Academy of PHYSICAL MEDICINE

Transcript

Migraines ref264

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Steven Bruce
to one. Good evening. Well, another busy week and it's only just started. As you probably know, I'm currently on jury duty so only just got back into the studio, where my brilliant team seemed to be doing very well in my absence. Some have even said that it's all better without me. However, moving on, let's get back onto this evening CPD. Don't forget, of course, you can send in your own comments and questions at any time. And we're still waiting with bated breath for the first person who's brave enough to call in on the live video link. The button for that on the webpage underneath the video panel, I think, sadly, if you're joining us through Facebook, that option is not available, but do keep your comments and your questions coming in, please. This evening, I have Simon billings back on the show. Simon has been a chiropractor for over 20 years and has a very keen interest in the nutritional aspects of healthcare. He's been with us before as I said, but this is his first appearance in person in the studio. So Simon is great to have you with us. Welcome to our studio. It's

Simon Billings
a pleasure to be in the flesh. Yeah,

Steven Bruce
it's great. You've been with us before and I've asked you this question before I know but so how do you a chiropractic chiropractor get this interest in nutrition and in migraines, which is our topic for this evening?

Simon Billings
Yeah, so we're a really through my own health issues. So I qualified in 2001. And from when I started college through those five years and 96 different night it has been one I was getting either Anila I just didn't quite now I think the IBS and skin problems and brain fog and also the other problems and getting more and more stiff and achy. And let's just call it COVID. You COVID are for a manager of something. So in the end in about sort of late 2007 I think it was 2008 I got diagnosed with ankylosing spondylitis. And then a few years after that I got to psoriasis and Um, that then I'd already had an interest in nutrition and so on at college, but it really then had, you know, I had to do it for myself then at that point, and so I dug right down into functional medicine, nutrition, and had some infections in play and gluten intolerance and a whole lot of other bits and pieces and dental infections. And so through doing all of those bits and pieces and having some dental surgery and guttering and stuff, I was in remission from psoriasis and as and then once you have all that information, it's pretty dense stuff. And you have to be able to then then try and handle I want to translate that into my chiropractic practice goes to the chiropractor. And that was hard, because full time functional

medicine nutrition, it's you know, you're there with the client for an hour, and then you go 1015 minutes or whatever it is, and you've got to do your chiropractic bit or your whatever you're doing. And integrating them is hard. And that's kind of been a bit I've done more recently was trying to distil down the bits that are really pertinent in what it says in neuromechanical setting be it chiropractic osteopathy, physiotherapy, whatever it is you

Steven Bruce
want have enjoyed about our conversations in the past that you're introducing things that lots of people can do without going on lengthy courses to learn about, although obviously you can you can provide them the information you need help, but stuff which can make a big difference to the outcomes for their patients. Yes, it's very, very helpful. Yeah, just for clarity. If you were an osteopath, I could say when are you a cranial osteopath? Structural osteopath? What kind of chiropractor Are you?

Simon Billings
I am all of those. So I am I know I do a lot of manipulation. I do a lot of muscle testing. So I went off and did you know muscle testing course when my first year of graduation that was very informative. So it's for me, it's like a window into the nervous system. It's a very, it's really it's very obvious before and after. And then also with a lot of so T sacral occipital technique, which leads to a lot of cranial work and what we would call cranial, exactly cranial sacral osteopathy. So I do a lot of muscle testing and manipulation. But also, I understand the cranial dental mechanism. We'll talk about that within migraine as well. That's really important. And dentition. I worked in a dental clinic, working with the dentist, with people with people with things like trigeminal neuralgia and all sorts of other words as a chiropractor, yes. Yeah. As a chiropractor was in house with them. That was really interesting. I learned a lot there.

Steven Bruce
Your formative years were at the Anglo European college. Yes. A qualified diversified by training. Yeah, yeah.

Simon Billings
Yeah, exactly. There's so yeah, I'm structural. And I know what the weather where you Coronavirus if

Steven Bruce
it doesn't reverse? Well, that's what chiropractors call structural stuff,

Simon Billings
guys, it's a technique diversified is the kind of main technique so I do, yeah, manipulation of your cranial sacral, or cranial technique, at least. And then yeah, then splice it integrating in the nutritional bits. And the bits I'm really interested in for my practice, and then what we teach in the course, is what we call Keystone nutrients. So if you go to functional medicine seminar, it's, it's it's like a maze without a map, and you're gonna get lost. So what you really want is, if the nutrient is low, that will be a showstopper, it will be if you without that in place that Keystone, the system will not run. So vitamin D is the most obvious one, or, yeah, I'll be 12 as well. If you're low on either of those that you are screwed, then you will never be healthy, it doesn't matter what you do, they're not going to recover that as well not. And so we want to know what those are. And then you also have to be able to replenish them relatively quickly. And usually with supplements or some kind of change and see results within you know, a few weeks to a month, and that they're the bits we're interested in. If you

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do that, because the whole point the patient is coming in with something neuromechanical I want my treatment to work out how hollaby works, just just doing chiropractic manipulation of soft tissue and stuff and cranial works, there's a whole group that the results tend to dwindle down, and a chunk of those because of nutritional stuff. If we can get the easy low hanging fruit picked, they'll respond as I would anticipate

Steven Bruce
do, I don't want to go down a rabbit hole of talking about vitamin D or B 12. Because we've done shows on forwarded vitamin D with you vitamin B 12, with Tracy, which both of those shows are in our recordings archive so people can look them up. But I must say that one of the things I found most difficult to get to grips with particularly would be 12 is accurate testing for vitamin levels. And then what kind of thing you use to supplement because it's not simply a question of going to Holland and Barrett's up 12 pill and taking knows,

Simon Billings
I can summarise that if you want because there'll be two of lecture. The simple answer is and this is according This is the one time I agree with NHS guidance is that the blood test is simply not reliable. blood testing can rule in deficiency, but it simply cannot rule it out. Because often people with the what looks like really high levels is because they can't get beat up into the cells. It's floating around in the blood and it can't get into the cell or if they have pernicious anaemia, which is autoimmunity against the stomach, the antibodies against the stomach lining look to the machine like B 12. And it pushes the numbers up artificially. So the most important thing is clinical symptoms. Do they have have persistent tingling pain numbers particularly bilaterally? Do they have chronic fatigue? Do they have persistent pain? Do they have mental health issues, if you've got a trio of those pain, brain and fatigue, and you have a B 12 level that is an intermediate zone, maybe under 500. Or if they've got really bad symptoms, you always should give a trial of B 12. And that's what it isn't the guidance actually is routinely ignored, you should always give it before trial. And in our scenario, that would mean a sublingual. And usually in the active form would be most commonly prescribed, just talk between the cheek and the gum. And I would co prescribe with a B, A methylating, B complex, which I will have folate, B six, some trimethyl, glycines, and b two in there as well. Because if they're low in B 12, the chances are they're low and other stuff as well. And he needs a complement so that the methylation site which we're going to talk about in a minute actually spins and they feel better, and there's no risk in terms there's no toxicity for beings. Well,

Steven Bruce
that was a lovely thing about talking about so much. There's so many people about vitamin supplementation, which of course is of no interest to the pharmacological companies because no money in it. But it's very hard to overdose in any significant way. And you might get some diarrhoea or something, but it's hard with most of them to overdose,

Simon Billings
we should distinguish between water soluble and fat soluble. So water sort of being vitamin B, vitamin C, this comes in and it's out quite quick vitamin C might give you diarrhoea, but the fat soluble ones, vitamin A, D, and K, they will build up in your body so they can be able to submit him in a toxicity is a thing if you took a life long enough. And same with him. Indeed, he went berserk. So you'd have to see to go for it. Yeah, you really would. Yeah. And even that you might be very unlucky a certain patients with unusual actions. But yeah, for the most part, you have to really go at it for long periods to do any kind of damage. So So bottom

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Steven Bruce
line is people should look at your last broadcast. So vitamin D, yes, basically, which is for B 12. Yes. What's the other one we did with you?

Simon Billings
We did? Neuro inflammation, which we'll cover here again, in the context of the biopsychosocial model. Yes,

Steven Bruce
yeah. So some, there's some really good stuff we'll be able to look into to back up what we're going to talk about. But we're gonna talk about migrant. Yes. So you had migraines yourself, you

Simon Billings
know, you didn't never had a migraine. But if you're interested and you are not migraine feels a bit like then you could go and eat ice cream and give yourself an ice cream headache, because that is a similar feeling. The cold comes up, and it cools the cribriform plate very suddenly, and your body must try and warm that air up. And it does that by suddenly enlarging the blood vessels in the area and you get a sudden stretch. And the blood vessels have nerves around them. And that hurts. And that's where you get that feeling of fullness and that pain in your head. And that is the similar to what people get

Steven Bruce
with migraine. Not all my greens are the same they want to

Simon Billings
know, well, there is an umbrella. And in fact, I was with a spectrum, which will have a diagram to talk about. So there's traditional was the aura with migraine with aura, which the one people tend to think about, we get flashing lights, and also they know what's coming. And then they get the violent headache. And then there's without aura, it's still a migraine, but don't quite get some of the prodromal features. And there are some interesting research we'll talk about in and in terms of picking what you're going to do with patients. Because the ones when true with aura, often have a genetic component, and higher rates of deficiencies that respond better to supplementation, particularly for treating the mitochondria. And then as we go through the spectra, which talk about there's different things and mechanical stuff that comes in.

Steven Bruce
Okay, what about those people who have the prodromal stuff the aura, but don't get pain. I'm really personally interested in this because I'm one of them don't get pain.

Simon Billings
Well, you will talk it again there's a thing. Things like a cyclical vomiting syndrome, there's abdominal migraine is a theory that colic might even be performing. So all of it comes down to really about mitochondria for the most part for true migraine, which we'll talk about in a minute. So it basically comes down to mitochondrial dysfunction. And you may get different manifestations, but fundamentally the core of it is dodgy mitochondria, and inflammation in the brain.

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Steven Bruce
Okay, so before you click on I'm gonna bring in my one visual aid for the evening. Yes. Here's the NICE guidelines on headaches up in the over 12. Now, this is a riveting read. It's nailbiting, you have to get to page 14 before it mentions migraines on page 17. Before it mentions treatment. But other than standard pharmacological remedies, the only thing it recommends is a course of 10 sessions of acupuncture. Right? Right. My migraine with or without aura, right, as being something you might try. Okay, I'm guessing you're going to suggest that there are other things we could do. Oh, well, let's do this. What do you think are the NICE guidelines?

Simon Billings
Right? I mean, they are the Art and Sciences, it's very pharmaceutical LED. They want a certain level of evidence and evidence in that context is really about randomised double blinded studies, and then they want, they want a certain methodological quality. And of course, these things are expensive to run and hard to do. And the drug companies have the money to do it with drugs and the supplement you know who's going to fund that? You know, because it's

Steven Bruce
also a mindset is In conventional medicine, when he says this is a pain, we need a drug that will fix it. Yeah. And then that's the way they are driven. Yeah, I have a particular reason for bringing in the NICE guidelines. As I think every time I can I bring in the NICE guidelines, because it looks really good on the certificate that we've done it, we've got a reference document that they can talk about if they're having to refer someone to a GP or whatever else. So it enables people to talk about the conventional approach.

Simon Billings
I mean, it's very, very pharmaceutical, very symptom LED. And the, there's a slide later on at the end we were talking about, there's a drug they have for migraine, which is this sort of miracle drug we talk about, it's about seven grand a year, and it gets about 50% reduction in migraine. So what we want to know is we know that in migraine, there's a lot of inflammation in your brain. And that inflammation, dysfunctional mitochondria is damaging you. And that's one of the reasons you get migraine, and that underpins all neurodegenerative or neurodegenerative diseases, cancer, strokes, a whole load of stuff. So the question is, do we can we ethically just treat that migraine with a drug which squashes it down in one area, but we leave all the root causes in place and all of the downstream effects. When we know that we're talking, I've got lots of research coming up, we can reduce it to that extent, and better in some cases with supplements and diet manipulation. And it's very cheap.

Steven Bruce
Interestingly, we had a lady called Elizabeth Hussey on the HeZI on the programme. Quite some time ago, now she was talking about headaches. And she mentioned the business of acupuncture being effective. And apparently, acupuncture is effective in I think it was 75% of migraine cases in to some degree. And I can't remember the measure of improvement. But sham acupuncture was only 5% Less.

Simon Billings
Yes. And we'll see later on there is what we're talking about it to do with the neck and the jaw and how that overlaps into true migraine, which migraine is a cellular event? The question is what why your cells are going bonkers.

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Steven Bruce
Before we get on, I want to get into malignancy yourself properly in a minute. Wallace says do you use medical acupuncture as part of your management of migraine? No, no. Okay, that's fair enough. And John says, which muscle testing course did you do? And how do you use it to treat or assess migraines? Or will that come out as but no,

Simon Billings
it's not, I would say I did Simon King's course and is now called afferent input. I think it's definitely but we've typed Simon King efferent input. His stuff is very, it's genuinely unique, and some stuff is developed. And he's there stuff that I use every single day, regularly. And it's somebody's absolutely golden. And I would never be without it. He's very ethical, his approach to muscle testing some of the muscles and can be a little bit fluffy, frankly, and he's having none of it. So I would definitely recommend that. Simon King is a chiropractor. But he doesn't he's not registered anymore. But he is by training as a chiropractor.

Steven Bruce
So now we're getting into the meat of this. We clearly got the boffins on tonight, because someone who the machine is calling green grass makes healthy sheep says I thought my green research suggested a sweeping wave of cortical neurotransmitter depression, or is this now out of date? Now we're gonna talk about that in a minute. Okay, good. Right over to you. Let's talk about my Alright, so

Simon Billings
we go through some slides. There we go. So the question is, I'll be primed for migraine because some people get migraine, every sensible do not. And we there's definitely a genetic component, we know that for sure. Or epigenetic suicide around the gene. And the reason we shouldn't that is because we know that a lot of deficiencies involved and that we can get around some of the genetics by picking those deficiencies, or in some cases, saturating the tissue to make the enzyme work and then the genetics or a code for an enzyme. And that pushes the pathway. And if we can sometimes saturate the tissue with the nutrient that is activating enzyme you can get around some of that.

Steven Bruce
I always forget to say to people before we start these things that Yeah, I know there are slides on the screen here and I know you're getting them flashed up for him as we go through this. I will send them out as handouts after we finished the show. Probably it's gonna probably be in tomorrow evening, because I'm, as I say, on jury duty. So don't worry if you haven't had time to write it all down or something they've done a great thing here is just listen to what Simon has to say. So we're on deficiency. Yes,

Simon Billings
it's a men's, vitamin D, magnesium, Cokie 10. And currently, they're the ones that the ones that I use the most on carnitine is a very underused nutrient. It is amazing, and we'll talk about that later. And the other thing is food reaction, and particularly as a food intolerance, and we'll talk about them as being a food intolerance. And then later on it, there's certain food triggers that involve things like nitrites and sulphide snack and a slightly different thing. But those things come together. And then they they give us really dysfunctional mitochondria. So we've got it, you've got to make energy, and that's you, you're breaking the bonds of the food to release in the electron transport chain. That will you're always gonna get a degree of leakage of electrons and that manifests as a free ride. Article, and that's going to create oxidative damage. And the problem there is that the more dysfunctional

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mitochondria are, the more damage you get, that damage creates inflammation, that inflammation creates more oxidative damage, which damages your mitochondria. And you get this really vicious cycle. So this underpins Parkinson's, Ms outside all it's all of its underpinned by that. And in the most complex stuff, this will be involved somewhere on the line because you know, you have to, we have to meet energy and so on. So mitochondria number one source of free radicals followed by inflammation, and particularly, we have what would say as a sustained, low grade inflammatory response systemically in the blood, but also in the nervous system, because your blood brain barrier sensing the blood sends inflammation here could be under attack, because immunity is up. So return on our immune system in the brain and microglia. And we will make a bit of inflammation to make sure we clear out any infection. But if the quote infection is in fact, gluten or dairy, then it never goes away because you eat it every day. And then you have a persist a sustained inflammatory response, which you shouldn't have.

Steven Bruce
And yet those people who are gluten or dairy intolerant are not always migraine sufferers?

Simon Billings
No, because again, you might need to be genetically predisposed to migraine. What are the factors with your jaw and neck that might combine?

Steven Bruce
This might be the wrong time to deal with this. But a quick question about mitochondria. We've just taken delivery of cat four laser in our clinic. And I remember when we were talking to Steven Barbash, the guy who's that sort of marketing man for this in this country who delivered it here, but he was also on the show before, he was saying that cap for laser is actually very, very good at providing energy. Yep. Encouraging energy production in mitochondria. Is there a role for it? Do you think in what we're talking about this evening?

Simon Billings
Possibly, I don't know about the actual brain itself. We have lasers and clinically used but so you again, you might do a periphery for some of the peripheral nerves in the neck, maybe into the jaw joint. And those associated areas? I think that's how red light lasers work in Germany is through mitochondrial stuff in cellular manipulation for sure. Yeah. So might be useful. Yeah. Okay, so just as a reminder, I think most probably was just from from from my free radical. So normal, sorry, normal stable electron should have pairs of electrons. stable molecule big a bunch of a pair of electron free radicals constant has one unpaired electron. And then what happens is that unpaired electron Nix it next one from a neighbouring molecule, so it's going in and it that's damaging. And that then, is a chain of events which gets passed down the line. It's like a fire that spreads and just keeps going and going and going. If you don't have adequate antioxidants, which are molecules with a spare electron, they can hand over, neutralise that and that's the issue is that we have excess oxidation going on with a deficiency relatively of antioxidants. If you

Steven Bruce
have lots and lots of antioxidants, more than you've got free radicals, and you just end up with the same thing. Lots more molecules with extra electron,

Simon Billings
but they have a spare one. Second, hand it over. So the I think we should we talked about this earlier about the idea of, you know, can we treat symptoms and leave them migraines

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have quote, comorbidity, the term I load because all of these things depression, anxiety, stroke, irritable, bowel, fibromyalgia, all these things, they're all just symptoms, and they're all underpinned by the same things, inflammation, mitochondria dysfunction, and so on. So they're really just extended of the same thing. And we want to look beyond that and really get at the root causes because then you give patients so much more value so much, much better improvement of health.

Steven Bruce
On that little slide, it says that the information is derived from the American migraine foundation, so they have a different approach to medical organisations in this country. I

Simon Billings
don't think so. Particularly, I don't know, perfectly honest with you. I'm just curious, not really, I don't really do too much with the general Association and stuff because they're just so pharmaceutically LED. So migraine itself the pain is felt through the trigeminal nerve and trigeminal is an unusual cranial nerve so it's applies all your face, and also your sinuses but also it has a motor as part as well satisfies all of the muscles of mastication and it also supplies your Jura was on and all of the blood vessels have trigeminal innovation. So that's really important. We talked about the muscles of mastication when important as nerves, but then the other thing is that as well as the trigeminal where the trigeminal comes in the brainstem, the upper three cervical nerve roots come in and from the trigeminal cervical nucleus, so it has a common input to the brain. So therefore, if you have something coming in nociception from the upper three cervical routes that will go in and it will stimulate the same nucleus. And this means you get kind of a summation or convergence of the two different inputs. And that's provides us with a link for on the neck, which then can potentially trigger a migraine, even if, yeah, so we're talking about the minute but it means that there's a convergence and an overlap.

Steven Bruce
The conventional world here certainly differentiates between migraine and cervicogenic. Headache. Absolutely. Yeah. So this is effectively psychogenic?

Simon Billings
No. So what we're talking about as the minister that there's a sleight of hand when we talk about a mixed pattern, so they might get their normal headache. And they get here and occasionally come to the front. And then but I get what once was a month, you know, I get my format, it goes into a full blown migraine. And these people are definitely primed. But because of the cervical thing, and maybe their jaw, so then that's feeding in and it's enough to push them over the edge. So that see 123 might be adding into the priming,

Steven Bruce
but his own rights to cause a migraine. Exactly. You

Simon Billings
need a combination of stuff and a priming of the system. And that's where we're going to look at Oh, there you go. There's the migraine spectrum.

Steven Bruce
So we have just we've got all you go on because my list of questions is building here. Okay. Someone says, Simon says an ice cream headache is nothing like a migraine that's underestimating a migraine exclamation mark. It's being unkind to migraine sufferers Take it

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from someone who suffers from migraine, I will I will go with whatever you say. You've obviously got it from people who have had migraines that theirs was similar, I guess because

Simon Billings
I just know from I read an article about migraine, they were saying if you want to roughly it's the same, the enlargement the vessels will give you a sniff of it.

Steven Bruce
One of the others, I mean, it's an early stage to ask this. But Claire's asked whether you know about the headache research which is going on within the osteopathic community at the moment. This is something that Vince has he is closely involved in, amongst others. But it'd be interesting, I'll share the resources with you can be great. And then we've got some specifics about treating migraines, which I believe

Simon Billings
might be coming up in the slide. Yeah. So we'd say on the far left, we say true migraine, this is a cellular event, and someone mentioned this earlier, you basically have a very fragile central nervous system. So it's on the edge of depolarization. And what can happen is when you get to a certain point, where you get a vicious cycle, you get what's called cellular metabolic collapse. And this leads to cortical spreading depression, which I think is what the the person was saying there. It's well established then that people get with traumatic brain injury and strokes and so on. So you get a complete depolarization of the brain it goes like a wave and it comes down through and then at the end of it then you have your trigeminal nerves wildly hypersensitive, and that the aftermath is what we would call a migraine. Everything is since you're really you know, you're getting hypersensitivity and everything. Then at the far end on the right, we really have a pure neuromechanical thing so like you said it could just be a neck pain and it's a misdiagnosed the patients that come in say I have migraine but they don't they have a neck problem there's generating pain and they just refer to as a migraine because it's you know, a common term or they might have a jaw problem. And they might be having pain in the temple which is the temporalis muscle or jaw pain, you know, or tooth that could be referring up but they're just calling it migraine and that's purely a mechanical thing. And that should be our you know, we should be all over. That's our bread and butter. And in the middle

Steven Bruce
going to show my ignorance and feel very embarrassed. What does an Ico stand for?

Simon Billings
I'll come to it stands for a nociceptive inducing cavitation all osteonecrosis I'm the least bit embarrassed. So it's basically dead bone walk, I've gotten a slug amazing dead bone in the jaw, which is causing pain, and they're wildly under diagnosed very common in wisdom tooth sights, which I have. And then in the middle of it, we have we talked about that mixed pattern. So they have got a fragile nervous system and it is prone to collapse. And some of that, as well as being deficiencies or toxins or foods, inflammation, all the stuff we talked about that trio of mitochondria stuff, you because we know that the TMJ and the upper three cervical roots are pushing, you know, nociceptive input into the trigeminal nerve a nucleus that will contribute to their fragile nervous system. So they might be getting a bit of both they might have genuine true migraine, but they also might be getting some local pain. And they have their quote, normal headache. And then every now and again they get proper migraine and that you'll be able to mop up their local pain and improve their threshold for true

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migraine by improving the neck and the jaw. And that will then raise their threshold so they're less triggered by certain things that they should trigger their migraine.

Steven Bruce
That makes sense. Yeah, makes perfect sense to me. Great.

Simon Billings
Okay. I think that that middle a bit. I think that's really important because we're some people come in who have true migraine, and you can do something mechanical and it's magic. And they obviously have a big percentage is coming from that input into the trigeminal nucleus. And other times you'll do stuff and it does nothing, absolutely nothing because they're a very pure chemical issue, cellular issue, and this has nothing to do with it.

Steven Bruce
But a lot of this a lot of what we're talking about here comes down to definitions as well. As you've said if a patient comes in and says they've got migraines that's either mixed or Mechanical and you manipulate. So Michaels, I think goes away. Yeah, we think we can fix migraines they think the migraine fix, but actually maybe it's not up at this end of the spectrum.

Simon Billings
Exactly. So yeah, it'd be very careful with what they're you know, when it's I've got my we want to be very picky about what are your actual symptoms? Because it's just a it's a term which is well known.

Steven Bruce
How would you you're handling the patient? How would you serve out the ones who haven't got true migraine? What are your questions like?

Simon Billings
Oh, I mean, so with proper migraine, you know, they know about it, they're flat out in dark room often with or without, or you can't function. The ones that I've seen, when they talk when they miss diagnosing, they'll often talk about, they'll get this pain in the temple here, they might have it as a tension type headache. That's almost always it much was temporalis. And there's a jaw thing and bit of cranial work. And often they'll have mixed in is some upper cervical stuff as well. Often in hyper mobile, in my experience, I don't tend to manipulate up index very often at all. So it's really about the severity often, and the frequency, you don't get migraine every day, there's just nothing, you wouldn't be able to cope with that not a true migraine. Because it would just be you'd be flattened the whole time. So frequently, what they really mean is I get neck pain, and it goes to my forehead, or I might feel it in my forehead or my or my temple. And that's what I found was migraine. Okay, I'm gonna skip on, if I can. There we go. So the primary mechanism is that is those three things mitochondria, inflammation, oxidative damage, leading to this collapse of sales. And it's as big as a wave, as people often mentioned, it's wave like thing that crashes over them. That's cortical spreading depression. And then the aftermath is the hypersensitivity of the trigeminal nerve, sensing the brain and all the they get edoema in the brain as the blood vessels become leaky. And so

Steven Bruce
that probably was what

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our correspondent earlier. I'm sure it is. Yeah, I'm sure it is. Yeah, I'm sure.

Steven Bruce
We had a quick question about this one may. Darren says it was mentioned that many neurological conditions are underpinned by mitochondrial dysfunction. Yes. But is this dysfunction a result of the GI T and inflammation there? And is this all a side effect of guts?

Simon Billings
Yeah, because we have a gut brain access for sure. Very rich people who have, you know, neurodegenerative stuff, and I had a patient with motor neurone disease, they're treated. And we did some organic acid testing. And he just had the perfect set of results for deficiencies and toxicities and mould toxins in frustrating to see I always thought he was just textbook. So here's case. Yeah, absolutely. You can't divide them up. That it's all linked. The only thing again, is how do you break that vicious cycle? And where do we intervene, to try and get in there and often these ways with some supplements and then maybe removal of foods, because the results are quite quick. Yeah.

Steven Bruce
Sure. Do you talk to that lovely chap in Scotland? Who does treatment for motor neurone disease of chiropractors named

Donald Donald? Yeah. Hello, Francis. Yes, Don Francis. Yeah, we had him on

Steven Bruce
the show. It was a virtual shown you want an inspiring book. He's another chiropractor? Isn't he? And mctimoney chiropractor

Simon Billings
is no, no, he goes from Palmer. He does a lot of a lot of SSC, cranial. He's involved in SRT, Europe. Yeah,

Steven Bruce
inspiring talk from him. And again, people, a lot of people who won't have seen the show might be instantly cynical about you can treat motor neurone disease and fix it. But my God, you can make people feel better show, which Yeah, recommends in the archive. So I'd recommend it to anybody who's interested.

Simon Billings
I think some of my favourite patients are not the people where you treat them and they get completely well, and then they can come and go as they please. It's often the ones where they have been abandoned by the medical profession, and they have terrible quality of life, and I can't, some people are so unwell, you're never going to get into it well, but you really improve their quality of life. And they're so grateful. And it's so satisfying. To better serve these people. I think that's a really, you know, humbling thing. So this diagram, this is really putting it together a little bit. And the next one coming up to well, we're just about there's certain good things we need that are missing. And then there are certain bad things that we don't want in there, then there's a whole lot of stuff, but we're gonna focus on the supplements and the foods they drive are three things mitochondria, inflammation, damage,

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that makes your nervous system fragile. And then we put in our new mechanical part firing in which then drives the same stuff. Now, the next slide is really the same thing just in a different way. Go back, go back,

Steven Bruce
go back. Is this a bit woolly for Simon billings that we need love and connection?

Simon Billings
You could argue that I mean, I'm willing, you know, on occasion. I mean, people need that I think we're missing that in modern society would be atomized aren't

Steven Bruce
social, isn't it? So there's it says it's like yeah, I think

Simon Billings
it's all I think we've kind of lost a bit of something. I mean, society. That's the same thing. Just I love a Venn diagram. Hands up. I just love vents. I just love that. Okay, this is everything I'm interested in is overlapping the nutritional world. When you overlap that stuff, and you can get a hold of these things. Your treatment works out much better, but it's the same thing really. The upper cervical three, the trigeminal nerve and all the stuff firing in and then with our bits overlap. All right. So the bit I'm going to talk About here is we we need to break the vicious cycle somewhere. And the other bits, the bits circled where it was new, the other bits are the same. So we know that you might get foods causing inflammation, which causes mitochondria causes new inflammation, that new inflammation might make your nerve sensitive that trigeminal. So and that can be primed by certain deficiencies, or like vitamin D will make you inflamed. If you're low on him, that will mean you're more sensitive to your mechanical issues. So you're more likely to get pain and that pain makes you more hypersensitive and so you get a vicious cycle. But the bit at the top there is neurogenic inflammation, meaning the your nerve is making inflammation. So you'll see this in complex regional pain syndrome, I believe, where neuro inflammation as your immune system is making the inflammation here, the nerve is angry, the trigeminal nerve, and out of the end of the nerve comes some substance P. And his other thing here is really big one called calcitonin, Gene related peptide, or CGRP. To his friends, this is the one that we'll talk later is the one that drug companies are after, because it's an endpoint. So when your nerve gets so anger, trigeminal gets so angry, all the things you've talked about, and it starts pushing out calcitonin gene related peptide, it really then triggers something and you get it, your body becomes overwhelmed. And that's the point at which you go into a full migraine.

Steven Bruce
So when you say the drug companies are after it, then after adjusting it as an endpoint in research, what drug will cause it to change?

Simon Billings
Yeah, we've got one, and I'll show you in a minute of that. Yeah, I'll show you that. Yeah, yeah. So that's the difference in this because its central nervous system, rather than lots of things that we talk about with healing of tissues and things, you get neurogenic inflammation, that's part of the issue. And then you get a trigger, an emerald, and that's what I said, when you get a certain part of that important, you get increased release of this peptide, and it really increases this, it's a spiral and the brain can't cope is not enough antioxidants, not the annual good. That's the point, then you get the sudden opening of the arteries. And that's going to stretch, which is a bit not like an ice cream headache. Not as bad obviously, this is

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worse, and you get the capillaries become leaky. So you get a Deema around the breast is a swelling and a fullness in the head. And this metabolic collapse, cortical spreading depression in the aftermath is the migraine and we want to know, when we go through in a minute, where are we going to make our intervention, where's the low hanging fruit to pick from our research, that we can go in there and make a difference. That's what we want to know. So this is the idea of like your buckets full. And if you do that when the water spills over, you get a migraine and this is a bit people tend to be obsessed with patients about their triggers. And they'll say things like, if I have chocolate or wine I get a migraine if I have is bright light, or I get too much sleep or not enough sleep. But these things shouldn't give you migraine, they don't give me a migraine, and you know they're bespoke. So really what our bucket is full of, we have some genetic issues, we've got deficiencies, we've got food issues, and we've got our neuro mechanical things, they fill your bucket, and then the triggers push you over. And what we want to do is get the bits there, they're filling the bucket drain out. And we'll see later on those triggers suddenly don't trigger you. We've got some research to back that up. All right. So that's our misdiagnosis we mentioned this, just briefly cover that I think hopefully it will be most of us are happy with this. So the upper cervical facettes peripheral nerves, and maybe trigger point referral, the jaw itself and the temporalis, I find that very common in practice the temporalis muscle, because we've got lots of changes in dentition, people lose vertical height, they lose teeth, they have crowns, and certainly other effects, the vertical height here, and the jaw tends to be retracted. And when it goes back a little bit and impact up the anterior portion of temporadas goes into overdrive trying to pull it forward. And because you see this, when I work with the dentist, we put a splint in it would bring them forward, this muscle just go so much less angry, it just immediately becomes this angry. So when it's say my fella got my hidden device, it's almost always in my experience temporalis trigger points. And if we can work those and it's in cranial workers have that really makes a

Steven Bruce
difference. So other than splinting, what do you do on trigger points.

Simon Billings
So that I do that's the one of the few places I do trigger points. But only trigger points do a lot in a longer term. But this is a not a normal join, you can't manipulate that. So I do the trigger points. And particularly you must get into the mouth and you must get your finger the little thing on the tendon as it attached to the coronoid process of the mandible. You must get in there and get right and it's exquisitely painful people it's like having a knife shoved in your face and people often walk with that level of water. That is really important to get hold up. mobilise the jaw, just check we'll talk about dentition later on. And then also I think it's really important to cranial work. I would do it internally. I don't think you do that in cranial osteopathy. I might be wrong, I might be cranial sacral work but I like to get right on to the wing of the TeraGrid plate and often because of the attachment of the pterygoid muscle a lateral pterygoid it's been pulled, relatively pulled down. That's the wing of the sphenoid lateral territory of the wing of the sphenoid He gets pulled down. And I think you need to give it push up along with pushing the pallet up. So we've called that fino Max unary cranial empathy with

Steven Bruce
somebody who does a lot of cranial osteopathy will tell me if they do something similar or how would they go about doing this. So doing inter

Simon Billings

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cranial osteopathy is much more powerful in my experience because that you get much more leverage. And because the pattern likes jaw issues because of teeth changes is so common, that pattern is is incredibly common. The other thing just be aware of is had any fillings, they might getting direct pain or alteration of the occlusion and then we said the infection that's just is dead bone and you have an infection, the bone often and that can generate a typical facial pain. That's a Nico lesion, commonly misdiagnosed as atypical facial pain or atypical trigeminal neuralgia because often it will go into the face as well. But that will then contribute to the potential priming of that system for migraines.

Steven Bruce
So how does it get diagnosed,

Simon Billings
you go to a biological dentist, and they're not many around who either they can do it now with I think they do these CT scans, you can get local CT scan, you can see it there definitely, if it's bad, they'll see an X ray. Or they will also a mini ultrasound CT CT a kava Tao machine with picks it up as well.

Steven Bruce
So your bog standard dentist, and X ray, we're

Simon Billings
not interested?

Steven Bruce
Is this just gonna be one of your differentials here? Are there things which would which you would say no, you definitely need to be investigated for this.

Simon Billings
Whatever depend on the history and stuff, but for the most part, most of the time is the occlusion that's a bigger issue. And if we have time with our case study at the end, it's just looking at you know, vertical height changes in here, sometimes. So common pattern with your primary which is causing part of your true migrant or or at least give you a misdiagnosis will be they didn't used to have migraines until they got to 40 or 50. So if you've never had a migraine, and suddenly you get them in your audience be very suspicious, their occlusion has been changed. And that slowly this system is compensating the cranial getting cranked down. That that might be a driver, stuff like that. But we'll come to that, like I've got some slides about sort of clinical patterns that come up and stuff. Okay, so then we have our mixed pattern. And like we said, That's then they might be getting on the head, they might be going to genuine cervicogenic or some kind of jaw pain, and it's firing into a system that is sensitive. And that firing in is part of which then triggers a true migraine because the nervous system is delicate. And I'll just show you some research now. This is the doing nerve blocks and the greater occipital nerve. So remember, if it's a true migraine, purely cellular thing, how much effect will this have is it depends on the patient. So in you see here on the green, where I've circled in green, the intervention group that when he did he did a placebo and they did a true intervention with the injections that went in the intervention group at the end six days a month versus 90 and the proceeds are massive improvement, right? So in that scenario, they must have some issues with the upper cervical and at the very least, that's contributing to true migraine and or there might be the some of the people in the quote, chronic migraine are in fact misdiagnosed this just this nerve locally causing pain and it isn't actually a true migraine. But you see there. There's also in the second study I've circled in

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red, there's no difference between the groups. So in those group, I suspect they're primarily true cellular migraine and those group had less to do with the neck didn't wasn't really involved.

Steven Bruce
Did you look into these in detail? Did you look at how they selected their samples, what the criteria

Simon Billings
might have done at the time, but I can't remember off the top of my head. I think again, that might be the issue with that's why I've looked at again, this study is some of them are brilliant, some that change, I think it might be the it might just be the misdiagnosis that also the sample sizes are very small. Yes, they're relatively small. Yeah, it's quite a lot of them accumulated. But you might be right. They they're relatively small. So that's why I said again, I think there's a mixed response there. And it's the same here with a splint using for for grinding in the day, and they have chronic migraine. And you can see here, it's an intensity of pain over time, but rather than days of headache, but it drops massively within a week. I mean, it's a huge drop, and then it carries me they took the splint out and 90 days. But again, in these people clearly at the very least, the jaw is either giving them a headache and or it's feeding into that that system because the trigeminal nerve, which we feel the pain through is receiving information from all these muscles and from the jaw and from the teeth.

Steven Bruce
I prefer the term splint to a posterior interocclusal device, which is what that slide said,

Simon Billings
Yes, splint is easier. Okay, so then we want to get now to the cellular bit and the idea of being primary got smouldering fire in there and what's going to spark it into a flame and the triggers and so on. So, a little bit of techie stuff here. So when they talk about reactive oxygen species, it just pushed up for free radical. So here they're talking about we know that an accumulation of reactive oxygen species might be the trigger primary trigger for cortical spreading depression. And then I just put this in because just again to say I just typed migraine mitochondria in and you cannot move for research. I mean, it's just bloody everywhere, it is pretty well established that. At the very least, this is a key key key driver. And because of it, you have to make energy. And your brain is really hungry for energy.

Steven Bruce
There is always the question of which is the chicken and which is the egg? Yes,

Simon Billings
well, I mean, the mitochondria going on because of deficiencies and toxins, when it really boils down to it, you're just a series of pathways and recycling, and you need a certain amount of good nutrients during the system. And if you get tucked into the get in the way, that's it. And so, it doesn't matter whether it's migraines, or you know, motor neurone or whatever, it's the same stuff. It's just depending on the severity and what's damaged. So cortical spreading depression, this is well established in traumatic brain injury in stroke and so on. And I'm going to read these bits out because it's interesting here and talk here. So there's a cortical spreading depression can explain it or have migraines. And it says, it occurs when the cerebral cortex is stimulated by chemical. So that might be an inflammatory cytokine. It might be that calcitonin gene related peptide, it might be glutamate, it might get MSG, headache, monosodium glutamate, or can be homocysteine, which is a toxic chemical

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we'll talk about in a minute, or it can be an electrical signal. So that might be your neck and your jaw and your teeth firing into a sensitive system that leads to excitation of the brain. And that's followed by an extended period of depolarization, the spread throughout the cortex, and that's that wave that people talk about of pain that comes down to kind of crushing thing. And then they get initial hyper increased volume that the arteries stretch, you feel pain, and then they constrict after that. And that is well established. And we now know that occurs in patients with migraine very nicely,

Steven Bruce
is a weird question. Even I think this is a weird question. There's a lot of chances that they're in pain research circles, and if you explain how people's pain is happening, when it comes to spinal pain, it will help to reduce their response, their sensitivity that doesn't strike me, this isn't the question is this thing doesn't strike me that that would work in these cases? Does it help to explain all this stuff to a patient?

Simon Billings
I don't think explaining it is going to change anything unless they're particularly stressed about it and apparently got a brain tumour or something. I again, we mentioned it in the stuff we talked about, about neuro inflammation and the biopsychosocial model. Neuro inflammation we're talking about here underpins chronic pain, because the nervous system is hypersensitive to incoming signals. It underpins nasty mental health issues, particularly when they're really resistant quoted antidepressant tablets. And it will underpin fatigue, and you put them in the biopsychosocial model, they're all in pain, because they're, you know, depressed, blah, blah, blah. But actually, again, the root cause a lot of these patients like fibromyalgia it is they're inflamed and their mitochondria don't work. So while I've used this as an explanation for marketing for migraine, it underpins, like I said, everything almost without exception. So if you improve these beds, people tend to improve. So when I treat one to one clients, it's that there's a common theme throughout all of it. If you get the right nutrients in, you can feel that nutrient gap change the diner that things will improve. So, while I'm sure that can be helpful, in some cases, for sure, I'm sure it does. I don't I think it's very easy for the medical profession to say, Ah, well, you've got his back pain and we've done x rayed, it's fine. There's nothing there. There's only red. And we know, I know, we know that some of that is in their back. And in the treatment and the sometimes yet, maybe they are hypersensitive because they're inflamed. And that's where the nutrition comes in. It's not that hard once you get the basic principles, this and so it's not that hard. It really isn't. And it's common stuff 80% of time, it's the same 20% of inflammation.

Steven Bruce
And again, I don't want to don't birth into the laser. But while we were doing our laser training of the day or cat four lasers, fibromyalgia responds well to lasers, and it's a mitochondrial effect, not a beggar. Yeah, exactly. So let's move on with this. I've got loads of questions, but I'm saving them.

Simon Billings
So just this is getting we thought it causes this self propagating wave of Sailor depolarization. It's like a way people talk about which we've already mentioned that already. Okay, so we're now gonna talk about calcitonin gene related peptide, which is when we ask the molecule with the drug companies, they love it. So this is the final common pathway, it potent dilator of the arteries, it makes the mast cells to granulates. You get a sudden flux of histamine and inflammatory cytokine. That's why sometimes people will say if I feel a migraine coming on, if I'm given a medication, I get some anti Flama trees in or somebody

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tripped and I can nip it in the bud. And that's because they've just managed to bring it back from the brink of that height, that massive inflammation which is building and building that thing, just suppress it enough. Now remember that because this is counselling G rated peptides being released from the nerve that happens in response to neuro inflammation and nociception. So that's where again, we can help with the nociception part. And in the brain inflammation with do nutrients, we can do that.

Steven Bruce
How many people are talking about CGRP? Because I don't know that I've ever heard of it other than drug companies. So okay, yeah, they love it. Can I just I need to clarify one thing for one of our viewers, at least. Sarah says, are you talking more about trigeminal neuralgia than migraines? Because she's confused.

Simon Billings
No. So remember that the brain depolarizes and you get this sudden, you know, squeezing the arteries, deep in the brain. Remember that the trigeminal nerve supplies, the JIRA, and everything around so there's no, there's no sense that pain isn't brain sensitive, but the dura is very, very, very hence why migraine, meningitis, a bloody great headache. So we're actually talking about migraine and trigeminal is the nerve that the migraine is felt through, right, because the brain is really inflamed and all that all that Jura and the nerve or the blood feeling, and the aftermath is wild hypersensitivity.

Steven Bruce
But I can see why Sarah was asking that because you've talked a lot about the trigeminal nerve and just yeah, we are talking about like, yeah,

Simon Billings
so just a quick summary is a summary a lot of research. So the counselling, G rated pets, we know definitely it's high in chronic migraine sufferers than controls particularly goes up during migraine, we know that you can induce a migraine experimentally by by infusing patients with calcitonin gene related peptide but not in controls, meaning you have to be primed. So you can you can inject me and you with it, and we wouldn't get a headache, we would feel fullness in the head, but you wouldn't get a migraine. Okay. We also know that it's very important Flama Tory, and we have good evidence that if you block it, it improves migraines, which we'll talk about now. And this is I just put this in there makes me laugh because miracle medication miracle drug. I'll give you one guess who wrote their headline and handed it to the to the news outlets. That's a press release for the drug companies is only 7000 A year $6,000. And absolutely bargain. Let's now look at the results. And we're going to consider these in the cup. We'll talk about our supplements. So the in the treatment group, they went from nearly nine days to about five days

Steven Bruce
remedies your mob? Yes, that's what we're talking about, as we're talking about.

Simon Billings
So that's about a 45%. So they're having about nine days a month of headaches and went down to about five. So that's a miracles for the drug companies concerned. So 45% reduction, let's remember that 45% We move on to the supplements and we'll see how we get on with our supplements. Okay, know also that the placebo also dropped, they got nearly about 2.8 days worth of reduction. So not a bad placebo response either on now. All right. So we mentioned earlier, we know is underpinned by all those problems, inflammation,

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mitochondria and so on. And can we ethically leave that because we could squash counsel and GMAT peptide for 7000 a year and they would improve by 50%. But we know that they are really more and more like develop all sorts of nice things that are going on and I would suggest that is wildly unethical given with the research is so clear about that. I personally feel it. You can't call yourself evidence based if you're doing that, can you call yourself patients tend to be doing that? I would argue not to listen

Steven Bruce
isn't the the counter argument to that that would be used by those people who probably are more interested in the drug company's success is one thing to say the evidence shows that all those factors are part of it, but we don't do we have the evidence to show that we can intervene in these these other areas?

Simon Billings
Or we can talk about anime. I thought really okay. So we just mentioned secondary triggers here. So we got things like histamine tyramine, nitrites offers MSG is a commonly mentioned by patients. So tyramine so chocolate red wine aged foods. Nitrites and sulfites are food preservatives, generally speaking in the name as G The G stands for glutamate. Now, it's important understand that glutamate is your primary excitatory neurotransmitter. So it's very important. So glutamate then becomes your primary inhibitory neurotransmitter called GABA. So it's like a ying and yang, that conversion is 100% B six dependent, it's very important. So basic deficiency is very common, particularly in certain subjects, like women taking the pill is almost universal, very, very common. And people who are very inflamed,

Steven Bruce
interested in the NICE guidelines, specifically address women who are on the contraceptive and it says if they're getting migraines or other headaches, try them on this other drug.

Simon Billings
Obviously, why wouldn't you think another drug so that's important. We'll talk about these things later, because that's really important. So they'll just let you know like glutamate and GABA, they I think at least 50% of your neurotransmitters are one of those two they weigh outstrip We know that number serotonin, dopamine, they're the dominant ones. And all your pain medication is based around blocking glutamate. So for example, pregabalin and Gabapentin originally were thought to be GABA agonists but they're actually antagonists to glutamate, right? So if you can, if you can improve your glutamate status, you can do a lot of good and what we'll find is that glute the natural endogenous blocker of glutamate is magnesium. That's why magnesium is good for muscle tension is good for nerve pain. It's good to relax you for for bed, it because it blocks glutamate from getting at the receptor. So if you can get by magnesium and vitamin B six is a beautiful thing. And we'll talk about that later. All right, that's my bouquets you get a Chinese food takeaway had an MSG headache is because they've shoved the glutamate in there on the edge, too much glutamate both tips you over and you get a migraine. So these aren't really big things. The reality is that your buckets full and I would argue that the bucket is partly because of food intolerance or food sensitivity. So it's we have foods that contain nitrites and sulphide and sulfites and so on. But I think a bigger thing is a food reaction. Because your immune system takes aim at that and says, I think you're a foreign invader, I'm going to attack you and that creates inflammation throughout the body. And the biggest five foods I've done a lot of blood testing gluten all day long. We half the population carry a gene for for gluten reaction, dairy, of all types of absurdly cow's milk, eggs, nuts of all kinds. And then the problem is if you remove dairy people go for nut milk. If you move nuts, they go for soya sometimes and soya while isn't

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eating a lot, it is very reactive. So those are the big five foods that we often look at. So just a clinical point here, if you start mentioning foods to migraine patients, they'll always get I've tried that. And what they mean is, I've heard that chocolate gives you a headache, or red wine. So I've removed some of these because it's all based around that nitrites sulfites and what he means on those kinds of things. So what we need to do is be very specific and ask did you do it individually, which doesn't really work because if you've got more than one thing because it won't give you a response, you must do all of them at once. And then did they do it? 100% Okay, and really be specific. Often they have not removed foods based on food sensitivity, which we talked about, they were gluten, dairy, eggs, nuts and so on. That's the one that is more important in my experience. So sometimes they're a little bit negative about food I've tried to let them work you've got to then pick into what did you actually do? What did you remove for how long did you all at once to be really picky about it so this is a little bit of research and you find a lot of the research on my own food is old because the drug companies we've got bugger all interest when they can push our drug for seven grand a year. It's in like 33 So this was children with severe migraines and they just gave them one meet one fruit one bed one carb done and they had 93% at the end of the month had recovered from severe migraines. So that's pretty awesome. Right? And that's it doesn't cost anything although it's taken foods out there might be an issue and they've got 93% response I think it's just it's so easily done right?

Steven Bruce
What does that mean when we when fruit and veg one called

Simon Billings
pick up meat meat lamb beef, whatever you pick a fruit pears, you might have one veg, whatever and then one cup, whatever you want to have. Okay done. And then once you want to get whatever you want. Yeah, it's elimination diet really then the days so I just thought this is we talked about associated things or comorbidities, patients so before they know that always abdominal pain, diarrhoea, flatulence so that's your your GI system and your immune system really screaming something is irritating me and I'm having a go at it, behavioural problems fits, you know, runny nose, mouth ulcers, or asthma and eczema, these are all just inflammatory things in different tissues before the die and then you see after from 61 to 844 out of five fits for 14 and embedded two of them in a massive reduction in their quote, comorbidities or associated symptoms have dropped so we got rid of the cause of their migraine or at least a big chunk of it was inflammation. And in and then at the same time, we've improved that they've no longer having fits in Massimo you really

Steven Bruce
piqued my interest that out of 88 participants 14 We're getting fits.

Simon Billings
So again because now you begin to understand what underpins all this stuff. So you can asthma who has asthma has inflammation airways. Now I know that other things too. It's breathing stuff and mouth brings up but again, x x most inflammation the skin what is IBS? That's inflammation in your gut primarily why is it that well, food is at least one thing and maybe back to you and imbalance ology stuff? Fits it's an ill fitting is an excitation of the brain uncontrollable there's a thing called B six epilepsy. No B six you build up glutamate because you can't work together and you get so stimulated whack you get a mess you get rid of Fitz B six epilepsy it's a thing. In fact, they go off and that they when they can't control All fits with the epilepsy drugs, again, almost all of them are blocking glutamate they're getting at their site. That's why if you get in the way of glutamate, you do reduce the fits

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down. But it really flattens people, they're really their energy, but it just goes right down because you've taken away most of their excitatory neurotransmitter they've got

Steven Bruce
you as a as a general rule, say to someone who owns up to being epilepsy Have you tried adding some B six, seven just

Simon Billings
about owns up to being epileptic? It seems that some people don't like to be there. I

Steven Bruce
don't like to admit to it. And I'm not suggesting that all our patients hide their medical history from us. But we know that a lot of them won't tell us things that they don't they don't think are really relevant.

Simon Billings
Yeah. Right. So in terms of that, you know, epilepsy is is important, obviously. So we don't even stopping the medication without into the drug. But in those cases, absolutely. I say that. Listen, your drug I draw. I write glutamate No, right. What about his ex site, here's a brain chemical that excites your brain and I do a line and make chilled. And then I say that's called glutamate. That's the real name of GABA. And to get from here to here is B six, you have too much exciting stuff going on, and your drug blocks excited from hitting the receptor. Okay, so I want to give you a natural blocker for anxiety, and that's magnesium. And I want to give you the six and have a product has both in and you take that three times a day. That sound okay, you might get more energy as well, and it might improve your mood, and, and yeah, Candy down a bit. And so and so I'm trying to improve their lot, because what you might also find is that a lot of the drugs ironically deplete B vitamins. So Lamotrigine, which is a common drug for epilepsy, will deplete B six and other other B vitamins. So you started the drug works really well. And then you deplete the six, and then the drug doesn't start working. So you have to up your drug because you need six drops. And this is where I think just knowing a little bit of nutrition really adds value. And you can get in there and say I'm gonna give you these nutrients as a support and help your drug work better. It might mean you have to keep upping your drugs, it might mean if you really do well and you feel better, you might get to talk later on to your doctor about reducing your meds if you do really, really well on a year or two or whatever. And so I and again, the inflammation thing, I should say the number one thing that makes your nervous system produce more glutamate, which remember then can build up if you've got the six is inflammation. So inflammation makes your nervous system produce glutamate. So if you get the inflammation down by removing foods, all of a sudden the glutamate will drop. And that will improve all sorts of stuff.

Steven Bruce
And have you ever had any kickback from any convention or medics who are saying what are you doing talking about these things? I've got a drug that deals with this, and you're interfering?

Simon Billings
I mean, I don't know how much my patients talk to their doctor about what I'm doing. If Yeah, so no, is the answer. I've never had anyone any complaints or anything. Yeah. And again, what I'm saying is all it's all factually correct. I'm not saying to stop taking the drug, I'm explaining the the neurotransmitter thing which they have never been explained before. And I think it's very useful to understand that you are just a series of pathways and recycling.

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Steven Bruce
I'm guessing, though, that they might raise the possibility that you know, I'm prescribing this particular regime of medicines for your your patient, we don't know what the interactions are with the stuff that you're telling them to take. Now, imagine your response will be the bloody vitamins for crying out loud. They're their natural, naturally occurring these we know we need. So there can't be any interactions.

Simon Billings
Because you get it from food. It's just that we're you we're leveraging in a modern staff to increase the doses to get in people because, you know, the reality is people's diets is crap. You know, and, you know, I love all my patients to eat an organic, you know, grass fed meat with, you know, organic vegetables. And this, you know, the, the reality is when you're really ill, you know, it's hard, you got to break the cycle and supplements is usually the easiest way. These are the foods that came up in that I just want to flag up again, we talked about gluten, dairy, eggs, nuts, seeds is on the top food there on the far left is cow's milk, that's dairy, then egg, then there's chocolate. Now the chocolate might be because it's milk chocolate. So it might in fact be the dairy or it could be the timing, I suspect it would be

Steven Bruce
I was just trying to make sense of this. This is starting from here going down

Simon Billings
the number of people number of children in which when they removed all the foods that then you call it that you would then reintroduce them and say which one causes a headache because somebody's going to trigger you into inflammation, which pushes you away

Steven Bruce
from most reactive all the way out. Yeah, exactly.

Simon Billings
Exactly. And then you've got orange. Now orange comes up now and again, that might be a reflection of the type that isn't the ATS and so that people chugging a lot of orange juice back then. Then there's wheat which is gluten cheese again, look that's dairy tomato, that might be because of a food ration but it might be also that tomato can release histamine and then you got rye that's branded as gluten again, and then a selection of other things that go down but if you if you'd gotten gluten and dairy and egg and nuts and soya, you would have had a good chunk of people's issues there. And then we'll talk from when we're using this study and other studies. We'll see things like peas come up sometimes, and beans come up as well, you don't have to get every single one. So that doing that elimination diet is quite hard getting a patient to go for free no four foods or four foods for a month quite a big ask. So when we look at the research, and from what I've done with food testing, we can get five or 10 foods out, you'll usually get a response for the most part. All right. Okay, let's move on. And when we talked before about triggers, and why would sunlight trigger a headache shouldn't do that. Here. You see, this is the number of neurons but you can't quite see the slide that says nonspecific provokers of migraine. And you see before on the 13th, people with exercise would have produced a headache. Is it on the diet? Yes, first? Yeah, yeah. So 813 to 38 found that before they did the diet, they would get a migraine come on with exercise, and after diet is one. So all of a sudden, we've drained the bucket. And that means that that trigger of though it's pushing something up is not enough to get you over and into a headache, and the same trauma down again, emotional stuff, no longer does it, you know,

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and so on. So this is what I mean by the when they say I, you know, my triggers are, you know, too much sunlight, too much sleep, not enough sleep or whatever these things, they're not real things in the sense of, they're not big, big issues. They're usually just a symptomatic expression of a system, which is primed. And we're looking at why. And that's kind of what I mean, they're the buckets fill on the left, secondary triggers push it if we can drain the bucket down a little bit. You can't change the genes, we kind of work around them with some of the nutrients, get the supplements in, maybe go for the food animals do our neuro mechanical stuff, I think is really, really nice combination. And you can say, listen, and this is what I when I didn't take forms, I listen, you got these migraines you come in with, I'm just telling you, you've also told me about IBS and reflux, and you've got the eczema, and you had health issues, mental health issues. I'm telling you, all of those things are up for grabs through your food and diet. I'm telling you, they're all linked, very likely not 100%. But very likely I can improve some of them by doing this with you. You know, would you be interested in that? Nice and easy?

Steven Bruce
Yeah. And how long does it take generally before you can before a patient will recognise the difference?

Simon Billings
So we'll talk we have got slightly off on that. But generally, I will say that we're gonna do a month trial with foods. It depends how hot it depends how many migraines they're getting a month. If you're getting one or two. You're gonna have to do it for long enough to see that generally with foodstuff I'm doing food stuff for people that have got fibromyalgia and this that and the other and all they've seen other chiropractors not sure if nothing has worked. I didn't say exactly why they said that you've got all these other symptoms. They're all I think related to inflammation. We're going to I would recommend you to a short sharp food elimination and I say two weeks for general stuff because if you get the foods right you get enough of the big ones out within usually two to five days something is very obvious. It's really obvious. They will just feel that much better energy mood aches and pains or improves pretty wildly Yeah,

Steven Bruce
no, I'm gonna be very rude. One could be tempted to think that you are a single issue fanatic and that you everywhere you look you see everything inflammation, yes. And therefore that's true. It's it's an opportunity to make people use supplements and I didn't I didn't say flog them supplement yet, but I know that you can help them to get this Yes. If they want to.

Simon Billings
Why do Fulghum supplements? That is a fair to say I'd read a supplement company, but yes, yeah.

Steven Bruce
Okay. Well, I didn't want to say that. But I mean, presumably, you do also find other things wrong with people and you treat them in other ways.

Simon Billings
Yeah, but you absolutely. But you need to go for the stuff that's going to get them. Well, we are here to talk about migraines. Well, yes. But I mean, in general, again, like I said, when you really boil it down, they have deficiencies of stuff. So yes, I could ask them. If I think they're low in magnesium, which is common, I could say could you try and eat more fresh

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vegetables and nuts and seeds if I think they're going to tolerate them and Allah. But the problem is that involves a whole load of hard work for some people, somebody with very high, and they may or may not know me that well. So but I know I can get the levels up by using supplements. So it makes it very easy for them. And what I have found is we try to make people do removing food is easier. Just don't eat gluten and dairy, whatever that you can do. And that's quite easy, relatively speaking, okay. Then adding foods in because it's less thought involved, just remove that, eat some more meat, eat some more vegetables, eat some more fruit, have some honey, whatever. Or gluten free bread what we need to do right through that two weeks. So removing them is easy. And then the food that with the supplements, you get to break the vicious cycle. That's what you got to do. A lot of people are very tired. You put a supplement in like B vitamins and magnesium or D, that those three are commonly give multi with a high dose B built into it. Mag and D if I say look the chance if you're low on this, you're gonna feel better, a lot better. And within days, you'll notice something very obvious. So these will last about a month. But I'm telling you within days probably what you're going to feel something if not sooner. So, once they get more energy, then they're more up for doing lifestyle change. Right? Then I go right now I'd like you to start trying to add some of these foods in, maybe you some liver once a week, we can, maybe I want to go and start some Pilates, I'd like to go for a walk at lunch from work. If you do it at the start, when they're knackered, and they hurt and they're depressed, they're not going to do it. So therefore, at the beginning, you make it easy for them, you chuck some supplements in, you do some treatment, you maybe remove Foods Supplements, first of all I do. If they're up for it, I'll get them with the foods decent treatment. Once they start to feel better with the treatment, they start to trust me a little bit more. And then I can give them more and more at a push the responsibly to them a little bit.

Steven Bruce
And it suits the modern psyche doesn't. It's appeal. Yeah, exactly. You want an intervention? Yeah, totally. Yeah. Look, I know you've got other slides and other things talk about I've got a load of questions here. And we've only got 25 minutes left. So can I ask a few of these questions? And I'd have to say for the audience that if you want to get your question asked the quickest way to do it is hit on that video link. Because as soon as we get one of those great questions. I don't know what these I haven't read through these. So excuse me, for they might be random, that my mother says John C has suffered migraines for many years. She went on blood pressure tablet six months ago and hasn't a single one since her blood pressure wasn't particularly high. In fact, for most of her life, it's been on the low side. She also has hypercholesterolemia any thoughts on this?

Simon Billings
Not really. It doesn't really make a lot of men high blood pressure doesn't lie, doesn't really give you my gut, it might be that she was right on the edge. And that is something I don't know. It doesn't it doesn't. It doesn't fit with anything, particularly that I know about in terms of mechanisms or anything. So no.

Steven Bruce
Also I'm intrigued by the hypercholesterolemia. Is this familiar? Or is this just the doctor has said you're a bit higher than we currently think is the optimum level for cholesterol. That would be a very good shout and I would suggest she reads Malcolm Kendricks books on the subject. Yeah, exactly. Malcolm Kendrick, the great cholesterol calm and a number of other books which are eminently readable, the latest thickens Yes. Grateful, great title as well. Grateful mine says I'd be interested know if you're, if you have cross referenced your diagnostic categories with the icy HD three. Never heard of it. International Classification of

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headache. This? I don't know. I'm making this up as I go along and have a look. Yeah. Okay. Well smiler says I've been told that there was a relationship between migraine and the reverse curve in the dorsal spine. Are you familiar with this mechanical cause and other sympathetic ganglia involved in this in some way?

Simon Billings
I think again, you just treat the patient as you find them and you're going to look at the opposite nickels and the jaw and of course, you will know why the opposite of nickels aren't using a perm rolling just you know, it's quite tend to get mobile wack, isn't it? But I find that compensatory to other stuff usually. So yeah, I can totally believe that.

Steven Bruce
Now, this is a question which I imagine we will come on to at the end a few people who asked Is there a specific vitamin brand you would recommend and the dosage for magnesium and B six?

Simon Billings
Yes. Yes. Well, I'm gonna Ramon soften recovery. So yeah, I developed a range because I've read the research about things I've been six years on, and I ended up getting patients before that a lot of supplements like a multi and an extra B and then at least they got about a hand and that was reducing the plant so that when we came to making the supplements we could then build in all the stuff I knew I wanted, and particularly is is really important, that the the doses you find in the research are often quite high. So for example, but didn't be six commonly. 5075 100 milligrammes of e6, the RDA is like one point something so but that's the reserves are in things like PMS, these 100 milligrammes, that's what works when you then go to use supplements, the southern companies, then will give you maybe a powder with some magnesium and some B vitamins, but they don't put in the effective dose because it costs more, and it puts people off, so you end up not getting a response. So I have made it so that we can get those doses with a relatively small number of pills.

Steven Bruce
This is quite important. And I hope that people trust you on this and believe this that you're not here to flog supplements, but naturally, as you've said, you develop these because of what was going on. And again, I don't relate everything to personal experience, but I met quite a bit. I was doing what you described, I had one of those little plastic trays with a 30 little canisters for my supplements, but they made me take my still got it. I couldn't fit all the buggers in. They wouldn't fit in those plastic containers, which we've made taking them a lot more difficult. Yes, exactly that so at the end of this, we will make sure people know where to go interested in what you provide. And they can make their own decisions.

Simon Billings
Yeah, and the supplements are specifically for basically neuromechanical practitioners. That's kind of the way I phrase you know, what we do is to support your treatment, and that was reflected in the dose, the b bits and the magnesium and you should always prescribe magnesium with B six to get magnesium into the cell. You need B six. So that's where it links again, magnesium blocks.

Steven Bruce
Do that you don't buy Magne Usually someone says take magnesium and you're not

Simon Billings

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always low and be six, but the really chronic ones are basically the inflamed so therefore I've got my knees and we would be six built in and you can mount with a multi, and that way your total be six doses like 85 milligrammes, that's a therapeutic dose of the active form, right?

Steven Bruce
Okay. Nikki says, can you tell us how the heart of the trip 10 group of drugs work and why they're so effective in migraine relief.

Simon Billings
So traditionally, they were thought to be a serotonin agonist. And there was some evidence to suggest that people with migraine had low serotonin levels. So there was one or two bits of research where people are being given five HTP, which is the precursor to serotonin. But there when I went when I dug into the research, I mean, thin would be an understatement. So the more recent research suggests that actually the trip tans may well be an inhibitor of calcitonin gene related peptide. So that's when you feel a bit like Margaret coming on, you take a trip down and it can work really well for some people. So probably their cows energy. Mm hmm. That inhibitors, nothing to do with serotonin probably.

Steven Bruce
It's, I find it fascinating that in many cases and anaesthetics are a great medicine doesn't always care how these things work. If they work that's great. Yeah, and and of course from the patient's point of view is great if we can't find anything better to do receive the same end result and do occasionally

Simon Billings
get five HTP migraine patients but it's nowhere near the top of the list because there's so much other stuff there first.

Steven Bruce
I suspect I know who sent this one in but I've been given no name it says chocolate dairy and soya a Keto vegetarian with migraines is buggered, then.

Simon Billings
Prayer. That would be fair, yeah, yeah.

Steven Bruce
Well, you know, Claire, my wife is a vegetarian. I suspect she's the one who sent that the that I keep telling her just to stop being a vegetarian. That's the I would agree with that. I ALA, apologies. If I pronounced that name incorrectly, I put a bigger point. Where would you send patients for blood gut allergy testing to see if certain deficiencies or imbalances are present do indicate migraine?

Simon Billings
That's a really it's quite tricky. Question that. So because in a chiropractic setting, I don't really because I treat empirically. So we'll come on to that. Well, I'll go over the sub the sub and stuff, which coming up is not that long, it's quite easy to get and we'll go over it. There are common themes. And like I said, we know this thing's common things are common, and they produce certain things. So I treat empirically, and then I might occasionally run an organic acid test, but you'd need a bit of training in that. So because blood testing certainly isn't always reliable, cuz often the blood isn't in the cell, where's organic acids? It's reflective

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of intercellular use, but that's not any good for an average osteopathic higher, I'm afraid so. The answer is I don't really do that very often these days.

Steven Bruce
I think in my show with Tracy Whitney, she did recommend a couple of labs for testing for B 12. And talked about

Simon Billings
she's probably gonna meet the malonic acid and homocysteine I think is probably what she did.

Steven Bruce
But of course, that was very specific. 12 talked about false results that there's exactly that misleading results. Jan says I've suffered from migraines my whole adult life after being diagnosed later, as an adult with type one diabetes, I find if my blood glucose gets too low, I get the classic visual disturbances and then a migraine why is that?

Simon Billings
I almost say because it's very stressful for your system, your sugar level to drop into the stone through the floor. Your your brain is really, you know, dependent on that, and that's sensitive, and it's probably just very, very stressful for you system. So again, if she can then do some food elimination diet, do some supplements play around with a little bit, she may find that then she's less sensitive to those changes.

Steven Bruce
Okay, something as she says, I'm interested in menopausal migraine as I never had them before.

Simon Billings
Yep, so again, with that, it might be that you've got had a very bad menopause and you've got a relative loss of the most common pattern in menopause is not enough progesterone and you've got your oestrogen which must be broken down, the liver comes out and sort of slightly active metabolite form, which then still effectively working as an oestrogen. And you get an oestrogen dominance relative to progesterone. So women particularly they've had lots of PMS, PMT, and breast cysts and other things when they go through the menopause is bad. So it might be it's very bad menopause. And she needs to do some work around hormones. But again, it might be the her bucket was relatively full, and they actually had a change in the Migra in menopause, and that she does the basic work, that might be enough to allow her to get through that. So I would always do the basic work first, because he's quick again, and you know, moving foods is doesn't cost you anything, hand for supplements. And for a month, I always recommend month trial on supplements. We saw what you'll see in some of the research chemical minute. Most of the studies last three months, but the bulk of the change often happens in the first month. So a month trial is always wanted and then I would do that. And then you might look at your liver health and maybe have your progesterone and oestrogen levels measured. Okay?

Steven Bruce
Your wife called Lucy. No, that's interesting as Lucy's Big fan operasi on Great. Lucy says I love his supplements makes it so easy to take meaningful doses in one multivitamin. It's the only one I've ever found that doesn't make me feel nauseas as well. So thank you for making this very welcome. So you have a fan. There you

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Simon Billings
go. And also clean label. So there's just the nutrients in there. And then any space we just put a little bit of rice flour done. No nothing other weird one Flynn.

Steven Bruce
Murray says any thoughts on infrared therapy for vitamin D production?

Simon Billings
He won't get any with infrared. It's UVB or nothing. I'm afraid she's misunderstood that UVB lamp will do it. I have one at home, or you'll have a sunbed when you get natural sun between April and about September between 11 and three, otherwise you get nothing.

Steven Bruce
Okay, salami. Well, no, we're getting back to the case history that you've talked about. We've got 10 minutes left. salami. Olivia says what's your approach for patients who present with an acute attack of migraine in the clinic?

Simon Billings
That never happens? They don't come in with an acute migraine or what I've never seen it they don't come to me with a q&a. They lie in a dark room. Yeah,

Steven Bruce
that's what occurred to me. I wonder if suddenly Olivia mean someone who's in your clinic and gets a migraine.

Simon Billings
So it wasn't after adjustment? Stroke? I honestly wouldn't know. I probably didn't take some anti inflammatories and just keep the fingers crossed that it you know, it knocked it off.

Steven Bruce
Yeah. Okay. Well, maybe maybe some others have some ideas on that. But of course, you know, what can you do when someone's in? A migraine? Yep. And Vlad says I thought that pill based Beach was not enough to supplement with and you can only do it with injections. And again, that's one for the neck the I think the beach 12 video show that I do with Tracy goes into that in quotes. Yeah,

Simon Billings
sublingual works very, very nicely. I've got done before and after tests, it worked fine. I've got you know, hundreds and hundreds of patients. And also liposomal can also work as well as an injection that I had ladies who were injecting themselves coming in for treatment. I said just try the liposomal and they discontinued injections completely.

Steven Bruce
Okay. All right. Did you want to move on?

Simon Billings
Yeah, let's move on. Cuz we got not that much to go through. Our thing is just want to go through the supplements that you'll see the changes with them. Okay. All right. Okay, so the first thing I just mentioned. So when you're talking to patients, they say I've got foods that

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trigger me just double check. They're avoiding 100%. Because occasional say things like well avoid as much as I can. That means nothing, you got to pin them down and say, How often do you eat it food x y Zed, I want to know and they'll often be eating it in low amounts still triggering themselves so weird it sounds even though they know X Y causes migrainous deleting it so that has to go and then the protocol would be moving the known triggers and then on top of that the big five foods, gluten, dairy, eggs, nuts, soya and then if they're up for it, I would go corn peas such as fruit tea, coffee, chocolate beans, yeast, and then we'll do that you can do a blood test. But honestly, if I've done so many blood tests, the same sorting foods come up again and again and again. It's some combination, save as often 50 quid and just do those big five anything up for it the other ones as well and just say look, it is a pain in the ass I get that you've come up with these things. I'm going to say look, you can do it you know, it's it is a ball ache, but suck it up for a month, see how you get on and what will go from there you can always stop if it becomes you know thing. Okay, supplementation. So that's the supplement, that's my company. So level one. So within the protocol that I have in the course there's different levels, I'm not going to level two, we want to keep it simple, but you go broad spec, multi nutrient, but you need very high B vitamins within that, okay, for a reason we'll talk about in a minute, then you need to complement that with magnesium. And that needs the extra I use, that's the magnesium plus that has basics built into it. So you can double up on the basics. You needed to have a vitamin D and you want some k two in there as well, particularly MK four form is important, not just MK seven, and then the other bit is you want some riboflavin so there's 50 milligrammes in the multi, which is the high dose, but in the research studies, they use 400. So, you need to add on another 350 And then I would add in some co q 10, which is critical for mitochondrial function at 200. milligrammes, okay, statins, Block Co, q 10. G to get patients with horrendous muscle pain, ex ante is because of CO q 10. Or statins also, because they stopped the production of cholesterol. Your vitamin D is made from cholesterol. So sometimes they've dropped your vitamin D down, and that produced a pro inflammatory state as well.

Steven Bruce
So Malcolm Kendrick on the show with you actually, we're gonna talk about statins and I love that Malcolm Kendrick sang on how many bloody pills is this? Look,

Simon Billings
that would be one, two, that would be 123. What it depends on the size of things, it might be five or 6123. The demand either sublinguals you just suck it like a sweetie. That increases the absorption. It gets round. I had to go Chrome that you can get all the nutrients in through the mouth. If you just let it dissolve. Yeah, it's gonna be a handful, probably five or six, maybe seven. And again, you just say it's a month trial, see how we get on. And then as I've drawn a line there underneath the line, it says acetyl carnitine and B 12. This depends on the patient. And if they're up for it, or you want to go for it, then I'd add those two When as well carnitine is a shuttle to get fat from the cell into the mitochondria. So if you're on a keto diet or high fat, you must take carnitine and B 12. We know it has a really important place in the Krebs cycle. Alright, carnitine is brilliant for depression. It's also brilliant for fibromyalgia because it increases because because it improves mitochondrial function to get more energy and that person. So I go for that's my opening letter level one is those three plus extra b two and Kokichi. And that's a good level. If you want to update then you go for the carnitine and B 12. And then the foods underneath that we'd go for the foods we talked about just a moment ago. All right.

Steven Bruce

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And that, is this specifically for migraines, or is this would this be a sort of a general regimen for anybody who has pains I those

Simon Billings
three would be more my chronic patients that they have to go on those because they're Bhagat, the b two and the cokie 10. that's specific to migraine because the mitochondria has been and we've got good research, and we'll talk about that in a second. So magnesium, this is a common people know about we know that serum magnesium is an independent risk factor for migraine, and that they have lower levels and so on. And we've got a good couple of few RCTs with a good reduction. You see here, the only thing here is it wasn't they're getting they listed migraines per month, rather than headache days. So three migraines a month might actually be nine days of headaches. So it looks three to two. It doesn't, because it's a relative thing. But anyway, a 50% drop and the intensity also 50%, which is pretty much what we got in the drug study, albeit they've talked about in a slightly different way. And then co q 10. It improves mitochondrial function improves energy. And we know that for sure we take a statin it can completely cripple people. And we've got four RCTs. And I'll give you a little sample their top one that's a 27% reduction relative to placebo, the bottom one there quite over 75% reduction of eight headache days a month, which is similar in the drug group down to less than two, which is bigger than the drug, quite a big placebo response there. But if you know on the the second bit here, that's the severity of the tanks. There wasn't that big a change in the receiver group. But there was again with the CO q 10. An easy low hanging fruit to pick for that stuff. Vitamin D. Again, it's just pro inflammatory, and it's so common. And you see here, averaging the deficiency is pride. So common middle of winter, it's about 87% of you just have to be some induced proinflammatory. Sorry, yeah, so if you're low in efficiency, you produce inflammation. Yeah, what that's the why it produces stuff. Yeah, so over 50% reduction in frequency and number of days and intensity and also like a reduced CGRP because it reduces inflammation in the brain and therefore it reduces the the production CGRP I'll show you a study of that in a minute. And then we get to the B vitamins and homocysteine now, little teeny bit of here. So this is called methylation, which is incredibly complicated. We make it nice and simple. You take a piece of protein amino acid called a meth ion EAN. And you take the methyl group and you make stuff and you make really important stuff, myelin pretty important DNA. Your neurotransmitters get turned on and off his way of making stuff and breaking stuff down happens millions of times a second. Then once you've done that, you get homocysteine as intermediary, you must then re methylated and you do that by getting the methyl from methyl folate, which is the active folate and you give it back. As long as you've got enough B 12. Then the enzyme is B 12. dependent. So those come together and you get methionine again, or you take the six and you shut it down and you make other stuff. Brilliant. The problem is that homocysteine is incredibly pro inflammatory. It pretends to be glutamate and hits the receptor. So it's neuro excitatory. It is a known modifiable risk factor for dementia fact, drug and we do not like that and put out some really crappy research to try and water down the good stuff. But it's definitely an issue. And it's a trigger of a hyper excitable nervous system. So think pain, and also convenience, osteoporosis and all other stuff and you just need beats, well, folate, B six, and it comes down very, very nicely. The genetic issues of migraine are around the ability to turn your folic acid or folate on it's called MTHFR. And that's why if you have children who are people who've had headaches since they were a child, often there'll be a family history and it's often underpinned by that issue, and you can get around that by using the high dose supplements, right? Because but if you've got that gene and you can't make methyl folate very well, and this whole system grinds to a halt and the drug companies they patented the first methyl folate they have a drug called Declan, which is a high dose folic thing that they say this helps your drug work better for depression. What they actually doing

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is removing the cause of the depression and giving a drug anyway, and it was Merck that Peter didn't develop all this stuff originally. So be to know here we've got nine meta analysis is these new 400 milligrammes? No, the RDA is 1.4 Okay, this will make your During the very, very, very very alert gets quite normal, it's okay. But if you look at the the, the mechanisms is all through Krebs Cycle b two, and all the B vitamins really are various points really important. And note Kochi 10, at the bottom there, and the HMG that statins are hm G reductase inhibitors. So they stop the conversion of HMG going to co q 10. And the research is one of the studies on b two, that is better than b two against sodium valper rate, which is quite a hardcore headache drug. And again, both work there for six or nearly six and half days a month down to about two, two and a half.

Steven Bruce
And I'm guessing that the cost of b two is considerably less. Yes, peanuts

Simon Billings
dirt cheap. So just a quick way to our patients with a war. Like we said they're more likely to be a pure cellular thing. Often with really big deficiencies and food sensitivities and respond well to that kind of thing. They often will have a bit less of the neuro mechanical stuff contributing into that trigeminal cervical nucleus. So when it turns out with migraine with aura, they're typically at the far end of the spectra having a pure true migraine without necessarily having a neuro mechanical input to that system, generally, I would say, and then patients without aura, they're more commonly have a mixed pattern where they've got some deficiencies and some other stuff foods, but they've also got that neck and you're feeding into the system. And they will tend to respond slightly better to neuro mechanical stuff when you combine it with him. All right. And you see here, this is the vitamin D study we talked about with calcitonin G rated peptide. So on the left there, patients with aura got a 43% drop in number of headaches for a month patients without aura, got a 32% are still really good. But just the patients without aura didn't respond quite as well. Okay, that's what I said earlier, patients who've never had a headache as a child never had a headache in younger adulthood, and then when they're 40 or 50, suddenly get a headache. Just be aware, they may lack the genetic predisposition through that methylation stuff, they might respond a bit less well and the things you want to be aware of is a deficiency but driven through medication, so maybe they become diabetic, they're on Metformin, and metformin blocks the absorption of B 12. And that grinds your Krebs cycle to a halt, which then makes more homocysteine and you start getting migraines. Maybe they're on statin maybe they've eat fish every day because they're gone pescatarian they Too Much Tuna and they're full of mercury, you know, there's something might be something going on that wasn't there before and have a really good look at their teeth. Have they had crowns put in the last a few teeth have they got the dentures in or old these things might contribute to a wonky jaw that then triggers most of it and that then is a big shift in a change. And or it might be that if they're getting quick migrate, there's not a true migraine again, it's really important to pin them down. Alright, so the general protocol that I go through his I really screen the history personally look at colic as a baby migraine as a child abdominal migraine and then cyclical vomiting syndrome is just migraine with a different thing. Look for mental health issues that's associated with neuro inflammation, look for insomnia, often neuro inflammation, are they vegetarian or vegan? So there's a relatively it's harder to get high levels of nutrients in that group. Look for tummy stuff. So IBS, inflammatory bowel reflux, anything like that. And again, might be a chance of, you know, inflammation in the gut, which is foods, fibromyalgia, and then jaw stuff and any head and neck trauma that might increase the risk of peripheral nerve entrapments. Look at the family history for migraine. And then if they have methylation issues and in or inflammatory genes, they'll often have early onset or high frequency of

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dementia, stroke, heart attacks, osteoporosis, and cancer. So if everyone's dying early on certain things that should be the genetic component, strong history of mental health issues, history of relatives having B 12 injections, or other bowel diseases and then the meds so statins for CO q 10. proton pump inhibitors are a real bugger because they're so commonly given out and they slowly reduce your ability to absorb minerals and protein. And they lead to infections in the gut as well. Metformin blocks B 12. And then we talked about triptans like I said that might that traditionally triptans are thought to be serotonin agonists we're not entirely sure if they are or not. So I don't use that as a very it's not a very what's the word? It doesn't consistently give me results so I'm very selective in what I do with that.

Steven Bruce
We've overrun already oh right goodness. Early with you. Are there more important slides here? Well, I think

Simon Billings
we got most of it done yet. This bit is good. So the top left bit there, we screen the stuff then we look at their symptoms really dig in. Is it proper migraine, is it not? Then do the exam, look at their neck and jaw and I would just flag up this stuff here. So loss of molars or a missing one molar with a tooth and then fallen in and it changes the occlusion flats where they lose the vertical height, the back and they get flat across the front, or very, very old dentures, though from the old worn down benches, they have incredible neck tension we're going to do is stick dental rolls on the back molars disclude them, and then get the walk around the room, swallow a little bit and then sit down and then check all your findings. And if the jaw is a big issue, it will massively improve. It's called the movement test. And I think that's everything

Steven Bruce
is enough for now done. Simon, thank you for all that. And I late run over because there's so much information in there is quite heavy. There was some chattering going on. Now. This is a sales pitch and whatever else and I think I'd have to ask, I'd have to challenge the audience and say, Where am I going to get somebody who's got your level of knowledge about the nutritional deficiencies that you've described here. If they don't have a keen interest in supplementation, and formula, now there's no requirement for people to go and buy your supplements, because you've told them what supplements they totally don't get. Anywhere they like. The fact that you do them in a convenient form is great. And if people want to use your stuff, then then they can more than welcome. Personally, I think there was an awful lot more science research and information in that than they was just selling supplements. And I think people they must have learned a phenomenal amount from it's all

Simon Billings
about breaking the vicious cycle. And like I said, food removal is one way supplementation is another. Well, it

Steven Bruce
is a thing. I mean, Sue Sue here says please stop my brains fool me. You just gave so much information. It's quite a heavy topic. We will put up the slides as handouts so people can refresh their memories through research it more, I suspect that they can sign up to your newsletter and get more information from you that way. Yep. And again, we'll make all these resources available. But it's not compulsory, you don't have to do it. It's just you know,

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Simon Billings
I send a newsletter every Friday at five I send out related research on a whole lot of stuff and a bit of clinical input. And it's there for you.

Steven Bruce
I hope you've enjoyed it. Hope you have a great evening and enjoy the rest of your week. Good night.

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