



Moving the Brain – Audio

with Joanne Elphinston

20th July 2021

TRANSCRIPT

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Steven Bruce

Good evening, welcome. This is the Academy of Physical Medicine and I'm Steven Bruce. And this evening I am welcoming to the show for the fourth time, Joanne Elphinston. Now Joanne is a physiotherapist with over 30 years' experience in her discipline. But for the last 20 years, she has been practising what she calls Joanne Elphinston Movement Science or JEMS for short. And we had her on the show in the past to talk about why control ain't the goal. An interesting philosophy, which we'll probably have a little bit on this evening, we've talked about exercise science and keeping it simple. We've talked about movement as therapy, and this evening, we're going to talk about moving the brain. Why are we going to talk about moving the brain? Well, actually, we were meant to talk about that last time, but we went down so many different rabbit holes and talked about so many different things in response to your questions as much as mine, that we thought we'd better revisit the topic. Joanne, great to have you with us. You've been on the show four times, and everyone will know why I want you back. But we're all flattered and amazed that you actually prepared to come back and put yourself through this again, thank you.

Joanne Elphinston

It's just a delight. It's a privilege to be asked, actually, Steven, I always have such a great time. And honestly, I never know what's going to happen. You know, it's embracing spontaneity. It's the opposite of control, which I think is a wonderful thing.

Steven Bruce

Now, I'm going to refer to this later on. I didn't mention it earlier on. Joanne is the author of this book, *The Power And The Grace*. And I bring it up now because you might be impressed that Joe's got 30 years' experience as a physio and she's developed her own sort of philosophy and discipline in terms of her own protocol in terms of treating patients. But I think it's actually quite an indicator that a very flattering foreword in this book is written by Tom Myers, who is the director of Anatomy Trains and the brains behind myofascial patterns and so on. So that's actually very nice to have someone so celebrated writing a very flattering foreword, Joanne.

Joanne Elphinston

It was actually beyond my dreams, you know, to have, I really didn't think that that would be possible. And he was so kind in what he wrote. And, you know, it was really beyond both Tom and Elizabeth Larkin, who is so incredibly eminent in her field.

Steven Bruce

Yes, yeah.

Joanne Elphinston

As well. But for your audience, they'll be most familiar with Tom. And I was a little nervous, because, you know, I didn't know what he was going to make of it, you know, offer up this book about movement. I didn't know whether he can, especially because I'm tying the facial element in with all of these other things. And you don't know how someone's going to respond. But of course, you know, he's responded incredibly graciously. And I'm very proud of that.

Steven Bruce

You should be. That whole business of tying in the fascia with movement and so on, I think that's music to the ears of most osteopaths and chiropractors, so those aren't the only people in our audience because we've also got some, some GP, some physiotherapists and so on, but the bulk of the audience is osteo and chiro. And I think they'll be fascinated by what you will have to say this evening. And we could recommend the previous three recordings, which are up on the website. And I think one of our viewers this evening has already watched all those in preparation for this and sent you an email about it. But yeah.

Joanne Elphinston

I'm so impressed with that, that is really...

Steven Bruce

That's more preparation than I've done.

Joanne Elphinston

Indeed, I know.

Steven Bruce

People think I remember those previous broadcasts, but actually, I struggle sometimes to pull back the information. Let me just get back to the ones we've done before. Just a quick word on controlling the goal. I liked that one, because I think the thrust of that was that stability training is not worthless, it's just not any better than any other training that you might do for the body. I think that was kind of the message you were getting across there, wasn't it?

Joanne Elphinston

Yeah. And that actually spontaneous, rich, healthy movement, you know, when we talk about control as a completely other thing to stability training, and it's, as you say, it's not that it's not got value, it's just not the whole show, you know, and that we have this whole kaleidoscope of different factors that come together to create healthy, spontaneous, joyful, playful movement. And what I see so much of is people who've been really given the control message, and there's no joy or spontaneity in their movement at all. You know and it's very cognitive, and they don't really feel it. And so it's about yes, let's have the concepts of understanding how we manage forces. But let's not kind of get too hooked up on the word control because then it becomes something that's quite contrived and effortful.

Steven Bruce

And a lot of stability control exercises that certainly I've seen in the past and I'm sure also resonates with the audience, a lot of them are not the least bit functional. And I think, you know, functionality has gained a great deal of mileage in physical therapy circles over recent years, hasn't it?

Joanne Elphinston

It has and yet that in itself has taken us down another rabbit hole. Because then functional has become a different set of exercises, and, you know, with certain kinds of equipment, and in a way, it's the same problem. But now we've got it in a different element. And this is why the reclaiming the word functional,

has been really important to me. And that's why it was in the title of the book. And to say, well, functional movement doesn't mean that we go back into these really prescribed things, but with more planes now when standing up. Functional for me is what is the inherent logic of us as a moving organism. And what I'm really trying to teach people is about reclaiming their movement inheritance, and what is functional there, what actually makes sense in the body, when you're moving, rather than these very prescriptive exercises that in theory should turn into movement.

Steven Bruce

I'll tell you what we're going to try to avoid this evening, Joanne, and it would be kind if you could help me with this, is we're going to try to avoid asking you to pull to mind every single reference paper that comes up behind the things that you talk about. If people need those, they're all in the book in a chapter somewhere, which probably lists all the references. But perhaps you can just reassure us that what you're going to talk about is not just Joanne's theory on life, it's actually been proven, if not in randomised control trials, but in some reasonable studies.

Joanne Elphinston

Absolutely, because what I'm going to talk about is the brain science. But it's about how we translate the brain science into clinical practice, because it's great to know it. And what I'm wildly excited about these days with the rise of the modern neuroscience, is now we can actually study the art of practice, not just the science, because we used to think that we could study the science, but the art was somehow this kind of floaty thing that you couldn't really put any figures on. But actually, it's not true. So I'm going to present concepts. But then underneath those concepts, and that I mean, there's a whole chapter in the book called moving the brain, which gives all the where this all comes from, you know, how we see motor imagery to how cueing, when cueing, what kind of cueing, there's a studies on all of it. And so, yes, the whole thing is based in that, but it's about how do we use clinical, you know, how do we use our skills, the art of what we do, so that we can bring this neuroscience to life with our patients and our clients?

Steven Bruce

I also think, from what I've read in here that a lot of the message from, hopefully what you're going to talk about tonight, is gaining patient compliance as well, because it's about educating them in a way which they will respond to well, I think, isn't it? So I'm going to shut up? Because it's not my area of expertise and hand over to you. Should we start talking about moving the brain?

Joanne Elphinston

Well, I'm just gonna pick up on the word compliance, because it's a word that gives me a bit of a tick. Because there's a big difference, if we could move from patient compliance to how do we inspire our patients? How do we motivate them to collaborate with us in this process? It's got a very different implication to patient compliance, which sounds rather paternalistic. You know, it keeps us in this kind of dynamic of expert receiver. And I'm much more interested in teaching practitioners, how do we actually invite a patient into co-create the experience, which takes the pressure off in a way, but it also means that we become so meaningful, you know, they're actually contributing, we're valuing what they're bringing because they actually have the first-person experience. We can't understand that. And if we can harvest that in a way that helps to inform our next clinical decisions, it's really powerful. So yeah, it's quite

funny. There's so many words that's just part of our normal dialogue professionally. And I guess I just don't use compliance very often.

Steven Bruce

Now, I'm going to make a fool of myself by saying, well, actually, no, when I say compliance, I just mean, however we do it, getting the patient to do the things that we know are good for them. But then I thought, I know what you're going to say, you're going to say the very fact that I've got compliance in my own brain, means I'm thinking about it in a different way. And I don't know whether that's cognitive behavioural therapy or something like that. But I take your point, yes, it does have a controlling sense to it, doesn't it?

Joanne Elphinston

Well, I mean, there's no, no criticism. And these are the words we use. These are the words that are in the papers we read, these are the words that are bandied about, you know, how do we improve patient compliance. But it is quite interesting because it does put the patient in quite a passive place, even though we're thinking, oh, if they complain, they're active, they are kind of still a passive agent here. Whereas it would be interesting to see what would happen if we did actually find a way to inspire and engage them. So that they become kind of self-propelling rather than...

Steven Bruce

How are we going to do then, Joanne?

Joanne Elphinston

Well, let's have a little bit of explore, shall we?

Steven Bruce

Let's do that.

Joanne Elphinston

Okay, then. So let me first of all just say that the the reason that I've chosen this and wanted to come back to it for your audience, for everybody here listening, is that we have a lot of people, most people I would imagine, who are manual therapists. And so you know, how to wonderfully communicate with people's nervous systems through the medium of touch. You're having a conversation with their nervous systems all the time in a nonverbal way. And so what I want to present here is another way to communicate with the nervous system. And in a way that's more about the brain and less about the mind. because everything's very about the cognitive. And there's elements of cognitive that we'll talk about. But there's also how do we reach beyond the cognitive into the wider brain to get a different kind of concept. So that's why I've chosen to bring this and wanted to come back and chat about it. And if there's something I repeat, please forgive me. But I just want to drop a few of these things in because, you know, with the teaching that we're doing, especially now that we're online, and when people aren't in the room, we have to be very specific about things. But we're also really getting, because it's now a three-month program, we're really getting the stories that clinicians are actually experiencing when they're using this and how much it's actually shifting the dynamics within their treatments. And so yes, so I thought I'd just like to share some of that with you, and with your audience tonight. So this is really about, how do we transform exercise into meaningful movement? I get a lot of people coming to the courses saying yes,

I'm a physiotherapist and osteopath, I know about movement, but what they really know about is exercises. And it's not the same thing, as far as the brain is concerned. Yeah. So if we dive in, shall I see if I can dive in and share my screen?

Steven Bruce

Let's hope it works.

Joanne Elphinston

Yeah. Hopefully, we'll, let's see. How's that?

Steven Bruce

Yeah, there we go.

Joanne Elphinston

Perfect. Okay, so hopefully, you see me too. And let me just click this through. What I would say is with our words, we can change everything. Now there's more to it than that. And when we go on it in our teaching, there's a lot beyond words that we bring as clinicians to actually influence the therapeutic dynamic. But what I want to focus on here is coming away from how we create change from the what. So a lot of people say if they just have the right exercises in the right order, then change will happen in movement. And sometimes it does. But I'm more interested in how we use these new developments in neuroscience to look at how we do it rather than the what, we're looking at the how. So let's just have a look at these two slides. So the brain movement and exercises, it's just not the same thing. So if I look at the squat, and you look at this netballer they're both dropping their centre of gravity. And so there's something in common here, one, the squat, this is about potential building. So this is a way for us to develop the strength to be able to drop our centre of gravity and raise it again, the mobility, and dare I say it, the control and so we are equipping the nervous system and the body with some potential to draw from, but it doesn't necessarily mean that it's going to turn into better movement. So I see, over the years, I've done such a lot of sports work, and you see so many people who do a lot of squatting, but they really don't move very well. So in this case for a netballer, she's having to use dropping the centre of gravity to absorb from a jump, for example, which requires timing. It requires the what's happening next, because movement involves a story. Exercises, not so much. You might give a rationale for why someone's doing it. But in terms of this particular moment, in this athlete's day, that movement is part of an ongoing story. There is a what happens next, there is an implication, and the central nervous system is doing all sorts of things and many calculations to work out what to do with this. So if we can't drop our centre of gravity cleanly, smoothly and in balance, then we can't capture the energy that we've created in one direction, send it down and then recycle it to go in another direction. This is part of our efficiency, rather than just stopping the motion and having to get going again, someone has to be in balance. But the whole idea here with dropping the centre of gravity is that you have movement options, you have choices. So it's a very different experience to what is happening with the squat situation here. So if I just have a look at two patients of mine here, so they're both athletes, and we see two very different movements, representing the dropping of the centre of gravity. So this is one of those moments, Steven, when I talk about the word function. So rather than saying squatting is a functional movement, I'm saying the ability to drop and raise the centre of gravity, smoothly and in balance, that is functional. So one of these examples is quite functional, and the other one, not really. So if we look at the athlete who doesn't have the shirt on, and

you'll immediately see that this is a rules driven movement. So where is he going here. So he's learned a squat, and it's been taught about rules. So you can see his hips have gone backwards, which means his centre of gravity, his weight has been pulled into his heels. So you might notice that the toes are off the floor, and the tendons are very visible as he tries to keep his balance. And of course, he's had to really send his arms out forward to help him counterbalance. So this actually is not a particularly functional movement at all. But he may have been taught to squat in a way, well, that says, don't let your knees go forward. That's the that's the big thing that everybody gets told. So we have a movement here that really can't go anywhere, it can't even go down because it's going backwards. So the first thing I would be saying is, which direction is this movement supposed to be going in? You know, he's clearly not clear about that, and neither has anybody been clear about it who has been working with him. Now, if we look at the other extreme. Now, in both of these scenarios, I've captured them at a moment in the videos as best I can, at the base of whatever their movement is. And so he's just about to launch back in another direction. So you'll see his centre of gravity's a little bit more in his forefoot. But you'll see that clearly his body has moved down. So this is the concertina, or the jack in the box action, that helps him to store and then release energy in any direction, you could imagine him going up, you can imagine him bounding forward, you could imagine him bounding, sideways, he can go lots of different directions. And actually, this is all perfectly in balance. It wasn't when I first met him, but it is now. So what we have here is we have someone who's learned the rules, and is trying to uphold them as best he can. Someone like this will usually tell me that they can do much better with a bar across their shoulders, which is lovely, apart from the fact that they can't actually compete, or perform their activity with a bar across the shoulder. So I'm looking for independent balance. So here's this cognitive, the other chap, we've worked very much on the feel of it. So it's a sensory experience, rather than worrying about the rules. So I thought that what might be a good thing to do is experience this idea of getting away from the rules and the getting it right worries and more into the feel and the logic of it.

Steven Bruce

Can I interrupt for a second, Joanne?

Joanne Elphinston

Of course you can.

Steven Bruce

In those previous two pictures, yes, I can see that the guy on the left was sticking to the rules. And he's doing a squat as I've always been told to do it, weight on the heels, because it seems to hurt the thighs more. And the other guy's, he's going down further, but that still doesn't compare to your volleyball player. So your netball player who is presumably hitting the ground, moving in a certain direction, preparing to move in another direction, twisting to move the ball in a third direction, there's all those other factors going on. The guy on the right here, it's still an exercise surely.

Joanne Elphinston

Well, actually, what I've captured is the moment in the video where he's actually been bounding sideways and he's going to launch himself out of this position, land on his outside leg and then swing the other one across into a kick motion. So it's going to be this very flowing motion. But what does happen when people get carried away on the functional question is that they they go for that drill without the person actually

having the building blocks in place to be able to perform it So his first attempt, when I met him with his chronic groin pain looked very much like the other athlete. And it doesn't matter how fun and fancy the drill is, the fundamental thing is that he didn't know how to drop his centre of gravity. So it's a bit also about putting the right, the foundations in and not getting distracted with the bells and whistles. But then layering it up to take on board all of these different kinds of things. So it's about being, starting them where they really are. Because that's a big thing for me. Sometimes we're very like, okay, this is functional, we're going to do that until it gets better. But it's not where the person actually is. And I don't know how many people have come in who are elite athletes, and they're struggling away, trying to do the high-level work. And they can't do the very basics. And so, again, it's a case of if you come away from what is a squat, and you take it into the body logic part of things, which is, how do we drop our centre of gravity and come back out again, once we can do that, then we can start layering.

Steven Bruce

And it might just be worth me mentioning at this stage that, again, this is not theory, you've worked with athletes at Olympic level. So you have seen this in some serious athletes. It's not, this is not make-believe stuff you're talking about here.

Joanne Elphinston

Not at all. I mean, the people I've met, these are people who have won medals in like World Championships, people who have meddled in Olympics, people, you know, my job for so many years was actually being the person who is the end game if you like, they've had lots and lots of stuff. And it hasn't really come together for whatever reason. And what's interesting, and what I'm so happy about my course participants discovering, is realising that it actually, mostly these people have not been given the simple foundations, but because they have all of that athleticism, if you dare to meet them where they really are, with what's actually not happening for them, they progress really fast, which is lovely, but often people don't dare, because of who they are, I don't dare to teach or say to this person, actually, you just don't know how to go down. You know, I've had really top-level people coming in, like, top five in the world squash players, for example, which was like, well, they have to go down and up all the time. And found out, they really struggle to do that. And they come in with their patella tendinopathies and the ITB problems and when it gets right down to it, actually, they don't really know just how to let gravity be their friend. And how to do that. The number of times that I say to somebody, look, just, I guarantee you, gravity will really help you out here if you just stop fighting it. So let's just let gravity do its job, off you go, if you want to go down, go down, into your legs for me, because they've got so much tension in their quads. And they think they have to feel that enormous tension to feel strong. Just like, well, actually, interestingly, the people who are actually the best in the world, they don't carry all that tension, they let it go. Because I mean, a muscle can only contract as well as it can relax. If it never relaxes, it never contracts really, very well at all. So again, sometimes people think I don't dare have this conversation with this person. And I would say, well, do you know what? The number of times someone said to me, why hasn't anyone ever told me this before? Well, they don't dare because of, you know, whatever their world ranking is, or whoever they seem that they're going to be. So I would encourage people to actually speak about this.

Steven Bruce

Can I presume there, there's also some energy saving, I mean, I don't know how significant it would be. But if you're not contracting the muscle all the time, presumably, it'll go on for a bit longer during your sport before it runs out of energy.

Joanne Elphinston

Oh, you're spot on, Steven. And this is why it's fascinating when you see an athlete return after a lengthy period of really not doing the normal training and they go out and they PB and they PB again and they PB again and how is that happening? Just like well, you know, you're actually using your energetic resources to go where you want to go instead of actually you pushing against your own handbrake. It's dancers and athletes, the people who have said to me, like the muscles should feel hard, you know, when I'm lying, they're lying on your plinth and like, well, if you're lying on my plinth, they should feel like butter. You know, there's no need for this tension, because you're just using something that's not appropriate and not necessary. You could let it go. Because efficiency is what we were designed for, you know, we're designed to have brain efficiency. We're designed to have physical efficiency, and then we happily train ourselves right out of it.

Steven Bruce

Pip has sent in interesting observation or comment. Pip says that it strikes her that this is a bit like when a baby misses, for example, the crawling phase, and you have to take them back as an adult and get them through the developmental stage that they missed. Does that ring true with you?

Joanne Elphinston

Oh, I think that's brilliant. It's absolutely spot on. It's the same, exactly the same kind of idea. And to be honest, it's getting worse. Because any child with any kind of smidgen of talent gets sucked into an academy programme. And suddenly, they're not really learning the logic of their bodies anymore. They're doing drills, and they're doing exercises that have been cognitively taught. And they're not really learning how to manage their own centre of gravity effectively. And all those wonderful lessons that happened, you know, when kids were allowed to be free range, and do all sorts of things and have to jump over creeks, and down from trees, and all of those kinds of things which are missing for a child now. And it's interesting, as it is such an interesting observation, because imagine if you've got a 28 year old professional athlete sitting there, and you look at them and think well, yes, actually, you just can't manage your own centre of gravity, whether it's on two feet or one foot. And fundamentally, if you haven't got that, no matter what sport you're in, it's pretty difficult to progress without trying to compensate for that with a lot of increased tension. I love that observation.

Steven Bruce

I'm going to leave you to move on.

Joanne Elphinston

Okay. That's fine.

Steven Bruce

The last time I dragged you down too many rabbit holes, and we didn't get the content out.

Joanne Elphinston

That's absolutely fine. Because something always comes out one way or the other. So I just thought it would be interesting for us to play together a little bit around this subject, because, just last week, I had two ladies come in. I've been seeing so many hip patients over this whole COVID period. And these two ladies both have a similar age, late 40s. Both with hip pain, one with hamstring insertional pain. So posterior pain and the other one with quite compelling anterior pain. And one of them has to, she has horses, so that obviously requires quite a lot of lifting. And, whether it's hooves or buckets, and the other one has kids and again, so they need to be able to drop and raise their centre of gravity, but they can't do it without pain. So in both cases, I asked them to show me what their version would be. And both of them have been doing online exercise classes, whether it's general exercise, or pilates, whatever it is, and they both showed me something that looked very much like the athlete without the shirt. So hips go straight back, balances straight back on the heels. And of course, for my lady with the hamstring insertional pain, that's a terrific way to really annoy the hamstring insertion. And then for the lady with the anterior hip pain, then everything down the front is contracting like crazy to keep her balance. And in both instances, what we did is we first checked that they had some fundamental biomechanical elements that would enable them to drop the centre of gravity, and then worked on balance point. And they were both very concerned about their knees moving forward, I've been told my knees must, my shins should stay vertical, and my knees mustn't move forward. So the thing is that we're actually developed a bit like an angle poise lamp. No, everything has to go in a zigzag. And if everything is going backwards, you can't actually go up and down. And this sort of, I'm going to relieve you of that for a minute, let's just focus on, where is the weight underneath your feet. It's in my heels. What would happen if you actually just focused on the whole foot, and the whole session was just this, that by the end of each session, both ladies were going all the way down and all the way back up again, saying, well, this doesn't hurt. And then one of them said, oh, I can really feel my glutes working here. Well, I've not mentioned her glutes. But because she's now using her body appropriately, she's now actually finding that they are now coming to the party. And in both cases, they said, why doesn't anyone teach us this? Because this, we don't, we're not in pain anymore. And so I want to just go through a little short aspect of this with you. So what I might do is just come out of the SlideShare for a minute.

Steven Bruce

Joanne, while you're doing that, why did you say to these patients, what will happen if you do this rather than say, do this and then you'll see the difference?

Joanne Elphinston

Great question.

Steven Bruce

I read your book.

Joanne Elphinston

There we go. So absolutely. Well, the thing is, again, this takes us back to our original conversation about inviting the patient into collaborate. So by me asking the question, I'm saying I value your observation. And I invite you to give me more observations. And that actually opens the door for them to give me more. And it was interesting, because then they did actually spontaneously start to tell me things as

things were changing, they would report them. And I would be thinking, that's so interesting. You're saying, isn't that fascinating? And then they would, ah, this actually relates to when I do that. And then, because of this, the really critical piece of information that I didn't get from my subjective, you know how it is with a patient, you'd ask all the questions you can possibly ask and then some way down the track, so they said, oh, actually, and you think, okay, that's the thing. Because in one of these cases, this patient had been going along really, really, really well. And suddenly, she's going on a downward trajectory for no apparent reason. And it's not, oh, I need to have a, I need to have an injection, or I need to have something, I just was like, hang on a minute, this has been going really well, what else has changed? Nothing's changed, nothing's changed. Sure it is, summer's come. And actually, a whole lot of gardening is happening, in that position with the bottom back, pulling on that poor little hamstring insertion. She's just like, but I think we would have got there if we hadn't been dialoguing our way through this movement kind of process and just chatting about it, rather than having someone do a repetition, and then judging it, and then feeding back. We're actually just letting them go. And what do you notice about this? Oh, that's really interesting. And what about that? What happens when you, if you did that? And how does that change it. So it's a really different kind of dynamic, but they also learn that they're equally responsible, but that I value, what they're bringing. And then when they go home, they come back to me with really useful, insightful information and insights. So it's how we set it up. So that it doesn't become this kind of semi passive thing of me giving feedback. And actually, because we probably won't get to the final slide, there was a slide there on a piece of research that was done on when people prefer to have their feedback. And it relates to this, they looked at athletes and athletes very much prefer to have their feedback after a successful attempt, rather than a not successful attempt. And we have to ask ourselves, when do we tend to give feedback?

Steven Bruce

Yes. Sadly, we can't see them because you could give them feedback. But I'm told that everybody who's watching through Vimeo is currently practising they're squatting so.

Joanne Elphinston

Oh, okay, great. Well, you know, I'm going to come and do a little bit of that with you. But just to finish off that point, the authors of that particular paper said that what's so important about this is they prefer to have that feedback after the good attempt, because it helps to preserve some sense of personal efficacy, it preserves something. Whereas if you're only really getting the feedback, the detailed feedback, when you're not performing what is perceived to be a successful attempt, then it actually goes entirely the other way. So if we come back to motivation, it's not very motivating. And it really reinforces how people, I mean, many people come to me saying, I can't squat, I have no glutes, these are the things that they say all the time, just like okay, neither of those things is going to actually be the case, I'm not going to argue with them right then. Because that just sets up one of these, one of those, you're not listening to me kind of situations. But we will lead them through the process of exploration and pop out the other end with a different perception. So, so I'm glad you, I'm really glad you asked that, Steven. So let's just have a little play with, I mean, there's many biomechanical elements that I could play with, because I think one thing that's important is to set someone up to succeed. Because as we'll see later, the brain is already making predictions about how this is going to go. And when it comes to something like squatting, people have a lot of beliefs about that. So I need to set them up to succeed. And many people don't actually have the base components to begin with. So I'm just going to just do a couple of those basic components with you.

And then we'll have a little squat together. And forgive me if we've done one of these before, I can't really remember, because I go into some kind of parallel universe when we're together Steven, and it all just happens, and I forget. So I'm going to go here now, I'm going to be using my ball. But what I'd like to point out to us that I would do this first technique on a chair, a stable chair, because if you can get the central body stable, it's much easier to release the periphery. Whereas if you're trying to keep your centre stable and release your periphery, that's quite tricky to start off with. Okay, so I'm going to say that to start with. So a couple of the elements that are often quick wins, but often missing is the tibia femoral rotation that we need to be able to squat, and the femoral rotation. So if we just remember our biomechanics, as we're moving into flexion, we've got that relative external rotation of the femurs and relative internal rotation of the tibia, which helps us to preserve our menisci. That's very clever engineering from our body, but a lot of people are missing it. So there's no point in me working with this with somebody with all the encouragement in the world, if they don't have the basic biomechanics, because everything is going to try and make a compensation for that. So I'm going to, we're all going to stand up and do a little test squat first. And then we're going to do these little techniques, and then we'll just see what happens. So unfortunately, I can't see you all. I'm used to zoom where I have a screen of 25 people in front of me, but I'm going to grab my ball here. And hopefully, you're on a chair. Actually beforehand, let's do a little test squad. Yeah. So you're just going to just pop your arms, just to keep them tidy and out of the way. And we're just going to do a little squat there. Yeah. So let me just, and you're going to get a feeling for, how elastic does that feel? How easy does that feel? Some of you will be very good at this. Others of you, this is your nemesis. So, that gives us something to work with. Okay, so let's start with the listening foot. So this is from a JEMS point of view, this is one of our key exercises. And it's a very rare patient who gets out the door without one of these for various biomechanical and neurosensory reasons. So what we're going to do is pick a foot, I'm going to just wind mine, I selected my trousers specifically for this and kept my shoes off, just with this in mind for you. Now, I'm going to keep my thigh where it is, it's not involved, so it's not going to be moving around, I've got the surface of my foot on the floor. And you can get a feel that and I'm going to rest my hand on my knee just to remind my body that it's not going anywhere. And I am going to very smoothly and slowly change my pressure and move it towards the inner border of the foot. Just finding out what's the capability, can I find the inner border, and then I'm going to slowly and smoothly move the other way towards the outer border of the foot. And I'm just going to invite you to do just a few of those. And for some of you that will be easy, and for others, it will be difficult. And we could spend an entire half hour on all of the nuances of this particular exercise. But what I'll invite you to do is just place your fingertips on your head of fibula. And just notice where it goes when it comes to the outer border of the foot. And as you transition across the sole of the foot towards the inner border. Notice, where does the fibula go? Perhaps you might notice that as you move towards the outer border of the foot, fibula moves backwards. And as you transition across the foot, you come towards, you might notice it comes forward. In fact, if I just lightly put my fingers around my whole lower leg here, and I do it, perhaps you can see that I'm actually rotating the entire lower leg. Yeah, so you can see I've dissociated with rotation, that tibia from the femur, okay. And I'll give you an opportunity just to do a few with the other side and I'll drop a few extra keys in. So here I am now using my left leg. And again, I've just got my hand on my knee here. I can feel the sole of my foot and how it naturally rests, maybe but you're more on the inside or the outside to begin with. I'm going to move my way across to the outer border. And then I'm going to move my way and get back into shot a bit better. So I'm going to move towards the inner border, you might notice that my toes are really relaxed. My foot is really relaxed. And perhaps if you feel underneath, you might notice what your hamstrings do. Because

your hamstrings are involved in this. It's often easier to feel when you move to the outer border of the foot. You'll feel the hamstrings and their engagement there. There's lots of muscles involved in this. But we don't have to be using too much in the periphery. So the foot's relaxed, using some popliteals and hamstrings. The tibialis posterior, there's quite a lot going on there. So hopefully we've got a little bit of rotation. Okay.

Steven Bruce

What I should also say is that, although Joanne can't see you doing this at home, we've installed that crazy Israeli software so we can see you. So make sure you're joining in.

Joanne Elphinston

Excellent, I'm going to be looking for a report. Okay, so now femoral rotation. And again, let me just tip my screen up a little bit for you.

Steven Bruce

Probably in the interest of GDPR, I want to point out I was lying then, we haven't installed any crazy Israeli software.

Joanne Elphinston

I'm kind of disappointed by that I have to say. Let me just see if I can let a little light in here. Because this room has been having this the afternoon sun beating in on us all afternoon. Okay, now I'm going to do something called a total body rotation with you. And I am going to encourage you to stand up and do it with me, I'm going to go on a slight angle for you. And I'm just going to invite you to just turn your body and look around one way, and then turn your body and look around the other way. And of course, most of us will find that one direction is more available than the other. This time when you do it, I'd like you to notice what happens with the pressures underneath your feet. So as I turn towards the right, then I notice that the weight is going towards the outer border of my right foot and the inner border of my left foot. And then if I go around to my left, I feel the transition of the weight. And now on the outer border of the left foot and the inner border of the right foot as I'm going to the left. So just take a moment and notice the transition. And sometimes someone will find that it doesn't happen that way. And that's okay. But if I find that, I know I need to reboot it. Because that's usually when people come to me with those vague, weird miniscule problems that don't seem to fit a pattern. So now that we've done that, we're going to work with it, I'm going to invite you around to the right, going to ask you to put your right hand on your right thigh, you're on the outer border of the right foot and smoothly and very easily, you're going to just transition towards the inner border of that foot and away again. So you can keep your weight a little bit back on your left leg just to get the freedom from that right leg. And I'm just very slowly transitioning my weight. But you might notice that as you do this, that actually the femur is turning. So what we're doing here is rotation at the hip in load bearing, and we're mobilising within the hip. And so after you've done a few of those, I'll ask you to stay on the outer border of the right leg, pop your hand on the left leg. And now we're going to do the other one. And you can notice perhaps, again, under your hand, as you transition the weight that we have motion in the femur, so there's motion going on here. And I don't have a lot of load on this leg. Sometimes people try too hard, and then they irritate their knee. So I don't have a lot of load. It's about being soft and smooth and easy. And we don't want to push through resistance, there's one thing the body really does reliably, is if you push into resistance, it resists right back even harder. So if

we keep it easy, it starts to relax. Okay, so if you come back to the front, and now go around to the right all the way again, just retest your motion availability before we do the left. so now we're going to turn to the left, and that might feel a bit stiff now, comparatively. So I'm going to put my left hand on my left thigh. And I'm going to slowly and smoothly move towards the inner border of my foot, and again towards the outer border of my foot. And notice that my body is not moving around. I'm not doing this, which means that I'm not actually moving my hip, my body is quiet. And I'm just taking up whatever movement is available from me hip. And once I've done that, I'll take my right hand and pop it on my right thigh. And again, don't have really much weight on this leg here. And again, I'm just connecting my foot to my hip. They're having a conversation and we're making sure that we have that availability as well, just a few of those. Okay, so facing the front, we're going back to the left again, just to retest. And usually after doing a little bit of this, patients say, what have you done to me, I say I haven't done anything to you, you've done it entirely yourself. So there's two things of the several I could check, tibia femoral, and femoral rotation. So before we now go back into a little squat, I'm going to invite you to find the soles of those feet, and relax your buttocks. Some of you will be going what, I don't have to tighten my glutes, like no, because if you tighten your glutes, just check out where your feet go. So if I tighten my glutes, I'm on the outsides of my feet. So I'm already in external rotation, I've got nowhere to go. So I am going to end up with my bottom out behind me, I've set myself up for failure. So I'm going to actually stand and release, create some space between my sitting bones, so I can really feel my feet. And now, I'm going to learn about my balance point dynamically, because this sets it up. But it doesn't necessarily magically mean that your balance point is going to be on point, we have to find it. So you're going to slowly make your way down. And notice when you start to go into your heels, and then pause and find your whole foot again, and continue. And if you go back, then you'll say, oh, I'm in my heels, again, where's my whole foot, there it is. And I'm going to come down a bit more. And you're going to just go through this little process until you can start to work out, oh, actually, I could stay in my feet all the way down, and all the way back up again. And as you're doing that, right now, as far as your glutes go, it's like they're two great big hands underneath your buttocks, they're going to catch you. And they're going to just throw you back up again. That's their job, because you're actually allowing them to work eccentrically into range, and I'm finding my whole foot, I press through my whole foot. And then my hip is allowed to do its job. Yeah. So we're aiming for that springy, easy feeling from this, and this is one of my most fundamental movements. And I will do this with everyone from an elderly, you know, total knee replacement patient, all the way through to an athlete, to kids, all these people, I'm going to use the same kind of idea with. So I'd be so interested to see if anybody's got any thoughts about that.

Steven Bruce

I have one, which again, stems from reading your chapter on moving the brain. And that is that what you've just demonstrated there is actually quite complicated, you wouldn't be able to explain that to a patient without demonstrating. But you make the points in your book that actually demonstrating the exercise is quite important in terms of getting the patient's brain to understand what's going on. You also talked about the speed of demonstration or repetition of the exercise, and perhaps you could elaborate on that, what's right.

Joanne Elphinston

What's right, what's right is what suits that patient. But let's take the first point, which is the demonstration. And this is why we very much encourage people to start learning how to walk the walk and not just talk

the talk, because there's good research on motor imagery, and that's marvelous, but the research senses, motor imagery with some kind of visual demonstration gives a person's brain lots, lots more information about the qualities of the movement. So for example, if I look at just something very simple, like demonstrating something postural, I could talk to a patient and give them cues, but keep my body quiet. Or I could talk to a patient and give them the sense of buoyancy that I'm looking for, and their brain is reading my body for all sorts of qualitative information. And so, it's very much a part of my teach, you have to actually say, I'm going to have the humility to actually go there. I'm going to find the things I find a bit of a struggle and I'm going to learn from them because actually, that is some of the most powerful treatment you can offer the patient, we want to go off on another course to learn stuff to do with the patient when such an enormous amount can be gained by the, with a work on finding your own sensations and then being able to bring them to the patient. So there's good, there's really good research on that. And then you had a question about repetitions?

Steven Bruce

Well, yes, just in the book, you talked about speed of rep, or speed of demonstration, or repetition being important in terms of getting the message across, I'm guessing kind of subliminally to the patient's brain.

Joanne Elphinston

Absolutely. So depending on the task I'm doing, I'm going to be using my body and my voice modulation, my tone, my energy is going to really change. Some people pride themselves on just this is me, that's just me. And I'm like, well, you know what, you're not using your whole self as much as you could be. Because if I'm going to really facilitate you, I'm going to change my motion, I'm going to change the energy of my voice, I'm going to change my rhythm and my intonation.

Steven Bruce

That made many people a bit confused, doesn't it? Certainly, when I read that in the book, I was thinking to myself, okay, yes, if I'm standing in front of a group presenting, I will try to be as dynamic and lively and moving as I possibly can. And I will try to get this dull old voice of mine to move up and down a little bit. So it's a bit more engaging. But you suggested in the book, I thought that there was a right pitch and a right rhythm for this, or is it just vary it and make it interesting?

Joanne Elphinston

No, it's about, well, I think what I was saying in the book is that lots of people, let's say, you've got your nice yoga teacher voice, your nice Pilates teacher voice. And it's the same all the way through the movement and the class. And that could be fine for as long as you are actually really thinking about what the effect is that you're actually wanting to have, rather than it being about how you're presenting yourself, which is about me, what we're looking for is, what are you trying to help the patient's nervous system to get from this. So I will come along, and let's say, I'm teaching a class and someone's struggling, I am going to really take charge with that dynamic. And I'm going to get somebody on board. So for example, I've got a patient at the moment who's uber intense, we'll go off on tangents, you know, and I have to be very firm. Now we're doing this now. This is what we're doing, then just tell me, what do you notice here? Totally different rhythm, totally different intention, then I'm really swinging into leadership. And I'm not trying to be dominant, what I'm doing is actually creating a container for her, for her to calm down and start to listen to her body again.

Steven Bruce

I should be watching out for this as I tried to lead you down different tangents and rabbit holes in this discussion. Can I just say what you're saying will chime with Marie, who sent in an observation earlier on, she said, I'm guessing this is her mantra, be a guide to your patient, which is very sensible. But you also use the expression about people's exercises being on point earlier on. And Carrie has said that she's read about professional sports people doing things like ballet to improve balance and core and so on, does that address the types of issues you've been talking about?

Joanne Elphinston

Well it might, again, create more nutrition for the nervous system. So I don't think there's any one thing that we could say, that would address this. What I am saying this is like a smorgasbord and rather than just having all meat in the corner of the plate, we're going to add some broccoli and some sprouts and some carrots and maybe a nice salad. And you know, all these different things offer something new. I mean, gosh, it was 35 years ago when the offseason rugby players were given ballet to do. And some were given netball to do because they'd recognised, okay, there's things in these sports that will help the general physicality and the physical, you know, I talk about obviously, the kaleidoscope in the book, we've got lots of different colours, and we can change the setting of the kaleidoscope to make all of those capabilities turn into limitless kinds of movement. But if you've only got one or two colours in your kaleidoscope, then you know you've got a few limitations really. Yeah,

Steven Bruce

Well, Sirius has sent in this, she says, well, I've been trying to get my thoracics to release as they always get sticky, playing with that, and my whole upper body moves more. I'm not sure what she was playing with. But there's a win already for somebody there. Adam here, he was talking about that squatting exercise you were doing a moment ago. And he says he started doing this with his feet close together but then found it easier with his feet further apart. And do you have any thoughts on how far apart the feet should be? Adam, from my own perspective, as soon as anything between the feet starts to touch the ground, you've probably gone too far but over to you, Joanne. It might vary from person to person.

Joanne Elphinston

Absolutely. And this comes back again to, what are we equipping them for, so I'm going to put them wherever they're comfortable, first of all, to get the idea of how to just move their body up and down. And then we'll vary it. Because, I mean, if you're going to be, let's say, I'm working with a skier, it's no good if they can only squat in a plie position, because I mean, that's not going to take you far as a skier. You know, what do people need to be able to do? And so you start looking at different possibilities. So for example, with one of these patients, we were looking at, what do you have to do to pick out your horse's foot compared to what do you have to do to lift the feed box, and all of these things, once you had the basic concept of how to move the body down and back up in balance, then we could diversify it by changing the foot placement. So this is where we start to get into this nice, where you are going back to, which is like, is it just an exercise? No, once we've got the actual sense in the body and the logic of it, we can diversify it.

Steven Bruce

Well, on that note, Sue has said, it's really amazing, is her first comment, and very revealing. She says, how do you work around compensations due to foot pathologies, such as fused joints, bunions, and so on? And someone else, Pip has added to that, pes planus as well.

Joanne Elphinston

So what we do is we work with, first of all, what is available? So say, for example, you know, I might want to know, with that foot mentioned last, is there a way that that foot could actually be a bit more dynamic? Have we actually investigated that because mostly that hasn't been investigated? I mean, the number of people who come to me who've really never sensed the soles of their feet before, and then stand up from say, listening foot and go, ah, I thought I was standing on my feet, but I guess I wasn't because now I can feel my feet. So the first thing I would look at is, what sensory connections have not been explored. And then we look at what is available in the system. So for example, I had a young ballet dancer who had, because of the surgery, a restriction in her ankle dorsiflexion, which makes a plie quite difficult. But she was developing knee pain. And when I looked at the plie, I realised that she was actually overcooking posterior pelvic tilt. So she'd been very much given the message of being here. Yeah, sorry, I'm spinning around here. So she was she wasn't just in a neutral position, she was heavily in posterior tilt. So of course, if you're going to try it and then plie, then you've taken away the hip availability, the hips don't flex, if you're in heavy posterior tilt. So actually, the effect of the ankle limitation was far greater, and she was trying to take it up in the knee, because she's effectively locked down above and below the knee. So by actually helping her to find that we don't have to be here, we can actually just be in neutral. Now that I'm in neutral, my hips can bend, which means I minimise the effect.

Steven Bruce

Alright, okay, I know, this is not for my benefit, definitely. But I'm sure there'll be somebody in the audience who doesn't know what a plie is, and I expect it will be Robin but.

Joanne Elphinston

So, the plie when you look at a ballet dancer is that very wide turned out dropping at the centre of gravity, you know, when they're going up and down, and that very, very externally rotated position that you'd see in ballet.

Steven Bruce

Okay.

Joanne Elphinston

There we go.

Steven Bruce

Most of us will be thinking, why would you do that your body but, I wasn't going to do this again until the end of the show. But Barbara says, just this problem has been plaguing this 71-year-old body huge improvement. And please would I share the book again? So the book is called The Power And The Grace, funnily enough, it's by Joanne Elphinston and hang on because there's some more about that to come later in the show. But it's a bloody good book for reasons I will explain later.

Joanne Elphinston

Thank you.

Steven Bruce

I don't plug people's courses or merchandise for no reason. I really don't, so but we'll come back to that.

Joanne Elphinston

Oh thank you, Steven. Can I just say that it just brings joy to my heart when someone says that because I think that there's certain things that as humans, you know, they are part of our inheritance. And I do find that with simple elements, if we understand the biomechanics of us and the physics of us and the neurology of us...

Steven Bruce

And there's a sad shortfall, isn't there, which Sandy has brought up because Sandy says she was taught this and the fundamentals of movement many years ago when learning clinical Pilates, and more recently when studying AIM with Gary Ward, I'm not sure what AIM is, but...

Joanne Elphinston

Anatomy in motion.

Steven Bruce

Ah right, okay, and anatomy in motion, of course. But she says sadly, she wasn't taught it as an osteopathy student. And I suspect the same will apply for chiropractic viewers here that you know, we just don't get to cover, well, you can't cover everything in training. Simon says isn't the idea of what you've been talking about inviting someone to do something rather than directing so that you don't raise prejudged expectations, the body needs to unlearn learned habits.

Joanne Elphinston

I guess where I would go with the, rather than unlearning, what I say to people is that you have a whole menu of movement possibilities, and you're choosing this one. And so what we're going to do is, we're going to see what other ones you have to offer. Because this particular one, is not necessarily something that's sustainable under the conditions that you're trying to operate. So rather than an unlearning, what we're doing is opening up another option and what we find with people, when we do this, and you invite them to go back to the way they were doing without thinking about it, they find that they can't, because the brain's gone, oh, this is a better idea. And it's quite interesting when I say well, should we go back? And maybe I've done something postural or something like this, and they just find that they can't. So all I'm saying to people, because I really want to interrupt the correct and incorrect dynamic because it's so, it's so oppressive. You know, people are so concerned that they're doing it right or wrong, that they're not moving at all. They're not sensing it, they're not inhabiting it. And that's not what we're all about. This is anti-movement.

Steven Bruce

There's a couple of things that sprung out at me from your book, you make the statement in there that the brain completes some movement before the body's actually even started the movement. And you go on to say that what's important is surprising the brain, can you elaborate on that a bit?

Joanne Elphinston

Yeah, actually, that was what I was going to go into actually, next in my little presentation, was about well...

Steven Bruce

Oh sorry.

Joanne Elphinston

No, it's perfect leading. But you know, it's as if we'd planned this before Steven. It's about the sensational cerebellum. And, you know, if I just, I'm just going to share... So I don't know about you, Steven, but when I was at university, the cerebellum was presented as something that was to do with coordination. And that was pretty much where it ended. And there's so much research, particularly over the last seven years or so. So we understand that a lot, lot better. So what we find out is that the cerebellum is our own little crystal ball, it uses the past to then predict the future. So we perform a movement. And because it's, you know, we're energy organisms, we need to be efficient. So what we do is we take a copy. So the cerebellum connects through some of the structures throughout our brain, gets all the way to the motor cortex and comes back and creates, effectively a template. And then it's going to use that template, then to make predictions about the next time you do the movement. So it's going to make sensory predictions. And if the predictions don't actually correlate with the actual sensory experience, then the brain sits up and goes, well, what happened there, we need to learn something. And that's when you get your change. So the cerebellum is so interesting, that this process has actually been completed before the physical motion has actually begun. So if someone comes to you, and for argument's sake, we've been talking about squatting, and they've been doing squatting, they've got a very strong pattern in there already. And if I say we're squatting, then the brain goes, I'm going to push the squatting button and run the program. So, how do we change a movement that's actually being completed by the brain before it's actually actually begun physically to manifest itself? So it's really interesting. And this is why people think, oh, you got to do 1000s of repetitions to change. If we don't understand that we have to actually hook it before the movement actually begins. And I will tell you about how we can start to do that. But first, I just need to tell you a bit more about the cerebellum, because it's not just motor predictions, it's predicting all sorts of things. So here are talking about the executive function. So, for example, it's predicting what the next word is going to be in my sentence, it's going to predict the next word in your sentence. It's making memory projections, predictions, perception, so, they've done all those lovely tests where they've shown 15 people the same scene, and then you get 15 different responses for what's happened. The cerebellum is in play, and it's making predictions. And then probably for us, clinically, most importantly, is the emotion prediction. So that very much goes towards what's happening with fear conditioning and expectation of pain. So all of these things are built into that loop, that template. So we need to have a little bit of an idea about how we could interrupt that, to see if we can actually make change. And when we play with it that way, we can actually make much faster change. So the questions are then, is movement more than just motor and is motor so much more than what we usually think. So, what are we going to do? So many

things to talk about, but I'm just going to, just pick a few things. So the first thing is clarifying what does the brain think this is? And therefore, what solution is it offering? So let's start with something easier, in which direction is this movement? How many times do you ever think about that when teaching an exercise, for example, and last time we were together, I was talking about raising the arms above the head. And you know, if you're doing that in standing, you might see someone lose their pelvis forward, or their spine go into extension. And you might think, oh, they're losing trunk control. But in fact, if you think about it, up to shoulder height, we have an upward trajectory, and after shoulder height, depending on how you cued the movement, but if you've just said raise your arms, they might be thinking this is backwards, and it's not conscious, it's completely unconscious, but the cerebellum is reading the sensation and go, well, that's going backwards, then I'm going to counterbalance and take my pelvis forwards, which is a really intelligent thing to do. So, you know, if we don't want that to happen, then we need to clarify that we'd like the fingertips to go to the ceiling, which is an entirely different motion, and will give you a completely different motor output with no training at all. So to give you another example, and I'm trying to give you things that you're going to see frequently, with gait, it's so interesting to ask people, well, which direction are you trying to move in? And there'll be like forward, like, really, I see. So if I just bring myself out of screenshare for a moment. Now to give you an example, from just this last week, of an older lady who'd come with hip problems, and she was walking, like, she was here, and these little tiny steps like this. And I said, are we going forward. And she said, I think so I said, well, why don't we put a hand on the chest and one on the tummy? And I wonder if you could tell me, are they one on top of the other or just one behind the other? What's happening there? And she's like, oh, I said, you can look in the mirror. And she looked at herself and went oh, I see. And then she came here. So shall we see if we can walk now and she went, oh. And then of course, her stride length automatically got bigger. So I didn't exhort her to increase her stride lengths, because she couldn't, I'd end up with funny little steps if I'm back here too. But if I bring myself forward, and think I'm going forward, then I increase my stride length, and my hip extends properly, which then makes my glute work. And so it all starts to unfold. And that's just about working out, which direction are you trying to go in? If you, some of you may follow me on Instagram, I posted something this last week about a runner, who we've done some work with for knee pain, and it had been going really well. But he started to get it back again. And then I asked him to run and looked at him and he looked like he was going up and down a lot which I hadn't noticed before. And it's because we've been working on the springiness, but I hadn't really clarified. There's obviously something I maybe needed to clarify, or perhaps I couldn't have predicted for it. But he said I'm really working on the springs, I'm like okay, but the thing about springs as they go up and down, and running goes forward. So we're not doing the forward. So can we think like a hovercraft now, instead of a pogo stick? And then he hover crafted instead of pogo sticking. He went, well, that's much better on my knees, I'm like, well, that's a lot easier than doing a whole lot of manual therapy and the strengthening exercises. And, you know, we just had to clarify, which way do you want to go? And so, finding out, you know, what does the brain think this is all about? What's the meaning of it, what's the logic of it? And that whole thing was about giving the cerebellum something to work with, like, oh, we're going forward. That's what we're doing now. And then it makes arrangements in the motor system, which is different to what it was doing a moment ago. And that's nothing like technical coaching, you know, put this here, make this do that. None of that. But just giving the cerebellum a different possibility and then seeing what happens with it. Maybe that wouldn't have been the answer, but to him it absolutely was.

Steven Bruce

Joanne, we've had a couple of questions about the applicability of what you've been discussing with different types of patients in particular. Kim says, what about patients with knee or hip replacement surgery? Helen says, is there an upper age limit for this, and I think particularly she's thinking of osteoarthritic patients. And I was thinking, as you did your demonstration earlier on, that I was treating myself a gait's patient very recently, who was quite obese, and the hand below would have been quite a long way out in front. And that would have perhaps been a little bit too far to ask them to lean forwards into their walk. I had made them walk faster though.

Joanne Elphinston

And actually, interestingly, sometimes people go, oh, my gosh, it's all happening really quickly, because they've never actually encountered the sensation of walking within themselves, and progressing across the ground, because they're always behind themselves and pulling themselves forward. So I mean, the lady that I'm talking about, she's in her upper 70s. So you know, and she's had a hip replacement. And she's had ongoing problems with this. And she's come because of, a friend had come for their hip problem. And we've done very similar work on just restoring the normal logic of the motion. And very quickly, actually, that improved very nicely, didn't require exercises. There is no upper limit to normal movement and all the time, we're always working within whatever somebody's possibilities and potential are. So you know, I've done this with the very oldest and the very youngest of patients.

Steven Bruce

Okay, I wonder if you've got some advice for Marina. Marina says, she has an amputee, whom she's treating at the moment. And she said, this will be an interesting one to try to see if they can put an intention into feeling into the missing foot and see if it can change how the muscle groups work in the pelvis and the other leg to help achieve better balance. What's your thoughts on that?

Joanne Elphinston

Absolutely. So first of all, let's take the research on peri personal space. So if we think about, when we use a knife and fork, and we're cutting our food, well, we know with our eyes closed, whether we're cutting steak or bashed potato, but we're not touching it, because our peri personal spaces extended out into these implements. And they've done similar things with skiers is that becoming part of your, you become one organism. And so that's the first thing about this idea that, that Marina's got about, you're seeing if we can start to get a sense into the leg. And then in terms of the flow and the biomechanics, really important with one of my patients was an amputee ultramarathon runner. And he had a belief about how he had to run, which involved a lot of frontal plane motion. And he's like, oh, that's just how amputees run. I'm like, well, there's absolutely no reason why they should, you've still got a hip, you've still got all these other things. So let's introduce the idea of the fact that when we run, it's like a progressive rotation, we rotate our way across the ground. And that's what gives us our flow. So he was unsure. But he decided he was going to humor me and came back lit up like a Christmas tree, because he'd actually gone out with his normal running partners, and just worked on his flowing across the ground, and just suddenly, he's just moved away from them. And they can't work out why, because he doesn't seem to be running any faster. But yet he's moving away. But instead of his motion going into the frontal plane, which is not going across the ground, because when we think about rotation, because people think that running is a sagittal plane activity. And of course, if we just think about it as one side progressing, and then the other

side progressing, then it's always moving forward. And that gave him a totally different imagery to work with. And that's someone who's running ultra-marathons.

Steven Bruce

Marina says that her patient used to be in the Paralympics as well.

Joanne Elphinston

Perfect. Perfect, you know, you've got so much to draw on. And one of the things that we're really big on is finding the stories that work for the patient, that lights up their associations, their resources that they can draw from, in this new circumstance that they're in. But it does a lot of the heavy lifting for you, if you can help to uncover those and it really creates meaning and that stimulates the brain to go looking for new information as well. So we're just, we're taking it out of the cognitive brain and starting to access all of these other wonderful resources that we have available to us.

Steven Bruce

I got one thing to ask you before I let you run through the rest of your slides in about 15 minutes.

Joanne Elphinston

I'm not going to get to the end again.

Steven Bruce

But what you're saying is so helpful and so useful as always. Anne says that she has found that it seems to help patients with Parkinson's disease to think about the movement they wish to achieve, before they do it, like getting out of the chair. And again, you're nodding. So I'm guessing that chimes with what you have been researching, with what you practice.

Joanne Elphinston

It absolutely does. And in fact, there's an interesting paper on Parkinson's on comparing cues. And they looked at parameters like, you know, the ability to move, the ability to have variability in the tonus, which, of course, is healthy. And of course, that's something that the Parkinson's patient loses. And they compared to cues, they gave them the cue to stand up straight, or they gave them the cue to lighten up. Now, if you think of yourself, where that would take your brain, lighten up could suggest all sorts of things. And even just saying it, my brains got all you know, it's gone to, oh, you know, there's a balloon over here and a cloud over here, and maybe it's an eerie feeling inside, they just started doing it without me asking it to. Whereas stand up straight, has kind of put a full stop on my body. And what they found with the Parkinson's patients is just by changing that language, their functionality was so much better.

Steven Bruce

How does that translate to when there's not someone giving them the cue, though?

Joanne Elphinston

Well, I mean, they're perfectly capable of taking that away for themselves. You know, again, it's coming away from this idea that we give them things. What we do is we give them an experience, and allow them to compare, and then choose the one that they feel. And of course, because you've given them choice,

and you haven't just said, oh, you need to do it this way. You've actually said, do it this way, do it this way. What do you notice between the two? And again, it's a way of really respecting them, and saying, you know, your information is really, really important here. Which way would you rather feel? And when you're talking about the compliance motivation thing that we talked about at the beginning, we've asked which way would you rather feel? Well, most people will generally choose the one that feels better and easier, and more efficient. And so it's kind of built in then, now what you'll find is, of course, life happens to people. And they could be going on really well. And then of course, you know, heaven knows, the last 18 months is a great example of how life happens. And let's say you put a big layer of stress on top of that. And then all sorts of things go out the window, and we have to come back to baseline again. And some patients have been doing extraordinarily well. And then their businesses collapsed, or their relationships collapsed or, and suddenly they can't breathe, their diaphragm is doing something different, which changes the intra-abdominal pressure. And because that's not working, then they tighten up their global muscles to try and get some stability in their trunk. And then we all wonder why, it just doesn't seem to be happening. So instead of panicking, we just go back to, do you know what? This is about life and about having skills and are going to breathe a bit. And then we're going to find our feet again. And then we're going to work out how to move again. And now let's have another go. And it's so interesting, you get someone who literally could not do it at the beginning of the session, and they walk out and they can do it perfectly by the end. Because you've stayed calm. And you've understood the bigger picture and realise how whole we are, we talk about being holistic, don't we, in our profession, and yet somehow, we say yes, I'm holistic, I recognise all these separate things. And somehow, we miss the moment that they all integrate, and then go off down our little orthopaedic route. It's not an orthopaedic problem. And so I think this really brings us back to, how, in what way can we be holistic, it's by understanding this interplay and making it okay, because the patient comes in and they think they failed or they do what my other patient I mentioned earlier with the hamstring problems is like, oh my gosh, I definitely need some, something's seriously wrong. And they go into that riff. And this is where it's just to, I know we're coming towards the end of this, but I just wanted to mention the importance of us remaining centred. Because in that moment, we could so easily be pulled along with the patient and start, we need to evaluate all this and find out what's wrong. When you know that actually it was all going fine. And if it was all going fine, then let's look at the bigger picture. But to do it we have to remain centred ourselves and calm. So that were the mooring that the little boat, the patient is attached to, and it can swing around a bit, but we're still the mooring. And we'll just be consistent until a swinging around, kind of comes to stillness. But if we're just being pulled around, because we're not regulated ourselves, it makes it really tough for everybody in that situation. So I just wanted to say that because every single person here is a clinician, but they're also a human being, and they're having their own life stresses, and you come to work, and maybe you're not quite as regulated as you could be, but you think that you'll just pull it together with your head. And it makes it hard.

Steven Bruce

So, Joanne, in saying that, you've left yourself about four minutes to finish off all your slides, you probably better seize on, I don't know, one of the important messages from what's left in your presentation here.

Joanne Elphinston

Yes, absolutely. It's so funny, I think, I have a feeling this single presentation will take me through the next, you know, next two of these get together that we do. Let's just have a little look, the concept of are

we saying yes or no to the patient? Or are we encouraging, go or stop. So, we, of course, we're saying go. But actually, often we are actually giving people anti movement instructions. So if I give you an example of an anti-movement instruction, and everyone can do it together, we can just sit on the front of our chairs, and put our hands across our chest, and all I'm going to do is ask you to keep your pelvis still and turn your shoulders to whatever the limit of your rotation is. So you're you're focusing on keeping your pelvis still and not moving. And you're finding out what your range of motion is. Okay, so that's an anti-movement cue, that's a stop something from happening. So let's contrast that for a minute. And I'm going to invite you to put your left hand on the front of your left hip. And you can still have the other hand across the body. So all we're going to do is leave this behind and take this one away. So you can leave that behind. And we'll take the other one away. And then we'll see what your range is. And maybe you can do it the other way too. So contrast, keep your pelvis still and turn. And now put your hand on your hip, I'm simply going to leave it behind. And I'm just going to take the other one away. And what do you notice? Well, I don't know, you noticed Steven, but certainly from myself and my patients, they go a lot further.

Steven Bruce

And I suspect we'll get lots and lots of feedback saying exactly the same. One of the other things I really like, there's a line in one of your books I think, I think you described talking to an elderly lady and saying to her, instead of saying, can you do this and her worrying that she can't you said this is normally quite achievable for people of your age or words to that effect. So she's already set up to succeed, because she knows other people in her position could do it rather than being told it's a challenge.

Joanne Elphinston

Yes. And actually, that was a piece of research that was done on priming, to the concept of priming the patient. And so they did that with a group of elderly people. And yes, when they told them that this was perfectly within, you know, most people could manage it, even if they couldn't do it to start with, with a little practice, they would be able to, and they will perform so much better. Just because you've changed the expectation. And so you've changed the priming. So the cerebellum, that is a direct, you know, that is directly working on that cerebellar loop, because you've shifted the expectation that they have. So that makes it possible for something new to emerge.

Steven Bruce

How does it work for the one or two patients who don't achieve it, who now feel a complete failure? Because you said they should be able to.

Joanne Elphinston

Well, you know, I think this is again, why it's so important to start the patient where they are and set them up to succeed. So for example, with squatting, I didn't just say, oh, well, you know, if we do this, people will be able to squat better. I actually went, well actually, we need to make sure that some of the biomechanical elements are there first, and then we're going to do this. So for example, if you can't balance, then the listening foot is a critical exercise for you to be able to manage the small fluctuations. And I had one gentleman I had, he'd had bilateral hip replacements, and he was sent to me for balance. And when I looked at his feet, and we tested because I use listening foot as a test and he was rigid, there's no motion, no dissociation. So if you're going to stand on that leg, and of course our bodies are

fluctuating all the time. And if you have no capacity to absorb that, of course, you will be off balance. So the treatment was listening foot on this leg and then listening foot on that leg. And then let's stand up and see if he can balance and he was like, oh, that's better. I'm like, it was. That was it, you know, no special balance exercises. There's actually nothing wrong with what's going on up here, you know, it's the vestibular system and so forth. But he didn't have the basic capacity to absorb the normal fluctuations of our body. So we set them up to succeed, rather than saying, well, you know, you're 81, and people normally could be able to do this. Well, he wouldn't have been able to. But if I set him up to succeed, he can.

Steven Bruce

There's a couple of comments come in, which I think sum up a lot of what's happened this evening. Kay, who you possibly know, says everything you said is so fantastic. And your JEMS course is so mind blowing. She would recommend it to all.

Joanne Elphinston

Oh thank you, Kay!

Steven Bruce

Simon, these people are not being paid, at least I don't think they're being paid for their comments. Simon says, this shows how important language and communication is. And not surprisingly, that will be ticked off on the certificates that I issue for this thing. He finds there's often a disconnect between patient's expectations and what they can achieve when they're enabled to engage with what their body can actually do. And Jason Gaffney, sorry, Jason says excellent with the communication for patient understanding. So three people singing your praises already for this, Joanne. I thought I would come back just briefly to the book. The reason, anyone who knows me will know that I am a real stickler for written work. I don't like bad written work. And I like the English language, and sometimes the Australian language as well. And this book is just superbly put together. I love the language you use, Joanne, and I love the imagery that you use in here. And the explanation. It justifies that foreword by Tom Myers. It's a really good book. I don't know what it actually costs, but I know that you are offering people 15% off this and off your courses?

Joanne Elphinston

Probably not 15% off the courses, but certainly 15% off the book. Nice try though.

Steven Bruce

I tried. So we have a discount code which Justin will put up on the screen for you, which is ELPHAPM15. And if you want to buy the book, where would they get it from, through your website?

Joanne Elphinston

No, Handspring Publishing.

Steven Bruce

Handspring Publishing, okay.

Joanne Elphinston

That code works on the Handspring Publishing website. It won't work on Amazon or anywhere else.

Steven Bruce

Okay. Well, I thoroughly recommend that, I'll send out a link to Handsprings, so you don't have to worry about it now. And I'll send out the code by email tomorrow, I thoroughly recommend that. I'm really delighted, Joanne that you didn't finish your presentation, because that means we can get you back on again, at some point in the future, because you're going down really well. Everybody's really loved it this evening. And as always, I mean, I think you delighted a lot of people with your approach to movement rather than exercise. And you know, what can be achieved by talking to people in the right way, as well. So thank you once again for that.

Joanne Elphinston

Well, you're so welcome. I always feel like, even though I can't see everybody, I can feel them anyway. And you know, their warmth, and their feedback has just been so lovely. I probably should mention, do you give people the website and information if they want to...

Steven Bruce

Yes.

Joanne Elphinston

So that's all fine.

Steven Bruce

Yeah, all those links will go up on the recordings page. And I'll push them all out on an email tomorrow, just so people have got the links for the book and stuff like that.

Joanne Elphinston

Indeed, and I'm just laughing at myself because literally, I've still got half a presentation to do and I was here this afternoon thinking oh, I wonder if I've got enough to talk about for an hour and a half.

Steven Bruce

That's how I always feel when I start these things, but you only need half a dozen questions from the audience to get the ball rolling. And again, it's been fascinating.