, there's huge risks. Obviously with that low amount of calories with your daily intake, then you're going to struggle to get enough protein in potentially, enough micronutrients, because you simply have lack of opportunities to nourish your body. Again, with that, it's going to be really challenging to get adequate fat levels in. Now, for females, we need fat. We need fat to produce hormones, help with so many, kind of, processes in the body, with cellular health. So with really small, lower calorie diets, it's really hard to get those in. It also places huge stress on the body, your body has to find energy from somewhere. Your metabolism is going to be affected, so your output is going to be affected. You'll probably move less, your training is going to suffer from it, and that just compounds stress on the body. It will have to find energy from somewhere, potentially using protein as an energy source which is very inefficient, it's not ideal. These types could be a real issue if you do it for an extended period of time, or even if you keep repeatedly doing it, you're just constantly taking that stress from the body. I think it affects your mood. I don't know if you've gone down and dieted yourself, Hazel, it's hard, it's really hard and it's a really challenging thing to do for any period of time.**

**(TC: 00:17:04)**

**Dr Hazel: Yes, and I think one thing that's really important to mention there is, we talk about energy availability and having enough energy to fuel the things that we do every day. That could just be everyday processes but also training on top of that is another energy demand. So, if we've got people who are under fuelling for the work that they're doing, we call that low energy availability and it runs into the risk of RED-S, which is Relative Energy Deficiency in Sport. I think this is a lot more prevalent in the general active community, and not just athletes, because, I don't know about you, but I get a lot of women coming to me who are quite active. Triathletes or just big into CrossFit and they're like, 'I've lost my period.' And I'm like, 'First of all, you need to go and speak to your doctor,'**

**but always bring it back to its energy intake, energy output, like, stress, body composition, have you lost weight? All of these things. I think, for women, the first sign is always, or most often, menstrual cycle disturbances but we don't see that in men. Men can hold on longer at these low calories diets, not saying they should, but I feel like they're a bit more resilient. Whereas women, we see impact to their bone health, their mood, performance, recovery, blah, blah, blah, and it's not really talked about.**

(TC: 00:18:30)

Liam Holmes: No, it's not, and we actually held an event. So we hold female only events, but we have an event for males called the Bro Session, and it's basically getting men together to talk about this exact topic, to be talking about identifying science. Like you say, it isn't as prevalent and also, men, we don't talk. We don't say, 'I'm struggling here,' or, 'I'm feeling this, actually, yes, I have been just getting through, and maybe over caffeinating and doing whatever just to get through my sessions and man up.' So you've got to be looking at signs and symptoms of these types of things, in terms of if you've hit a plateau, if you find it really hard to warm up into training sessions. If you find your recovery is longer than it used to be, sleep disturbances, libido is really, really low. These types of things in men are sometimes the symptoms we need to look out for, but, as you say, it's just trying to raise awareness, because in the female community, the signs are a tiny little bit more prevalent. People might be a bit more, as you can imagine, aware of their bodies. They can maybe raise this with people earlier than men would.

(TC: 00:19:42)

**Dr Hazel: Yes, yes. The symptoms are very generic and you can attribute them to loads of things, like sleep disturbance and mood disturbance, and things like that. No one wants to admit that they need to pull back on their training.**

(TC: 00:19:55)

Liam Holmes: 100%.

(TC: 00:19:57)

**Dr Hazel: Often, I find, when someone hits a (TC 00:20:00) plateau in their performance, then they're like, 'I need to go harder,' and I'm like, 'Actually you probably need to dial it back a little bit.' Then, they do that for a while, reluctantly, and then they find they're getting back to their usual selves.**

(TC: 00:20:15)

Liam Holmes: Yes, you're absolutely right, it's engrained in us, especially with people that train regularly, to break through that plateau and that means, 'Well, I've got to do more.' It is about what you can remove but also what you can add in. So, can you add in a little bit more food, maybe just slowly starting. We don't want this, 'All or nothing,' or we don't this end of the spectrum approach, we want to be thinking about, 'Okay, can I just make a 10% increase, can I just make sure that I'm going into my sessions feeling good, maybe fueled.' And doing this, whilst also looking at across the week, 'Have I got an extra rest day,' or, my bug bear Hazel, is active recovery days.

(TC: 00:20:54)

**Dr Hazel: Yes, they don't exist.**

(TC: 00:20:57)

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Liam Holmes: They don't exist. I'm like, 'I'm not telling you to just stay in bed all day and hammer Netflix,' but when people start to go to the gym on active rest days and end up doing a 40-minute EMOM, or end up going on a 10km run, 'Oh, it's just a light 10km run,' I'm like, 'Yes, but that's your rest day. It's still compounding the stress that you've created throughout the week. You're not allowing your muscles tendons, ligaments, substrate levels, carbohydrate glycogen levels, to replenish. You're still depleting these.' Again, we get that chronic, well, we just don't allow our body to come back into a state of optimal performance, and over time this is really, really hard to change. So, for anyone that is feeling this, it's hard to wear, because, like you say, we don't want to change. We pay our monthly membership, we want to turn up and get our money out of our sessions, but it's maybe starting with nutrition first, in terms of just increasing slightly. Or maybe, like I say, just taking away the intensity that you do, or the volume that you do. You're still going to be turning up to the gym but you might not just trying to be going absolutely all out in that session.

(TC: 00:22:04)

**Dr Hazel: Yes, I'd agree. The other thing that you've got to mention there is going into your sessions fueled, and I think fasted training is one of the things that I really, kind of, don't recommend for women specifically. Because, often times, that can be one of the things that really sets off menstrual disturbances. I don't know whether you feel strongly, or for or against fasted training, or where you sit on that fence?**

(TC: 00:22:31)

Liam Holmes: I sit on the same fence as you on this one, Hazel. I'm not a fan of it, if I'm honest, because I think people get it wrong, especially with functional fitness or high intensity training, or even doing circuits classes. These type of things, the energy systems that they use, it's quite high intensity. You're burning more glycogen, carbohydrates, and training fasted, with this, it's stressful. It's stressful on the body. What I think people get wrong is that they think that they need to potentially eat breakfast before this. So, it's like, 'Oh, it's morning, I can't eat before training,' I'm sure you've heard this, 'I feel bloated, I feel heavy, I feel like it doesn't work for me.' And I'm like, 'Okay, what are you having?' And they're like, 'Oh, bagel and eggs,' and I'm like, 'Maybe start with a couple of pieces of dried fruit or something liquid based, such as fruit juice, or coconut water, or protein and something else.' It doesn't need to be this massive meal just because it's the morning.

(TC: 00:23:31)

**Dr Hazel: Yes, it can just be a snack.**

(TC: 00:23:32)

Liam Holmes: Yes, 100%, and you can play around with this then. You could have something that is 45 minutes before your session now, most people we get up 45 minutes before they're going to do a class, so you could have something there. You could have something liquid based, actually, if it's liquid based, you could sip it through the first half of your session. This type of thing, I think, where people get it wrong, is that they think they then need to eat a meal. Often, when people have trialled it, and had something, and they found what works for them, whether that's something small, something liquid based, the benefits that they find in their training is huge. They feel better, they're like, 'Oh my god, I just accepted being tired and surviving through my session,' whereas actually we want you to be thriving through it.

(TC: 00:24:21)

**Dr Hazel: Yes, absolutely agree. I think also these things become trendy as well, people start talking about, but another thing that is really popular is supplementation, you mentioned it at the start. Often times we miss the low hanging fruit when it comes to nutrition and instead of focusing on the big picture, we're like, 'What supplement is going to make me the best athlete, or stronger or fitter, or leaner?' And I'm not completely bashing supplements, they have their place, there's certain supplements that have a really good evidence based behind them. I use protein supplementation creatine, then there's some others that don't. There's a huge industry behind them. What kind of supplements, do you think from the top of your head, have value or that you use in your own training or with your clients?**

(TC: 00:25:15)

Liam Holmes: Yes, I think you touched on two there, creatine and protein, for sure. I speak about this a lot with protein, I think it's just to let the listeners understand that protein doesn't always have to be around your workout. You can supplement with protein elsewhere, you can supplement your actual breakfast if you're struggling to get protein there, in a snack, in between meals, whatever, to help that protein distribution across the day and just to bump up your overall levels. I actually get people to tell me what they eat post-workout, and I'm like, 'You eat relatively soon afterwards and that normally contains protein, correct?' And they're like, 'Yes,' so then you take in a shake on top of that, and I'm like, 'That could be 50g, 60g, 70g of protein in a twenty-minute period.' So, identifying and looking at, like you say, supplementation doesn't mean just around that workout, but creatine for sure, beta alanine for people that are certainly doing more high intensity exercise. Again, huge research behind it.

(TC: 00:26:14)

**Dr Hazel: Just jumping in, for people who aren't familiar with beta alanine, what is it and what are the benefits?**

(TC: 00:26:21)

Liam Holmes: So, beta alanine is a compound, it helps to increase the body's levels of carnosine, and this is basically, in simple terms, to help prevent or buffer a build up of lactic acid. What it helps with is that workout intensity when you're working from around 60 minutes to maybe two and half, three minutes, that repeated bout of exercise. It helps to prevent that burn, that acid build up, that stops you being able to recruit muscle fibers and keep going. I'm sure anyone that's done workouts with that will be like, 'I just can't do another rep.' It's working on helping to buffer that kind of build up of acidity in the body.

(TC: 00:27:05)

**Dr Hazel: Yes, absolutely.**

(TC: 00:27:07)

Liam Holmes: And it's something that people often put in pre-workouts, because one of the harmless side effects is that it is a little bit of paresthesia, so it can make your face tingle or your ears tingle, or your hands tingle, and often people put it in pre-workouts because it's an acute thing. So, it makes you think, 'Oh, there's something working in this,' whereas, actually, the timing of it is irrelevant. You just need to make sure that you saturate your muscles with it, so taking it over a four to six week periods is advocating that it doesn't

really matter when you take it. So, just for someone there to be like, 'I have to take beta alanine in my pre-workout,' you don't. The other couple I touched on earlier, vitamin D and fish oil, they're the big four, really, in terms of supplementation that we would consistently use with our clients, with our athletes. Again, with the amount of blood-work, the amount of testing, from the feedback anecdotally and from the research, that we get the most benefits from.

(TC: 00:28:33)

**Dr Hazel: One of the biggest issues that people come to me with, especially when they're new to the gym, or they've just started CrossFit, is muscle soreness or DOMS. Do you know what, first of all, I think there's a big misconception that if you're sore after a workout, that is a good indicator that you've worked hard or you've built muscle, which is not true. But the second question to that is tips on reducing them.**

(TC: 00:28:59)

Liam Holmes: Yes, I think you made a really good point, it isn't a good indicator, and sometimes we can think it's a badge of honour, how sore you are and you come in and you're like, 'I'm so sore from this.' It's almost like if you aren't that, then you haven't worked hard enough. Whereas, DOMS occurs because of unaccustomed exercise or a new stimulus, and there's a thing called the repeated bout effect, so if you're training regularly, your body gets accustomed to it, so actually the level of soreness that you would experience will go down. It doesn't mean that you're not making progress or whatever, so definitely, it could need to highlight to people that it isn't a good indicator of a good workout. But if you do feel it, like I say, if there's a new stimulus, or a higher change in intensity, or volume, or whatever, the number one tip I give to people a lot, is to eat a little bit more around your workouts. The reason for this is that, we talked about fasted training, so if you're training fasted and then potentially delaying your post-workout (TC 00:30:00) window, you're missing this opportunity where the body is in a slightly higher, sensitised state to absorb protein, carbohydrates, nutrients and put them into the correct areas. I just find that when people place that stress on the body and then don't provide the body with the building blocks, in simple terms, to repair and regenerate when muscle soreness is a little bit higher. We can talk about nutrient timing, and again, that comes back to people maybe focusing on this first, but it matters.

If you're feeling sore regularly, or if you're training consistently, maybe two or three days in a row, and you're feeling like you're a little bit beat up, and sore and stiff, just try to look at your workout nutrition. Look at that pre and post-workout and what can you do, maybe you can focus on increasing it, maybe you're making sure that the timings are there within that, kind of, rush. Not as soon as you drop the barbell but within that hour post-workout, making sure that you're consuming some good-quality nutrition. This is my number one tip, before everybody starts covering things in turmeric. So, that's what I would focus on. But then, like I say, there are other things that you can start to do and I think we touched on it earlier, about the quality of your food. If you're feeling sore and stiff, look at the quality and the nutrient density of your diet. If we're eating a varied, colourful plate, and colourful diet with adequate protein and carbohydrates, and veggies, we're providing our body with antioxidants and polyphenols, and all of these things that are going to help to lower the oxidative stress that occurs with training. Providing the body with, like you say, all of the things it needs to lower this muscle soreness, the systemic inflammation that we create by training. So, quality, nutrient density of your diet, making sure that you're focusing in and around that workout.

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(TC: 00:31:46)

**Dr Hazel: Yes, absolutely, and staying hydrated as well is important. You work with older adults and athletes as well, and obviously as we get older, the nutritional requirements change a little bit. What are some of the key considerations that people, say, over the age of 50, need to start thinking about?**

(TC: 00:32:08)

Liam Holmes: Yes, we do. Like I say, we work in CrossFit gyms and functional fitness facilities, and there's a massive range. We have a lot of masters athletes, or older athletes, or just general people that need to dial up their nutrition as they age. Unfortunately it's not a pretty picture sometimes, when we look at age related changes such as the increase of muscle mass and all these different things, and bone density and whatever. But, one of the key things is to focus on protein intake over the day, so the total protein that you're taking and also the distribution. As we age, there's something called anabolic resistance, where we actually need a little bit more protein to do the same job as it would have done when we were younger. So, the easy thing is to just slightly increase the serving size at main meals and maybe potentially look at where you're getting protein in across the day from snacks. And this is a really, really key thing, really, for me, the number one thing that people need to focus on as we age, just to offset that, kind of, drop in muscle mass. Then there's key nutrients, I think that's the two big killers that I want people to focus on, it's that protein and key nutrients such as calcium, vitamin D, for increased bone density, but also for, as we get old we get a slightly decrease in immune functions. So, focusing on those two things are really crucial, as well as B vitamins, I touched on before. I think zinc and magnesium, these two are really, really crucial to help our bodies age well, in terms of you're helping with the physiological functions in our body that will naturally go down as we start to age.

We've touched on it a couple of times, you mentioned hydration a few times there. This is something I find a lot of older people don't do. Either their hydration comes from one glass of water and then just tea over the rest of the day, or coffees, or whatever, and they don't consistently hydrate enough across the day. Some research is showing there's a bit of decrease in thirst perception, so we actually don't feel as thirsty, so people don't drink as much. But these types of things, those three things, key nutrients, vitamin D, calcium, B vitamins, zinc, and magnesium, and protein intake across the day, slightly increasing that are definitely, kind of, good places to start.

(TC: 00:34:25)

**Dr Hazel: Yes I agree, so make sure to check your wee and if it's clear or straw colour, you're onto a winner.**

(TC: 00:34:32)

Liam Holmes: Definitely, very simple.

(TC: 00:34:34)

**Dr Hazel: Lots of the information that you guys put on the pH Nutrition pages are very practical and for people who are busy and things like that, and I know a huge portion of the audience who are listening work long shifts, or work in offices, or hospitals. What tips can you offer them for just simplifying eating well?**

(TC: 00:34:55)

Liam Holmes: Yes, it's a really good question. It's so hard, isn't it, and I'm sure you've, you know, struggled at times through long shifts. One of the things that we work with people in this scenario, the number one thing, is to try and prep your own food as much as possible. You know, this doesn't mean spending, like you say, four hours on your day off cooking up a load of meals, it's maybe prepping snacks or taking something that is portable, such as what we would call a super shake, so like a smoothie-based thing where you can put it in a non-clear shaker so people just think it's water, or whatever, they don't see it's maybe a green or bright red berry smoothie or anything like that. But what this allows you to do is take control of the nutrient density of your diet. Now, often the case is you're not going to make good choices at 2:00am in the morning, or coming off of a night shift, so if you have the food already there, you're naturally going to make better choices and you're in control, and you do it at a time when you're not tired and hungry, so that's the number one thing that we get people to do is to try and take control of that.

The next thing is removing food labels, or meal labels, so when we work with a client we don't call it breakfast, lunch, dinner, you know, we call it meal one, meal two, meal three. Now what that allows you to do is just, kind of, fit that around your work schedule, so meal one would always be happening when you wake up, meal two would always be just before your shift, meal three would be, you know, in the middle of the shift or a snack, or whatever. And what that allows you to do is just be consistent rather than being like, 'Oh, I wake up at 4:30 in the afternoon, I don't really fancy dinner here, is it lunch? Is it dinner? I don't really know what I want so I'll just snack,' and then all of a sudden you just don't have this structure, and it kind of loops back to what I was saying before that just allows the consistency then, and then they can make small tweaks and changes depending on their shifts, or their personal preference, or if they've found that works for them or it doesn't. So yes they're the, kind of, two main things that we get people to do.

(TC: 00:36:54)

**Dr Hazel: Yes I think they're good tips because also when you're working night shifts it can be really confusing in terms of meal timing but also what kind of meals to have, and I've dabbled with whether I've had breakfast at 7:00pm before going to work, or then instead try having dinner but if you're just waking up, you're like, 'Why am I having a full meal?' So I think it also depends on you but for healthcare workers especially if you know it's going to be a busy shift, which it typically is, really prioritising your pre-shift and post-shift meal because if they're as nutrient dense as possible then it doesn't really matter what you get in in the middle bit. Especially if it's a night shift, you don't want to be having big meals on board, it's just going to make you feel less alert and things like that, and also not from a metabolic point of view not ideal to be having too many calories in the middle of the biological night.**

(TC: 00:37:56)

Liam Holmes: Yes, you're actually right and that's why we use that more, kind of, liquid-based throughout that night shift so people can sip on it so then, like you say, you're not having to sit down with tupperware, or wraps, or whatever, sandwiches. And you can, kind of, sip on it depending on your shift or depending on how you feel, how hungry you feel, and it just gives you that tiny little bit of flexibility but we also know that it's going to be providing you with good nutrition throughout that.

**(TC: 00:38:20)**

**Dr Hazel: Yes, absolutely. I mean, I always get really hungry in the night. There's some advice which is, don't eat at all on your night shift, just, kind of fast, and I'm like, it's easier said than done-,**

(TC: 00:38:35)

Liam Holmes: It really is.

**(TC: 00:38:35)**

**Dr Hazel: Because when it's 3:00am, I'm super stressed, I've got X amount of patients to see, I'm really cold because I'm in the hospital and I'm looking for comfort food, you do need something. So I absolutely empathise with people who are like, 'Yes, that's all well and good but I'm hungry.'**

(TC: 00:38:53)

Liam Holmes: Yes, you do. I think, you know, you're almost fighting against physiology as well. I think ghrelin rises in the evening as well, the hunger hormone, so like you say, it's all well and good saying, 'Oh, well use your willpower and just get through it.' Well, I'm using a lot of willpower to, kind of, get through my shift, I don't want to be thinking about using it for nutrition as well, so it's super challenging.

**(TC: 00:39:11)**

**Dr Hazel: Yes, it is, I think they're really helpful tips though. So to wrap up the podcast I always finish with three questions. The first one is pretty straightforward, what is the number one takeaway you want people to take from this episode?**

(TC: 00:39:28)

Liam Holmes: The number one thing is I want people to understand that I think we're a little bit hard on ourselves, and I think people are doing better than they think. If you can simplify it, if you can just take that, kind of, slightly bird's eye view and just look at your general day, not just your workout, look at what you do across the day, I think you'd be saying, 'Oh, okay, actually my breakfast is pretty good, my lunch is pretty good, maybe I'm just missing a snack here before I workout.' I think if you can just try to prioritise one or two things, I think you're going to be, you know, making sustained progress rather than thinking that you (TC 00:40:00) have to go all in on a nutrition plan, or you have to constantly think about calories and macros, you don't always have to do that and I think we need to give ourselves a little bit more credit.

**(TC: 00:40:10)**

**Dr Hazel: And the second question is if you could go back and give your eighteen-year-old self one piece of advice, what would it be? Everyone finds this one the worst (ph 40.18).**

(TC: 00:40:18)

Liam Holmes: Yes, do you know what? I was just going to say the same thing. I was like, 'Apart from going in and saying, like, "Right, invest in Google and Apple,"' I kind of struggled a little bit. I guess the thing was look, nothing substitutes hard work. I would say that if you can just consistently make sure that you're working hard then things happen. I know you're eighteen and you want to slack off but, you know, if you can start to get that work ethic in you then I think you're going to be alright.

**(TC: 00:40:52)**

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**Dr Hazel: Yes, I love that quote which is like, 'Luck is what happens when preparation meets opportunity,' and I'm like, you have to be prepared when an opportunity comes along, the only way to be prepared is to put the work in.**

(TC: 00:41:05)

Liam Holmes: Yes, definitely.

(TC: 00:41:06)

**Dr Hazel: So it's not just sitting back and manifesting you know, your dream house. Got to work for it.**

(TC: 00:41:11)

Liam Holmes: Yes, exactly. Yes, could not agree more, mate, could not agree more.

(TC: 00:41:17)

**Dr Hazel: And finally, what is one book you recommend everyone reads and why?**

(TC: 00:41:21)

Liam Holmes: I've got two for you Hazel I'm afraid, I'm going to be that person.

(TC: 00:41:24)

**Dr Hazel: No, that's cool, go for it.**

(TC: 00:41:25)

Liam Holmes: For coaches, so anyone that is listening to this that is maybe a coach, or a trainer, or a nutritionist, or whatever, one book that I find to be really interesting was Key Person of Influence. I just think it's so well written and just really lays out, you know, if you're building a brand or business, or whatever, I think it's a really essential book to dive into. But my other one is Walter Isaacson's biography of Steve Jobs, so I read this when I was a bit younger and I think Apple, it's so engrained in our lives now. You know, everyone, you don't have an iPhone, you know of it. But this book does more than just talk about Apple, it talks about management, and product development, and marketing, and personal growth, and for me it's just such an amazing insight into someone who was such a visionary. And, you know, I think if you look at what he actually did, he made launching a phone a massive event, like the Apple event. I'm like, 'This is crazy, how did he make it that it's this huge thing now?' It's just amazing, for me it just hits so many areas, so no matter what area that you are in, business, whatever, it doesn't matter, I think it's just such an amazing insight, so that would be my number one.

(TC: 00:42:38)

**Dr Hazel: Yes I love that, actually I've put those two books on my reading list so I will come back to you once I've read them.**

(TC: 00:42:45)

Liam Holmes: Good, fantastic, yes good stuff.

(TC: 00:42:48)

**Dr Hazel: Amazing. So good to chat to you again, for context myself and Liam were on a panel last night together so we had a little preamble.**

(TC: 00:42:57)

Liam Holmes: Yes it was good, yes really good to catch up so thanks for having me on, it's been amazing.

(TC: 00:43:02)

**Dr Hazel: Of course. And if people want to find out more from you, or maybe sign into one of your programmes, where can they find you?**

(TC: 00:43:10)

Liam Holmes: The main source that we use for our education is Instagram, we're not on all of the apps, like, that's the main thing. If you go through our profile, scroll back down, like Hazel kind of touched on there, we've got lots of advice on shift work, and lots of different practical things. And then just the website, just [phnutrition.co.uk](http://phnutrition.co.uk), we have different programmes, different variations, and then like one to one coaching, so yes.

(TC: 00:43:33)

**Dr Hazel: Amazing, well thank you so much for joining us.**

(TC: 00:43:35)

Liam Holmes: Thanks Hazel.

(TC: 00:43:38)

**Dr Hazel: Okay team that was Liam, you can find more from him over on [phnutrition.co.uk](http://phnutrition.co.uk). Again a big thank you for tuning in to the Food Medic podcast, and as always I would love if you could take a moment of your time to just leave us a five star rating, a review, and share this podcast with someone you think might enjoy it. That's all from me, I'll see you again next time.**