Understand, Manage, and Treat Your Long Covid With Therapeutic Interventions Transcript

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Introduction and Gez Medingeru2019s Long COVID story

– Welcome welcome to a very exciting edition of Overcoming Long Haul and M. E. C. F. S. Today is just a real pleasure. I'm gonna be talking to Gez Medinger. And Gez is someone I just fell across recently while I was doing, looking more and more for what's happening out there long Covid and I was just incredibly impressed. I mean, I think your work is really just so helpful for patients and for doctors.

I think you've had lots of good interviews with really, some top notch thinkers in this question of how to help people with long Covid and what makes it even more interesting? Maybe not to you, but to the rest of us is that unfortunately you got, you went down this path because you were trying to save your own self and so you can just start off and tell me a little bit about you and how you wound up.

I think being a actually a beacon of light, at least to what I've seen out there in in holding that balance of information and hope and not overhype so, – Well thank you, it's an absolute pleasure to be here. So, I guess before all of the Covid, you know, exploded across the world.

You know, before Covid period I was a filmmaker and I was a marathon runner. I've got a science background through education, but you know, my professional career was basically in the filmmaking industry and I loved it very passionate about it and in fact, I've just flown back from L.

A. Where I was trying to get my second movie made back to London in March 2020 just as Covid was exploding through the city and there were no sort of restrictions, offices were open, public transport was open, you know, it just spread like wildfire through the city and I caught it along with everybody else in mid March 2020.

My acute infection wasn't too bad, but then I didn't really get better and the symptoms changed and they got worse. And this is a familiar story now, but this was not on the radar at all, back in March because the messaging, as we knew it was just where you had become very sick and go to hospital or you get better or you're asymptomatic even.

But here I was 234 weeks later, not getting better. And then when it was about four or five weeks in, but I felt a very specific symptom and that was the feeling in my throat and the top of my chest.

I've only ever felt this feeling once before in my life. And that was 20 years earlier when I'd had what you guys call mono and I've been wiped out for a year after Mono when I was a student at university at the time and this feeling in my throat was a huge part of it. So as soon as I felt it again, 20 years later after Covid, I thought, oh my God, This might be a long haul. This might be a year, it might be longer than a year previously recovered completely fine from, you know, after a year I recovered quickly after a year. But I thought this this could be really serious and it could be really serious for so many people because so many people have had COVID, but nobody was out there talking about this yet. This was still early, April 2020. So I I was just about to actually launch a Youtube channel, funnily enough about running and classic cars.

But before I put any of that stuff up there, I just put a film together looking at um What we knew about the science of post viral fatigue and what we knew about about COVID-19 and I was looking at these two sets of science and saying, is it possible we're going to see a wave of protracted illness in a certain proportion of the people who catch this. And are there going to be hundreds of thousands of other people out there like me who are still suffering.

And so I put this film on Youtube and you know, within days it had tens of thousands of views and people all over the place were crying out saying, yep, me too. And I guess that was the start of me sort of going down the rabbit hole like Alice and I am now 94 films into researching and interviewing and experimenting my way through sort of a long covid journey.

And I've learned quite a lot in the process. I think now that we're almost three years down the line. – Yeah, I know. And the amazing thing about your story is that you know first the prescience of realizing that oh my God, this is gonna happen to other people.

But you know what we see is that off off times there is this combination of a little tendency to post viral issues, you know, and you basically you kind of like had a brief run in with chronic fatigue early on and but pulled out, you know, and to the to those of us who are who don't quite run as much.

Recognizing post-exertional malaise and mast cell issues

We consider it a little bit on the over exercising range of life, you know. And those two things are very common setup. – Absolutely. I was a sitting duck when I look at everything that's happened in my life in terms of nervous system stresses over the previous five years and then physiological stresses like marathon training, you know, and hard marathon training. I was training for a two hour 50 marathon.

And then a few other things as well like age and then all also slight history of auto immunity in the family and then a bit of a tapi as well. So I and my sister is asthmatic, I get a bit of Esma only a little bit before this.

But that's all it seems to be. And these all seem to be factors that predispose people to the chance of developing one covid. So yeah, I look back now and think well yeah, it was written in the stars for me, but it it took a while before we realized people who are being affected.

– Right, right. Yeah. In fact, you know, even I was like just to take off from that point. I mean you just nailed, you know, just just starting there with, you know, you've got the A. T. P. You know, the mast cell issues and the mitochondrial issues. So just just go through from your own experience, what let's start with, what was important to you.

What where where did you start with your journey? I mean like when you realized what was going on, I guess the first question I realize, but you can but take the more interesting ones to start with your journey and they will go go through the the the the poster child you are for the for some of the major risk factors.

– So I guess the first thing that everybody realizes when they, you know, develop long covid is the realization that post exertion or symptom exacerbation or post national malaise is a real thing and it is there waiting for you every single day and the limits are far less than you thought possible.

So what that basically means is that you crash all the time because you're over doing it and it takes a little while before you realize that those crashes are connected to how much you've done and how much you've done may not be just physical, it may be mental, it may be emotional. You know, all of these things add up to sort of the burden, the load on our body and you go past overspend your budget and you're going to be toast. And that was something that took me a little while to to discover because actually my previous experience of mono, I didn't have that I could actually exercise okay.

But this time around that was new and it seems to be almost universal feature of the condition. So the first part of it is crashing repeatedly and then trying to learn the triggers.

The second part of my journey that was a major breakthrough was actually this component and the discovery of this m cast components and finding out the monumental difference that diet management and anti histamines could make to my symptoms now isn't necessarily a huge part of everybody's long covid puzzle, but it's certainly a common feature in many and a lot of people respond very well to cutting foods that are high in history and their diet and then taking – The mass cell and I always have to remember we've been doing this for so long. But the mast cell activation.

Um and that's a biggie that that's that's one that we have to thank dr Afrin for dr Theodore Recchis. I can never pronounce his name for bringing to light about you know, 10, 12 years ago each one of them started to come out slowly but it's changed medicine for a long time. We thought those things were reactions to therapy. But that's

another another long story I don't want to waste our time with. But just to know that this mass cell issue had been really not seen in functional medicine as for what it is for a long time.

So it's made a so I'm glad that was done because it stopped a lot of suffering. So anyway, so the Marcel was big for you and – Yeah and understanding the association between a toupee and master activation as well.

And the people who had displayed some propensity towards, you know, hay fever or asthma or asthma before it would be very worthwhile. Those sorts of people now trying to cut histamine out of their diet and trying anti histamines cause was probable to be a huge part of their puzzle.

The next part for me was the metabolic part of the puzzle. And this was some of the ideas around essentially N A. D. Plus potential shortage and what that means in terms of actually and everything else and what happens when actually your metabolism tries to compensate and how that the Iranian pathway can actually be quite damaging in a lot of ways and lead to other symptoms. And the simple, potentially simple addition of nicotine, IQ acid as a supplement can make a big difference.

Now for some people, again, for me it made a significant diff obviously wasn't curative and spoiler. Nothing is long covid. Unless you're really, really lucky, you just happen to have one deficiency, you can knock on the head. But a lot of people were also finding that additional atomic acid can make a huge difference to their energy levels, their cognitive sharpness and their ability to tolerate activity without hitting the sort of the pen limit.

And the next breakthrough for me I guess. And I was considering how big a part of long covid this is. It took me a while to get to the point where identified this as being part of my own makeup and that was disorder.

No mia because I wasn't classically potsie. So I didn't have the racing heart on standing up. But what I would get is after doing an activity for a certain amount of time, my heart rate would just go up.

So even if the activity is constant, then suddenly the ha and then suddenly you're in the danger zone and you realize that you're getting palpitations and shortness of breath and potentially nausea and headaches and understanding what it meant when that was happening and what to do about it was the next part of it?

Yes, you can stop and you absolutely should stop. But the power of calming the nervous system down via whatever tricks you can get hold of and we'll maybe talk about those. We talk about therapeutics, the most simple of which is breathwork. But the importance of breathwork and understanding that breath work itself is a thing.

It's not just what we breathe all the time. What breathwork, what's the difference? Well actually controlling the breath and something as simple as coherence, breathing five seconds in five seconds out through the nose can make a huge difference to your nervous system.

So that was probably the next major sort of realization I had on my journey. – So just to recap one of the things I want to emphasize to people when you talked about the mast cell activation is that, you know, the history of allergy and eczema.

But also when people have, you know, if you have migraines and reflux and you know, irritable bowel and interstitial cystitis, you have any two or three of those. You know, you have a mass sell issue.

I mean that's the thing. The mast cells are like the most primitive immune cells and they're they're not primitive but they're the first ones in multicellular organisms. So and they're everywhere and they're surround your nerves. So when they get twiki that's when also you're going to see it with a lot of the autonomic problems that you're having and just are you very flexible by any chance?

– It's funny, you should ask. I'm actually not, but I did look into hyper connection with hypermobility recently.

Metabolic, autonomic, and breathing breakthroughs

Did a survey on that we need to crunch the data properly. But at the moment it is suggestive. The early sort of crunching the data suggested that there is a link with – Because we see that clinically I mean I've known, you know, just for 70-80% of my patients patients are just chronic fatigue chronicle and chronic something hypermobility is very high outside compared to the rest of the population.

So it just makes the audit, you know, the ligaments are a little lax and sometimes the neck can be a little more sensitive and you can really irritate the nervous system with we don't understand the movement is so small, it doesn't make it doesn't make sense the way we think about things, but it affects the brain stem and that controls that whole limbic system which gives you those wonderful symptoms that you have to learn to control, that the rest of us just take for granted, you know, your breath work.

So that is the breathwork is again, that that's one of those low hanging fruits that I don't think people talk about enough. And I think it's really great that you're bringing that up. It's will any, any of the vagal exercises are worth looking into for people that is important.

And one of the things we didn't quite touch on in the beginning was the importance of stopping the activity before you crash, if possible, learning that lesson.

– So I think the most important thing, if you're in the foot, I mean, if you're in your first year of long covid, but potentially even in the third year of long covid, there may still be work you can do in terms of understanding how many of your symptoms that you experience every day and you think a baseline are, in fact not baseline, but post exertion.

And what that means is that you might be, let's say you might be living at two 25% of your previous activity level and thinking I've cut so much out. There's no way I can be over doing it because I'm only doing a quarter of what I used to do.

Well, you might find that actually your pen limit is down at 10% or 5% or 2%. And actually you may because the number of long haul is who I speak to, who are just chronically over doing it.

You know, and this is the thing, it's so difficult to recover if you're perpetually in this state of crash essentially. And then of course you can have larger crashes on top of that, but fundamentally there's, there's, I don't know what percentage would be, but a certain proportion of long haulers who are living in a state of constant crash and need to have what they're doing at the moment to find out if that helps their symptoms.

And I bet for a large number of people that will do. – Yeah. Well, because, you know, one of the things that's interesting is that what I, something I never realized, I heard an interview by the gentleman who played for, you know, yes, yes. Okay and I didn't, you know, here he is and he exercises and he had a lot of anxiety and a lot he was, he had and to realize that he had a tremendous amount of sympathetic drive that allowed him to be so hard working because the, you know, and I think that's, you know, it's a very good tool, but it's like, but when you have long covid or chronic fatigue, you're having a car without shock absorbers, you know, the, you're just gonna shake apart the faster you go. So – You've got no oil in the engine either.

So that engine is going to just grind itself to bits. Yeah. – Okay. So we got, so here you are learning to, to rest, more breathe better, avoid allergens and minimize the allergy part.

And where are your next steps. – So my next step is probably involved trialing certain treatments. So I have tried a number, I mean, there aren't many of the things I've tried that I regret, but one of the things I tried, I do regret because it put me in hospital for a week and that was either met him and I've seen is something that was if you don't know too much about it. Just a quick overview, it's originally it's about 30 40 year old drug that was originally designed to be a de wormer, it's easily available in horse de wormer for early in the pandemic.

People thought it might have antiviral properties and could be used a prophylactic to help you stop catching covid, those claims were never really backed up by evidence.

But there was also this idea in the long covid community that its antiviral properties could help knock out any continued viral persistence that might be driving all of these symptoms.

And obviously if you're just trying to put band AIDS on all of your symptoms with various different treatments, why not knock them out at the root. Right, so there's a very strong logic for trying whatever you might be able to that could have antiviral properties. So a lot of long haulers who I knew at the time.

So this is 18 months ago or so we're trying over met him and I did too. But unfortunately I had a very strong reaction to the drug acute piercing ophelia essentially and this manifest and I went to the hospital and they admitted me for a week and it was really quite severe. My I pretty much lost all of the well top middle and almost bottom layers of my skin came off and I started to dehydrate massively because my fluid was just coming out through what was left of the skin.

– It's even Stevens Johnson's I mean – It's more like dress so a drug reacted. – Yeah. Right. Right. But that's a very rare. I mean you know – It's a relatively rare complication. Yeah.

– Of it's very rare. I mean yeah because I mean you know because I have not seen even seen and I mean yeah that that is extraordinarily rare. You are yes unlucky on on that part of the lottery because no really I mean there's been you know what for it's re portable and that's the thing we have.

Have you seen this reported many other times in the literature because I looked I haven't seen. – So if you look up the side effects of ivermectin you can see they do talk about having swollen glands and they do talk about some of the other things I was experiencing.

So like my inguinal sort of lymph nodes swallows like golf ball size. Yeah. So there's a few things like that are there in the in the information around I've seen I just had a very extreme reaction.

But again this is what happens when you take medicine into your own hands and it's unfortunate that so many of us as long haulers were doing this sort of thing because most doctors weren't really able to offer much help. And that remains the case now, actually. So it's such a complex landscape when it comes to treatment. – Yeah, I just wanna say because we, you know, many, many, many, many people who were interviewed on this on our program, you know, use quite a bit of I've ever met in.

You know, and with good response, I mean, again, we're not, I don't see a lot of people cured, but a lot of improvements with low doses of ivermectin.

And it's just one of those things and, you know, it's very hard.

Treatment landscape: supplements, antihistamines, and prescription options

One of the worst parts about covid is I feel like I've been crucified when it comes to what should be medical science, you know? It's it's like, you know, the the anyway, so I don't want to digress too much and take up our time.

But it is terrible in that there really is that the science has become so politicized on on both sides to a point of insanity. Okay. Where people who who believe that the best thing in the world are that scenes won't look at any at any examples of vaccine injury.

And the people who believe that vaccines are the devil's workshop won't look at the fact that how many lives they have saved. And it's it makes me nuts because both sides are right. You know, that there are many more dangers to this vaccine than they had. I mean, then when it was then they allowed us to think about in the beginning. Okay. But it still is life saving for the right people at the right time. And and we can't seem to get that conversation going. It's just one way or the other.

I'm sorry. Small discretion, but digression. But and I've ever met in is stuck in the middle of that same thing is not

something that is going to make you bulletproof to covid.

But like clinically we have seen it do amazing things. The problem is as doctor who I sometimes want to strangle, but he's absolutely right on this one. The plural of anecdote is not data.

And that's and I have to say that's where we have a lot of but anyway, so other than that almost killing yourself with, I remember where else have you been?

– So, I mean, I've done lots of stuff. I've got a list of stuff here. So things which I okay, you know what before I start saying what I've done? I'm gonna actually try and break down the whole of the treatment landscape at the moment and maybe as at the time, which I do that I will sort of talk about the things I've tried.

So let's start and I'm going to break just for context. I'm gonna break down our treatments into the things that you can just walk into a pharmacy and get over the counter and then the things that you might be able to expect a compassionate, understanding GP or doctor to prescribe for you.

Then there are some of the let's say punchier medications that certain specialist doctors might offer, or slightly more medications that certain doctors might give you off label for example.

And then we'll go into some of the sort of more holistic treatments, some of which can actually be very effective. So if we start off with what you can get over the counter, I mean the biggest sort of topic here is supplements and I won't go into supplements because there's 10,000 of them.

And the way I look at supplements is essentially take the basics, you know, vitamin C, vitamin D, iron, zinc and the rest of it. Right just in case. But fundamentally unless you happen to randomly plug an existing deficiency that you didn't know you had by chance anyone. Random supplement is not necessarily going to be massively, you know, horse changing in terms of this, however, there are a category of potential supplements you can talk about here which are the enzymes and when I talk about the enzymes I'm talking particularly about not tokens lumber case and serra peptides and these have become quite popular recently because of their notional clot busting properties which are particularly relevant in view of the light of the discovery of micro clots. Now of course the micro clots discovery needs to be replicated in more places but I believe that's happening right now.

There's a bunch of latin America whose seem like they're finding very similar things to Pretoria's team in South Africa. So micro clots, if we assume that these are a real thing, which they appear to be, then we want to try and do something about them.

And these enzymes do appear to be again somewhere between your plural of anecdote into data. There have been some twitter polls done which showed that the majority of people are showing in improvements on them and do get along quite well with them. So again we need proper studies and I can say this for literally everything I'm going to talk about in the next few minutes.

We need proper studies. But those enzymes are a promising interesting form of something that you might not be able to get from your pharmacy but you can order online and they'll turn up you don't need a prescription.

What else? So things like probiotics? Probiotics, there is a little bit of data for we've got a small R. C. T. In the UK that found a particular combination of probiotic actually improved long covid symptoms and given that the gut seems to be implicated in long Covid Worth doing whatever you can on that front and probiotics generally don't hurt. What else? Niacin.

So this is nicotine IQ acid may help your metabolism may help energy. The data we've got on this is some data I collected that showed a statistically significant effect across the group of 800 long haulers.

But we haven't got any studies beyond that at the moment. Again if you start off on a low dose is there isn't too much to worry about that. – Did you compare it to the mm the N. M. N.

Or the N. R. the – Nicotine hmeid versus yeah very different forms. So it seems that I haven't personally done that comparison of people taking nicotine. I'd versus but the doctors who I know who did the original research and hypotheses around this think that the nicotine acid is slightly more effective than nicotine. I'd but they both help.

And it's about the way that you basically you know create the precursors to generate the N. A. D. Plus which is helps make a teepee which is the body's fundamentally. So what else can you get over the counter symptomatic relief? So things like ibuprofen potentially If you're having a crash ibuprofen is an anti inflammatory may well make you feel better but more importantly aspirin. So a lot of people taking low dose aspirin now.

So sort of baby aspirin sized 75 mg a day and again it's an anti coagulant and helps compensate for some of this sticky blood that we're seeing in many long haulers.

So that's the over the counter category. So what might your doctor or gp prescribed for you? Anti histamines is probably the first place to start. If you've got a sniff of the idea that you've ever previously had any allergies or asthma or you know asthma try and get some anti histamines out of your doctor. If you can't get me out of your doctor then go and get some from the pharmacy. But the ones you get from your doctor fexofenadine for Motor Dean are probably going to be a little bit more effective.

What else might they give you if you're really potsie? So – I realized for Americans those things are over the counter – Oh really? can you get ready to deny think got taken off didn't it?

– Yeah you got taken off but Allegra Claritin and Zyrtec and Pepcid is for Modine. So you know you can get Pepsi over the cancer low dose you can get over the counter. – So that's pretty good.

Yeah so if you're suffering with disorder. No mia and particularly pots which is postural Ortho static tachycardia syndrome. Your heart rate shoots up by more than 30 beats per minute when you stand up. A good doctor might be able to give you either some beta blockers or perhaps I've Aberdeen or middle green.

So there's a few things that doctors can do for pots. Master sorry just jumping back down to histamines, mast cell stabilizers is another thing that they might be able to give you. So Cromelin Ktt fan.

Monte Lucas might also be helpful there and if you're having an acute flare corticosteroids. So I had when my skin was at its well I mentioned my skin. One of the things I experienced in my early long term a journey horrific inflammatory skin to the degree where just moving was agony and any sort of touch was stung horrendously. So I went to, I actually went to a dermatologist, private dermatologist and they gave me a course of predniSONE alone and that calmed everything right down.

Other people who may benefit from this if you've got real breathing difficulties as well in terms of shortness of breath then of course the steroids might help you there.

Again that's a discussion with your doctor. There is an interesting conversation to be had about trialing a low dose of predniSONE alone say early in a long covid journey on a group of long haulers who are early and seeing let's say you take five migs prayed for two months.

Does that nip it in the bud. That would be interesting. Again. – Yeah Dr. Mobeen, Dr. Been as they say has has long felt be helpful for people early on low dose.

– Yeah. And again the reason why people tend to feel better while they're on the steroids isn't just the anti inflammatory effect but also the the court is all effects. And one of the things it seems like it's going on in long Covid is these exhausted adrenals and low cortisol levels.

As we've seen. Being one of the strongest predictors of long Covid is actually the low cortisol levels. And that was found by Akiko Iwasaki and her team at Yale. So yeah, there's there's reasons why some of this stuff does seem to work now if we move into my punchy category, so we'll start with medications and then we'll move into invasive therapies.

So let's start with one that people in America is America probably familiar with. And this is Dr. Bruce Patterson and his work. So he is a consequence of doing his side panel. If it seems that you are suitable, then often he will prescribe more of a rock which is an anti retroviral drug designed to specifically target some of this these high cytokine levels and a statin.

Often pravastatin and then sometimes something else as well. But it's you're not necessarily going to find other doctors prescribing you this. It will probably only be Dr. Patterson and his team unless you get a consultancy with Dr.

Patterson and then he, you know, refers you to another doctor if you live in another country but generally speaking that's not a widely accepted treatment yet.

But it is an interesting one. And there are some early promising results from studies that he's done. I don't know if you can talk to this at all. – Yeah. Well just that again, it unfortunately when you get to the area of chronic illness, something that doesn't get better in the first few months, I my favorite expression is everything works sometimes because again, this is your individual biochemistry. And yes, you can, you know, if those cytokines are elevate, you may get a very big benefit or you may get a very small benefit. It depends what else is happening in your body.

You know, I do use Dr. Patterson's panel. I think it's useful. I don't unfortunately, it is not a panacea, I mean, but you know, I said Dr. Patterson like many great people who um see new things, they sometimes fall in love with what they see and but that's good because they need that energy in order to bring it out to the rest of us.

Okay, so I don't disparage it at all. I think it's really important to remember that when you discover something, if you don't really fall in love with it, you're not gonna put the energy in it to get it out to the rest of us.

So we just have to accept things with a little bit of a grain of salt, but not throw it away just because they're over there may be more enthusiasm than the rest of us. Indeed. – So here's another category of treatment which lives in this category. And that is blood thinners or anticoagulants.

So these are being prescribed by certain doctors. And I guess the challenge here is what kind of indication do they need to be able to prescribe this because there isn't yet a widely accepted kind of blood test for this sticky blood.

But there are all sorts of sort of bits and bobs of circumstantial evidence, but it's not like your d diners coming back, you know, high or anything like that. So it can be difficult to get hold of blood thinners. The kinds of drugs are being prescribed here.

Things like clopidogrel and picks a band but also have anti platelet properties as well. To calm down what appeared to be these hyper activated platelets which are part of the problem. There was a Tunisian study that looked at solar deck side, which is a type of heparin and that showed efficacy in a group of long haulers, river rocks, a band, which is another blood thinner is going to be trialed in the UK relatively soon. In a big study here, there are a few concerns that if you just use a single blood thinner, that might not be enough to make the difference and you might need to use a combination. But as we get more and more evidence.

Hopefully we'll start to see a bit of best practice come through here. But again, we need to have more evidence of the clotting and we need to have easier indications to show that patients have this problem to actually enable these treatments we prescribe because they do come with risks. Unfortunately catastrophic potentially – That's the big thing is we need the better test to know who to pick because right that is the downside. It's one thing when we use some of the platelet medications people will bruise they usually don't bleed.

But when we start using the the the stronger blood thinners the ones that really will cause bleeding if you get hit on your head we got to know what we're doing a little bit.

– So here's another drug that lives in this category. Bit less risky than the blood thinners. And that is L. D. M. Or low dose Naltrexone. So this is something that's become quite interesting recently.

Naltrexone is usually a drug given to drug users and higher forms to help deal with opioids. But at a lower dose. So like 10 percent of the kind of dose that would be given in that usage it seems to have it does seem to have a positive impact on the hyperactive immune system at some level in terms of calming things down. But it seems that there's only a proportion of people who respond to it. Some people respond really well to it other people. It doesn't seem to do anything at all.

It's one of those things where the risks of taking it relatively low and if you could find a compassionate prescriber It might be worth a go. I don't know if you've had any experience of this.

– Yeah. No we've been using that for 25 years. I mean it was developed you know I mean blocking on the doctor's name in New York started using it with AIDS patients but and then went on to M. S. patients. But it is one and at this point rheumatologists in America are using it. It's really been such like the last five, I don't know five or seven years, something like that.

More advanced therapies: blood thinners, LDN, and antivirals

Suddenly they came on board and so it's it's worth trying the side effects you know generally are minor and quick you know so I can't remember anyone who's ever had a persistent issue you know So if they feel you know if you feel bad with it you stop it and it's gone. I mean the things that I don't like to try are things that the bad side effect less. – Yeah. And usually with LDN I think you titrate your way up as well you start – Yeah if you're sensitive, started like a half a milligram and work your way up to the 4.5 and some people go a little higher. And I said the rheumatologists are pushing it higher but it is when it works it's so amazing that it's definitely worth a try.

– So here's another one. I don't know if you guys have used this much mistakes, but culture team, which I believe is a gout medication and this occasionally.

Yeah, yeah, yeah. So again, there is a little bit of evidence to support this, but we don't have huge numbers on this yet. And again, it just doesn't seem to be a miraculous treatment by any means.

Do you have anything to add on this one? – Just again, it's useful for some people, it's a a neutrophils stabilizer on a lot of levels. And you know, again, if you take a lot of it, you have to watch your white blood cell count.

But generally a safe diarrhea is the most common side effect, you know, and it's probably worth the try if there's a lot of inflammation and pain. – Interesting. And here's one which I believe has been added to the big recovered trial in the States. And that's packs loaded on the grounds that, you know, could this potentially knock out that viral persistence that might be causing everything now on the plural of anecdotes, multiple anecdotal level.

I know a bunch of people who have tried this long haulers and it all of us, I think kind of the reason why I'm stuttering here is because all of us wanted this to be the magic bullet, right? Yes. Suddenly we've got this perfectly designed drug that kills the Stars Club to virus. Why don't we take it.

It knocks out since we get better tomorrow doesn't seem like that's the case. I await the results of the recovered trial with great interest, but I don't hold out a huge amount of hope here just from what I've seen in the community.

– Yeah. I also hope in fact, I want to make sure before we end, before we run out of time that we do talk, I'd love your take on this question of viral persistence, pieces of virus persistence. You know, this is another one kind of like the vaccine issue that I'm trying to get a handle on.

So we want to make sure we cover that. You've done a lot of interesting work there. But you know, the issue I have with the pack Slovin is that it's a little bit like, you know, Remdesivir in the hospital in the beginning, it turns out Remdesivir is a very good drug in the 1st 34 days of infection. It works great.

It doesn't do anything in the second week. Okay. Yet they spent a billion dollars in the States using it. Okay. I mean, and anyway, this is the pharmaceutical, you know, industrial complex. It's just that, you know, we can't get, you know, probably $10 million dollars to study the clotting issue, which is really, really robust and question and you

know, we throw out a billion dollars on a drug that totally didn't work.

I mean it does work, but at the right time. Okay, anyway, keep going. – Okay. Right, so moving on to the invasive therapies, we'll start with Stella ganglion block. So this is an interesting procedure that's used often to treat pain and chronic pain. And it's an injection of anesthetic that's guided via ultrasound, usually into the net.

And the idea here is that you're essentially trying to reboot your autonomic system. That's right. It's like a hard reboot. The idea being that if you've got all of these disorder gnomic symptoms, maybe you can just reboot the autonomic system and then you get better and it does seem again and plural anecdotes. People are finding their symptoms are improving after this but it is an invasive therapy although it is said to be safe.

But we don't have huge amounts of data beyond the couple of case series, Very small number case series, I believe on this. Do you know anything about this Eric – Yeah, I have I stopped doing things like that years ago when you do you need an ultrasound which is good because you really should be doing it under ultrasound guidance.

So that's the most important thing. You want to make sure who's ever doing this is really experienced. It is simple and safe. But you're in an area you're putting a needle into an area with lots of very important blood vessels and other nerves. So you really want to be careful, there's multiple ways of doing it. Some people are with tissue factors and exorcisms as well as just and again, like you say, in some people it works really well. But in I might I have not I have not been overwhelmed by the success rate and I think has to do with intention intentionality.

I think if you go into something like this with a very strong intention that this is going to help and heal you the quieting down of your nervous system at the same time, I think will really take you far. And I don't want to really want to listen to you, I'm talking too much today, but I just want to say intentionality is the ignored most important thing in the world. Placebo is not placebo, placebo, is your body actually healing. Okay, this is good stuff and you know, and when we try to take out the most powerful force we have to heal in order to do a study, I think we do a disservice. But anyway, that's another long story. – Yeah, but I completely agree and I think your your context on this is someone who's used these treatments is also really important because it's really nice because I can talk about from the patient perspective and what I see amongst the community and then you can talk about it as someone who's you know, – Both ways because that patient, that's the day that we really need is because, you know, at least my anecdotes are very limited, at least the patient community, there's more of them. And I still think you do reach the point where anecdote does become a little bit of data at some point eventually.

– Yeah. So what less than my left here? So Apheresis, So plasmapheresis help apheresis. So both of these essentially involve you being strapped up to a machine having Big needles plugged into both arms and then your blood volume taken out of one arm, gone through a machine and put back in the other.

But having been filtered in the process now, help apheresis was designed to essentially filter out high levels of cholesterol. It's been around for almost 40 years, plasmapheresis filters the plasma. I'm not actually quite sure what plasma is trying to cut out, you know? – Yeah, well, basically proteins and antibodies and antigens, you know? – Okay, so it's actually going, Yeah, I mean, so the idea that gets rid of that right now, the idea with both of these, the useful on covid is that you're trying to essentially either certainly with help Apheresis, you're trying to cut out the clots and you're trying to get rid of this excess fiber in which is generating these clots and actually clean your blood and then with the plasmapheresis it's about trying to remove perhaps some of these autoantibodies which may be causing some of the problem results with these are interesting but the treatment is expensive. A lot of people respond quite well to this in the short term but over the longer term find their symptoms come back because perhaps the cause of the clotting hasn't ultimately been resolved.

So that's the key thing here is how do you resolve that? It's expensive. – What what? But this goes back to what we were talking about before is these things need to be combined. Okay.

Unfortunately we have a medicine is so siloed is so you know that that the people who do plasmapheresis and the help apheresis often that's you know they're focused on the let's remove the clots, let's remove the antibodies but they don't do the things that we might have to do to remove the triggers. And that's the hard part.

And that gets back to the issue of how much a spike protein. How much is there? Is there you know replicating virus hidden somewhere in some hidden site in your body. So talk a little bit about the because that to me is like the big issue. – Let me get through the treatments and I'm running out I'm getting so IVF so I'm talking about things like vitamin I. V. S. Or ozone ivy or N. A. D. I. V.

Again these seem to give people a bit of a boost but they're not curative and not really going to resolve anything bees C double 07. So Berlin cures developed this treatment that takes out a certain kind of auto antibody now so far it's been talked about hugely within the community. B. C. Double 07.

It's in Germany. I don't know how much the American community knows about this but in Europe it's a big thing but only three people have been treated with it.

Those three people made complete recoveries very quickly although one subsequently relapsed. But the problem with the 07 is that it needs a huge trial to get funded before making love to roll it out and that just seems to get delayed and delayed and delayed and it still hasn't started to my knowledge although it should be soon.

But we're not gonna be getting results from that for at least a year. I don't think so. Don't hold your breath promising but don't hold your breath. There's also something happens in Europe called immune absorption or immune absorb or whatever they call it in German and again this is about trying to filter out essentially auto antibodies again reportedly reportedly with good results but it costs tens of thousands of euros.

So you know, are you willing to roll the dice on something like that when the data is so scarce. You know, and that's why all of these treatments exist in this category here. Of the punchy short of evidence potentially and certainly the invasive ones are do you want to be sticking things in you – You know as a great a great believer in I.

V. Vitamin C. And ozone? But again but curative early on they can be I think very early I've seen people turn around the first few months Later on helpful. Again it depends what's in combination in combination. You know that's where the plasmapheresis I think you know but again it goes to this point we have if we don't deal with what's underneath you're only going to get short term relief. Okay but plasmapheresis removes a lot of inflammatory products that keep the system up regulated.

But again so let's keep going. – So okay well I'm going to move into the sort of the more of the holistic type treatments and you said about the body being up regulated. A lot of these are designed to down regulate some of the problem. But before I get into some of those I will mention hyperbaric oxygen therapy which again can be a very effective part of a combined approach. Again here essentially you are lying in a pressurized chamber breathing through a mask and that oxygen is being forced deeper into the tissues. Logic. Again here being that if your oxygen isn't getting to the tissues because of block capillaries and sticky blood then actually hey presto and my experience having done quite a lot of hyperbaric oxygen is that definitely feel better? Definitely. The trick is how do you make those benefits last because again have you really resolved the problem?

So this is where I think it comes in as a part of a systemic approach towards trying to make a bunch of interventions at the same time that hopefully can tip you over a point where you can actually make a significant jump, you know, in terms of your baseline.

Invasive and supportive treatments for long COVID

What else exists in this sort of territory? So, cryotherapy is a very interesting sort of development as well. There's different forms of how you have cryo.

There's a study happening at the University of Innsbruck happening at the moment, looking at cryotherapy directly on long covid. But again, the idea here is that you are shocking. The body with this incredibly cold air on the skin and again, essentially trying to stimulate a bunch of blood flow, but it also sort of reboot the autonomic system at the same time.

I feel when I do cry, I feel a little bit like I do after hyperbaric oxygen much better on a temporary basis. But put a

few sessions together along with a few other lifestyle changes and you might actually help kick yourself up.

Not sure two or three even. And then we've got things like acupuncture. Some people have great acupuncturists and find that they can improve a lot after a few sessions with them.

Herron technique is another interesting one. I don't know if you have practitioners in America, but again, this is sort of lymphatic massage. The idea being that you're essentially a very specific way of massaging the link from the tissues that gets all the crap basically out of the system and how helps again down regulate some of this once you don't have all this inflammatory pressure.

And then we've got things like cold water swimming, vagal nerve stimulation, infrared sauna and red light therapy and things like yoga. Now yoga, I think it's important to do a program that's designed to be very gentle, not sort of vignettes a level three that's not wise, but something that's very gentle and helps the body gently find its way into a relaxed state.

And this is, you know, for me just sort of to round off all of these treatments. The single thing that I think people should do over and above looking for the next magic bullet is try and work out what helps them calm the nervous system down.

And everybody's a little bit different here. But there's a few basics breathwork stopping removing emotional stress is trying to get out of a hectic environments if you possibly can. And creating an environment where you can yourself just not just physically, but also metaphysically go because I think trying to interrupt some of these vicious cycles which are going on in the system can only really happen when we stop the system itself, throwing more fuel on the fire, which is what's happening when we're in this chronic state of fight or flight.

and that's kind of what we have to get out of before we can start the recovery journey, we at least have to try and create whatever windows of calm we can in our day, try and continually build on those. And that's where I the people who I have seen recovered are the people who've done that successfully, doesn't mean that that's a guarantee to recovery, but I think it's a precursor for most people.

– Yeah, no, I think you're I agree with you 100% you know, the in order to heal you have to have a sense of safety on the cellular level, okay? Especially when you're dealing with an inflammatory process. I mean, I know whether the bug is there or gone, it doesn't matter when the system is stuck in inflammation, that's fear.

And I refer, you know, one day I'm gonna have to try to get a small vignette with Dr. Navia just to talk about this, the healing cycle of the cell danger response.

But the idea being that it's at the cellular level, it's at how your mitochondria are reacting is what's creating um self defense, which is there to protect you. But if you stay, you know, protected all the time, you can't heal, you know, because you isolate each cell is isolating, it's not listening to the others to the other spells in the body in a harmonious way. So you stay in a bit of chaos.

Okay, so you need to quiet down because relaxation is a high energy state. That's what people have to understand, is that it actually takes more energy to relax than it takes to stay hyper. Okay. It's the opposite, you know, when you close your fist like this, that didn't take any energy, this takes energy, okay. And it's just counterintuitive, but that's how the system works. So if you can't relax, you're not gonna have the energy or the proper foundation to let healing happen in your system.

Okay. So I talk too much there, but it's all very inspiring. – But I think on a fundamental level, it's also about inflammation and that seems to be a constant thing with long covid.

And how do we manage that inflammation? Well, if your body is in flight or flights, you'll never actually yourselves are never recovering. Your body is never regenerating properly, you'll never digesting your food properly.

And all of this is stuff that leads to information as well as the immune system hyper activation that's going on the

whole time. So, yeah, it kind of all has to start there, but it's a hard place to get to.

It feels so unnatural. It can be really painful getting there and that's what people underestimate, I think. – Yeah. Yeah. No, no, I mean, I'm always amazed because, you know, I have trouble taking care of myself when I feel well.

And so it my I'm always amazed at the strength that people have to keep going when you know, they feel miserable. You know, I mean my heart goes out to people who have to struggle with this.

But you know, you have to get to and one thing I say, the hyperbaric by the way, like almost every therapy at its heart it lowers inflammation and that's what's doing. And I'm blocking right now.

We have we I interviewed Dr. Harch who's one of the sort of the, one of the fathers of hyperbaric therapy other than for the bends in America and and he he makes he really lays out carefully the difference between the effect of what he thinks pressure, the high pressure does and the oxygen and how you don't often really need much of either to give the body the signal because just the way when you know, you have a low pressure front come through like before a storm and you ache if you're inflamed and high pressure air makes you feel better.

Okay, It's just they actually, you know, we are part of this system and we, our bodies respond to every part of the environment, you know, as you were saying, So you have to have a healthy environment.

But enough of me so tell me about your view of what you have. So from talking about some really interesting people, what have you found viral persistence, you know, piece of virus persistence, spike protein.

– So again, this is a really, this is, in a sense, the massive elephants in the room and we don't, at the moment we have a huge amount of circumstantial evidence that is pointing towards viral persistence, but we don't yet have a smoking gun. And this is the perpetually frustrating thing about it. And this is the biggest answer that we need, or the question that we have and the answer that we need to be able to work out how we develop therapeutics. Now, we have evidence for, you know, all sorts of whether it's talking about a lot of the evidence where I talk about circumstantial evidence, it's about finding bits of this viral debris many, many, many months after an initial infection. And this is either found in biopsies or install samples or an autopsy's a very scary study or potentially scary study recently published in nature literally this week did autopsies I think on 40 odd people and found high and these were people who on the whole had died because of covid. So very severe acute infections, but there was widespread virus in the brain and in the nervous system and this is the sort of thing that we sort of desperately hope doesn't happen with mild infections, but short of getting ethics to go and euthanize 20 long haulers and look in their brains, you know, we're never really going to find out.

That's the problem is that it's the smoking gun is almost impossible to find unless we start chopping people open in an unethical way because anything that the body is shedding at the moment appears to be debris. We don't yet have that nailed on indicator that says, yes. You know, here we have virus in the appendix or the lung tissue or the guts or, you know, or even, you know, spinal fluids or wherever. Right. It's, but let's just, take this sort of sort of thought experience a bit further.

Let's say that we do find that there is a degree of viral persistence and let's say that it's in the appendix or something like that, you know, the eyeball or the testicle or somewhere that's difficult for, you know, things – The immune system doesn't get as fair as well.

– Yeah, exactly. – Called immune protected areas. – Yeah. So apparently immunologists actually are a bit touchy about this subject now because the immune system gets everywhere actually, if you look properly, but still – Not as much of it.

Yeah. Yeah. – So let's say that it is there, I guess there's a couple of questions that come out of that, the first of them is, does everybody who's had Covid still have this persistent virus in them.

And it's the only difference in the long haulers that we're the ones reacting to it because of our predisposition to whatever factors that means that our immune system is that little bit more trigger happy if our system is that little bit

more trigger happy than that might set off a cascade of symptoms and a vicious cycle that generates long covid symptoms.

Does that mean that rick to in order to recover, we need to wipe out the virus? No, not necessarily not. If people who have had the virus and don't have long term symptoms still have the virus to what we have to do is to calm the body down so that we cease responding to the virus, right? Because they're, you know, medical history is littered with, you know, I don't want to say dozens, hundreds or thousands, but so many viruses that can remain latent in our bodies, They don't necessarily all have to create symptoms.

So the idea that there is persistent virus with long covid isn't necessarily a disaster. Even if we can't develop the therapeutics required to eliminate that virus or to find it or whatever, we just have to stop the body reacting to it.

Because the idea just before I finish the idea that only long haulers would have persistent virus and people who clear the virus don't or people who don't, sorry, people who don't develop long covid symptoms are acute infection don't I find that to be less likely than some proportion of everybody retains a bit of the virus hiding around somewhere and we're just the ones who react to it.

I think that's more likely. – Yeah. Well again the persistence because this is an RNA virus. I mean there's been a few of them have been found to persist a little bit. So obviously they can do it.

You know that was the argument in the beginning is that no RNA viruses don't persist but we keep finding that some of them do. So this very well could be.

And I'm inclined to think that you're agree with your logic because we treat a lot of chronic Lyme disease and I can I see that there are people who have good evidence of of of lime but their bodies it's the reaction to the line.

Okay you know it's that's the issue. It's the fact that it's a little bit like the the the D. N.

Viral persistence, spike protein, and recovery strategies

A viruses the things we know that persists and stay in your body, the Epstein Barr and the H. H. Six and the cytomegalovirus and they're in everybody almost.

And yet only some people have problems because it's their own immune systems failure to either keep the virus down or mitigate your over response. Because it can be either way you can be still fighting the virus or you can just be making a lot of inflammatory noise because you think you see the virus – And this is where viral debris may be exactly the same as viral persistence in terms of actually creating the symptoms.

What's the difference. The difference is it's not necessarily that the virus is in our bodies rampaging, destroying cells. Like it was an acute infection, it's our body responding to a stimulus in a very troubling way. Yeah, – Yeah, well that's what comes up the spike protein. Because remember what kills people with Covid isn't that first week when the virus is replicating crazily?

It's the 2nd-3rd week when your body is is reacting crazily. Because one of the things the virus does is that it doesn't let the initial immune response be as effective. And that throws it just throws off the symphony of the synchronous synchronicity of the, of the immune responses.

And so you wind up with inappropriate what we call innate immune system happening later on when it should have quieted down by now. So God, so I'm sorry. I got lost on that thought.

– But that's fundamentally a version of what we could be seeing in long Covid is the body basically having gone haywire as a result of this virus that is kind of unlike anything we've ever seen before. Bar perhaps stars one.

– Yeah, yeah, because that goes back to so we do have to wrap up, I could talk to you I think all day for sure. At least for a few days. But the spike protein itself. Any I mean that's something that I mean like people were talking

about just the persistence of the spike protein because remember, is that this is one of the things that gets me upset with the vaccine community is that when that came out they were so emphatic that this spike protein was gonna last hours days and be gone. Okay. That was the sales pitch.

Because I mean and I told other people I had patients who were concerned that it was going to persist. And I said oh no, they tell me it goes away turned out they were wrong. So any thoughts on the persistence of spike protein – Other than it's a very high probability that it's there's still a distressing amount of it in all of us.

But what can we do about it? It's one of these things where the only thing we can do is change the way our body reacts to it and try and let whatever natural clearance our body has do it. But I don't think, you know, I can't go down to you know, whatever the local pharmacy is and say oh I'll have that anti spike protein pill please.

I'm not aware even of anything sort of naturopathic or anything like that that potentially clears it. You may be more informed than me on this part. – Well we're working. I mean people have ideas.

Dr. Merrick and Dr. Sayeed have you know written a little bit about this you know using just simple things like increasing auto auto fashion, you know, getting your own cells that are infected too because if they kill themselves in in the appropriate manner, it probably destroys the spike protein just like that.

When Bruce Pattersons idea of getting the monas site that has to retain spike protein to stop sticking to the vascular wall when it starts floating around again, it gets the normal signal to kill itself and then the spike protein is finally destroyed in the in the process. I mean that's that's kind of the thoughts the you know, thoughts that again, the nano Aquinas alum broke.

You know, those things may help as well and there's a few others that I think Dr. Parpia who's co hosting with me is gonna do a little webinar on. I'm just like you know what to do to get rid of the spike protein.

But you know, intermittent fasting things that will will produce auto faggy might be good. And in fact your cold therapy, I mean perhaps that you know, any kind of things that really stress that that that horse mrs when you stress the body, you wind up killing the weak cells.

You know I mean and that's where the plasmapheresis might help. Number one, it might remove, it probably removes some of it, but number two it might remove the other chemicals signals that are keeping your immune system from finishing the job because most people do remove that spike protein, I believe, you know better than others.

But this is again science. Not yet. – Yeah, yeah, we're not there yet. – I mean, I like you you're getting my strongly held opinions and I wish I could say this was like, okay, take this to the bank. But no, not yet.

– I have a slightly controversial take on the auto thing and the intermittent fasting side of stuff. So I think this is something that again, the community's got very excited about. Some people respond very well to it.

The reason why they may be responding well to it may not be, there may be a degree of water going on, although true water Fiji can take days of fasting before you actually get to that point. But what people don't necessarily realize is that eating and digestion can stimulate the sympathetic nervous system.

And what happens when people are in this highly wound up state of disorder? No, me eating actually will trigger those symptoms because the body then goes back, it's sympathetic. The heart rate rises.

The symptoms start again and by not eating the body is able to fall back into a quiet parasympathetic thing. And that's why you're feeling better whilst you're in that state for longer. And perhaps if you can do your intermittent fasting for a period of weeks or whatever your body is spending more time parasympathetic and ultimately, that in itself is helping you to actually heal and recover.

It's not just the auto Fiji, it's also the management of the autonomic system. – I'm you're probably I mean I'm sure

you're right. You know, I mean like again as we we talked about before we went on the air, the health illness, it's so complex the body is doing, I mean we're doing a trillion things at the same time all at once.

We're one big suit bag, you know, I mean there's no autonomic nervous system, there's no immune system that we just broke them up so we can talk about them.

You know, we have to break things into pieces to understand them and we forget sometimes that they work all together. So I am sure that whatever people are doing with intermittent fasting is having multitude effects.

And especially again it goes back to that thing you're trying you are engaging your will. And I think one of the things that illness does is it can destroy the will maybe not destroy is too strong of a word, but can really mitigate your ability to focus your energy because the energy is so low. But you got to keep going back there because that's where healing starts in your own being.

– I couldn't agree more. And this is one of the things why long Covid has completely flummoxed the medical establishment because the increased silo ification of specialization of all the different parts of medicine has left it completely inadequately equipped to take on the condition that says multi system, multi factorial, multi organ. As long covid.

– Yeah, I have to say my little spiel one more time medicine treats acute illness. It does a fantastic job. You know, roll over. I mean like behalf dead and wonderful.

But three weeks after that when you're recovering medicine is lousy. Okay. They have no concept of what to do to help you heal. Okay. They great and prevent you from dying.

Okay. And so we're working on the rest. – Indeed we are. Can I make a very quick plug for my book? Which is of course. So one of the problems that I think long haulers have been facing in the last two or three years is that we have accumulated a lot of information about our knowledge around this condition, but it's so spread out all over the place that how on earth if you're relatively new to this, do you know where to go? What to look at?

It felt like we definitely needed a single repository that brought together everything that we knew about the condition from both the patient perspective and the establishment perspective. So myself and Professor Danny Altmann have written a long covid handbook, which is being, it's out at the moment on e book and audiobook on amazon and hard copy on February the first.

So yeah, it's a fantastic to have a look at the amazon reviews if if you want to see what people think about it, but very, very helpful for lots of people.

And even if you think you know everything, I bet you there's some nuggets in here that can make a real difference to managing your symptoms and having a better quality of life and increasing your chances of recovering soon.

– And the name of the book is just – The long Covid handbook. – The long Covid handbook. Okay, well, I will get a copy myself because this are helpful. And just and again, I just want to thank you for your work because really I said, I recommend everyone just, you know, go through. Just watch your your podcast.

I mean, they have so much rich information and you you're really able to get important information out of people. And so – Thank you. – Thank you. Thank you for your work.

And may you finish your recovery enough of this. – Thank you. – Okay. Again, thank you again for your time. And yeah, to your healing