

Persistent Pain

with Matt Wallden

30th July 2020

TRANSCRIPT

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Steven Bruce

Got Matt Walden in again. And Matt is so irritating that he is so knowledgeable and so bright and so willing to share everything. I'm just genuinely envious of the man. Matt, it's great to have you in the studio, of course. And I didn't mean any of what I just said that. Yeah. Lovely to have you back. And I think we've got some fascinating stuff to cover again, as usual.

Matt Walden

Yeah, I hope so. Certainly, I find it fascinating. And yeah, so I'm looking forward to chatting through it all with you. Yeah, for sure.

Steven Bruce

Now, just for those people who don't know you and there are probably a few around, like in the chiropractic fraternity or maybe new to this medium. You are an associate editor of the Journal of Rehab and Movement, Bodywork and Movement Therapy, are you not? You are also an osteopath of considerable experience. You've been on the show before to talk about a variety of things, the math of core stability, about the neutral spine, about gait and barefoot running. And in fact, we did a whole series of six or so programmes and they're all in the vault for people to look at and I recommend them to anybody. We're got you back today because, first of all, I thought I'd see how your opinion on pain science contrasts with that of Greg Lehman who we had in. And then also to turn to some stuff that we were talking about by email before about how the prevalence of pain seems at odds with the number of therapies and remedies that we have for it.

Matt Walden

Yes, absolutely. Yeah. Yeah.

Steven Bruce

Given all that, where would you like to start?

Matt Walden

Well, and what should we so we can start with Greg and, you know, my view of his work and because I think I think it's great. You know, I didn't actually see the broadcast on Monday. I tried I tried to dig it out from the files, but I'm not sure if it's up or if I couldn't find it, but Greg, I think is a really, really helpful thought leader in our world at the moment. He's, I think, what I've seen, and I've spoken to several people about this and they tend to agree, at least the people I've spoken with is that we've seen the shift of moving from a much more biomechanical postural model and looking at, you know, corrective exercises and that kind of thing, which is a field which I've really been involved heavily in, towards this pain neuroscience model. And, and it feels like, because there's been this pendulum swing that is almost gone, for some people, it's

gone, right the way to pain neuroscience, and they are suggesting that posture and biomechanics and all of those other things we've talked about for many years, are completely irrelevant.

Matt Wallden

And I think what Greg does well is he says, well, you know, okay, they're not quite what we thought they were, but there may be still some validity to looking at this, perhaps reframing it a little bit. And so, you know, I think he's probably started more in that pain neuroscience end and is trying to bring it back towards more of a balance and I've started perhaps more at the biomechanical side and learned a lot, especially in the last four or five years about pain neuroscience. So I've got to move on into that pain neuroscience territory with a lot of fascination because it is absolutely a fascinating field, but also some caution, because I think some of some of the leaders in that field are really pushing, like I say, right to the extreme of it to say, postures irrelevant, and biomechanics are irrelevant. And, you know, exercise, certain exercises, maybe core stability, that kind of thing don't work. And I'm kind of, well, that's not quite true. And the data doesn't quite support that either. So, and I think Greg's on a similar sort of trajectory. And so that's a sort of overview.

Steven Bruce

I tell you what, the reason I asked the question, of course, is because one of the things on Greg's website is that he's not he doesn't seem to be particularly keen on the neutral spine model, which you came in and demonstrate and talk a little about a year ago now. But yeah, and I wondered where you stand on that on that front.

Matt Wallden

Yeah. So you know, I think, interesting enough I first learned about neutral spine, around the 2000, 2001, through doing the check training and doing training with Diane Lee and doing training with other people like kinetic control. And the interesting thing about all of them are every single one of those groups that I just named, they use the neutral spine principle, but they never said that that's what people should be doing as an endpoint. They said, that's part of the process of rehabilitation, some movement skill that people should be able to achieve. And what we find through the kinematics and biomechanics research in low back pain is that when people have low back pain, they change, change the way they move, and quite frequently, they will be putting more load through the back and less through the leg. So, for example, you know, the hamstrings tightening up is a classic example. Many people with most people low back pain, get tight, tight hamstrings, for various reasons, of course, but what that means is when you flex forwards, well, now your hips can't flex as much. So, your back does more. And so there was a lot of the sort of rationale was to say, well, let's retrain the body so that we have this idea of a hip hinge, for example, well, that's teaching people to use their hips rather than their back. That's not saying that's the right way to move. And I think that's where the sort of misinterpretations of have come in, is, and then like I say, you know, when I first got trained in his courses in the early 2000s, there was a lot of disdain for people that have set up back schools that teach you to move like a robot, you know, everything's got to be done with a neutral spine. They said, that's

absolutely not what you should be doing. But the skill of being able to do something with a neutral spine is a useful motor skill that can be built into our movement repertoire.

Matt Wallden

But it's really a stage on the journey rather than a destination, you know. And so that's, that's still how I view it. And, you know, so what I've seen from the pain neuroscience and the kind of critiques of neutral spine is that primarily it's about, we should be able to move through all ranges of motion and not just be in this one sort of theoretical optimal position, which again, I totally agree with. And I don't think anyone at the higher end of kind of movement rehabilitation was ever saying you should stay in a neutral spine.

Matt Wallden

So the analogy that I think is helpful for people to understand here is it's like playing tennis, you know, so, a neutral spine could be seen as standing in the centre of the court in a good position to be able to move forwards for a drop shot, backwards for a log, go left or right. And then non-neutral spine is a flexed spine would be like standing right up at the net, okay? And that can be advantageous in some situations, but you've got more risk of being locked. Okay, if you stand right back behind the baseline, that's like extension, you've got much more chance that they're going to do a drop shot and you won't be able to get there. If you stand up to the right side of the court, it's like having right side bending, and you won't be able to get across to the shots on the left, you know, and vice versa, you know, so you can make that analogy. So, the ideal place to be somewhere in the middle, and that's a neutral spine. Right? It gives you the most number of options in terms of what to where to move and the least amount of stress to get there. So that that's the way I see the neutral spine concept. And I would say that, and yes, you know, it's not it's not the number one goal that for really, most of my clients, but it is something that I often will talk about as a component of where we're going and in terms of movement retraining.

Steven Bruce

Yeah, and I, I think, I think Greg is in tune with that himself. Greg Lehman. I come I come away from lectures or discussions with people like Greg, feeling slightly at sea, because of course, many people will say there isn't this one technique, this one thing which is going to fix your pain. It's a mixture of all of them. And it's the trick is to find out what, what works for you, the individual and what level of that works for you the individual, which is because we're all seeking certainty and we want to know so I've got to do if someone's got a low back pain. Yeah. But anyway, speaking of speaking of uncertainty, one of the things we ought to think about is there. I'm not going to put this up full screen. I don't think we need to. But this is this is image of Matt as a dog barking up the wrong tree because as it says here, we've got more pain neuroscience than ever before and better imaging techniques and more orthopaedic surgeons, more drugs, better drugs, more manual therapists, but more persistent pain than ever before, is what it says in the corner there. So, you're going to explain that to us I hope.

Matt Wallden

Yes. Yeah. Yeah. This was a bit of marketing that I did for you know, a tour that I did out in Australia and New Zealand earlier this year, just before the whole COVID situation kicked off. And so it was alluding to is that you know, what we see when you when you study the data on persistent pain, in spite of everything that we've got going on, and this is not say any of that on the screen is bad. I think it's good. But what I was saying is that if you look at persistent pain, it's still gradually going up and up and up, or, you know, slightly levelling out or, you know, so essentially, really, it doesn't seem that we are hitting the right mark. And so the question is, are we barking up the wrong tree? You know?

Matt Wallden

And I think perhaps we are, you know, I think perhaps we're being, although we're more open minded and increasingly aware of multiple factors that contribute to pain, and we're not necessarily well equipped at this stage for dealing with those factors effectively, you know, from things like movement and exercise and how those two relate to each other because they are slightly different, which is something we're going to talk about a bit later, but also things like nutrition, which is rarely considered in pain, neuroscience, although this again, there's some research starting to come out, and things like people's belief systems, which, again, they're being explored, but they're mainly being explored in terms of people's beliefs around their pain. I you know, do believe, tell me what you believe about this, this pain that you're experiencing, and that kind of questioning, which is conscious questioning.

Matt Wallden

So it's asking what they consciously believe, but there's a lot of unconscious beliefs, when you sort of look at the neuroscience behind behaviour, then most of our behaviours are automatic, they're programmed and they are therefore running unconsciously in the background. So my my, the question I was posing is, do we need to be looking at other elements, not just surgery and pain neuroscience, which is great, you know, and physical therapy and pharmaceuticals and so on? Or do we need to actually be bringing more into our treatment portfolio, whether that's us as individuals or us working in teams with nutritionists and psychologists and so on. So that was that was the kind of thrust behind it.

Steven Bruce

And can I just interrupt you for a second? I need some I need to report back from my team. I've got problems with my sound about me. I'll just change the settings on it because I didn't have anyone in the production booth because we're working remotely. So, can we get some feedback on my team on whether my sound was improved or changed or anything else, anyway, so back to you,

Matt Wallden

is good at this end. So, yeah, I mean, some of the figures are that some persistent pain affects about 20% of the global population.

Matt Wallden

So that's one in five people on the planet have persistent pain, which is quite extraordinary in terms of the numbers and that figure is growing. So that's, you know, kind of points to two things here. First of all, from a business perspective, that's got to be good for manual therapists. And that's a slightly flippant way of thinking about it. But the sort of more positive way is that there's so many people out there that can benefit from our help if we can get to them and get the messages to them and, you know, access them and make us accessible to them. So, you know, I just feel that there's no concerns with the amount of work that we have in terms of the potential there. But you know that those numbers that 20% of the population means that you've got more people experiencing system pain than you have with diabetes, cancer and heart disease combined. So that gives you an idea for the scale of it.

Steven Bruce

Is it a change? Have they actually increased? Or are we just now more aware of it?

Matt Wallden

Well I actually spoke with Dr. Nick Penny about this? And he said that there is a little bit of both that is occurring there. But certainly, the figures are growing, in spite of our increased awareness. So, it's not just us getting better at collecting data, but there is an element of that. And so, see, I think I think it's a bit of both but certainly there's still an issue with pain increasing and I think you know, a lot of that boils down to what people are eating, how much sleep they getting, how they are or are not moving, and, and this kind of idea that we crack on with our lives until something goes wrong. And then we seek an external inputs like a drug, or an osteopath, or chiropractor or doctor, an injection, whatever it might be to fix us, this kind of fixing mentality, which is what in the research is called an external locus of power, or external locus of control. So you're looking for someone outside of you to fix the problem inside of you. And really the pain neuroscience research is saying no no no no, we need to change that we need to create an internal locus of control. So, in other words, giving you the tools to get yourself better, whether that be nutritional coaching or movement advice or other lifestyle advice. So, what's where I think it's at, if it were.

Steven Bruce

Okay. So, what are we what do we do about it? How do we address this? How do we fix people or improve our outcomes, all the things that we're constantly seeking to do?

Matt Wallden

Okay, well, first of all, we don't fix people. First we, first of all, we coach people, mentor people. And of course, we can we can do so I mean, fixing is something that can be done is, you know, it's like the band aid kind of idea, isn't it? That certainly there's time for black band aids and plasters and various other things that support. That's absolutely useful. And manual therapy comes under that to some degree as well. But, you know, this is where I think I've got a slide on this where it's just showing the number of hours in the week. And, you know, Al Lederman talks about this in his paper, try remember the name of it. I think it's his was he call it something approach, a process approach.

Matt Wallden

So, in his process approach paper, he talks about this, but I've talked about this for years as well, is this idea that there's 168 hours in the week. Now, if everyone were to sleep eight hours a night, then you'd end up with a third as you can see there, where we can't really do much to support ourselves but sleeping itself is supporting ourselves to heal and repair and you know, balance our hormones and so on. So sleep is very much a key tool for helping people with pain. And should be encouraged. You know all the good sleep hygiene kind of concepts around avoiding screen time late at night and dimming the lights and getting out in the daylight during the day. All of that facilitates sleep, eating well, and so on.

Matt Wallden

So, so sleep is there, but then we've got this, this hundred, about 112 hours, where we've got an opportunity to help ourselves if we want to, and that might include treatment. So, I've put in two treatments there, which you can barely see on the actual pie chart because they're 30 minutes, right? So, 30 minutes out of 112. Two lots of 30 minutes. So that gives you 111 hours, where if you just are relying on that treatment based approach, well then you know, that that's you can just see from the sort of magnitude of the rest of the time in any given week, where perhaps you're not facilitating a return to function, that that's where your opportunity lies, okay.

Matt Wallden

And so that's why I've been so heavily into the idea of providing corrective stretching programmes and mobilisation programmes and exercise programmes and so on. But where I'm going with it now is not to say that we shouldn't be doing those things, but that those things still only occur, if we were to put those onto that pie chart. Well, you know, let's say you do an hour three times a week, well still leaving you out 108 hours that you're not doing anything towards your pain situation or your health situation. So, it's kind of moves beyond just pain, even though as we say pain is a massive issue for people and for their quality of life. And but it moves into health, things like you know, diabetes, heart disease, cancer, lymphedema, you know, there's so many different health conditions which are well documented now to be very effectively, I should say, this is this is another point we'll come to the moment. They can be effectively treated through exercise or movement. It is whether or not people actually do that exercise or

movement, that is the question. So, so it's really harnessing that that time that we've got in the week and doing it in a way that's not

Matt Wallden

Or maybe I should say that is that is accessible, you know, so it, doesn't it, if I were to give you, Steven, you know, an exercise programme, say, but really, you're to do this every day for an hour. Most people would say, gosh, how am I going to fit that into my schedule? I'm already, you know, flat out. So, what we're talking about here is not so much exercises movement or physical activity, and using movement as medicine. And so, you know, I've been working with a group, I mean, say working, we've been liaising for a number of years and I'm using their tool here, which is you might see me where in the past it's just an accelerometer, which essentially tells me if I'm moving here and gesticulating around, then it will pick up that I'm moving. Okay, if I just sit here with my hands rigid the whole time, they will pick up that I'm not moving.

Matt Wallden

That data gets fed into the their websites and essentially what it does is it categorises the amount of time you spend during the day being sedentary, which I spend quite a lot of time sedentary sat on my keyboard and you know, tapping away on, you know, writing or presentations or whatever. But then you've got non-sedentary time. And non-sedentary time is the sort of time we might, you know, as osteopath and manual therapists, that would be when we're treating, we'd be, you know, interacting up and around using our hands, so there'd be some movement, but it's not particularly intense. It's not particularly vigorous. So non-sedentary anytime, you know, doesn't just include stuff at work, but it includes things like washing up, you know, doing a bit of pottering around the garden, walking to the shops, maybe you know, those kinds of things, which essentially they wouldn't be classified as exercise, but they nevertheless are still movement. Again, the research shows that it's movement that is perhaps the most potent medicine, over and above exercise, and that exercise can be still helpful when people do it, but the challenges is getting them to do it. Whereas movement actually is easier.

Steven Bruce

So that thing that you're wearing, and how does that differ from a Fitbit?

Matt Wallden

So that's a great question actually so it's, it's quite different from a couple of perspectives. The first one is that this is measuring movements as opposed to steps, you know, so the Fitbit is really designed to move, and now you can change it by kind of going like this and trying to get your steps up, but this is specifically calibrated to measure movements of any type. So not this kind of arms swing thing, per se. And the interesting thing about that whole story is that the number of steps per day was actually a kind of random figure that was plucked from the air. So, it wasn't based on any hard science and it's been adopted by you know, healthy agencies and governments and so on, around the planet which is which is not bad thing, of course.

Steven Bruce

Isn't that exactly the same as the five a day study number. Well, that was that was a number that came out of a committee which included a representative from McDonald's of all things. And yet we take it as being set in stone, although of course that stone has moved a little bit, because now it's got to be seven or nine or whatever.

Matt Wallden

Well exactly, exactly. Yeah, I think it depends on which country you're in as to what the number of fruits but they could be because it depends. They base it on what they think is achievable for the population. So, the fact that we're on five a day, and I think Australia is nine a day, it tells you that I think the optimal I heard someone talking about this earlier this week, actually. And I think they were saying optimal was something like 14 or 15 pieces of fruit or vegetable. And but they know that that would be unachievable and would actually put people off. So, depending on which country in that they will tell you a different number of fruits and vegetables that they think is achievable for that population.

Matt Wallden

So yeah, so it's very similar to that in a way. In fact, you know, what all of the governmental recommendations are based on is exercise over and above an active lifestyle. So, it's not that you need to do your 10,000 steps and you're done. It's that you need an active lifestyle, and then you do your 10,000 steps or your half an hour a day, or whatever it is, whatever the recommendation is in your jurisdiction, then, then you know, that's that, that's the idea is that it's actually on top of rather than instead of, and so.

Steven Bruce

Matt, I'm getting stick from the audience about your slides at the moment, because when I put the first slide up the tree, I said, I'm not going to put this up full screen, so I don't think we need to and I explained why. And of course, we'll make it available to people afterwards. And then I put up and then I put this one up, because you were talking about it. And I did put that one up full screen for quite a long period of time. But people are still saying to me, they can't read it and I put it up on screen. So, for the benefit of anybody who's worried the slides will be available afterwards. This one has already been up full screen and I thought we'd all rather look at Matt demonstrating his accelerometer and things like that. Yes. And similarly, with the other slides, they will all go up full screen when it's relevant. But it's more interesting to look at Matt when he's talking, I think, hence the reason we're not doing it all. You know Matt you know how much I hate it when people hide behind a PowerPoint display when they're doing a presentation, they're faces I'd rather look at.

Steven Bruce

So here we go. All right. So, you've got a you've got a newspaper clipping about exercise. So, a research paper clipping by exercise, haven't you?

Matt Wallden

Yeah, so this one I have actually presented when I've been on with you before, because it's such an important paper from 2016, I think it's the British Journal of Sports Medicine. Yeah. And, and essentially what they were saying with this paper is that exercise is supremely effective for almost any medical condition that's been tested against, whether it be you know, as we said, diabetes, cancer, heart disease, Alzheimer's, persistent pain. And the benefit of it is that, of course, not only is it good for those things, but it also increases your wellbeing and your sense of vitality, so you enjoy life more, but it has no negative side effects in general, you know, so when they compare it to the equivalent protocol, you know, if you're just using a pharmaceutical based approach, the pharmaceuticals are, you know, sometimes less effective than exercise, sometimes as effective, but they never more effective than exercise. And they tend to come with side effects.

Matt Wallden

So, and so they're not really supporting overall health. They're addressing, you know, the symptomology of the situation concerned, but they're generally not, you know, dealing or let's say, optimising health. And so, the title is saying that exercise as medicine is called the efficacy trap, because efficacy is essentially what's demonstrated in research studies, when you apply exercise and say do exercise this number of times per week in the gym on the treadmill, whatever it is, and follow this for 12 weeks or however long the study is. And what they find is exactly what I just said it's more effective than pretty much any other intervention, it's movement as medicine.

Matt Wallden

The problem is, is it's not very effective. And the difference between efficacy and effectiveness is will it be done in the real world? Will people continue after that 12-week trial? Will they continue to go to the gym three times a week? Or go for their walk every day for an hour? Whatever it is, and the reality is, is that no, it's not very effective, people don't follow it. So obviously, then the big question is why, you know, why don't they follow it? And of course, that's a deep rabbit hole to dive down because and it's gonna be bespoke to each individual as well. But some of it's the bio psychosocial kind of model is the fact that perhaps sociologically, we don't build time into these things. You know, we see it as valuable to work as much as we can and to know you're good if you work late, and if you work more, you can earn more. And so, there's this real work culture in certainly many industrialised societies and I imagine this, you know, again, you can take it down many different rabbit holes because it links back into religious belief systems, which of course, you know, are variable sociologically. But that kind of idea of the Protestant work ethic is something that scene is virtuous, you know, and, and so, yeah, like I say, many rabbit holes, you could dive down.

Steven Bruce

But we also conditioned Matt, I think of exercise, this is very much a modern phenomenon I think, we think of exercise as a thing that you go somewhere to do. That's right. You go to the gym, and you do an hour or two hours, or whatever it might be, but that's when you do your exercise and the rest of the time you probably sat in a chair or sitting in front of the telly or whatever it might be.

Matt Wallden

Yes, exactly that, exactly that. So we know that when people are sedentary, that that increases risk of things like heart disease and cancer so on and that can be mitigated to some degree by exercise. itself, you know, the kind of exercise we've been talking about that is structured, it's at a gym or it's, you know, in a team or at a class or something. So, it can, it can be countered a little bit by exercise. But the interesting thing about this band that I'm wearing in the data that comes from that is that each of the categories that are described have their own health benefits, and they have different accessibility depending on who you are and where you're at. So, for example, you know, someone's got osteoarthritis in their knee or the hip, and they can't go to the gym, or they can't go for a run. Well, they may not get very high scores on their moderate or more vigorous activities, but they could really improve their what we call their non-sedentary time. So maybe pottering around the home, maybe kneeling down and doing some gardening or maybe, you know, getting on a bike if their knee will allow that. But the point being that they can find things that perhaps not too vigorous, but their scores can go up. And it's this idea of actually collecting data and seeing how you're progressing and sometimes not progressing, you're regressing and then you get the motivation to go again, that across time creates behavioural change. So, it's this idea of, of, you know, tiny habits and encouraging tiny habits which is a very popular book at the moment if you've seen that one but it's or atomic habits there's two books actually one called tiny habits, one called atomic habits.

Steven Bruce

Sounds interesting. You do this yourself measure your own activity levels as it was, didn't you?

Matt Wallden

Yes. And I'm embarrassed to say that I'm not in the green. This is like a traffic light system. So I sometimes rarely get to the green for any of them actually, but I'm often in the orange for most of them. So, the categories off top my head, you've got non-sedentary time, you've got moderate bounce, which is where you actually say if I went for a run for 15 minutes, there'll be a moderate bounce. And you get intense bounce, so that might be if I was playing a game of five-a-side football, I'd have a you know, an intense bounce time for let's say half an hour or whatever it was.

Matt Wallden

And then you've got intense activity and moderate activity. So, they're slightly different. So they may be shorter periods, but they add up across the day to see, oh well you're moving moderately, which might be go for a power walk, let's say, you know, that there'll be moderate activity, or maybe, you know, digging in the garden might be moderate. And then, of course, if you went to a gym, and you were really sort of working out, that might be moderate, or more vigorous, depending on the style of exercise, but the so you know, I tend to, I'm a bit of an exerciser, and historically, but often what that means is that you're only exercising maybe for 30 minutes a day, or not even per day, you might be four or five times a week is probably more what I do.

Matt Wallden

And so, then what you see is that you're doing okay on your moderate level, but your non-sedentary time because I spend a lot of time in front of my computer or perhaps treating patients, that that's too low. It should I should be doing more. So, for me, what I've found is that it does encourage those behaviours that we kind of know we should do like, walk to the shops instead of drive or park further away from the train station and walk. Those kinds of things, which you hear as strategies on blog posts and on advice but the reality is often people don't do that, you know, they, they kind of have the intention, but ultimately, it's like, you know, the time is tight and I need to, you know, park as close as I can to the shops just for convenience. Yeah, when you've got your own little score going in the backgrounds and you know that oh, well, if I just took five minutes more, I could get that little bit more of a score if you like on whichever the categories then it tends to encourage that behaviour.

Steven Bruce

So, to what extent though is this effective or is it effective because if I am an office worker, and actually I have to shamefully admit that I'm pretty much am and I'll see office worker I sit for endless hours. The only exercise I'm guessing is casually moving my mouse from one side to the other are going to make a cup of coffee. So how does the normal person, a person suffering back pain incorporate these normal activities or these other activities to increase their health in their daily passing.

Matt Wallden

One of the interesting things about the way these guys work is that he uses a mentoring model, which is distinct from a coaching model. And so a mentoring model is really explaining the results and really asking, you know, so you know, you have a think about how you could develop these different areas, perhaps let's say someone's low on non-sedentary time, maybe they're an exercise or they go running all the time, but then they sit at a desk, okay? So, they've got their scoring well in their sort of moderate and high intensity, but they're not doing well in non-sedentary they're spending most of their day sedentary in front of their desk. So, you can say to them, you know, so that's where you're scoring low and that has its own health benefits.

Matt Wallden

So the interesting thing for me, learning more about this is that it fits beautifully with the sort of old osteopathic philosophy of the role of the artery and fluid dynamics, it's this idea that the body wants to be pumped, it wants to be moved, you know, and any kind of movement, whether it be, like I say, just parking a bit further away from the shops or walking instead of driving, that kind of thing makes a huge difference to people's overall health profiles and the company that they run this they have, you know, thousands of cases and lots of data to show those trends across time and how they gradually improve. But yeah, so really, it's not to say, I mean, I could give you some suggestions, like you know, perhaps think about doing the washing up instead of doing the putting in the dishwasher, you know, perhaps do that job in the garden you've been thinking about doing for ages or clearing out the loft. These things are non-sedentary time because you're active, you're moving stuff, and therefore moving your body,

Steven Bruce

What do you feel about those go up or go down desks that people are going to have where you can stand up from your computer and still work at the same desk? Do they're helpful? Is that the equivalent of doing the washing up rather than using the dishwasher?

Matt Wallden

And I think the interesting thing there is that I've seen a bit of a backlash against them more recently from the perspective that people just end up standing still and you know, so yes, okay, you're burning few more calories but not a lot more and but you're very sedentary and it can create quite low stress into the venous return and lymphatic return systems in the legs you know, so. So, I think my view on that which I think we've talked about probably in the past is that the body has a nervous system to tell it when it's getting uncomfortable. And so you know, when you've been sat for a little while, then is a good time to stand and work and you know, when you've been stood for a while, then is a good time to sit on the floor and work or take a phone call, you know, sat down on the floor, cross legged or kneeling. And then once you've done that, you know, one of the beauties of this day and age, I think, is that we can make phone calls on the move, you know.

Matt Wallden

So that's another good example of something like give as a tip to a patient. Is that, okay you need a little bit more movement built into your life, an office worker would be a great example of this, you know, have a team meeting that's mobile, go for go for a walk around the local park and have your team meeting, actually, while you walk, and you know, there's all kinds of benefits to that in terms of things like, you know, the movement, there's the vitamin D, there's the air, there's the movement itself, integrating the two hemispheres, when we walk, it integrates left and right hemispheres better, stimulates better whole brain activation. And there's plenty of data on this. I've got some slides on that.

Matt Wallden

But, but so essentially, you're gonna have a more productive meeting, and you've got everything that you need there. on your mobile phone, you've got your diary, you've got your emails, you've got everything you need. If you need to tap something in that comes up an idea, could do a voice recording, whatever, you know, there's so much flexibility that we have now. That you can make your phone calls while you're walking rather than sat at your desk. You know, email potentially, there's all kinds of things you can do whilst being a little bit more mobile. So, I think the idea of a standing desk is a great idea because it's, it's another alternative position, we can be in another set of alternative stressors we can put onto the body. But like everything is not the panacea. It's not it's not the thing that's going to make you better. But moving is so changing posture if you have to be still.

Steven Bruce

Just going back to something I think you and I talked about before, perhaps it's useful to say to a patient, well, every time your phone rings stand up and take the call and walk around a bit. People, people kind of need that sort of any other reminder that comes up on the computer to say stand up and walk around, but they need to trigger that makes them do it. Otherwise, it's so easy to get focused in, isn't it? Yeah.

Matt Wallden

Yeah, absolutely.

Steven Bruce

I got a question for you from Robin, Robin says how do you transition a patient from a condition of chronic pain and acute episodes of the kinesia phobic into even moderate activity.

Matt Wallden

Yeah, okay, well, so, you know, of course, it's high, but my response would be hypothetical, of course, because it's going to depend on the patient and on how they progress. But I think what's useful to understand is that any movement is helpful to them, you know, and so it's not a case of them needing to be able to deadlift or needing them to be able to run or anything that's, you know, more let's say higher intensity in terms of exercise. It's a case of finding ways for them to move more during the day. And bit by bit what that does of course, it is, you know, just by moving more during your day, that's as functional an exercise you're going to get we talked about functional exercise in the gym.

Matt Wallden

But, you know, what does the body need to function for it needs to bend down to get stuff out of the cupboards and it needs to reach up to put a glass away and it needs to be able to mow the

lawn. So, so the point is that that non-sedentary time by that up, and that being the initial focus for someone who's got persistent pain and you know, catastrophizing and so on, what they start to develop is strategies of ways to get things done, ways to move around their pain. And in doing that, what they will get is an overlap into the painful areas. So, if you imagine someone who has pain when they flex forwards, where they're gonna find another way to get down, so it might be to squat or it might be to lunge. But bit by bit, what you'll start to get is a carryover into that Forward Bend position. One of the things that we know from strength conditioning is that there's the rule of thirds, which is that for any strength development, you do in a range of motion, there's a carryover to the next third of the range of motion. So, if someone can only bend forwards this far without pain, well, then they should keep doing that they should keep moving through that because what they're actually doing is they're conditioning themselves to go a third further.

Matt Wallden

So that means of course, that as they either the pain levels drop or the spasm levels drop, or their fear starts to drop, you know, there's so many factors that come in, and then you know, and then perhaps they realise that the pain isn't as big an obstacle as they first thought when they were catastrophizing about it because they couldn't flex, well, all of those things, lower the, the pain drives, and increase the pain thresholds. And, and therefore, you know, you start to be able to move into more vigorous type exercises, you know, so it is obviously an evolution, but some of that evolution is psychological.

Matt Wallden

One of the things that I've just written about actually is the idea of doing time contingent exercise rather than symptom contingent exercise. And this is as you don't know how to pronounce a surname I need to find out cuz I'm writing the paper with a guy called Joe. And if we say in English, you'll be Nijs. So N, I, J, S, I'm not sure how you pronounce but anyway, but Joe has written in the past, he's a very prolific painter, science writer. And he has talked about this idea of, you know, pain, when is persistent is no longer relating to the structural damage that was originally that originally initiated it. Okay, in general. And so therefore, what we need to do is we need to encourage people to feel the pain but to realise that the pain isn't damaging. So that's why you might say, okay, so it's painful to walk for 15 minutes. And, but, you know, maybe you can walk for 10 minutes without pain, but we want to we want you to walk for 15 minutes, okay? So, it's time contingent, not symptom contingent. So, they walk 15 minutes, they feel the pain that last five, but then there's no negative outcome to it. So then, the brain starts to realise, ah, so I felt the pain but I didn't get worse. So that maybe 15 minutes the next day and the same thing is painful again. But after a few repetitions of that, they get to 15 minutes, and think I hardly felt the pain today. So, it's this idea of retraining the brain that actually the pain, pain doesn't equal your hurt doesn't equal harm is the phrase it's often used in a neuroscience. And, and so then you start to lower your anxiety levels and then the pain starts to drop. So, it's a drip feed bit by bit approach.

Steven Bruce

And I love it when people approach questioning from two different ends of the spectrum, and I've got that just at the moment. I'm going to deal with Bill's question first, okay, because it came in a little while ago, and Bill says, is this just building up to selling some gadget? Bill, if you think that was what we do on the Academy of Physical Medicine, then you haven't seen many of our shows, we do not, do not invite people on the show so that they can sell their gadgets, unless we trail it in advance to say, look, we found this thing and we're going to put a product out there for you to have a look at. Matt showed us his accelerometer because it reflected how he was measuring his activity and the different type of activity was measured and he did that because I asked about it. I am going to ask you as well more about the company behind that accelerometer because I'm intrigued by it. And the other questions that have come in, of course, a completely opposite to Bill's, they're saying, where can we find this on the internet? Because he said, accelerate, it's an accelerometer, you haven't given it a name or anything. Yeah.

Matt Wallden

So, so the yeah, I mean, look, you know, I think with these kinds of things, they're always they're always difficult because if you believe in something, then you want to sell it then you want to sort of sell it not necessarily because you're selling it but like, when I first saw the [inaudible], and I wasn't involved with the company anyway, I just thought Oh, fantastic. So, I was selling them to my patients and to my, you know, friends and family saying you should get these they're great, you know, and you explain all the

Steven Bruce

Recommending them but not selling?

Matt Wallden

Well, yes, I guess so. Yeah, I suppose the speech that you're using still sounds a bit salesy because you're trying to, you know, inspire people. But so the company called KiActiv and they, that's key like, you know, the Japanese Ki and an active without the but without the 'e'. Their evolution was quite interesting because they the, the guy who set it up is actually an economist and he's so he's really into and now health economy and understanding all the statistics and the algorithms and so on that tie in with movement. So that's the kind of part of the background, but his dad is an ex international athlete and has you know, went through that whole thing of being a, an international athlete, he was 100 metre sprinter. And then he went actually into the hotel business for a number of years and did very well in that business, moved out of that business and went into essentially monitoring fitness. So, he worked with, you know, lots of different elite because he had all the connections, of course, but it also had his finger on the pulse of all the technologies.

Matt Wallden

So, he started working with a lot of elite sports teams and so on and so forth. And developing technologies which were increasingly higher and higher and higher tech. And then ultimately what they realised was that, you know, you don't really need something very high tech, you need something that essentially registers movement. And so that that's where they they're sort of background has come from. And so, the technology if you like, is kind of in the background as opposed to, in what you're wearing. And also the ultimate technology is in the patient themselves. So, it's building that awareness. And this is just a tool that facilitates that, you know, so is starting to change habits. And ultimately, you don't, you don't need any kind of gadget to tell you whether you're moving or not. But if you're not sure how much time you're spending, and then you're sitting let's say and then how much posturing you're doing and how much activity is involved in walking around to the shops or doing gardening. Then you know, what this does is it creates something objective out of the very subjective and chaotic day-to-day activities that we will engage in, you know.

Steven Bruce

And as I said earlier on, very often people do need some sort of some baseline and some targets and milestones to hit don't to keep them motivated to do things. But if you're just monitoring in the back of your mind, well, I think I did a bit more standing, walking, fiddling around today than I did yesterday, that's not really, it's not very satisfying, is it?

Matt Wallden

Yeah

Steven Bruce

But let's leave that alone. I was gonna I'm gonna ask you afterwards whether it might be worth us getting someone from KiActive to come and talk about their research on the show, no doubt that they will want to sell their package, but it was most interesting to hear their take on the research. There were some other questions when we're out of time, I'm going to ask him anyway, I hope you're haven't got patients at two o'clock, have you?

Matt Wallden

The dogs got a haircut caught a quarter past, so I might have to go by then.

Steven Bruce

Ok, I'll be as quick as possible. Nick says, Nick says what about trauma induced injury which may be connected with later onset of some cancers in an exercising fit and very active person he says, further exercise already addressed the cancer without medical intervention. Hmm.

Matt Wallden

So, is he asking is it a treatment for cancer? Is that what you're getting from that?

Steven Bruce

I'm not entirely sure

Matt Wallden

I, I don't think that you could ever claim that. I was I was reading a paper fairly recently from 2019, which was looking at, in fact, it's, I think it's on the next slides, if you can switch the slides there.

Steven Bruce

And just a second, but I will try to do that again. So on the other research paper slide.

Matt Wallden

Yes. So, there's that's it's yeah, Run for your life. And essentially, what it's talking about is saying very very, fascinatingly that with cancer patients, you get increased benefits, all the way up to two, what was it? 2000, 2000 minutes, some some crazy number of minutes is up on the top right. I'm just gonna look at my notes here. Yeah, there's 2000 minutes. 2000 minutes. So, so the benefits in cancer prevention, but also in in cancer treatment continue as you move your movement from, let's say, zero minutes all the way up to 2000 minutes per week. So, to give you an idea, 2000 minutes is just under five hours a day. So, you would never tell someone to go running for five hours a day or go to the gym for five hours a day. But you do want them to move for five hours a day.

Matt Wallden

Okay, and that's, that's the issues that we want to get people pottering around and finding things that are a little bit active. And that would be you know, say more in that sort of non-sedentary category, but ideally, things that are a little bit more active as well. And that's going to depend on all kinds of factors in terms of their current health, their energy levels, how well they slept last night, what they're eating and so on and so forth. But, but that that paper, it quite astounded me that the benefits in terms of cancer continue right the way up to 2000 minutes. So, most of the, most of the benefits for heart disease and diabetes, they kind of level out at about 500 to 700 minutes per week. And so, you don't need to do much more work or if you do more than that there's no discernible benefit to the heart disease or diabetes patient but with cancer, the benefits go right away on up to 2000 minutes

Steven Bruce

That's interesting and I suspect that people will even full screen couldn't read the text on that slide very well, unless they're on a proper full-size computer but I'll make them available to afterwards including ones we haven't had time to show. A final question I've got loads Matt, but the final question from a viewer who calls themselves bamboo if the patient's movement is antalgic, is there a chance they could be further causing guarding or compensation cetera and encouraging poor movement that might increase the pain or reduce recovery?

Matt Wallden

Well, I think that's always a possibility. But the angle that I've seen in the pain neuroscience I've been reading is that the key elements so you know, of course, most people with pain do have a degree of energy antalgic posture or antalgic movement. But the key is to find alternative movements, it's to keep movement happening through whichever ways are feasible. And of course, if it's persistent pain, like I said before, then almost certainly you're not likely to be injuring yourself or hurting yourself more. So that's where that time contingent idea comes in. That, you know, you just push yourself to push the patient to a specific time duration that is reasonable, you know, might be five minutes might be three minutes, whatever. But then they work through the pain, which is a little bit different to how I always thought of it. You know, I was I was taught work to the pain not through the pain, but with persistent pain patients, you actually do want to work through the pain as a strategy to try at least.

Steven Bruce

Yes, yeah. Matt, as always, I mean, we could go on for ages. I've got lots of questions. I know you've got lots of slides you haven't covered and lots of information you could share, but I'm very conscious that dog has to get its haircut. Also, conscious viewers need to get to their patients as well. It was great to have you on. I really hope we can get you back in the studio at some point in the future. Thank you for today and make sure the dog wears all the right PPE when it's at the hairdressers.

Matt Wallden

Yes, will do! Okay, thanks very much.