



THE

FATIGUE

SUPER

CONFERENCE

Case study: Detoxing toxic metals

Guest: Helen Lynam, Julia Alderman, Tammy Hubble

Helen: Welcome to the Fatigue Super Conference. This is one of five case studies, I'm Helen Lynam and I'm here today with Tammy Hubble and Julia Alderman. With these case studies we aim to discuss the clinical practicalities of the whole consultation process. The realities of what actually happens, and we hope that this is going to be helpful to practitioners and clients alike. We're going to share some functional matrixes, and some real test results. Whilst we're talking through these cases we hope to give some time scales, some perspectives of the sensitivities clients have and some of the challenges along the way. These kinds of things are rarely touched on in text books or on courses, though it's quite unique that we're going into this kind of reality. The good news is that actually three people from the clinic are involved in a case study book. It's an international book that is being edited by one of the team, which will be coming out later this year. So these cases are the start of things to come.

So for this discussion, we're going to look at two chronic fatigue cases which involve two different metal toxicities. We want to share our investigative journey and of course the actions we took and continue to take. So, Julia welcome and thank you for sharing this case with us today. Yours is a really interesting case, and if I pull up the functional matrix that we can start to share, you can then perhaps start, just give us a background about this client. You might need to start whilst I pull it up.

Julia: Yes, thank you. Hi Helen, and thank you for that introduction. Yes, this client of mine, I've been working with her for about six months. I'll give a bit of an overview of her case, and her symptoms as she presented on the first consultation. So she's a woman in her early forties. She's had CFS for about five years. The first trigger was actually an ear infection, which was very acute and required high dose antibiotics. She took that but after having the antibiotics she developed very severe IBS with very loose bowels. As a result of that and ever since that day her energy has been significantly reduced.

Julia: It's been about five years since then, and along the way she's done lots to support herself, so she's removed gluten, dairy, tried different supplements, but she actually came to the clinic after she had had an MRI scan. This MRI scan was on her pituitary gland because her doctor had found that she had no cortisol in the morning and they weren't quite sure why.

Julia: So, this scan on the pituitary. The scan, thankfully, in itself, in terms of the findings were fine. She had a lesion that was benign. However, after the scan, the day after, she was left completely bed bound and completely crashed. Complete exhaustion, nausea, headaches, IBS again and extreme anxiety. So we can see here from the matrix, we've got the whole picture, so obviously there are lots of people that can have MRI scans and they don't have that reaction.

Julia: So, it was very much looking at the whole picture. We're looking at genetics, we're looking at the background as to how our clients have become ill. For this particular client we can see that in childhood there were a lot of immune system issues. Lots of tonsillitis, Epstein Barr infection, tonsils were removed. Also, between when she first became diagnosed with the CFS, she also had a lot of stress with three miscarriages and a pregnancy which resulted in an emergency c-section.

Julia: So as we can see, there's been a high amount of stress on this woman's system. So as, we go to the bottom of the matrix we can see some of the other lifestyle factors. She was having some difficulty with sleep, both in terms of difficulty falling asleep and waking very early in the morning. She was napping both mid morning and mid afternoon, for one to two hours. She was actually in bed all day until about late afternoon, early evening when her energy would slightly pick up and at that time she was actually able to go downstairs and be with her daughter.

Helen: Before the MRI scan was she able to do more?

Julia: So before the MRI scan, so when she first became diagnosed with CFS, she managed to get herself back up to a place where she could work mostly full time, but she would pretty much crash every three months.

Helen: So she wasn't right by a long way, was she?

Julia: No, no.

Helen: But she was getting out and about?

Julia: Yes, and very much living within limits of what she knew was okay, so provided she didn't do very much at all at the weekends, and she could work.

Helen: Isn't that so typical. You know, a lot of people don't know, that perhaps people close to them have got chronic fatigue. People with chronic fatigue are so good at putting up this front, and actually looking quite well on the outside when they do go out and are able to pull themselves together for a social event or something. But then once they're behind the front door no one's got a clue...

Julia: Exactly.

Helen: As to how exhausted they might be.

Julia: Very much for this woman, she would crash every three months where she would actually need a few weeks in bed.

Helen: Right.

Julia: And then she would then go back to doing all the things she had done before, and it would be the same cycle. And so after she had the scan, in fact she thought that this would be a cycle, she would have to be in bed for another two weeks and then she would be fine. But that cycle didn't end.

Helen: Yeah, yeah.

Julia: Yeah. So let's go down, you can see here, so in terms of diet, when she came to us, like I said she had done lots of her own investigations beforehand, so she wasn't eating gluten and dairy. But given she was in bed most of the time, she had a huge amount of nausea and digestive symptoms. She didn't actually feel like eating. As you both know that's a very common thing. It's very hard to eat when you feel like that. This client in particular, she was only eating one meal a day which was in the evening. She might have occasional snacks, on kind of cereal bars, yogurt, crisps, that type of thing. Certainly, insufficient fruit and veg, and just not enough food to really nourish the system and to be therapeutic.

Helen: I think people forget how much food we need just to exist. We know as part of this series we've got Sarah Myhill talking, and she puts it across very clearly that you know sort of, two thirds of our food intake is used on just existing, even if we are lying in bed all day. Two thirds of the eighteen hundred calories or whatever it is for your sex and size and things, and a lot is just on the bare minimum, you don't even think you're doing anything. So this wasn't enough, was it? Just about.

Julia: Exactly. Just not enough. Yeah, yeah. Okay, so just going down, so you can see her top symptoms, if we look at the white section of the matrix here. And under assimilation. So IBS had been an ongoing problem for about five years, still suffering with both constipation and diarrhea, mostly on the loose side and there's the nausea, wind and bloating, so obviously lots that we need to do there to very much work with digestion as a foundational aspect of her health. Then also there was joint pain, headaches, lots of anxiety, and insomnia.

Helen: I noticed you mentioned the hypermobility, and of course there's a lot of overlap between digestive issues and hypermobility.

Julia: Yeah.

Helen: And because of the structural issues, just as a bit of an aside.

Julia: Yeah.

Helen: We're not going to have time to dive into that, so just mentioning that briefly.

Julia: Yes. Yeah. In fact, she had been to see reflexology people and an acupuncturist, masseuse, lymphatic drainage, all of which she found very helpful as well. So yes in terms of energy, I could say she was mostly housebound and bedbound, post exertional fatigue, also brain fog, feeling quite wired and energy slightly improved as the day went on, so towards the end of the day, was when she was actually able to get out of bed and go downstairs. That gives a bit of an overview. Do you have any questions, Helen, on the background?

Helen: No, It's a great introduction. This is a really good background of this particular lady, doesn't it?

Julia: Right.

Helen: So. All I've got to do now is stop sharing my screen. There we go. And **Tammy** let's have a look at your client, because it's sort of a different story, isn't it, with your person?

Tammy: My client is early fifties and she's had chronic fatigue for around thirty years.

Helen: So a long time, but we often see that don't we? It's great when we can see people early on. But so often people have been struggling for a long time.

Tammy: She was only diagnosed, but even then, not officially only a couple of years ago, just before she came to the clinic.

Helen: Right.

Tammy: Her initial onset was suspected virus in her twenties, and so it came on very suddenly and she had all the normal kind of flu symptoms and achiness, and tiredness and the symptoms lasted about two or three months and obviously she couldn't take any antibiotics or anything like that because it was a virus and not bacteria. So she kind of recovered from that but then she kept getting, for the next twenty years or so, lots of relapses but they were short, they lasted just a couple of days.

Tammy: At the time, she was really, really stressed both academically and socially and she had quite an unsupportive upbringing as well so she was going out and doing all of this on her own. And kind of saw herself as a bit of a black sheep in the family so she had quite a lot of pressure on her. Since her forties, the relapses started to become longer. She would be bed bound for a couple of days, and then she'd be tired and be able to do things but not to the same extent as normal. It always started with a cold or something like that, and she would get the cold symptoms, the achy feelings again.

Tammy: She also had quite a bit of exposure to toxins, she's an artist, she's a past smoker, she's had some amalgams. In fact in her twenties she also had a fairly bad abscess to a crown, and that took a long time to recover as well. So her immunity obviously wasn't doing great. And there's finds, pretty early on from talking to her that there was toxicities involved. She also had traveled a great deal and still does. She's had a lot of vaccinations as well so, the source of the toxins is quite difficult to pinpoint with this lady.

Helen: Interesting, she was different to Julia's, by the way it sounds, in the way she was able to get out and do things. Her level of activity was that bit more.

Tammy: Yes, but then she kind of has, you know she pays for it afterwards. She has to go and have time out from the family. She has four children and they're teenagers to mid twenties, though they're pretty good on.

Helen: It's always relative, isn't it? People are good at, it's back to putting on that front, or pushing through because that's something you've got to do. And then paying the price later.

Tammy: I think she still does quite a lot of socializing. But she has to be very structured about it. She goes and socializes, sees her friends at certain time and will be back at a certain time. She knows that she doesn't cross the

boundaries and she has to rest afterwards. And she's actually seeing Alex at the moment with some help with that as well and how she can push the boundaries a little further because a little stuck on that so, that's really useful for her at the moment.

Helen: And that's great, that's a good example where nutrition and psychology cross over and we've got a whole case study, we've got two case studies actually looking at that inter linkage because that's quite an important thing that as a clinic we do, we recognize how important both factors are.

Tammy: Like Julia's client, she had lots of tonsillitis as well. There's a big immune picture there.

Helen: Yeah.

Tammy: But the funny thing with this client is she doesn't really show, she shows the main picture symptoms, which I'll go over in a moment, but in terms of her digestion, it seems that everything is fine so you wouldn't automatically think immune and digestion. It takes a long time to do some different tests because she wasn't showing the kind of symptoms that you would look for to do that testing.

Helen: Yeah.

Tammy: She sleeps fairly well, but she wakes up really early. And then the sleep is kind of broken by now and exercise wise, she really does do everything that you ask her to do. She's text book. She does her meditation. She does her Epsom bath salts. She does dry skin brushing. She tries to walk around the block, obviously when she has crashes, that's the thing goes with her, she prefers to still be able to see her friends, which is great. I think that's what keeps her sane.

Helen: Exactly.

Tammy: When she's not in a crash she also does yoga. So she works really hard. With her diet, when she first came to us she was pescatarian. Doesn't eat meat or chicken and she ate a little dairy and a bit of gluten but not massive amounts. She did love sashimi though, so she ate quite a bit of sashimi. And obviously we've made some changes to her diet now. She comes across very competent, but she does have anxiety over her illness. And I don't think when we first started seeing her she didn't actually realize that she had anxiety either necessarily.

Helen: When you've been ill for so long and you can't really trust your body, from one month to the next, or one year to the next, it's tricky isn't it?

Tammy: Yes, it has been really tricky. I don't know her exact details, but I think she does have to put on a big social front that everything's okay, and they travel quite a lot, and she needs to be able to do that and that often causes crashes afterwards as well.

Helen: Yeah.

Tammy: Her main presenting symptoms, when she came to us, were fatigue, aching joints, muscles, anxiety about her health, insensitivities. Her digestion as I said was fairly good, there was just a bit gurgling. She had headache feeling, but she wouldn't really describe it as a headache. A big thing that was really important to her was really bad brain fog. She found it really difficult to read anything taxing. And she had to stop being an artist. The brain fog really was the big thing for her, because she's quite academic and so it took away a whole chunk of something that she really likes to do.

Helen: And again, something we often see. It doesn't always go hand in hand with chronic fatigue, but it's something that we probably see more than we don't. Isn't it? And that's hugely debilitating and stressful as well, it's another addition to the stress load. Brilliant.

Tammy: If it's who you are as a person, and it's who everyone looks to you for and you are academic and you have that front as a person, if that goes it's really difficult.

Helen: Absolutely. Brilliant, thank you Tammy. So Julia let's go back to your lady. What did you start off doing, because I'm suspecting you didn't start off, from what you said, you didn't start off looking at the toxicity area. Where did you start?

Julia: Yeah, so started where we always start, and that is with the diet.

Helen: Yeah.

Julia: Testing is fantastic, supplements are fantastic, but we always need to make sure we've got the basics in place first with the diet. It's just so fundamental to what we do, as I said, this woman was only eating one meal a day. What we looked at doing was working together to see how we could get more food in, in a way that was really going to nourish her system and not be too much of a demand on digestion as well. Particularly since she couldn't move, we all know that when we move digestion is that much more efficient. And it's very hard as well when someone is bed bound. It means digestion becomes stagnant and slows down. So we also really needed to work with that. What we did was we let getting in a smoothie for breakfast. Doing a lovely soup for lunch and she also got in a mid afternoon juice and then continued

with her evening meal. A bit like Tammy described with her client. This woman was willing to do what ever it took and she has done fantastically.

Helen: Because of course that's easy to digest, that still takes some preparing. Did she have help at all?

Julia: So, yes, she had some help, both from her husband and from her father as well. And particularly for making lunches and things which were often made in batches, so she could then have them for a few days.

Helen: Yeah, great.

Julia: Yes, so putting great things into her smoothies and things like spinach, kale, avocado, berries, papaya, almond milk, things like that.

Helen: It's a good point, because when we talk about smoothies we are not talking about strawberries and bananas, are we? We're talking avocado, celery, the bitter fruit, possibly the polyphenols or that come from the color the phytonutrients, not too much of the fruit because of the sugar. Rainbow in a smoothie isn't it?

Julia: Yeah. Likewise, at lunch time she was doing things not necessarily, particularly high in protein, but things that were going to be gentle on her system and that were really going to cleanse and get those antioxidants in and given her blood sugar was quite stable, it wasn't a concern for me, so her lunch was a nice soup, perhaps with lentils, beans, root veg, things like that. And a nice mid afternoon juice as well, about seventy per cent veg, or eighty per cent veg and a bit of fruit. So that's where we began, like I said, she really ran with that. She was able to implement it excellently.

Helen: Brilliant.

Julia: Also, looked at introducing supplements and in terms of testing she had had an adrenal test done before she came to the clinic, which showed she had low morning cortisol. So we had that to work with. Given her digestion was really suffering, and lots of IBS for a long time, we looked at doing a comprehensive stool analysis. And given the level of fatigue, and post exertional malaise, we also looked at doing a mitochondria test as well. Those test results came back for the second consultation. The stool test primarily was showing very low levels of beneficial bacteria, especially lactobacillus. So very much working with that. There was mitochondria dysfunction, so there was low ATP production, and low ADP to ATP conversion. But, very significant for this discussion, there was also a blockage on her translocator membrane, which was very significant. It was twenty-seven per cent blockage. That was

through two main chemicals that were found. One was benzoate, which is found in lots of products, but particularly cosmetics, shampoos...

Helen: Isn't it? Yeah, you just look at the back of packets, and it's a preservative, isn't it?

Julia: It is, and you'd be surprised because even ones that say they're natural, they tend to contain it too. So, it's one you need to hunt for.

Helen: Absolutely.

Julia: She also had tartrazine there as well, which is an artificial food coloring as well.

Helen: Can I just point out now that that mitochondrial test of course is barely available now, and the lab that did it Sarah Myhill would first fit in her talk and has really reduced the number of tests that it's doing now. So it's not available to us anymore. But for the years we did have it we've learned so much. So actually toxicity, we're going to talk about all the different ways of testing toxicity, but it's something we would almost assume now, to a certain extent, because as you say Julia, you know benzoate is in so many products that we think are okay. So, being really alert to this whole area of toxic exposure, in any form is key. So now we don't have that test, we don't get those numbers anymore. We can make an assumption, can't we?

Julia: Yes, and like you say, we're exposed to so much more now than we ever have been in everything. The cosmetics, cleaning detergents, chemicals on our food, in the air and those who are genetically more susceptible to not processing those things as efficiently, it's going to have more significant health consequences.

Helen: Yeah. Of course, I know what's coming. So I know that whilst that was obviously good work and good investigation and how happy she must have been to have had some findings. That clearly wasn't the whole picture. So what was the point at which you thought, we need to be looking for possibly the effects of the MRI scan, is there other toxicity going on here?

Julia: Yeah, that's a good question. As a result of the mitochondria test, we started doing various detox things. She brought a far infrared sauna blanket, she was doing that which we can discuss some more later. We dispatched her on various detox supplements as well. But it was actually my client herself who was very keen to test for gadolinium, so given this last crash from which she hadn't been able to recover from, had been a direct result of the scan, she was very keen to test. My view was, I completely agreed, that I thought it was a very significant part of her picture. Ordinarily I would have

left it slightly longer to do a bit more of the foundational work first. But given her compliance, and her tolerance of supplements, we thought great let's test. So we then did a comprehensive urine element profile...

Helen: And I'm going to leave on a cliff hanger. And we'll see in a minute if that was positive or not.

Julia: Yeah all right.

Helen: We'll just leave that cliff hanger there. Yeah. So Tammy, I'm interested with your client what you did to start off with. Sort of the build up to looking at the toxicity side. Because, again I think like with Julia's client it's not an area you went into straight away because there was so much going on. And it wasn't as clear cut with Julia's, it was perhaps a little more clear cut.

Tammy: Yes, well with this client obviously we first looked at her diet first and foremost. We cut out the dairy and the gluten, and we tried to make more balance, we got a lot more fats into her diet, there wasn't many fats in it before. Actually, unlike Julia's client, this client did push the testing quite early on. She likes to know facts, so she wanted to test and test as much as possible, which I know we don't normally do. She also really hates anything that's invasive, so anything that needs blood draw, anything like that. We did decide to get a few tests early, straight away.

Helen: It's worth pointing out as well a reluctance for testing is... well it's not a complete reluctance, is it? We're just very conscious of our client base. And their financial situation, if they can't work or they're working part-time. A lot of these tests are expensive in America, some might have insurance, which can cover them and that can be helpful, but here in the UK on the whole, those tests are not covered by insurance. So we're very careful how we spend other people's money, basically, aren't we? But if someone can afford it of course it makes a massive difference doesn't it? Because, it can help you pinpoint very quickly to what's going on and potentially save time and money in the long run.

Tammy: It does.

Julia: Can I just add as well Helen, I think as well. Sometimes, if a client comes to the clinic with lots of test results or if lots are done in the first or second consultation, the problem is as practitioners we often can't work on those test results because there's only so many supplements a client can be on and obviously we need to make sure that the whole system is in a strong enough and safe enough place to actually cope with those first. So if we were to go into metal detox straight away, without supporting the gut, without

supporting the whole system, we're going to make our patients feel horrendous, very quickly.

Helen: And sitting on test results knowing that's there isn't helpful, in fact it can sometimes almost add to the stress. It's like, well why aren't I working on this yet? Actually, you've got to do the prep work. It's a really good point, because if someone has got a lot of money and can afford to do twenty tests, where do you then start? You still have to get the priorities, you can't address them all at once. Yeah, really good point. Sorry Tammy we diverted. That was a good point that you raised. So thank you.

Tammy: I don't generally like it when people ask for too many tests because you can't deal with everything at once. And it can't work, with everything at once, so you have to do it one step at a time. Anyway, these were all kind of tests that I suppose interlink so it kind of worked with this client. And also she came with us, she was already seeing a kinesiologist, and she really believes in this practitioner that supports her so we try and listen to what she said about them. She said that they said that there's no gut issues as well. And because she had no symptoms at all, of the gut, we kind of on this one occasion, which is like so rare, I never do this, we didn't do a stool analysis.

Tammy: So we went straight away and we tested her cortisol and her DHEA which as you guys know has to do with adrenals. So she did have depressed morning cortisol and DHEA, so it kind of showed the chronic stress that we were talking about earlier that's obviously been going on in her life for some time. We also did a mitochondrial test which at this time didn't show any blockages but the ATP was depleted and the magnesium was depleted and it was also very poor enzyme activity with the superoxide dismutase number two, which has to do with manganese as well. There's obviously some kind of support that she needed with detoxification. We also did her mineral allowances because it's really useful, it gives you a kind of starting guideline of how she's doing with her minerals and actually when we did it, we found really super high mercury. It was off the scale mercury.

Helen: Let me show that, because I've got that here, haven't I? It's this one, isn't it?

Tammy: Yes, yes.

Helen: So, that's the supposedly beneficial minerals and then we go to the toxic ones there. The scale is not big enough for the mercury.

Tammy: No. So on the beneficial side as well, which kind of lined up with the mitochondrial testing and the manganese was borderline, and her zinc again was off the scale. Sometimes that can be due to shampoos. Sometimes, they

leave a distinct residue, or sometimes it can actually mean that your depleted, because your hair is growing slowly because your very low in zinc and so then the zinc shows up really high on your hair. Seeing this on hair analysis doesn't really mean that you've got too much zinc, so that in itself is worth further investigation as well.

Tammy: Actually, on her mitochondrial test her superoxide dismutase number one was low as well which is another sign that you need some more zinc in your life. Yes, that was all really interesting, so we went away and gave her a bit of adrenal support, we gave her some glutathione to support both the mercury and the superoxide dismutase. She had some dental work done, she went to holistic dentist, didn't have all the mercury removed, had them all tested, had some of them removed. He did some protective stuff while she had that done. He was really good actually.

Helen: It's an important point, with regards dentists, looking for holistic one if you can. Even those that say they are holistic, still ask some questions if you're having fillings removed you have to have that rubber dam that protects from any bits falling in, you want the filters there, the air purifiers.

Tammy: And also don't necessarily go to a dentist and have all your fillings ripped out because if there's nothing wrong with them then you could actually cause more of an issue. If they're not leaching, then leave them alone. That might not be where the source of the mercury is actually from. And as I mentioned earlier this client ate a lot of sashimi as well, so those big fish in the sea, they're full of mercury. So she had that dietary change to make as well. In fact, she wanted to go vegan but we managed to talk her out of it and just choose different fish. In the long run, you'll see it does work out.

Helen: Could we just go back over that and then we'll, so we'll go back to **Julia's**, pick up on her case and I'm conscious we've got a cliff hanger going on there. Vegan, what were your thoughts on that, clearly you didn't think it was right at that stage, and we do talk about this on other recordings as well. In this particular case, in this particular time what was your thinking there?

Tammy: Well, the big thing for me, I didn't want her to cut out her eggs, because when your vegetarian, eggs are so important, because they've got all the lovely E vitamins, and also the protein, so once you become vegan it's really difficult to get good sources of protein. Later on she wants to become ketogenic, so then it's even more difficult because there's no grains, and so then there's no sources. In this particular case, it was about keeping her diet balanced.

Helen: Yes, it's about timing isn't it? You know, I talk about this on another recording. We're not against veganism at all. Far from it. But there's a time and a place, and sometimes when you're trying to heal, it does seem that those vegetarian proteins don't seem to have a strong an effect, as the meat based proteins. I'm sure Julia would have something to say about it. Another time and a place. Julia what would you say at this stage of being on a vegan diet?

Julia: Yeah, so I would say it is very individual. I would say for some clients potentially it's okay, I think if we look at detox diets, generally the more plant based they are, the more cleansing they are. But the big but is obviously that we need to have some level of protein in there, because it's so important for phase one and phase two liver detoxification. So again it's really about what those protein options are and unfortunately when people have a lot of digestive issues often that cuts out lentils, beans, legumes, all of those things as well. So, that's what it's very much about, looking at the presenting person and what's right for them.

Helen: Spot on, spot on. Let's go back to your client. We left on a cliff hanger. So, let me pull up her results to share with everybody, to see if it was actually true, that there was an issue with the gadolinium. And here we go.

Julia: Yes, so these were my clients test results. You see the gadolinium result about half way down the page. Which as you can see we could do a little jump for joy, to see that it was as we expected, and it was very high. And I say jump for joy just because it very much confirmed suspicions and once we have a test result, it's not dim and grimace, it's great. Now we have got something that we can work with and that can then progress things more.

Helen: I know it for our client base they love positive test results. Don't they?

Julia: Absolutely, they do.

Helen: Getting blood tests from their doctor which say everything is in range,

Julia: Yes.

Helen: To have something like this is just so helpful.

Julia: Yeah.

Helen: So what is gadolinium?

Julia: Yeah, so it's a good question. It's one that not that many people have heard of because it's one that isn't that common on a day to day basis. It's a heavy metal, and as far as I can see, the main use of it, is as a contrast agent. So it's used in many MRI scans to make diseased tissue look brighter or darker. It's not actually used in all MRIs, I believe around about forty or fifty per cent will use some type of gadolinium based contrast agent. It used to be thought they were completely safe and have a half life of about an hour and a half and is excreted in the urine. But new research has actually shown that some gadolinium particularly if it say, linear contrast agent, can actually be leached out into the body, so it's not all being removed in the urine as quickly as once thought. Free gadolinium in the body is very toxic because it actually has quite a similar structure to calcium. So it can block calcium channels in cells.

Helen: Which is the way to getting nutrients into and out of the cells, isn't it?

Julia: Absolutely

Helen: Calcium is just being bones...

Julia: Exactly like you say, for getting nutrients into and out of cells, but also very important for muscle contractions and nerve transmission, mitochondria function. And it can be deposited in the bone, kidney and liver as well. It is recognized that some patients do have symptoms after exposure to these agents and some symptoms were similar to those of my clients. So for example, digestive symptoms, headaches, nausea, brain fog, hair loss are all common symptoms of excess gadolinium in the system.

Helen: Interesting, fascinating, so many people have scans of course, and don't have any issue at all do they?

Julia: Yeah.

Helen: It's quite unusual and obviously, and I say obviously, but it would indicate that there was a weakness of some sort that meant that this was so, that this actually happened for her.

Julia: Yeah, but for this particular client...

Helen: The chain of events of which this was a trigger.

Julia: Yeah.

Helen: So what did you do?

Julia: Yes, so obviously we already had the basics in place and given her mitochondria test results and the block that we found there, we were already supporting detox pathways so when we're looking at a detox protocol what we are obviously looking at removing the source, which in this case is quite straight forward because that exposure has gone. Although, interestingly, as soon as she had that scan she has been recommended to further scans. One further scan on her pituitary, and one for dislocated shoulder. She has declined both and has asked whether they could do it with something else instead. And she has actually had the shoulder scan using an MRI, but using saline instead of the gadolinium which is very interesting.

Helen: Yeah, gosh that sounds like it's a lot safer doesn't it.

Julia: Yeah, and something that's very helpful to know that there are often other alternatives.

Helen: Brilliant, yeah.

Julia: Yeah, so we've removed the source and then looking at, making sure her detoxification pathways were open, so looking at sweating. So I had mentioned that she had brought the far infrared sauna blanket. She was doing that about, well we upped it to about five days a week. As you both be aware, many of our clients actually find it quite hard to sweat, and there can be a number of different reasons for this. What we did with her, we started at quite a low temperature, so we started at about thirty-two degrees. Only for about two minutes, and then very gradually built up by one degree every couple of days and also increased the length of time every couple of days. Very much to see how she responded to it. And to build up at a pace that was right for her. So we got her going...

Helen: And it's worth pointing out that actually that's an approach we often have with dietary changes, and with introducing supplements, start up as low as you can, build it up, so if there's a reaction, its minimal reaction, and you can stop it very quickly and recover.

Julia: Absolutely.

Helen: On the whole, when the body's in high alert, the reactions are just totally unpredictable, aren't they sometimes? We can't know who's going to react and who isn't. So, only intervention, that's the kind of approach we would suggest.

Julia: Yeah, and like you say, I've had clients in the past where even doing thirty-three degrees for a couple of minutes has then floored them for a week. With this particular client she was able to tolerate it well. She found it

extremely relaxing, because it actually promotes parasympathetic nervous system. She actually built up to doing it to about forty-six degrees going up to about forty minutes, which again is quite a long time, but the reason we decided to go for that length of time was because she only began to sweat towards the end of that time, so it works on lots of different levels and you don't necessarily need to sweat to have a detoxifying effect. It will still be doing that detoxifying work on a cellular level. Given her limited activity and inability to sweat in other ways, we felt actually it would be very helpful for her.

Helen: Yeah.

Julia: And a key part as well was making sure that when she was in the blanket to be wrapped in a towel, so the sweat went onto the towel. As soon as she got out, she wiped off all the sweat and had a shower and that was to prevent any of the chemicals, metals from being excreted from being reabsorbed into the skin.

Helen: Absolutely key. Yeah.

Julia: So, we did that, also looked at Epsom baths which she was doing a couple of days a week. In the diet continued to work with lots of the plant based foods with the juices, smoothies. Also, got her doing some specific, so, increasing garlic and coriander as well which are of particular use for metal detoxification. Increasing her water and electrolytes, continuing to support the gut and then doing some very specifics for the metal itself. So looking at supplements to bind, so things like Zeolite, activated charcoal, silica, chlorella, which we've rotated and again, supplements very specific to help detox heavy metal, so again, cilantro, chlorella and things like that.

Helen: And when you mentioned increasing the fluid intake. I think it's worth saying that we'd always put a cap on it. We don't say just keep drinking, because obviously you can drink too much. If you are sweating, then obviously you need to increase your level of hydration to replenish, but yes, ideally with electrolytes and still not be under a certain point, I don't know what level you took her to but I guess around three liters or something like that? We wouldn't go much beyond there.

Julia: Yeah, so we are actually more working on getting her up to two, because she seems to be round about one. We're trying to push it up to two. If she's sweating. And we have got those electrolytes going in and some additional liquid minerals as well to make sure those aren't being depleted through the sauna.

Helen: Yeah, excellent. How is she doing?

Julia: She's doing extremely well. So in terms of symptoms, digestion has improved so no longer experiencing the fluctuating constipation and diarrhoea. Anxiety is down to a one. Headaches have gone. In terms of energy, she can now stand half a day with her daughter. Can do a lot more around the house, so she can do the cooking, washing, she's done a few trips to her parents house, things like that. So, yeah, everything is very much moving in the right direction. And that's in a space of about five months for her.

Helen: Fantastic. Yeah, great thanks for sharing those time slots, because that's important for us to check. Because it's not quick, it's great progress. It's amazing progress from where she was but it's still five months which often, you know people say five months, it seems like an age. But when you're in it but you're getting a bit better every single day it seems to fly by, doesn't it?

Julia: Yeah, for sure.

Helen: Thanks. We'll come back to your finishing points shortly, but **Tammy**, back to your story. So we had seen that first mercury, high mercury test results. What next? What happened next?

Tammy: She went away and worked on the adrenals, and she had some glutathione support and some mitochondrial support, so we supported all that. Obviously she had some dental work done. She chose the right seafood in the future. So we came back together in, I think it was August, and she did another hair mineral analysis just before then, and toxins analysis, just before then.

Helen: Let me share that, shall I? And then everyone can see how it went? There we are.

Tammy: The metal came down significantly, but obviously was still raised and still high and the magnesium was still on the low side.

Helen: Normal but yeah.

Tammy: So obviously, because it is so important in the mitochondrion and energy, I didn't want it to be borderline, I wanted it to be right in the middle of normal. The manganese was still a bit borderline as well. And a possible zinc deficiency too, because at this point, we know that she's using really good quality shampoos from Bandford. There was no issues with the ingredients.

Helen: Yeah.

Tammy: So at this point we decided to add in the infrared sauna as well. Again it took her a while to sweat at first. Also, because it hadn't come down

as much as we liked we decided to do a cell analysis. Wondering if there was some reason as to why it wasn't being expelled as easily as we would like it to.

Helen: This is a Dietrich Klinghardt theory isn't it? Which certainly seems to play out, where often when there is metals around there can be yeast's around that are there to protect us, but you're getting this cycle that the yeasts are holding on to the metals so you can't get rid of them.

Tammy: Yes, I think his theory is that to protect the cell, they kind of feed the yeast, the metals, and then they are kind of stuck in the system if you like.

Helen: Yeah, so we get protected from the metals but we then have the problem of the yeast.

Tammy: Yeah. But also if your bowel isn't working properly, and the liquid is not expelling the toxins and if there's inflammation in the gut and the good nutrients are going back into the system but the toxins can kind of get stuck in the gut mucosa and then you get a build up and then that all gets dumped into the kidney and doesn't go back to where it's meant to be. If the gut isn't working properly then the toxins won't be excreted properly.

Helen: Yeah.

Tammy: So we decided to kind of, as well as the infrared sauna we looked at that. We then got back to her next time and there was a lot going on in the gut. There was yeast, there was H. Pylori there was, parasites, there was dysbiosis overgrowth bacteria. I really don't know how she didn't have any symptoms but I think because she is so good at looking after herself. I mean it was incredible what we found in there, so then we started...

Helen: I think it's also a case that you don't know what normal is, because you've only ever experienced your own gut function. So sometimes it can be quite difficult to know if there's a problem or not. Clearly it wasn't an IBS type situation, but was it as healthy as it could have been? It couldn't have been, could it really? But like you say, doing so many other good things that kind of saved her to an extent.

Tammy: Yeah, so we put her on some antimicrobials and then some antifungals and some probiotics and also we put her on a FODMAP diet. We have to always be, I mean, she travels a lot, so we always have to consider what she can do traveling as well, which again with the vegan thing might not work. In terms of what else she could have especially on a FODMAP diet. So she went on a FODMAP diet and it wasn't much change in symptoms and she

did all the antimicrobials and seemed to kind of tolerate them okay on this instance.

Tammy: So then in January we decided to do a blanket of tests again, as I mentioned before she doesn't like any invasive testing, so we tested lots of vitamins, lots of minerals, we tested her mitochondria again. Actually at this point we did a blood test for the mercury. The mitochondria test came back with blockages this time, and there wasn't blockages the first time. So obviously some other toxins had been hiding away in her fat store. And actually, although at first she was a bit concerned of why I had these blockages now, and I didn't before it's kind of a positive thing, because it demonstrates that they're displacing. So the infrared sauna and everything was working. In there, there was parabens and fluorescents which are normally from antibiotics, and malondialdehyde as well. That kind of points out the way she's breaking down fats. Also, at that point we did some gene testing as well. She did quite a lot of testing.

Helen: Yeah.

Tammy: So the gene testing was very interesting and kind of made us realize why glutathione wasn't enough for her. Also, this might be a lifestyle choice for her for supporting detoxification. She travels a lot, she's on planes a lot. She always feels awful after a flight. So she now wears a mask on the flight and that seems to have helped a bit. She takes chlorella while she flies. She's doing all sorts of things to try to lower her toxic level because on the gene test she was really low, well no, she had variances on lots of the genes which caused poor methylation. She also had an absent GSTM1 gene which means that you've got reduced detoxification. That's really useful information because now she knows she's always going to have to support detoxification and be careful of toxins and what she uses.

Tammy: Then we did another stool test and the H. Pylori had gone but we still had yeast and parasites. We put a more specific kind of yeast protocol in and she did get significant die off with it. Upwards, and this had started to go before her brain fog which is really important to her as I mentioned before. Her brain fog has lifted dramatically and she's able to do, read a lot more taxing stuff which she's really enjoying. She's spending time during the day doing things that she really likes and enjoys now which is great.

Tammy: We've been working on viruses as well. And now we've done another stool analysis and everything has now gone apart from the parasites, so we're nearly there.

Helen: Nearly there. And should I share the last, we've got the last hair mineral analysis, haven't we? Which, I think is worth looking at. So we've got magnesium a lot higher.

Tammy: Still working on the zinc.

Helen: Still working on the zinc and the manganese. But the mercury...

Tammy: Is now in range, which is great.

Helen: It ties in completely with how she is feeling isn't it? But my goodness.

Tammy: It is, but energy is still an issue for her because we're still working on the gut, and actually she's banding what we're giving her at the moment, which we believe is working but she's having to go extremely slow with it because she's really reacting to it. That's kind of depleting her energy at the moment. As you know, you often have to get worse before you can get better, and I think kind of the last of the puzzle for her, we need to get all these non-standing issues out, her gut.

Helen: How often, we're very careful to make sure people don't get too much worse before they get better. But often whenever there is a reaction it's a signal that something's going on, it's another clue. I think what this case really shows, in what you shared with us is the pieces of the jigsaw that's our emblem, The Optimum Health Clinic, isn't it? The jigsaw pieces, and this is exactly that, they're all interlinked all of these different functions of the body, the different imbalances in the body are interlinked and we're just trying to sort of to put the pieces of the jigsaw together. And sometimes it's obvious and sometimes it isn't. But if there is a reaction, we don't like it, we get on top of it as soon as we can. But it tells us something we learn from it.

Tammy: Yeah. Yeah, so she's taking minute amounts and building up so that it doesn't put her into too much of a crash, but she's sticking with it because she wants to get to the other side.

Helen: Yeah. So, where is she? When she was still, she was relatively active at the start, has she got increasing function with the results of the reduced mercury and what you've done so far.

Tammy: Yeah, so she did get an increase in function. But since we've been working on the gut, that's now kind of decreased, so now she's just allowing herself some rest, we want to make sure she has at least one day off a week, giving her body time to heal. As I said she travels a lot as well, so in between that she's trying to rest and let her gut heal.

Helen: And that's so important, isn't it? Because, when people start to get better often the temptation is to do more, but what is often forgotten is just how important that rest is. You know, when people are at their worst with chronic fatigue, so someone like Julia's client, right at the start. When you're bed ridden, I mean it's horrendous. But there are no choices that you have to make, because your body has made the choices for you. As you get to a stage of recovery, where your client is, suddenly you're having to make the choices, should I do that tomorrow or shouldn't I? Can I do that this afternoon or should I rest? And it's like, ooh, I think I could do it. Because, your body isn't giving you those warning signals in quite the same way. And it becomes really hard to make those judgements, doesn't it? So I often call it a tricky stage of recovery, where you are forced into having to make those choices. It's not easy, that in itself is a voyage of discovery isn't it?

Tammy: In the maintenance now, just the fatigue and some kind of pain in the bones if she walks to far, but it's the fatigue of fighting something off that she's got right now.

Helen: But she's got her brain back. It's great.

Tammy: Yes, she's got her brain back.

Helen: Yeah, fantastic.

Julia: Yeah, can I just add to that Helen, with our clients that are bedbound I think, even the bit about the decision to make as to what to do and what not to do I think. Often with them the biggest thing is the anxiety and over thinking things as well. So those that are physically exhausted but cognitively fine, it's very easy for the mind to go into overdrive and to research everything, to be anxious about everything and when the time comes, for them the big part is obviously to then work at how to gently balance the boundaries, when there is an immense amount of fear of going for short walk or doing something more. So I think there is that constant balance between the two.

Helen: I think that's a brilliant point. And it takes a huge amount of energy actually in worrying. Doesn't it?

Julia: Yeah.

Helen: And being anxious. I think that's something under estimated, because there's nothing to show for it. People don't think that they've done anything...

Julia: It's exhausting.

Helen: But actually they've done a lot. Yeah, very much so. Yeah, thank you **Julia**. So before we finish is there any last things you want to share, any learnings as you look back over these cases?

Tammy: Well, for me I think, excuse the pun, I would stick with my gut instincts and do these two stool analysis first because we may have shifted the toxins quicker if we had done it that way around. So, yeah.

Helen: It's difficult isn't it? Both things needed to be addressed but often, we would always start off with making sure there's regular bowel movements before starting any toxicity work because that's really important, but there didn't seem to be anything obvious going on there, so it kind of makes sense that you didn't but, yeah. Gut instinct is often a big thing. And Julia, how about you?

Julia: Yeah, I think for me I think it's really that much about raising that awareness of toxicity, and the potential to have significant to have impacts. And I think that awareness of gadolinium often being used as a contrast agent in MRI scans is really useful for everyone to be aware of, so if they are ever in that position, where they are recommended to have a scan, they've got that information and ask what agent is being used, and is there an alternative. Just like my client did, and she found out actually for her subsequent ones she could do it with saline solution instead. And you can't help but think, well, if you have that information, before the initial scan, perhaps she could have completely avoided this whole episode. So I think in getting that awareness there and always knowing that there are options, and to question, I think is important.

Helen: Yeah, I always like to look on the bright side though. And I suppose the flip side of that would be for your client, it was a final straw which meant that she sought help for something that actually she wasn't fully well in the first place, was she? She was putting up with it, she was operating at a reduced level of function that she found it worked, but it wasn't really enough, so what's she actually going to do after all of this? Hopefully come out better than she ever has been and sometimes life has a funny way of sort of playing out, doesn't it?

Julia: Yeah, That is completely true.

Helen: It's an unfortunate way of getting about it, it's not the best way but hopefully recognize much earlier on that hey, my body isn't serving me as much as it should be and seeking help much earlier, but with a final straw like that it's an opportunity.

Julia: Yeah, of course, and like we said as well, thousands of people have these scans and they are completely fine and they save lives, you know they're a tremendous tool to have so it's all about balance like everything that we talk about.

Tammy: And the genetic makeup as well. Some people can deal with toxins and some people can't so... and also a build up of toxins from other things. So it depends on your whole build up as well not just the one product.

Julia: Definitely.

Helen: Well, thank you so much, I think this has been really interesting. Thank you Julia, Thank you Tammy, Thank you for those who have been listening and watching.

Julia: Thank you.