NOVEMBER 2023 £6

CoQ10: a key supplement for mitochondria and more

IBS, SIBO and constipation: unrecognised thiamine deficiency?

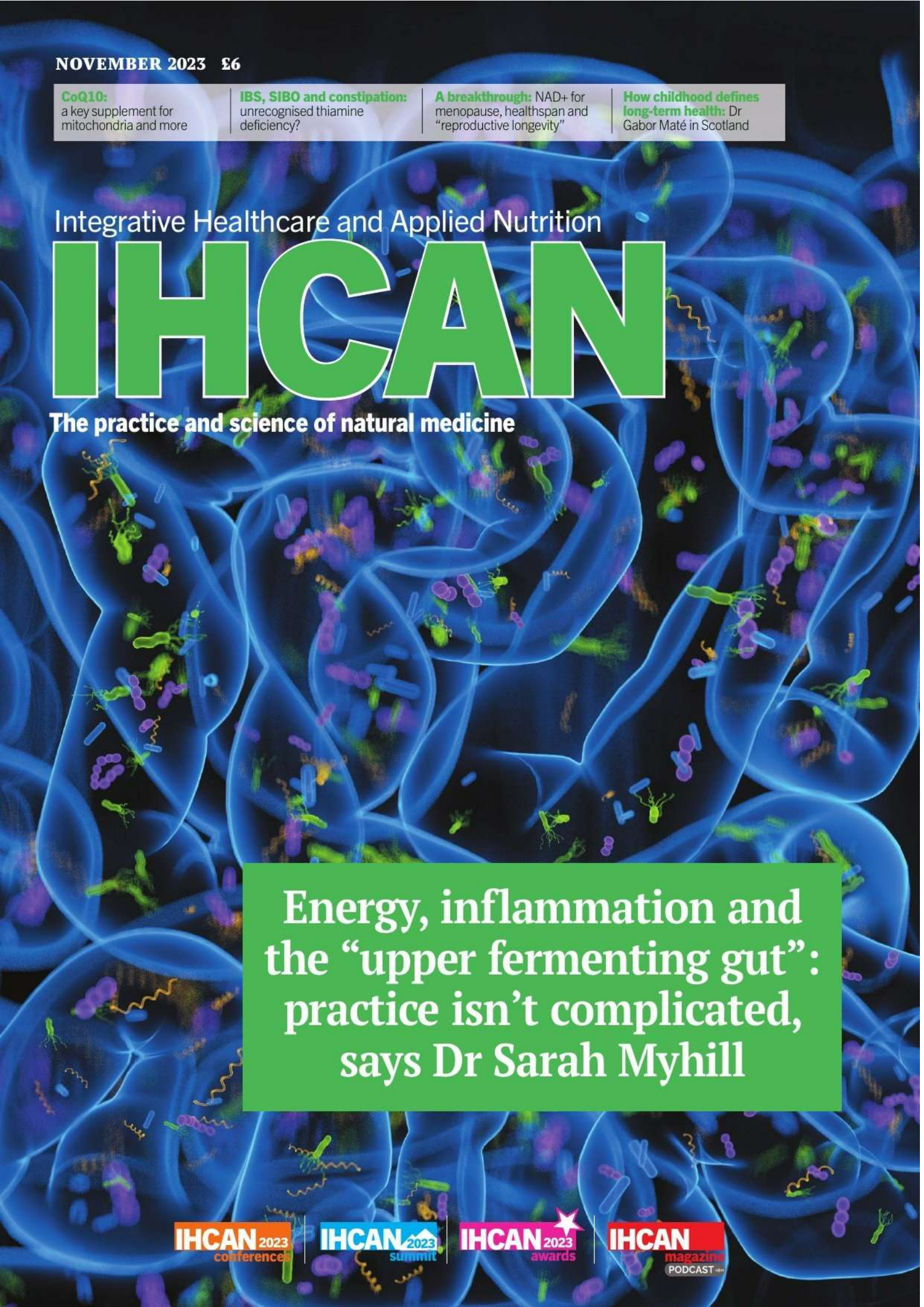
A breakthrough: NAD+ for menopause, healthspan and "reproductive longevity"

How childhood defines long-term health: Dr Gabor Maté in Scotland

Integrative Healthcare and Applied Nutrition

IHCAN

The practice and science of natural medicine



Energy, inflammation and the "upper fermenting gut": practice isn't complicated, says Dr Sarah Myhill

Who's your client? How to get the full picture of the person in front of you

Is there a level of understanding we're missing in personalised nutrition? **LISA SMITH** explains how to take things to the next level with clients we might otherwise dismiss as "non-compliant".

Interospection

This is the bi-direction signal processing between our brain and our internal organs which, via the vagus nerve, allows the brain to sense, interpret and integrate messages from within and make us aware of them. Interoception helps a person to respond to these messages, aiding homeostatic balance. Having poor interceptive awareness can influence many areas including pain perception, anxiety, eating behaviours, stress responses and resilience (via the hypothalamic-pituitary-adrenocortical axis).

Example: Am I hungry? Having poor interceptive awareness means the more subtle sensations of hunger are missed and it is only when the person is "starving" do they recognise the feeling.

Interceptive awareness can also help us to understand and make sense of our emotions. If the signals for an emotion are not recognised and understood fully, the response to them may result in annoyance - becoming anger, or sadness - becoming distress.

***IHCAN*: We featured you in our In Practice section in August - and that generated a lot of interest from practitioners struggling with "difficult" or "non-compliant" clients, but just recap for us how this began for you.**

LISA SMITH: In 2007-2008 I started working quite closely with Bernie Wright, who's an accredited psychotherapist. She had just done the Master Practitioner course with the National Centre for Eating Disorders and had realised very early on that psychological help alone isn't the answer. You need the nutritional support. When she started talking about that she got absolutely slighted by her profession - now no one would disagree with her.

We started working together when we recognised that we've got similar beliefs about actually working with the individual in a person-centered way. And that's still not always done.

***IHCAN*: Well you'll have to explain that!**

LS: People are taught in protocols and in systems. So in training you look at conditions and what you would do with that condition; you look at a system and what you would put in place if that system isn't working properly. The focus isn't always on the individual, it's on the functioning of the body. But we have to understand how that individual also interprets and actions what we say to them, and that's really important when it comes to "eating diversity" - I don't like using "eating disorders", because everyone always thinks they have to have special training to help people.

***IHCAN*: That's a great distinction. So, eating diversity...**

LS: It can be disordered eating or whatever. Because if you use the term "eating disorders", most people automatically think anorexia, and that counts for less than 5% of eating disorders - but it gets 95% of the attention. And you do need specific training for that, because it is a life-threatening situation. But we're in the nutritional therapy world and what happens if somebody USED to have an eating disorder? What happens if they're binge eating? Is that an eating disorder? Then when you start looking at neurodivergency - well, one in five of us in the UK have neurodiverse traits. If you start bringing disordered eating into that it's much greater, because neurodiversity, or the autism or the ADHD itself drives the disordered eating.

***IHCAN*: It's that way round, is it?**

LS: If you are autistic, you were born autistic. If you are anorexic, you developed it. So the neurodivergent traits are there, they're not going anywhere. The link between autism and anorexia is quite strong, actually, because you've got that rigidity. A lot of the time you've got that hypersensitivity to taste, texture, smells, which then adds to that restrictive diet. So a starved brain then starts magnifying autistic traits which further lead down that route.

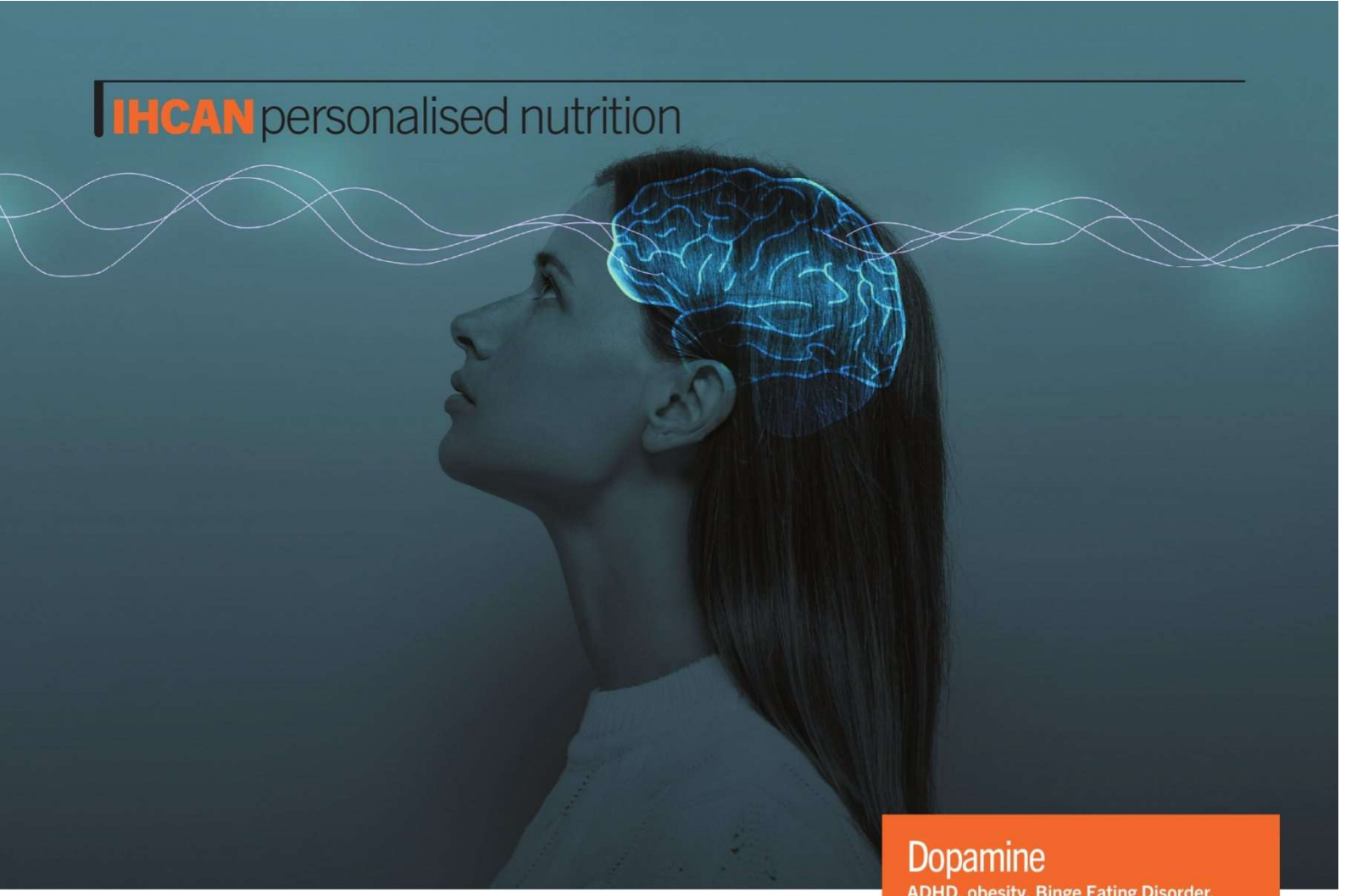
So when you see a client with disordered eating, then that's automatically the thing we've got to work with. But actually the disordered eating might be the symptom of the autism.

***IHCAN*: So this is why you're suggesting we're not necessarily as person-centred as we think we are.**

LS: Yes - we need to help them on the psychological, physiological AND nutritional level. But if we're just dealing with the eating disorder, we're not meeting the client and their world. You've got to actually know who you're talking with.

***IHCAN*: Wait a minute! We do individualised nutrition. We do see each person as an individual. Everything we do is personalised. But what I'm hearing from you is there's some kind of distinction there that I'm not getting. I'm challenging the idea that people just apply protocols. I think they could start that way, but they then personalise that protocol. So they are individualising the treatment for that person in front of them. But there's another layer you're talking about, it seems?**

LS: I'm talking about another layer. If you start looking at the neurodivergent clients - if we take autism for instance - there's that restriction that they dislike change. Change is terrible. We've got hypersensitivity and poor interospection. I've seen rigid meal plans being given; they were perfect meal plans for



a particular condition, but not for a person who is autistic.

***IHCAN*: You've told me that about one in five people have some form of autism, but it's a spectrum, isn't it? So you could have somebody you don't recognize as "autistic"; they may have not been given the label autistic...**

LS: Or maybe they've not been asked! With both autism and ADHD there are genetic links, so you don't have to outright ask the client whether they're autistic, but when you're doing the family history, you can ask about any kind of mental health, anxiety, neurodiversity in the family. You'll get clues – and then pay attention to how somebody presents to you.

If your lovely four-page questionnaire comes back and it says on the food diary they had 20 grams of oats with 200ml of whatever and six strawberries - that level of detail, that hyper-focus, you start picking up on that, and you then start asking about tastes and textures.

***IHCAN*: That's a really interesting thing to ask about.**

LS: I had a client a few weeks ago whose food was excellent. Breakfast was porridge with some fruit, lunch was a homemade vegetable soup, and the evening meal was broccoli, mushrooms, peas, carrots, with tuna pasta and a tomato sauce.

Masking

This involves camouflaging or suppressing natural personality traits or external behaviours to better meet the expectations of people/society - a very common neurodiverse trait.

***IHCAN*: Very little protein, but that's not where you are going...**

LS: Very little protein, but it turned out that the evening meal was one kilogram of those vegetables, frozen, that were then boiled until they were a mush, along with the mushrooms. The tuna was stirred in with six pieces of pasta, and the tomato sauce was two-thirds of a bottle of tomato ketchup. So if you start looking at the textures of all of those meals, there was nothing with any crunch in there. And when we spoke about it more, it took an hour and a half to eat it. Breakfast was five minutes and lunch similar. Well at first glance it was OK. Not much protein you'd say. But then you start adding protein into that client who's got an issue with texture. Doesn't like chewing!

So I see these sorts of rigid plans given to the client without consideration about how challenging those would be for the neurodivergent to take on board. And what we get then is either the client that doesn't come back or they're seen as non-compliant. "Let's have omega-3 rich foods and leafy greens". No: the oily fish, from a taste, texture and smell sense, if you've got hypersensitivity, that's just not going to happen. And you can't say "Well, just try it", because for the neurodiverse individual, the intensity of those feelings means it just isn't going to go down.

Dopamine

ADHD, obesity, Binge Eating Disorder, and Bulimia Nervosa all share the same propensity towards being impulsive and it can be a struggle to stop clients from engaging with an impulse or craving to eat the foods that can boost a dopamine deficient brain.

The ADHD brain is on a continuous quest for optimal stimulation as it struggles to regulate the frequently underactive dopamine reward system, and those low in dopamine often look to self-medicate with foods that have the ability to activate dopamine in the common reward pathway. Foods and drinks containing sugar, salt, caffeine, or processed foods, all create a surge of dopamine that the ADHD brain finds even more pleasurable/rewarding.

***IHCAN*: But they're going to tell you all that, surely?**

LS: No, because of something called "masking". So no, they won't, not without them feeling safe and sure that they're not going to be criticised or have things picked up on.

***IHCAN*: So if you look at the ADHD individual, in particular, ADHD you've told me is strongly associated with binge eating because of dopamine - how does that influence your approach?**

LS: Somebody with a "dopamine starved brain", for example, is going to get satisfaction from something that fires dopamine, and

that's going to be - from a nutrition point of view - eating a lot of caffeine, sugar, salts and high-calorie, fatty foods.

We all know that balancing blood sugar levels is important. Well, that's going to help, but it's not going to get rid of a dopamine imbalance. From a physiological level, they either don't make enough dopamine, they don't use it efficiently or they break it down too quickly. There's a lot of genetics involved.

***IHCAN*: And you're testing for that, aren't you? Not the levels, but at the genes?**
LS: Yes, we look at the COMT genes, the DRD genes - the dopamine receptor genes. COMT breaks down dopamine, and dopamine is the "addiction gene", associated with reward and motivation. You get the reward and you want to repeat the behaviour. What this means is that you might get an ADHD individual who's slave of binge eating, but they will present as wanting to lose weight.

If you then give them a good individualised weight loss plan, without realising they've got ADHD, it won't work. Preparation of food, planning for food, going shopping for food can be a nightmare for them. Some clients have told me a proper hot and cooked Sunday lunch is just not going to happen for them because they can't get everything ready. It's extremely stressful for them.

I've got national-level MMA fighters and everything's hunky dory with them until they're not in training for a fight where they're getting the dopamine from. So one of them binges at the weekends: sugar, caffeine, diet Coke, diet sodas - and then when they have to make a weight...

***IHCAN*: Then all the carbs get cut out, but they're still going to be craving the sugar. And then they dehydrate as well. Do they come to because they've got a weight problem or an eating problem?**
LS: An eating problem. Usually they come to me through a therapist. I have two who are seeing a therapist because every time they stopped training for a fight, their mood went absolutely down - which is again, the dopamine, that low lack of motivation for fun things, not knowing what makes you happy.

***IHCAN*: What gives you dopamine is the anticipation of achieving something.**
LS: It can be. I've seen a couple of clients who've left the Army, and of course the military gives them that dopamine hit on a daily basis. And they're fine. They come out and are just completely flat. Then it's working with that.

So you can use things like tyrosine, phenylalanine, green tea and quercetin. Green tea and quercetin slow down the COMT gene that regulates how quickly you break dopamine down. Tyrosine is one of the building blocks that we need for dopamine, and we have to check we've got the cofactors in there.

But at the same time, if they are drinking a lot of Diet Coke - which is often the one that I see - you can't just take it out. If anything goes out, something has to go back in, and you've got to take it out slowly. But if you don't realise that person has got neurodivergent traits, that's when people see a "non-compliant" client.

***IHCAN*: They might actually not be neurodivergent; they might just have a problem with dopamine. Is that right?**
LS: They might do, but having a problem with dopamine is highly associated with ADHD. That is ADHD. Lack of dopamine is ADHD. It's the prefrontal cortex, executive functioning, and there's a lack of activity there. So you've got that impulsivity, compulsive behaviors, not seeing consequences, because it's all "Now!"

A while ago, a client started taking ADHD meds and as soon as she took them, she said it went silent in her head. I always ask clients how many conversations they have going on in their head at any one time - she said three or four! You're just getting more information with these questions; it doesn't mean the client is neurodiverse. What it's giving you is that little bit more of an idea of how to actually interact with them. If you have got somebody with ADHD, don't give them a protocol with four different supplements to take at different times of the day. Because they're lucky to remember to eat breakfast sometimes. So, saying I want them to take that one twice a day with food, and this one take away from food, and that one before bed...it's not going to work. And then because they haven't done it, it feeds into them not fitting into the world again. They get rejections and it's almost expecting to fail.

• More from Lisa on this fascinating topic next month, when she'll explain more about Sensory Processing Challenges, the link between neurodivergence and disordered eating/eating disorders, the gut-brain-neurotransmitter link, and how she integrates this into her nutritional therapy practice without turning into a psychotherapist!

Meanwhile...check out her two-day intro to this field.

About the author

Lisa Smith, DipAONT, is a registered functional nutritionist, trainer and a senior lecturer at the College of Naturopathic Medicine (CNM).

She is also Co-Founder of NEDDE Training (Neurodiversity, Eating Disorders and Distressed Eating), and CFBS (the Centre for Bariatric Support).

Lisa originally qualified as a nutritional therapist in 2006 after training with Premier Global. After establishing and developing her Nutriology practice, in 2010 I then went on to study The Functional Medicine Education Series - a two-year course via the Institute for Functional Medicine (IFM).
Around the same time, she trained with PRISM Brain Mapping, a neuroscience-based program explaining how behaviours can be influenced by hormones and neurotransmitters, and also how genetic and environmental forces can influence the brain functions that produce personality.
She then completed both the DNALife and DNAMind certification courses with Nordic Laboratories.

• https://www.nutriology.co.uk.

• For more insights into her career and practice, see our August issue, where Lisa was our In Practice featured practitioner.