Academy of PHYSICAL MEDICINE

Transcript

Control Ain't The Goal, JEM
Joanne Elphinston
Cast List

Steven Bruce	APM
Joanne Elphinston	JE
Beth (Model)	B

APM- This evening, we're gonna be doing some fantastic CPD. Because I am joined by an international star of the physiotherapy profession, which is Joanne Elphinston. Joanne, as I say, she's internationally around. She's an author, she's a practitioner, and she is lecturer. She has followers in Australia, her native country, in the USA, in Sweden, in Argentina, and of course here in the UK. Joanne, great pleasure to welcome you to our studio here. And I know I've looked through your website, I've looked through your book, I've looked through your history, I know we're gonna have a fantastic evening CPD. I mentioned the Jems, something, the network, the organization,

JE- Community.

APM- Community, yes, a number of people who are certified Jems practitioners. But you're a physiotherapist.

JE- I am.

APM- What differentiates you from all the other physiotherapists in the world?

JE- Oh, well, I think the first thing is not to put it into a category.

APM- Yeah

JE- That's the first thing I think. Jems, was developed to be integrative. Not to take things apart, and very early on, it was always interesting to me with my colleagues to find that neurological physiotherapists would think they were terribly different to musculoskeletal physiotherapists and so on. And yet, all of these people have nervous systems and muscular skeletal systems, and minds, and brains, and emotions. And so Jems is actually about celebrating that. Bringing it all together.

APM- Jems stands for the Joanne Elphinston Movement System,

JE- That's correct.

APM- So it's a very neat little acronym, and I gather a lot of your followers, a lot of the practitioners regard themselves as your little Jems, which is very sweet.

JE- Absolutely, I do think they're all wonderful.

APM- So you trained in Australia?

JE- I did, I did.

APM- And is Australian physiotherapy training vastly different from that in the UK?

JE- It was at the time at which I trained, which was in the late 1980s. I think that it's come together globally so much more now. I mean I had wonderful training at that time. I didn't know how good it was until I left and I went to work in the United States. But then the United States gave me options, because it freed up new ideas for me. And then coming to the UK, people were exploring slightly different things. It's the beauty of going country to country to see how these different aspects of the profession have evolved.

APM- And you said that early on you were saying that a lot of people have been very complimentary about how you've integrated their different philosophies. I've certainly seen a lot of feedback from osteopaths, and I'm an osteopath obviously, and I'm sure there are chiropractors as well that feel the same way, that actually, this is not an alien subject. You're not the enemy because you're a physiotherapist, you actually are talking the language of the osteopathic world, the chiropractic world. Basically, the physical healthcare world. Now, I mention that you were also an author. This is the second edition of your book isn't it?

JE- It is.

APM- Published in 2013, Stability Sport and Performance Movement. And I have to say, I don't think it's a very good book, It is a superb book.

JE- Oh, thank you.

APM- Seriously, it is a superb book. Now, we've had lots of people on who have published books, because people who are established in their profession always go on to publish a book. And so often they're written like research papers with Harvard indexing after every blinking reference, and it's so difficult, you don't want to read it. This one is a lovely balance between simple language, which I don't know, the less well trained or even the layman might understand, with also some really really useful stuff. A third of it is theory, there's a bit on functional assessment, there's a little bit on exercise, and what I thought was really good about this is that, in the exercise section, it doesn't just tell you how to do the exercises, it says what to look for when it's going wrong. And it sounds stupid, but I just thought it was a real star of a book. Now we're not here to sell your book, but I bought the book and I recommend anyone else does.

JE- Thank you.

APM- Because it is a really useful book. It's aimed at athletes, it says on the cover, but a lot of this stuff in here is the sort of exercise we give to our own patients in clinic, but gives I think a much better understanding of how to make sure those exercises are being performed properly, which is I guess where we're gonna go with this evening's conversation. So this isn't a plug for your book.

JE- But thank you for plugging it anyway.

APM- Well I'm only plugging it cos I think it's so good. And it's what, 24 quid on Amazon or something like that?

JE- Something like that, yes.

APM- So anyway, you'll get another plug about that before the end. So tell me then about the philosophy in your book. It talks about zone stacking, and it talks about elastic stability, and it talks about all sorts of suit of armor philosophies and things like that. Should we know about these things?

JE- Absolutely, absolutely, because my concern, and really where this title for tonight is coming from is that.

APM- Which is Controlling The Goal, I should have mentioned that shouldn't I?

JE- Controlling the goal, absolutely. There's actually a blog that I wrote some four or five years ago actually in response to what I saw happening at that time. And I love that you've kind of made a little adaptation to the strap lines, are interfering with normal movement with this emphasis on control? And I find it fascinating that after 30 years of prolific researching on this, I don't think we've ever been so far from normal movement, as what we are now. Absolutely. And I don't say that lightly, because I get to spend quite considerable time with practitioners from all over the world, every year. So I get to hear the messages, their beliefs, and the understandings. And it is so interesting to me that we're not really talking about movement, we think we are. Most of the time we're talking about stopping movement.

APM- In what way?

JE- Well, when you ask people about control, ask a patient, so most of my patients are chronic patients. And they've had lots of intervention. And sometimes they come and they tell me with hushed tones, "I have uncontrolled motion." I'm like: "really, I see." "So what have you been told?" "Well, I need to set something, or suck something up, or tuck something in, or draw something back and down."

APM- But don't they all come to you and say my core's weak?

JE- Oh yeah, or "my glutes are weak." That's the other thing. "How long have you been strengthening your glutes for?" "Five years" Guess what? That's not the problem. It's gonna come down to how you are using yourself. And most of these messages now are about stopping something from happening. And the problem for the brain is that's okay, so you're gonna tell me, I've gotta keep this together, that's the stop signal. And now you want me to move, that's the go signal. So how am I gonna do the stop signal and the go signal? I can only do that if I change the way I move. So, it's a bit like me on my first mountain biking expedition. And I said to my husband, "do you think I should know something about this?" "Oh no it's fine, you'll be fine." And then I found myself at the top of a steep hill with a dog leg at the bottom. And I froze. And so I'm trying to go down a hill with the brakes on, so of course I went over the handlebars. It wasn't successful, but it was the go stop, that's going on. And when we ask clinicians, what do you think you're doing, and you start to dig a bit, and people are thinking, hmm, I need to stabilize it because that will be protecting it. And if we talk about protection, there's an inference of threat. And if there's an inference of threat, then we come into the limbic system. And that gets very interesting then, because we have research here already showing us that even in the absence of pain, fear of pain, will have the same effect, on the motor output that we have. So it starts to get very very interesting, when we're looking at what the motivation is, that we're expressing, what the patient is thinking that we're doing this for. And then what happens to the movement?

APM- I gather from reading your book, you're not anti-core stability are you?

JE- No.

APM- I think you're anti core stability as an item on its own, for its own sake. So those exercises which people would often stick in inverted commas and call core stability may be a part of your repertoire perhaps?

JE- Well yeah, I mean I know that you've referred in some of your past presentations to Eyal Lederman's Myth of Core Stability.

APM- Yeah, and to Matt Waldend's, Math of Core Stability as well. So we try to look at both sides of the argument.

JE- Indeed, and I think what's interesting with Eyal's paper is that I agree with much of what he said, except the title. Because core stability itself isn't mythological. Our central body has to be able to withstand and support the forces acting on it. So whether you're bumped in the street or tackled by a rugby player, so you've got an external force. Or we've got these big muscles that have to pull off something, we have to support it somehow. So we need to have that central stability. But what is mythological, is what we do about it. And what it has to do with, movement. So actually, if I just zip down here for a minute and find a slide. Okay, so here's three different functions, that the core might be involved in. So we have, what would you do if you're being tackled by a large heavy man? Well you'd bring everything in, you'd want to stop motion.

APM- Is this your suit of armor analogy.

JE- So that's the suit of armor, absolutely. But you're not gonna use that same strategy to run a marathon, you're not gonna get very far. Okay, we need to have all of this lovely counter rotation, it needs to be elastic, suit of armor is not an elastic strategy. It draws everything in, and it holds it. It's a high energy cost, we've got to now let it go, in order to be able to continue moving. So there we are, we're using our elastic movement possibilities, to run, and then if we look at the train, and they're on the tube there, your equilibrium responses have to be able to adapt to what's goin on. It's a completely different kettle of fish.

APM- So what's going wrong here then, because if I were, God forbid at my age, on a rugby pitch again, I would know that I'm going to have to brace up if I'm gonna be running two by, a professional rugby player, cos it's gonna hurt. I would know if I were running not to do that, because I simply wouldn't be able to hold that tense, that braced position for 26 miles. So why do we need Joanne Elphinston to tell us to do that?

JE- Well it's a really good question, because it's not that this knowledge is new, and if you look at the research, it's showing up everywhere. They need them for proprioception, the need for, these fine neuromuscular strategies, the need for our joints to be able to move to adapt, to just breathing for heaven's sake. And yet this out there, you can pick up a book and it says pull your tummy in and squeeze your glutes. Well you can't stand up and breathe when you do that. We've already interfered quite significantly with the normal function of the body. So, it is really quite interesting to me, because I keep saying to people, this is not rocket science. Yeah? It's not rocket science. If we take your original idea, if we take this idea of just very simply putting the body into three main zones, and you can see that there's some arrows coming up from the feet there, to the lower zone. And I've called them control zones, but you can call them force management zones, if it's an athlete I'll call it a power zone because that's the language that's gonna resonate for them.

APM- I can honestly recommend page 14 of your book for this because,

JE- My word.

APM- The lower control zone seems to have something to do with that very large glass of red wine. About this size in fact, which,

JE- Yeah, it's the table upon which the glass is supported.

APM- I see, rightly so.

JE- At the end of the day it's a bit like when you go, sometimes people call and say: "I'd just like to come to the shoulder course." I'm just like well, "you can't." Not because I don't want you to come, but you won't understand what I'm talking about here because this upper zone has to sit on something, the central zone, and that has to sit on something, which is the lower zone.

APM- So we're not talking about three distinct zones here, we're talking about three integrated zones.

JE- Absolutely. So what we want to do is we need to have them connected but able to move independently of each other. And this came originally from a year where in one month I had two main conferences to do. And one was with the Pilates Foundation, and the other one was for England Athletics. You're thinking right, how am I going to make these real for these really different people? And what it came down to is how they understood this, integration connection but with independent motion. cos mostly what happens, so for example if we have this scenario, and this is called we say, zone stacking. So we connect the zones, but they don't move independently of each other. So people always ask me, is a plank, is it a good exercise, or a bad exercise? Whether it's good or bad entirely depends on what your

motivation is for prescribing it. So, if you want a situation where you want all of your body components to maintain a fixed length, over time, at a certain load, it's a great exercise. But if that's the main way,

APM- So it's a good exercise for doing the plank.

JE- It's a good exercise for doing the plank, absolutely. If we go down, have a look at some different functions, so for example, anyone, anytime you have to make a very fast rotational motion around an axis, so like our hammer thrower, or a pirouette in ballet, or, well actually not pushing your groceries, you still need to zone stack for that. But basically, you're gonna have to keep everything together, strongly. And that is a perfectly performance pertinent thing to do, no problem. But, if I want to go and run, that wouldn't be my choice.

APM- Just run that past me again. When you say zone stacking, how do I stack those three zones? I'm guessing that the middle one is the core, the inverted commas. What's the upper one, what's the lower one?

JE- Okay, so anything from the pelvis, this area. This is the interesting thing. I'm not gonna draw a little dotted line on the body, because it makes a mockery of our actual structure which is so unbelievably miyofascially and functionally integrated. So we're looking conceptually. So for example, one of the things I hear from certain types of professionals is: "the movement all starts from the core." Well, it doesn't if you talk to a bio-mechanist, and it makes perfect sense as to why. Because we want to create a force, you want to use the strongest part of your body to do it. So if you want to throw a ball, or hit a tennis forehand, or golf, it starts from the lower body. And then we transmit it up through the body, and then out through the hands.

APM- And you've got that elastic connection between the opposite side of the body and your kicking leg or something, haven't you?

JE- Oh, absolutely, so,

APM- And I'm not gonna keep referring to your book but, there's a couple of great pictures in your book and one of them is a picture of a rugby player kicking a ball, and it says, "this rugby player" it's Owen Pharell for crying out loud, and you referred to him as though he's just any old rugby player on the pitch. There's a, "this runner", and it's Jessica Ennis. Are these are all people, we allowed to ask if you've treated them?

JE- There are some people in the book that I've treated and other people who I haven't. I've just basically gone through thousands of hours and thousands of images to find something that's exactly going to represent what I want.

APM- But you have treated at that elite level?

JE- Oh heavens, yes.

APM- Olympic level and you've treated performance artists as well as athletes and so an so.

JE- Oh no, I do that routinely. So I was a consultant of the British Olympic Association, and the The Swedish Sports Confederation, and various elite organizations, I'm still doing that.

APM- I'm sorry, I did distract you from talking about the sort of connection between foot and hand, and elastic components of kicking a ball around.

JE- So, neurologically for example, for the pelvic zone here to be able to work, then we need a foot that's talking to it because it's driven by these positive support responses coming from the planter surface. Yet, many people I see, and these are people operating often at a high level, don't have a foot to stand on. You know they stand on the foot, it's clawing and we've got hammer toes and we've got claw toes, we've got bunions, we've got all sorts of things, because that foot, doesn't know how to listen to the floor. And if it doesn't do that, then it doesn't talk to our system to give us this, anti-gravity response. So, if we follow it up. There we are at the pelvis, then lets take, for example, this slide. So I've followed it up, I've got as far as the gluteals here. And then I've got the thoracolumbar fascia coming across. Got latissimus on the other side. And everything's great with this lovely elastic connection. And let's say for example, you've had a very bad ankle sprain, and we know from very old research from 1993, that that's goin to give us some, possibly some inhibition, in our central muscles, our glutes. And the body's a wonderful adaptor and calibrator, it's like: "right, I haven't got enough, force closure here across the sacroiliac joint so what I'll do is if I haven't gotten any tension from this lower bit I'll pull a bit, from the upper side." So now we have a latissimus that's helping, our pelvis. So it's not very difficult to work out how we can end up with a right shoulder problem from our left ankle injury, if we actually follow this through. And that's where the movement testing comes in because it's not conjecture, we're not just saying, they've got a tight lat, this must be happening, that's just a leap, you can test it, and that's one of the things I wanted to try and put through in the book. If I stand up Claire, will that be okay?

APM- We need to alert our camera man, to the possibility of movement here.

JE- Just, while were here, just to show how, let's say, you have this situation that's come up. You don't have to have complicated testing, to be able to do it. So, how are we going with that? The camera? So you might have seen a movement that looks a little bit like that, as a test. You know it can test a couple of things. It could be the pelvic stability on this side It could be the flexion relationship on this side. But I have my hands like this, because if I

stand on my left leg and I suddenly see my right shoulder coming down like this, I'm a bit interested in that. If my patients come in with a right shoulder problem. So, it may be that I'm like, hmm, I need to look at that. And maybe I'm going to structure, not just my manual therapy, but my movement therapy. Because whenever you do a manual technique, you then have to teach the brain what to do with that. All you've done is create potential. So, it's a little bit like, you know, I'm learning Spanish and I can learn words, but I can't necessarily put it into a sentence. So maybe you've done something manually with the pelvis. But, the person stands up and it kind of looks better, but the brain, doesn't know what to do with this. So I might then say fine, I'm going to take this side and lengthen it. Which is also going to take my ribcage, central. And then I'm going to press out, in this position, so that I can integrate the pelvis on this side, and not be dependent on my lat, on the other side. I mean that's also something I might give to an older patient, who's struggling for balance. It's much quicker and much more effective, than telling them to stand on one leg.

APM- Okay, so we can use this for normal people, not just for athletes.

JE- Heavens yes.

APM- We can use this for old Mrs. Miggins down the road, who's seventy six and got OA everywhere.

JE- Yeah, people are doing Jems with everyone from pediatrics to geriatrics, to neurology to amputees, to falls prevention, we're all human beings. We've all got the same basic kit. So, yes and even though the book says it's about sport actually I've got people from all sorts of levels using it. Because ultimately the information in it, about how to see and experience movement, and how to start moving into, movement, It's actually quite low-level work. Mostly what I find with rehabilitation is everybody goes in too high. And the nervous system is locked out, it has to cope and it'll do the best it can, but unless we take some of the load off it, and some of the skill demand off it, it can't make a change.

APM- Can you give us an example of that? I mean, when you say that people are going in too high, have you got an anonymized case history you could run past us, an unknown?

JE- Oh so many. Well yeah, if you're talking about going in to high lets take an athlete example because we expect them to be able to tolerate high load. We expect them to be able to do big things. And they'll often come in and say, "oh yes, I can support, you know, this heavy weight."

APM- Um Hmm

JE- But they can't do, the things that they actually have to be able to do. So if they're a professional footballer for example, and I find that, okay they can squat great big heavy weights, but they can't make very small changes of direction. Well, that's what they have to do. They can't do it and, then you find that they're finding ways to compensate for that. And so, I spent ten years really working with chronic groin problems in professional footballers. And over and over again, there were really basic things they couldn't do. Most of them couldn't drop their center of gravity. If you're want to change momentum, you're going to have to drop your center of gravity. They can't do that.

APM- Meaning, what, what can't they do too. Okay so they can't do the squat.

JE- The can't do the squat that they said they could do, cos they're doing it like this.

APM- Oh, okay.

JE- With their bottoms stuck out behind them and, you know some of the other rules that you see brought up like the apparent vertical shin, which makes no sense at all.

APM- Vertical shin when you're doing a squat?

JE- Yes

APM- That sounds quite hard.

JE- Well yeah, it means that you've gotta stick your bottom way out behind you. It's not actually what we're doing when we're moving naturally, which is more like a, Jack in the box, a concertina, kind of idea. So with someone who's quite high level, sometimes I have to have them literally lying on their backs, pressing into a ball. Learning how not to, over contract, they use, too much, too hard and too fast. So they don't have the subtlety of the shading, that they need from their nervous system to be able to be truly, adaptable. So, this is people we think should be able to do these things. I had a favorite situation with an 83 year old lady who arrived in my old clinic, where you could see the gym area. And she was watching me work, with a 23 year old, semi professional rugby player. And he left and she came in, and she said, do you know, "I can do that better than he can." And she was right. She was absolutely right. Because she wasn't pushing through, a whole lot of the habits, that he had developed. And because often their asked to tolerate, vastly, rapidly increasing loads. And their bodies learn to cope, they learn to compensate until they break down. And then we have to go back, and actually build the foundations properly, to come back through again.

APM- Are you finding that that is part of, and where again we're talking about athletes here I know, but is that something that's being perpetuated by sort of old school attitudes on the part of their trainers and maybe their club. I'm going to say physios because everyone who treats in a club is called a physio, no matter what their skills are. Are they just following the same worn out old patterns and not developing some sort of functional approach, such as you.

JE- I think it's almost more that we've got to come from a reactionary side, because, all the eggs are going into the very low threshold basket, for a while. So you've got some people that are very into their, multifidus and their traverses and being, a little bit myopic there. And we've got this reaction on the other side, and now you've got the t-shirts saying: "you can't go wrong, getting strong." Yeah you can, actually. Strength is a good thing, I'm 100% for it, but I'm not for using it to wallpaper over the cracks. So, what's happened is that the skill base, on actually understanding movement and feeling comfortable with it as a multi-dimensional phenomenon. That I feel, is where people aren't comfortable, the training isn't really there. And I think people are being pushed to try and you know find solutions that they can nail down with somebody and if it doesn't work, that's okay because nothing else works anyway. And we're seeing this now in these meta analysis, saying, well this doesn't work any better than that. I think we've always got this pendulum that's swinging from side to side rather than necessarily being old school.

APM- Some of the things that I saw in the book again, you were talking about some of the stuff actually that Matt Walden has talked about on this show before, which is about phasic and tonic muscles. And you divide, I think, into global stabilizers, global movement and local stabilizing muscles. Do you want to just run us through, what that means in terms of what's doing what in the body? How do they integrate?

JE- Well, to be honest, I've come quite a long way away from that now.

APM- Have you?

JE- Yeah, It's not that they don't exist, don't get me wrong, physiologically they do. Whether it's that useful, actually, to think of it in that way. I think is possibly, where we were. It's really good background information to have. Yes we have certain muscles that are working along on, you know, buzzing along a little hum. And then we've got muscles that shout. Mostly what I see are people that are using their shouting muscles because they can't hear, these low threshold, local muscles going on. So what I'm seeing more and now, as the research is moving forward. Instead of thinking of it so much as fiber types, we're looking at the body trying to grasp resources cos it can't sense itself. So we see a lot of people using these big global, mobilized muscles, which usually cover more than one joint, so of course. If you're using that as your primary stabilizing strategy then it is going to create

compression. And it is going to create mobility problems. And so, it's very useful to see it in that way.

APM- Yeah.

JE- You've got torque creating muscle, so, like your obliques for example, so it'll still have a global role, in terms of stabilization, but can create something. And then we have these other muscles that don't change length very much, that hum along.

APM- These are the tiny little, very local stabilizing muscles.

JE- Yeah.

APM- The multifidus type.

JE- Absolutely, but yet we see now, other research that starts to show us other things, like for example, the smaller rotators. It seems that their the ones that have the proprioceptive input. And then we were looking at popliteus for example, do we think of it as a knee proprioceptor, necessarily? With my violinists, I often find supinate is a problem. And again in terms of proprioception, that's fascinating, why are they doing it? Why are they overusing it? Well, their coming up with a solution to a stability challenge and the body is finding its best, option for the moment. Our job, with somebody, is to help them find other possibilities that may be more sustainable.

APM- So your violinist example, why might they be using supinator? What's the problem?

JE- Oh, lots of issues actually, with the violinist, I treat a lot of violinists. Frequently, they actually can't stack themselves on their pelvis to start with. So, whenever we say, core stability, you know, people associate that with muscle contractions. But for most of them, their either exhausted, or their straining upwards, or their straining upwards, and then get exhausted. But in the middle of that, is the ability to to actually just put one segment of the body on the next. And actually learn how to be there, without it costing that much. We're efficiency organisms, were not set up to use the most amount of muscle for things. So, how do we find the least amount? And once we have that, then we can put the scapula, into place, and then we can put the glenohumeral joint into place. If you don't have that, what you find is people who are wedging their chins down to try and hold the instrument stable, because their not stable. And their increasing their peripheral tension, to keep control of the instrument. And so all of this becomes, really problematic. Where do we start? Well we start with, can I put you on your pelvis? Can I put your feet on the floor? Until we have that, we can't let any of this go.

APM- So, again, take that a little bit further okay? They're sitting on their pelvis, they've got their feet on the floor, I imagine they're all doing that.

JE- Ummmm, you think?

APM- It would seem to me if I look at it in a way, that they would think so wouldn't they?

JE- Well they often do, but again, if you look at what happens with musicians they often have to have a really rapid increase in fine motor skill. Their actual, postural development may be ticking along, quite far behind it. And suddenly you're mapping very, high level coorderative work, onto an immature postural system, and they get locked together. So sometimes what you're seeing, in your 40 year old violinist, is the struggling 10 year old.

APM- Right.

JE- Yeah? And that's where we have to start.

APM- Okay, where would you start then, with old Mrs. Miggins from down the road, when she comes in and says I've got this awful, lets say, we all see too much of low back pain. Where do you start with your functional assessment of somebody like that?

JE- Walking.

APM- Um Hmm, what are you looking for?

JE- Right, well the first thing I want to see is where are the forces going, in this person? So, for most of them, if you look out on the street, from teenagers through to elderly people, you see them lurching, from side to side on the frontal plane. So okay, were lurching, now that's going to give us more load, because obviously if we're going to walk, we're going to want the rotation through the body, to actually send those ground forces up and then start shedding them, up the kinetic chain. No rotation, the forces have gotta go somewhere. And so we start to see the lurching. So let say she's coming in with right lower back pain, it's not unusual, to see somebody lurching, heavily, into one side. And you just think of those little lumber facet joints going: ow, ow! Every, second step. Or maybe their under tension, we've got the opposite, happening. The first think I want to know is, why is that structure under pressure? Of course I can stand her and bend her forwards and backwards and she'll say "ow" at certain times and I'll put her on plinth and she'll say "ow" when I do certain things. It doesn't fundamentally tell me, why is the structure under pressure? And if I don't know that, then I can make her feel a little bit better. But, it's going to carry on, you know, and then we end up managing the problem instead of transcending the problem. I think that, from my point of view, is something that we could bear thinking

about a bit more, because we talk an awful lot about managing problems. And I'd really like to see, can we aim a little higher? But to do that, we have to be willing to work out, the answer to that question, why is this, under pressure?

APM- With this particular hypothetical patient of course, a lot of what you're seeing, her dysfunctional gait, or her pain patterns. They may be related, she may be walking that way because it hurts. How do you work out what is the underlying problem was?

JE- Frankly, what you do is you work with what you got. And say okay, that's not helping, alright, what happens when we change this, what's your history? Now we've got to cross check that against some other movements so gait, that may be showing you something. So I said fine, I'm gonna change that, I'm going to find out well, do you have any rotation? Is that a possibility? Is it painful, is it not painful? Because if you can't rotate, you're not going to be able to walk. Fine, is it that you don't accept weight, on one side? Let's look at that. Okay, and then she'll tell you about other history, you know, the terrible bunions she has, you know the, whatever the problem was at some point in her life. Maybe it was a knee surgery. I say fine, so you can't support weight through that leg, that's something I can do something about. You don't rotate. That's something I can do something about. And, why don't we start there and see what happens. So, ultimately, when you have someone like Mrs. Miggins coming, she's not an a acute pain patient, she's actually accumulated compensations and ways around things and so, it really doesn't matter, what the chicken or the egg is. What you do is you work with what you have in front of you. Because that's the problem now.

APM- Would you like to run us through some of your, functional assessment techniques or, demonstrate some of the exercises you might use in clinic?

JE- Sure, one thing I would say though is that, with Jems, unlike other movement testing systems, there isn't a top five or top ten things you do for x, y and z. It's very much about how, everything integrates with the individual. So, to get to that point, if I take this slide here. So, the local physical, that's the ouch, that's why they've come to see you. We wanna know, how's that playing with the global physical? So how does the rest of the body, influence that which we've touched on? How do the functional tasks and activities, that that person is being exposed too, influence that? And to a greater and lesser extent, we have environment and context, and that would include: equipment that they use, their work environment, home environment. And you can get all of those lined up beautifully. And everything changes in a heartbeat, if the arousal levels, so the emotions and the beliefs, kick into play. So you can have a patient literally who has all of that, perfect. There ready to turn, fully functional. And then something happens, something stressful, and you'll suddenly find that, none of it works.

APM- Our viewers might have trouble seeing that little bit of text at the bottom, "arousal level", which sits at the bottom of the green blob, the green circle. By that you mean, the psychological stresses and strains or reliefs, that might be occurring that might be occurring as part of their day to day activity.

JE- Or their beliefs and emotions about, their situation, what's happening in their bodies, their understanding of what the meaning of what their pain is.

APM- Catastrophization

JE- Catastrophization, absolutely. There's the meaning of pain in terms of themselves and the meaning in the broader context. So sometimes, you know, someone will come and this, okay, this means this to me, but what does it mean in terms of my earning potential, to put food on the table for my family, you know, there's an awful lot around that. And, you know the emotions and beliefs, you can't, almost can't tease them apart. People will often, you know, tell you a feeling. It might be hinging upon a belief that they have. But basically, that area is really rare, the research the research is starting to push, more and more, for how that influences how somebody moves. How the neuromuscular system is actually creating an output. So, when it comes to, how would, how would I test? Shall I use an example?

APM- Yes please.

JE- So, I'm gonna take this example here, now this is not the actual person, may I just say that, I've just had too rip that off the internet to show what this persons functioning is and she's actually a K-One paddler. And she's actually come with shoulder pain on the right, and left lower back pain. So we've got two things, going on here. And the tradition when I was trained in physiotherapy was to say: "and which one is the most important one for us to deal with today?" Which is taking us back to that very localized, somewhat myopic approach. I'd be interested to see is there a relationship between the two? So, the first thing to say about this lady, is she has a magnificent rotator cuff. And magnificent scapular stabilizers and an incredibly strong core. So, anything that anyone would have put into the internet to look up evidence based practice for shoulder problems in kayak paddlers, is already out the window. Okay, we're gonna have to start from somewhere else.

APM- When you say she's got a magnificent rotator cuff, you mean, you've tested it, it's intact, it's been imaged and it's intact?

JE- No it's not.

APM- Or just that she's very well developed?

JE- She's very well developed, it's not intact, she has got cuff pathology. When you look at how she functions, what she uses is, too much, too hard. So, she

doesn't need strengthening, on this particular cuff. That's the big point here. So let's come back to that, we call this the holistic functional model. So local physical, we've got the shoulder, we've got the back. Before I can look at global physical, I have to understand what she does. And the environment. So she's sitting, on a very tippy little boat. On the water, which obviously is not a stable situation. And she says to me, I say what's the biggest problem, with the paddling? And she says balance. Okay, she says but I don't understand that, because I do lots of things on dry land, I kneel on Swiss balls and, you know move things and I've got great balance on land. I just can't balance on the water. Like, okay, interesting, file it away. Let's come down to the functional tasks and activities. How do you do it? And, I was lucky in some ways because I spent some years with Great Britain Kayak and Canoe but, you don't have to be an expert in every possible function in the world, ask them. They know, what they're trying to do. Your job is to try and work out, whether that's actually happening. So, if you look at the picture of the kayak paddler, you'll see that she is orientated forward.

APM- Um hmm

JE- Okay, so to do this I need to know, how to carry my my pelvis needs to carry my trunk, over my hip. As an intact unit. So, if I leave my pelvis behind, that's a problem. And if I lead with my trunk, that's a problem. And the reason that's a problem, is because she's going to have to rotate her torso. And his is when we bring in the physics, because if you want to rotate, you need an axis to rotate around. So, our first question really for her is does she have an axis? cos if she doesn't have an axis, we've got nothing. Okay? So, how do we test it? Well we're going to look at something really simple, called a trunk tilt. So, Beth, could I borrow you for a minute?

APM- Right so, willing volunteer from the APM team's gonna come over here and be a guinea pig. Beth, can you make a noise like a guinea pig?

JE- Right, so Beth if you, can you see Beth from side on there? Okay, so Beth is already environmentally challenged by her stool.

APM- Yeah.

JE- Which, goes in and dips a little bit, we're just gonna want to put her in a posterior pelvic tilt.

APM- Yeah.

JE- So, Beth why don't we just take you a little bit forward on the stool.

B- Okay.

JE- And give you, a little bit of a chance. And I'm just wondering, when you're sitting, can you feel you're sitting on your sitting bones? or, you feel like your sitting in front of them, or behind them, where are you?

B- On them.

JE- So that's interesting, we'll see whether, the audience agrees with that. All right then, so, I'm interested to see what happens if you come up into my finger. Okay, so that changes, it changes things here, now, I'm going a little bit off piste here, I could just show you a demo, but I think it's interesting to see how a person compensates. So, I don't know if you we're able to spot that, at home but, pretty much the pelvis stayed put. And the extension happened up here. Okay, so this is going to create a problem, if we're going to rotate around this extended area, this very vulnerable area here. So, the next thing we're going to have to find out then, Beth, is whether you can actually feel your sitting bones, so, can you put your fingers underneath them just for a minute? To see if you can find them. And, I'm just interested to see, if you pick yourself up and see if you can roll over the front of them, can you wiggle, back and forth on them, make your sitting bones point forward and backwards?

B- Yep.

JE- Yep. So can you point them forwards for me?

B- Yep

JE- Now you can point them the other way? Um hum, and a ways down to the floor. So they can either point forwards, Okay. they can point backwards, or they can point to the floor. So where's pointing to the floor?

B- There?

JE- Um, interesting, okay. So we've got some really interesting, kind of proprioceptive things going on with Beth. Now you can take your hands out for me. Yeah, otherwise your a little squidgy, I'm going to get you to sit forward a little bit more on this stool here, excellent. Right, so I'm playing with Beth and this is what happens in the clinic. It's playing with her because she's, has to have the opportunity to learn. So it's not about me imposing my agenda on her and saying, this is what we're going to do, this is all part of her learning. Yeah, and I'm learning, from her. So whether, I 100% agreed with her interpretation, of where she was, it's not relevant. Yeah, we will move her in the direction that I'd like to go in, okay? Now, I'm going to get you to imagine, if I opened a book, and closed a book like this. And so the leaves of the book, I've got one coming down here, and one coming along here.

B- Okay

JE- And, what I'd like you to do is find, there's a bone here. The hipbone, can you put your thumb on the hipbone? And put your finger on your thigh, okay. Now if you were to bring those two together, yeah? That's closing the book.

B- Okay.

JE- And can you open the book again? Okay, alright and we'll close the book, and we're gonna open the book. That's fabulous, now go again. And open the book. Okay. Now, what you might be able to see, is although, you know, the pelvis is in a certain place, what she is starting to do is learn how to do is let her psoas lengthen. Because the dominant postural strategy here is to shorten, in the front, yeah? So, close it up for me again. And open it up for me again. Okay, great and let your hand drop for me, okay. Now, I want you to have a little think about the back of you.

B- Okay

JE- And the front of you. And I wonder, do you feel like you're the same length in the front and the back of yourself?

B- Probably not.

JE- What do you think, tell me what you think.

B- Probably, no I don't know, longer in the back, shorter in the front? I don't know?

JE- That's fair enough, I would agree. Is there anything you could do about that? So again, I know we started this talk about mechanics, but where we're going here is actually far more important which is the teaching for learning.

APM- Um hum.

JE- Yeah, cos ultimately if the person doesn't understand, or be able to feel for themselves and you can see that moment of: "I don't know." And that's her, kind of like, "I'm feeling really vulnerable right now." And my job's going, "you're doing great, yeah and actually you're starting to sit better, and better all the time."

APM- But does that feel easier Beth, or is that hard work sitting like that?

B- Yeah I have to concentrate a bit more, cos that's just natural position but, it feels nicer.

JE- Indeed, cos actually, can you see that this is one of the compensations. So what we actually know with Beth, is she's got some low postural tone, yeah?

So she's using her reductors really hard, in here. So she was doing that before, but she's probably going to need that it even more.

B- Yeah.

JE- We're going to do something that's going to feel a little silly.

B- Okay.

JE- Yeah. I promise you'll be fine. Do you want to grab the ball to sit on for a minute? So I think it was good because, we were invited to run Beth through things, I said I'd rather we didn't. Because I'd like to see,

APM- Yeah.

JE- what's real. Rather then a doctored kind of, idea. Now Beth, are you sitting in the middle of the ball?

B- I think so.

JE- I'm going to get you to, bounce the ball, vigorously, bounce on the ball, just clap your hands really hard and I'll do it with you, you ready? Okay Go, go, go, go, go, bounce, bounce, bounce,

B- Am I still clapping?

JE- Go on, go on, go on, go, go, go... Give me a good old bounce.

APM- Like a performing seal.

JE- Absolutely, now, we're going to keep the feet on the floor and you just, don't worry about your hands. I'd like you to just do some bouncing for me now. And free it up, and go for glory here. Go for a bit of height. Okay? Now can you see, in the person that is a psoas dominant, you know, she'll close the book, won't you yeah? Can you feel yourself closing the book?

B- Yep.

JE- Okay, do you want to put your hands back here and open the book again for me? There you go, now have a bounce there. Yep, and if you feel you need to, you can keep your fingers there just to make sure. It keeps you honest. Okay, now the interesting thing with the body is that, if you take away a stabilizing strategy, it has to hunt for something new. So what we've done is, oh did I say stop?

B- Oh sorry.

JE- It's okay, your getting tired. Now I'm going to get you to flap you knees back and forth a little bit. Okay. So this is, just to let you know, rather than saying I want you to, don't let your knees fall in, which is another stop cue, I want her to feel that she can actually still sit on the ball, let her adductors go and the world is not going to come to an end, yeah. And, so when you take your knees outward, where do you feel the pressure on your feet, when you take your knees outwards?

B- Um, on the tips.

JE- Mm-hm.

B- Toe-y end.

JE- Okay, if you let the knees fall in--

APM- Toe-y end.

JE- Toe-y end, that's fine. If they fall in, where do you fee the pressure under your feet?

B- On the inside.

JE- Uh-huh, and take it out again. And in; you feel like you shift the weight under your feet.

B- Yeah.

JE- Can you find a place in the middle of the, ah, that's clever. Very clever, so-- Okay, can you open the book for me? Fabulous, now, what you're going to do, is you're going to have a bounce, and we're going to just pay attention to what happens under the feet, where's the pressure. And if you feel it collapsing one way or the other, just see what you can do to bring it somewhere a bit more central. Off you go.

B- Thanks.

JE- Yep, doing phenomenally, you had no warning about this, whatsoever. This is going great!

B- Thank you.

JE- Yeah. Okay, so now we can give up the adductors. Now, I don't know if you can see that we've got, now the body's trying to find, what can we do up here? And part of your fracture is old. You use this a lot, my word.

B- I do.

JE- Wow. Okay, give it a little, nice little bit a juicy...

B- Yep.

JE- Yep. Can you do a bit of this for me?

B- Yeah.

JE- And can you get a beautiful giraffe neck while you're doing it?

B- Yeah.

JE- Yeah.

B- Yeah.

JE- So, the question is, are we giraffing from here or are we giraffing from here?

B- Here

JE- Yeah, exactly. We often use the idea of a helium balloon just here.

B- Okay.

JE- Yeah, so it's job is to just to weight of your head off your body. I want you to make it real and give it a color.

B- Okay.

JE- What color is your balloon?

B- Pink.

JE- Bright pink. Bright pink, sparkling pink?

B- Bright pink, just bright pink.

JE- Just bright pink, awesome. Okay, so I want you to just get your bright pink ballon on for me.

B- Okay.

JE- Yep. Have a bit of a, bit of juiciness. Yeah, awesome. Okay, so you've got your pink balloon on?

B- Yeah.

JE- Okay. Now, we'll have another little bounce, so push into the floor with your feet to get the bounce going. There you go, and now we're going to bounce with the pink balloon. Okay, so can you see this starting to fall away now? So... The big thing is here, yo might say, okay, it's not exactly straight. But I'm going to give her a good go here before I call any awareness back here again, otherwise, there's too much, it's all cognitive. Now, I don't want it in the cognitive brain, I want her to actually start feeling herself and you're doing great. You're sitting so much more nicely now. Yeah, okay. So, come a long way off the truck tilt. But, actually, this is where we would have to, and interestingly, this is where we had to start with this person who represents their country, not this country, another country. So I don't want you to feel that this is some shemozzle, it's not, this is actually real. And this person was going out and trying to win medals.

B- Okay.

JE- Alrighty. So, you've got to, again, keep it where they are rather than trying to apply your agenda to it because she wouldn't be ready for the truck tilt, yeah. But, let's just see what happens. So, shall we put you back on this table?

B- Yeah.

JE- Stable seat again. And then, sitting to the, yep. And then finding out, how can I put myself? What do I already know? Yep. So we've got a pink balloon we could use.

B- Yep.

JE- Now, where's that balloon? Is it on your nose, is it on the top of, oh, look, there it is. Uh-huh, it's nice to see that we're not squeezing the adductors as much together, that's good. You want to have a little flap for me? Yeah, feel yourself going in and out on your feet.

B- Yeah.

JE- Can you find the play somewhere in the middle? Yep. Fab, okay. So, you know, we're a little work in progress, right now. Yeah, but gradually this is starting to become good. And it's important that we just keep giving her ownership over this, otherwise, she's going to go home and she's not going to know where she is. And she'll be one of those patients who comes back and says, oh, I didn't do my stuff because I wasn't sure if I was doing it right, so I thought I better not do it at all.

APM- Yeah.

JE- Yeah, and how many times does a clinician hear that? Yeah, so it's about you having ownership. We've got books and they've got balloons, yeah. And,

actually, that's really quite nice. So, all that's going to happen, Beth, if you, can you feel there's a hinge joint right here.

B- Yep.

JE- Yeah. Put your fingers in the hinge for me.

B- Okay.

JE- And I'm going to get you to just come out through the top of your head a little bit, so that's the nose. There you are. And all I want you to do is just close the book on the hinge for me. Yep, keep closing, doing a great job. Fabulous.

B- Am I closing?

JE- Yeah, that's great. I don't know if you can see, but she's just done that absolutely fantastically, yeah. And, back she comes again. And she came back fantastic too, wow. I'll pay you later. Okay, so we started from a place where we were kind of here.

B- Yeah.

JE- And anything that I applied to that, if I went with the traditional route, which is sit up here and don't do this and hold that there and... You now, and then they become a robot. Well, you can't see what the normal movement is anyway. Whereas here, we've got a way, so if you can pop your pink balloon of for me there. Yay, yeah. So we're starting to see some really nice change there. So I'm going to give a rest for a minute.

B- Thank you.

JE- And I'll take it from here. So, I'm not kidding when I said, this person is an elite person. Didn't have start point.

APM- Right.

JE- Now, once we got to here, which we did in the session, much like Beth, you know, give her the process, then we could say, now feel what it's like to rotate. Bang, now my abdominals are working. But if I don't have an axis, then, what I do is I pull with my upper body, which loads my shoulder. Yeah, so don't have an axis, I've got nothing. But this, for me, is true core stability. And that's a million miles away from the strength-based exercises which she has been doing but this involves proprioception. It needs to be able to know where it is under low threshold without it making a lot of noise, the muscles. It also teaches us the relationship between the hip, the pelvis, and the trunk.

APM- Yep.

JE- So, once we've got that, we've got an axis. Then, you might just do a normal clinical test. Can she rotate, yes or no? Is she can't, that's when you've got to use your manual therapy. If she can, then we're not going to waste our time with that, that's not the problem. The next one, on the slide, if I just point to the slide in the bottom corner, that's something called a knee creeper.

APM- So the bottom on the slide on the screen--

JE- On the screen, absolutely. So, what they do in Kayak, is they use the strong legs to push the pelvis into rotation, which then creates the thoracic rotation. And so, the arms are actually being supported by the force of the legs. So we need to know can you do this. And what does she do, she went back on one side and the other side ran out of transverse plane and popped it up into the frontal plane and went, yeah, that's my back pain up there. Yeah. Now, I've gone into the frontal plan, so I've lost my axis. If I'm in my frontal plane, I use my obliques to create torque. What do I do, I start pulling with my lats. Now, I've got a compromised right shoulder. So, you start to see how these elements build.

APM- How did your rehab with, let's say, this elite K-1 athlete progress, I mean, you had her bouncing on a Swiss ball for a bit.

JE- No, I just had Beth bouncing on a Swiss ball. Yep, she wasn't bouncing, so. And this is the thing, this is so not recipe based.

APM- Yeah.

JE- Yeah. This is where I say, we're accustomed to doing clinical reasoning with our manual therapy, and I would contend that we have to clinically reason our movement therapy and our rehabilitation to exactly the same standards, but that's not what's being done. We do beautifully, clinically reasoned treatments on a plinth and then, get them up do core stability exercises.

APM- I think there will be a lot of people who are going to be a little bit intimidated by this for a second and be saying, crikey, this is an awful lot to integrate into my practice.

JE- Mm, and it's interesting because, although, conceptually, to start off with, people will often start the process and think, oh, this is a big stretch, and then realize, that actually, it's all really simple. I can teach this to nine year olds.

APM- Yeah.

JE- And I teach it to family members who go home and teach their family and their friends because the concepts, if we look at it, do you have an axis? Can you turn around your axis? You can't turn around your axis, do you have a restriction? Yes or no? If you do, fix it.

APM- Yeah.

JE- Integrate it, that's it. Can you, do you shoulders have something to sit on? Does your center have something to sit on? And is your pelvis driven by reflexes from the foot? It's not rocket science. What we do have to do is now start thinking more about movement. And you asked me, quite a while ago, about these force management strategies and we touched on them a little bit, but maybe this is the time to go back and look at that. We talked about the suit of armor. And we talked about the zone stacking. But what about the elastic strategies because zone stacking is not an elastic thing to do. Muscles are not changing length, there's no stretch being applied to the system. However, if we need to get our myoelastic strategies involved, zones have to start moving relative to each other. So, we have a diagonal elastic possibility, so this is what we would use for gait, walking and running. Where the upper part of the body's going one way and the lower part of the body's going the other. So, in doing so, we get to store and release elastic energy through our diagonals. Makes a lot of sense; unfortunately, people are being taught to run like movie stars. The Hollywood school of running is to keep everything pointing forward and move your arms like this. With your hands like this and you leave with something exploding behind you. But you look at it, anything you every saw Tom Cruise in, this is not what champion marathoners look like. They're relaxed and they're turning, yeah. So one of the most favorite exercises that my patients get, and it's so funny because I had one week where a musician, an elderly lady, an athlete, and there was a dentist, all with low back pain, all told me this was their favorite exercise. And it's called something called a thigh slide. So, I think this is something that people could do at home. But there's a trick involved.

APM- Right, we love tricks.

JE- You like tricks, you want to have a go?

APM- Me have a go?

JE- Yeah, we'll do it together.

APM- Go on then. Alright, what do I do?

JE- So, let's bring you, yep, okay. Promise I'll look after you. Alright, now what's going to--

APM- Don't make me look foolish on camera.

JE- I will not make you look foolish, I promise. I promise, I could, but I won't. Now, what you want to do is keep your nose and your eyes pointing forward. Get your hands on your thighs. You're going to slide one hand forward and allow it to take your shoulder and the other one's coming back and allow that to take your shoulder so that it creates a turn in the body, yeah.

APM- Yep.

JE- So, we're going to go back the other way. Yeah. And we'll slide it; now, the first thing that happens is people think they're doing that but what they're doing is they're doing this. Their eyes are staying forward but the nose is going from place to place.

APM- So as I turn, I've got--

JE- Exactly. So what we're looking at is we're disassociating the cervical spine from the thoracic spine, so if I have a neck patient, this will be a way to mobilize a frightened whiplash patient 'cause they don't realize I'm mobilizing the neck.

APM- Yeah.

JE- Yeah. And so, they're quite happily doing this kind of thing. Now, what I'm looking for here is my Glenohumeral joint advances, you'll feel the scapula also advances in the way that it does when we walk, yeah. So, it's a very easy mobilizer, it feels nice.

APM- But if I'm keeping my nose pointing in the direction of my shoulder girdle--

JE- No, no, you're keeping your nose pointing forward.

APM- Ah, okay, I thought I was meant to be doing this--

JE- No, that's what people do.

APM- Right, okay, that makes sense, now I said, I was mobilizing my neck--

JE- Yeah.

APM- Got it. So you didn't look after me, I was getting it wrong.

JE- No, no, no, I thought you were doing a marvelous job of actually demonstrating what we wouldn't want to see.

APM- I'm always the bad example in--

JE- No, never. But what you'll find, if it's okay for me to stand up for a minute, I'm going to come behind you. If that's...

APM- Okay.

JE- Or I'll squat down, so I'm not very high.

APM- Right.

JE- But sometimes what people need--

APM- The challenges of camera work.

JE- Well, I'm come right down here. But really, if they can see your head, they can see what's going to happen here. Sometimes people just need to sense it a different way. So, if I just rest my fingers here on the side of your head, and then invite you to do the thigh slide for me. There we go. So, could you feel it was a little freer one way than the other?

APM- Hang on. I'm being laughed at by my studio team here.

JE- That's totally--

APM- I feel they should be playing BeeGee's in the background or something, Saturday Night Fever.

JE- Ah, that'll come later. Now I'm going to get you just to focus for a minute, Steven.

APM- It's very hard to focus when the cameraman is creased up behind the camera.

JE- I could make you focus more on me but that would be painful. Alright now, when you reach your left hand forward, I want you to feel what that's like and then, I'd like you to reach your right hand forward and just feel, does it feel the same?

APM- No.

JE- No, what do you sense there?

APM- I'm getting a bit more rotation in the neck when I do that.

JE- Uh-huh, yeah.

APM- If the shoulders are dropping at all.

JE- So, actually, you're actually much freer when you advance the left hand, so that's when your thorax rotates right, compared to the other way, okay. Now, for some people, that's just a motor issue and if I just hang on to your head, you work it out. But for other people, it means that there may be a requirement for that manual therapy again. So, you might think, do you know there's actually--

APM- Are we talking about a bit of cracking here, a bit of manipulation?

JE- Well, if that's what you do, yep. I won't be but depending on what your skill base is but, again, you can start to feel, gosh, that's really restricted there. But I'm actually feeling it in a functional movement. So, if I have my Mrs. Miggins, was that her name, Mrs. Miggins?

APM- I think it was, yeah.

JE- Mrs. Miggins is going to get thigh slides to help her with her low back pain 'cause I want her to start freeing up this possibility for her gait. 'Cause if you remember, Mrs. Miggins was lurching into the frontal plane and I want to introduce her to the transverse plane. So, it's a really versatile exercise but it's just a little example of something I might use for our diagonal elastic strategy. And then, we contrast that, what about the spiral elastic? So, okay, there's no axis there, but I was just trying to get a photo that we could actually use but, fundamentally, with the spiral elastic, golf's a great example. I'm going to just sneak up a little bit here but not very high. You'll have to use your imagination. Axis? My thorax and it's going to turn, my pelvis--

APM- If you need to stand, you can stand fully, I think.

JE- Okay, alright.

APM- You'll get shouted at by the cameraman.

JE- Okay. So if you think about your golf, you've got segments going the same direction but it's slightly different timing, okay. So, we're going around with the thorax, around with the pelvis, then just as we get to the terminal rotation, the pelvis starts to go the other way which sets up a lovely stretch here. And then, we start to come through, so everything's going the same way but at slightly different timing to set up the stretch.

APM- Yep.

JE- Yeah. As opposed to the diagonal elastic we talked about where we've got and lower body going in opposite directions.

APM- Yeah.

JE- Okay. So far, so good.

APM- So good.

JE- Good, got enough capacity for one more?

APM- Yeah, yeah.

JE- Alright. How about linear elastic, then?

APM- Okay.

JE- Okay. So, I've got that picture there of yoga just because I'd say, many people, and yoga teachers, not just people practicing yoga, telling me about pain with backbends. And this could be just your regular, middle aged lady who's decided, right, I'm going to get fit, I'm going to go to yoga class. Or it could be my high performance ballerina coming with spondylolisthesis, it's both coming other ends of the spectrum, same problem. Okay.

APM- Yeah.

JE- Now, this is a good one to try at home, if the cameraman, or camerawoman is available and it will require standing up.

APM- Okay, so can we get a camera on Joanne standing up please?

JE- Shall we both stand up?

APM- Well, I'm a bit disturbed because I've already got a comment here saying the audience are laughing at me and could I just please bounce on the ball to entertain them and the answer is to that last one is, no, I couldn't bounce on the ball just to entertain them.

JE- Well, it's alright, I'm going to make you into a ballerina right now, so that should suffice. Alright.

APM- I'm sure that would be terribly easy with a person of my stature.

JE- Oh yeah. So, and this is something you can try for yourselves at home, it's kind of interesting, if you have a low back that will tolerate extensions, so I have to make that caveat if you don't have a lumbar spine that'll extend, this one is not for you. However, what I'd like to do, first of all, is just find out how does extension feel and when you go back, where is it that you bear the load? So we're kind of interested, where do you bear the load when you go back?

APM- Me, right down on the bottom.

JE- Right down at the bottom of the spine, at the back, okay.

APM- Yep.

JE- Back of the body. Alright then, so, what I'm going to get you to do is put your fingertips just above your pubic bone.

APM- Yep.

JE- Yeah. And you guys can do this at home too. So, I'm going to get you to take your hand--

APM- Yeah, then we could laugh at you now.

JE- Hand here, yeah, other one. What we're going to do is--

APM- Other way around?

JE- It doesn't matter, whatever pleases you. Now, will you just think about the distance between the two hands, right. What we're going to do is we're going to take our hands away from each other, so we're going up. Up, up, up, up. And then, we're going back. Yeah, and back again, alright. So, again, what we're going to do is think, what happens when I just go back and lean on my joints.

APM- Yep.

JE- Yeah. Hand above the pubic bone. Hand, we're going to take the hands away. The hands going up, away from the pubic bone, up and out. So, you're not really coming out of your pelvis. So the question is, where do you bear the load when you come up and out compared to when you go back?

APM- It definitely goes higher, doesn't it? Seems the middle thoracic, I think.

JE- Mm-hm, so you can get the middle thoracic here and many people actually experience that they can actually bring it to the front of the body because you actually start to get that elastic connection. So, then we've got a situation where we can actually have people come into these beautiful positions but--

APM- What's that first position?

JE- There we go, see, I knew you had your inner--

APM- Oh, that hurt.

JE- And do you know why?

APM- Yeah, go on.

JE- 'Cause it was empty, you just went back and around.

APM- Yes.

JE- Yeah. So there's no elastic connection here. So having the up and out actually makes the connection and gives you the support to be able to go into these positions without loading excessively in the lumbar spine.

APM- I wonder how many people have actually been doing that at home while we've been demonstrating this, 'cause should've done it shouldn't they?

JE- They should've done it, it's an opportunity, absolutely. Because what usually happens is people get told to set their abdomen instead. Well, now we have an isometric contraction, how do you extend with that?

APM- Yeah.

JE- It's an isometric contraction. So now, I've said stop and now I want to say go. And what am I going to do with that?

APM- So this whole business of so many people being told to find the neutral position of the pelvis and hold it there, you don't like that--

JE- Um-um, no, no.

APM- 'Cause that's, again, it's isometric, it's static.

JE- It's static and there's learning in it. So, if I have that person, say for example, I have my typical male, I live in Wales, so he's a bit of a weekend rugby player, he's got that nice anterior, tilted rugby duck butt posture.

APM- Duck butt.

JE- Yeah. And they're really interesting 'cause they're often told to pull up at the front.

APM- Yeah.

JE- Yeah. And that's a bit of a problem because if you pull up at the front and set this, now my ribcage and my pelvis are held together but rugby's a rotational sport. How am I going to rotate? So, I can either keep all this together and not pass the ball or let it all go and rotate. It's not much of a choice. But if say to them, just take a little look in the mirror for a minute, and tell me, are you the same length front and back, which is what we did with Beth. And she was

able to work that out. Yeah, yeah, I'm shorter at the front and longer at the back.

APM- I think we need to sit down, we're being shouted at by the camera team.

JE- Yep, yep. But, what I'm saying to them is, show me what you're going to do about that. And they don't have any difficulty at all with learning to lengthen the back. So this is a release, a lengthening, yeah. Which then, still, decompresses the lumbar spine but then allows these muscles to actually work. And we can still move. So yeah, I'm not a fan of sucking, tucking and sitting.

APM- We had a few questions in here. Not all of them about me bouncing on the ball. Someone, Diana has said, they were just wondering if you would prescribe that bouncing and flapping as homework and how long would it generally take for the brain to integrate this into everyday movement? And she loves this approach, by the way, and special thanks to Beth for the demo.

JE- Yes, and Beth did a sterling job with that. Yes, this is absolutely something I do and it's so interesting because the bouncing, it gives more benefit. So if I talk about your low back pain patient and why bouncing is so different to your traditional lie on your back with your knees bent trying to make something happen, first of all, when you've got your acute back pain, you become rigid, don't you, that's your first response?

APM- Yeah.

JE- Yeah, this whole idea that we, suddenly, become unstable and only people who've never had acute back pain would think that happens. You know, if you've had acute back pain, you know everything starts to co-contract. If we go right back to 2005, looking at research there, and we find out that actually for every fraction of a second that you hold too long, increases your back pain risk. Okay, so we have a problem that we can't switch off--

APM- So every fraction of second you hold too long doing what?

JE- Too long--

APM- When you've got your--

JE- In movement.

APM- In movement, okay.

JE- In movement, in movement. So, we're looking at, there's been a lot of studies that have shown that low back pain patients becomes, you know, they get too much co-contraction. So, what they've looked at is going, hang on a

minute, people have to change that level of contraction. It needs to learn to let go again. So we have that, we have the proprioceptive element, and we have confidence because, again, if you've had low back pain, the thing you're frightened of is sudden movement.

APM- Yeah.

JE- So, we go to the ball. If we do what we did with Beth and alleviate her need to hang on with her so-az. To invite the brain to find some other options, suddenly, we get the pulsing action of the muscles that are there to say, right, I'm preparing for impact, I'm going to pulse to support it and then, I'm going to let go. So you start to get this rhythmic timing reestablished and it's pretty hard to do it in almost any other way. It's easy for the patient to do it that way. You're also asking them to learn how to land in the same place, yeah, we get perception. But the confidence is the big thing.

APM- So how long would you be, let's say that is the right exercise for somebody, what you demonstrated with Beth, how long would you be telling them to do this for?

JE- That entirely depends on the patient.

APM- Okay.

JE- It's incredibly, you know, I mean, I might say, right, I want you to give 20 bounces and then, I want you to have three breathes worth of off and give me another 20 bounces. Mainly, what I say though is that I'm not that prescriptive. I just write bouncing down and they find their own level. And I know that for some people who have a, kind of, in that kind of very paternalistic way of doing things, if this is how many reps, this is how many sets, it might not sit so well with them. But for this kind of work, you find that people find what works for them and with bouncing, particularly, I find they tend to do more of it spontaneously. And tend to do it during the day. The other thing that I do need to say about it is we did that to raise this baseline tonus in Beth, so with your hypermobile patients, bouncing is absolutely a go-to exercise for them because we get this nice little up regulation. And one lady came, she had Marfan's syndrome and very tall lady, worked in the NHS and, usually, terrible pain and fatigue at the end of a work day. She said she started bouncing on her breaks. And she said, you know what, I'm not tired and I'm not sore. So, she's just feeding in more sensory input.

APM- Are you actually, when you're doing that, are you strengthening the postural muscles, the tonic muscles?

JE- Strengthening. What I'm doing is I'm inviting them to actually activate as they need to activate.

APM- Okay.

JE- But I don't think that the postural muscles are necessarily ones that I think about as specifically strengthening. I would say that they strengthen, when we progress exercises we gradually put people into angles that create more loading on the body and we expect that if they've got the proprioception established, that we'll then ask for more from those postural muscles as they go.

APM- I asked a question because when, we've had Matt Walden on now for five of these shows and he was saying that, actually, with phasic muscles, you don't need to provide quite as long term stimulus to strengthen. With the postural muscles, actually, anything less than five minutes, doesn't have an affect on them, you need five minutes, it doesn't have to be continuous five minutes but 30 seconds, 10 times, with a bit of a break in between, gives you five minutes of strengthening and that will have a strengthening affect.

JE- I think from my point of view, it's, again, that's a model that I tend to move away from. So my purpose for the bouncing is actually more of what's happening in terms of a neuromuscular...

APM- Yeah.

JE- Activity.

APM- Is it a tone raising thing? Is it something that's overcoming inhibition? But I also guess if you taught them to activate, then actually, during the normal course of the day, then they will be activating that internal, raise their strength to the required level.

JE- Yeah, yeah, I guess so. I mean, like I said, it's a bit like the whole global, phasic tonic thing that I've kind of moved away from now, the strength model. I don't tend to think so much about the strengthening postural muscles, but I do say is I want them to learn to adapt for the specifics of whatever's happening in the day, 'cause we used to think, oh they're on all day and now we realize that they modulate just like every other muscle does with every breathe we take. The diaphragm itself, for heaven's sake. so what I'm looking for is can we use them when we need them. Is the question that I really want to ask.

APM- When someone says in the comments that that thigh stroking thing seems like a good exercise for people to be asked to do at work...

JE- Yes!

APM- I was going to say, is there something you would commonly find with computer operators--

JE- Absolutely.

APM- 'Cause I always kind of feel, at the end of the day, that they've slunk into this position, head forward and--

JE- Yeah.

APM- Stretched.

JE- Absolutely, so it's a super one for those. We'll often combine it, we'll often take the thigh slide, which is nice, and we'll also do something called sternal search lights.

APM- Okay.

JE- So imagine you've got a search light on your sternum, and again, you can have a go. What I ask people to do is just to start to learn to, first of all, pull it in, push it out. And then, pull it back to the right and push if forward to the left and then, swish it about and maybe take it along the floor and up the ceiling. Down the wall, and get them to find the bits that feel a bit stiff and a bit like they need a bit of a scratch. So that you're actually look at all the combinations of movements that happen and not just joints but the myofascial structures around them. To invite it to start opening out a little bit. So it's, again, much less prescriptive than just a certain plane, so that combination is really--

APM- When you do that, I wasn't aware of you controlling your neck in any particular way, so you don't have to say to them, keep your neck in a--

JE- Oh, that'd be a disaster because, of course, the neck should be responding to what's happening in the thorax and this is, again, what we're trying to get back to is how does it all torque. You know, if my pelvis goes here, my neck will go here. That's natural, it's got nothing to do with my postural stability and vice versa. So, yeah, we're trying to get away from the holding and fixing business.

APM- Yeah.

APM- A few more questions, if I can, Hannah sent one in. Hannah says she'd like to know what you think of the APPI method of Pilates which she teaches. It's modified Pilates for rehab using a muscular fascia sling theory, each exercise has a functional outcome. Are you aware of it?

JE- I am aware of it. Indeed, I mean, I try to avoid, kind of, you know, making judgements on other people's methodologies. And I know that they've evolved, somewhat, over the years. Overall, I'm not going to concentrate on

APPI itself but Pilates in general, I'm finding that like any methodology, you have a huge spread in the believe systems. I do tend to find that sometimes they can be a bit of a preponderance in zone stacking. Which, you know, sometimes people get to the end of the programs and I've done lots of different kinds of exercises but when you look at them, they're all zone stacking, face down, zone stacking face up. It's all zone stacking. Now, I'm not saying that's, I'm not up to date with the latest in what APPI are doing this year, but what I would say is that with any methodology, what we'd like to see is that we'd about functional outcomes and a little bit dubious about what some of those not, again, specific to APPI but generally speaking, if I take something at the other end of the spectrum, got people all over the country doing overhead squats as a functional outcome and I've got to ask why. Because if you're doing it for a footballer, you need to know can they drop the center of gravity quickly and then balance. Having a bar above your head is not going to give you the answer to that question. So, when people talk about functional outcomes, unless I know specifically what the outcome is, and I don't believe we have that information, I can't really comment on it.

APM- Yeah, but it sounds as though, from my interpretation is that Hannah's got the right approach to this, in that she's saying there's a functional outcome to what she's doing.

JE- Absolutely.

APM- And presumably, that APPI Pilates can be adapted, modified, incorporating the things you've mentioned here, the things that are in your book and such.

JE- Lots and lots of people come to the courses who've done APPI and other forms of Pilates and what they've done is they've integrated and modified according to what works for the kinds of people that they're dealing with and, also, there's scenarios. Some people are working in class scenarios, some people are working individually, so you know, like I said, I hesitate to kind of pontificate on one system over another unless I know it inside and out with detail, but the fact that they're actually aiming for a functional outcome is showing some of that reasoning process that I've said has been so sadly lacking.

APM- Well, somebody recently said that there are very few bad exercises, they're just badly prescribed exercises. If you're not getting exercise for the right reason--

JE- Exactly, exactly.

APM- More questions, somebody says this is really interesting and it completely changes where the loading is and I strongly suspect that I had more extension with manageable force, and that was somebody practicing what you've just had me doing a moment ago. Someone says thank you very much for this and

very much appreciate the examples used because they're an avid kayaker themself. Ah, great. Hi Joanne, thanks for shedding light on your approach. Out of interest, what role do you think the respiratory system and breathing has in how you treat your patients? It's Matt, physio and football and has met you a few times, apparently.

JE- Right, okay.

APM- There's probably a few Matts who are physios in football-- But this one, you've met. Yeah, so respiratory system.

JE- This is like an entire, a whole evening on its own. It's critical. And, again, I think it's so interesting that, at the time that all of this business in the 1990s was coming out about transverses, it was also coming about the diaphragm, but nobody wants to know about it, just like the poor relation. And, quite frankly, if you haven't got the diaphragm working in a coordinative fashion with the rest of the inner unit, then you have nothing. So, for many patients, it is actually the breathing work that is the treatment.

APM- And Leon Chaitow talks an awful lot about the accessory muscles respiration and their impact on back pain and other pain which I imagine is something you'd be taking into account when you're--

JE- Yeah, absolutely. But also, we've got the affect on the intra-abdominal pressure. We've got the actual fact that the diaphragm is a dual muscle anyway, so it's got respiratory function and a postural control function. So, if it's, for example, you know, stuck on the in-breath, say, we get a lot of people who get the diaphragm quite fixed and it gets stuck in a postural role, you can't breathe properly, then we're going to have a knock-on affect to the intra-abdominal pressure which may turn into a back problem, it could turn into a pelvic floor problem. It could turn into various prolapses and hernias, and these are all pressure management issues.

APM- Have we got evidence for that? Can we say—

JE- There's a lot of... There's a lot of writing around it, Diane Lee's work is very interesting. Julie Weeb's work is really interesting. So, you know, there's more and more interest now, as people are starting to realize that the diaphragm isn't just a little flat thing that is about breathing, it's absolutely critical to what happens to postural control throughout the whole system.

APM- Yeah.

JE- Okay. I do, just as a last thing about that is I'll find that people will come on a course and say, well, I don't have time to do the breathing. Like, okay. Right, so given the fact that this is actually the key in, if you tell me you're doing anything with this abdominal wall, and you haven't looked at the breathing,

then you're wasting your time and your patient's time. So, there's no such thing as I haven't got time for the breathing. It's usually the critical thing.

APM- There's been some other comments here that somebody said they tried the ballerina thing at home and it hurt their abs so, what were they doing wrong?

JE- Well done, you. I'm very impressed, you used your anterior wall.

APM- Someone else, who's anonymous, unfortunately, says they can totally see how this would functionally help most people work but can it help people with neurological problems or stroke patients, for example?

JE- Absolutely. Yep, we've taught courses over many years with neurological patients, the principles are the same. And it's so interesting because when we used to teach these course, we'd have people who were trained in Bobath who would come and say, oh, this works perfectly with Bobath and then, people who were trained in movement science and they would say, oh, this works perfectly with movement science and, yet, they would not actually connect with each other.

APM- And what's the first one?

JE- Bobath. So, well, this is one of the very, very key methods of neuro rehabilitation.

APM- Right, okay.

JE- And so, fundamentally, you know, human beings have all got nervous systems and they've got structurals. And so it works like a dream and, in fact, I've got, there's a lovely little group of people in Sweden who were doing their patients and they've bought themselves a Swedish copy of the book because it was the Swedes, actually, who commissioned it first. And they communicate with me from time to time and it's beautiful because they've had head injuries or other neurological issues and they're actually treating themselves. Getting the book out, getting together and doing it with, 'cause, at the end of the day, we need an axis. We need to feel connected. We need to sense where we are, we need a foot to stand on, it's all the same stuff.

APM- Right. You won't be aware of this but, apparently, there have been several requests for me to be wearing a spangly jacket from Feeding the Fish on my next ballet demo.

JE- Feeding the fish?

APM- Feeding the Fish are a performance arts, we use their studio in London--

JE- Oh, I see.

APM- And the spangly jacket was from a Take That tour of--

JE- Okay.

APM- Yeah, so we all tried those on the last time we were down there and--

JE- Oh, I'm so disappointed.

APM- Apparently, it was very fetching and we enjoyed that.

JE- Okay, I'm really disappointed that we don't have that here.

APM- We've had, apparently, a couple of hellos from Sweden, from people who are pleased their country mentioned.

JE- Hello Sweden

APM- Now, is the approach that you're talking about here useful for women's health patients with pelvic floor muscle injuries or issues.

JE- Absolutely. And I see a lot of these. At the moment, I have quite a lot of women who have had prolapse issues. And, again, we've got pressure management issues, so it comes back to, first of all, the breathing but then the relationship between that and how they're actually managing forces in their body. And I'm not just talking about that end but also the rising number of women who are athletic who have hypertonic pelvic floors. So they have urinary incontinence which is incredibly distressing because they keep getting prescribed pelvic floor strengthening but they already have a pelvic floor that's contracting like crazy. So, what it can't do is it can't release to be able to reflexively contract, which is what you need to do if you've got a cough of sneeze.

APM- Right.

JE- So this is all part of the same dynamic.

APM- So what's your approach with them, what would you do?

JE- With the hypertonic pelvic floor?

APM- Yeah.

JE- Sure, well, again, the first thing is actually addressing beliefs because usually they've bounced from professional to professional. And they've all said, oh, you've got incontinence, better do pelvic floor exercises. Which is exactly what they've gone ahead and done. Now, if they're athletic, there's a huge

rate of this in CrossFit, for example. So, loading and actually I saw a recent study that showed that amongst athletic women, stress incontinence is actually higher than the sedentary women. And so, when you read the papers, they say, oh these women's pelvic floors are not strong enough for the loads, which has an implication of weakness but actually, what we need to be looking at, is are they actually managing the loads and can we change that. So, how was the shock absorbance, there was a 1996 paper on a relationship with whether the foot could shock absorb and urinary incontinence in women. And they found a link, and I thought it was so interesting because it starts to look at how can we change the pressure? Again, it comes down to breathing, how people are actually using themselves and the breath and where the pressures are going. But what we need to do, first of all, is address the beliefs and to remind them that the pelvic floor is a trampoline. Yeah, trampolines are stretchy. And so, we start to learn how to breathe through that pelvic inlet, to actually feel stretch and release, so that we can start to feel safe doing that.

APM- Good success rate?

JE- Yeah, it makes a huge difference; the first thing is just understanding that it's okay to let that go. Not that it's all going to fall apart but we need to re-coordinate it.

APM- Yeah.

JE- And, if you've got a weak pelvic floor, we still need to look at the timing, it's not just about strength, but whether it has the timing, that neuromuscular timing. Go ahead.

APM- No, it's just we've got some more obstetric stuff coming in--

JE- Oh, wow.

APM- Again, I don't know who this questioner is but, I'm wondering how post partum mums fit into this, lots of mums are told to improve their core stability and improve their pelvic floor but for many, that means planks, et cetera, which actually makes things worse. How do you begin with them, do they need to start with pelvic floor can you move straight into movement therapy?

JE- Okay, well, they will have some pelvic floor work but we'll also start them pretty early on, starting to get everything reconnected again, but, it might surprise you to know, we don't do it quite the same way, so there's no planking involved. And even if you're going to look at the proprioception, I would actually be looking more to wall press than a plank, okay. A wall press is so interesting because people think, oh, it's a little, low lode exercise. It's highly proprioceptive, and if you think about it, when you stand and address

a wall, gravity's falling straight through the body, you do need much abdominal wall but as you come forward toward the wall, gravity is now coming at an angle to your body, which means that we need to grade up the amount of activity and grade it back down again, as we come back to vertical. So what happens is, if we work the proprioceptive element of it, so that it learns to grade instead of just--

APM- Holding it steady.

JE- Hold it in.

APM- Same position, yeah.

JE- Absolutely. We certainly, how much time do we have?

APM- We've got a couple of minutes.

JE- Okay, what I can show is the fundamentally exercise for this, it's called a greyhound exercise.

APM- I'm sure people won't mind if it runs

JE- Okay, Beth, I might need you.

APM- Oh, we're going to get Beth in. While Beth's coming over, we had one comment in here from Martin who says, he worked with physios in Australia for five years and was hugely impressed by their knowledge and he says, my guest is no exception, so thank you, Beth, that's right, okay, he was talking about you, I beg your pardon.

JE- Thank you very, very much.

APM- Thank you very much for the insight.

JE- That's really kind, really kind, and these are great questions, really great questions.

APM- Well, there's one here, I can't believe my team thinks I'm going to read this one, it's about orgasms. I'm not going to read that out. I'll just get embarrassed. With that, Beth, over to you.

JE- Although, it does have something to do with pelvic floor and so it's not--

APM- I'm sure it does, yes.

JE- Anyway.

APM- That's a question for another night.

JE- I'm actually going to get, you're going to lying on the floor, is that going to be okay, lying on the floor? Do we have the angulation for that?

APM- Yeah, we can manage that, I'm sure.

JE- And I'm going to get you to kick your shoes off.

B- Okay.

JE- And is it okay if I come down here with Beth?

APM- Yes.

JE- Okay Beth, so you're going to lie on your back with your feet here and your head here.

B- Okay. Yep.

JE- And your knees are going to be bent, and you need just enough to be able to slide a leg out, away from you, possibly, we'll see where we get up to.

APM- I'm going to watch this very carefully, as we'll have her doing this in the office.

JE- Oh, okay then.

JE- So--

APM- With a pink balloon.

JE- So again, it's kind of an interesting, have you put yourself in a specific position here or is this your relaxed position, or is this you trying to be tidy about this?

B- This is probably relaxed. Yeah.

JE- Okay. Yeah, I prefer to see you just being relaxed. Okay so, before we even started, again, the biggest thing about an exercise is actually the start. So, I don't know if you notice, but Beth's trying to press her back into the floor here a little bit, so you can see that her hips are not actually naturally bent, she's in actually posterior pelvic tilt.

APM- Okay.

JE- Ah. So, I don't expect you to know that, it's just in... And I would've, if this is a patient, shown them a sacrum. And shown them a sacrum and got them to put their hand on that sacrum and feel how it's a little curve. So, Beth, if you just quickly, roll on your side, face away from me, pop your hand right here, there's a bone there, you feel that?

B- Yeah.

JE- That's the sacrum. Give it a little rub. Okay, you know where it is, now come back. So you got the bottom down here and the top of the sacrum up here.

B- Okay.

JE- So, I'm interested to know, are you at the top of the sacrum, bottom of the sacrum.

B- Bottom of the sacrum.

JE- Uh-huh. So, would you like to go in the other direction? And then, just take it to the other end, again, you can go all the way till your back arches, that's all good. And go all the way to the top again. And then all the way back to the bottom again. So, can you feel all of the sacrum?

B- Yeah, yeah.

JE- Can you find somewhere, just switch off and let it fall on the floor. Again, rather than me saying, you have to put yourself here, she needs to start to learn, where is this body part, what does it mean to support myself. So now, we have a little bit more hip flexion. We can actually make more of a start. Now, I was interested to see what the head position was going to be like because if we thing about the original posture, it might have been that she was in a little bit of upper lock. Now, if you get yourself into an extended upper C-spine, then you can forget everything happening down here. However, she's taking up the floor really well, yeah. So, what's going to happen here? And the assumption is that we've already done the breathing. Okay, so I'm not doing this without having sorted out the diaphragm, yeah, at least got ourselves familiar with that. What we're going to do is get the idea of getting nice and long and thin in the middle.

B- Okay.

JE- Can you visualize a greyhound dog?

B- Yeah.

JE- Can you see how they've got ribcage and it tucks up in front of the hind quarters? You are about to become one of those.Yes.

B- Yes!

JE- Alright then, so what's going to happen is that you're going to take your arm up to the ceiling. Okay. And all that's going to happen is as you take your fingertips towards the wall over there, so you're not going to floor, you're going out towards the wall, you're just going to let your whole body follow it, yeah. So then, let it follow, let it follow, let it follow, yeah. And let's relax there for a minute, yeah. As yougot a little a bit-- And just let it hang out, okay. And then, I want yo to feel the greyhound shape, feel how that's goingyeah.

B- Yep.

JE- Okay. So your job then, is just whatever it's fallen down to, you're just going to keep it there. That's your anchor, anchor point. Now, let's flight this arm back up again. Alright. Now, people say ah, shouldn't we set the abdominals because we have to prevent the spine from going into extension. Okay, this comes back to direction of force, alright. If they're going up, they don't know how to go out. So, all that's going to happen is, together, I'm going to give a little bit of facilitation. You're going to take your fingertips out towards the wall. Out, out, out, out, out, out, out. And feel that stretch there, and that's lengthening the body, yeah. There's the anchor. Up you float, nice. Alright, now we also have a possibility, if took your fingertips just to the floor, here, and you can just slide them along the floor. And slide, and slide, and slide, and slide. Nice, okay, so she's just starting to get stretchy here. And the more stretchy she gets, you see how the belly is starting to fall down towards the spine? There's the anchor, and we float up. Very nice, indeed, okay. So, there's a few things that are different to a normal crook lying position. There's been no presetting. There's been, set the body up in a relaxed position. Because if Beth was here with a big lumbar extension, gravity's going this way, something's got to be actively pushing that way to be an extension, so it doesn't make any sense to just try and push it down with the abdominals, it makes no sense at all. So we invite her to relax, which, the breathing will definitely give us some insight into. But now, instead of locking this and then moving the arm, where the arm becomes myofascial separated, now instead, if we take it up again, and why don't we go towards the way, that's beautiful. As she goes, that's all coming down into greyhound, there's your anchor, up you come. And she's getting more and more confident now. So, although we talked about this for lumbar spines, when I have shoulders, especially shoulders that have had a lot of trauma, this is one of the first go-to things I will do to reestablish the myofascial support. And the momentthe brain works it out, you really see the confidence increase with taking the arm overhead, so that's just level one greyhound. You did lovely.

APM- Thank you, Beth.

JE- Now you can be a beautiful greyhound.

B- Thank you.

APM- Although we're well over time, I'm going to ask this one question--

JE- Oh, wow.

APM- It's been sitting here for a moment. Ian has asked whether you've noticed any link with these movement problems in frozen shoulder issues and he says, what do you do about it? In 30 seconds.

JE- Oh boy. Okay, obviously, we've got, I mean, a frozen shoulder can be precipitated by so many things.

APM- Yeah.

JE- That is the problem with it, you know, we can try and generalize but, again, if I just keep coming back to basics again, if we can diminish the fear, set the body up so that we're not actually being forced to locking it and start to give the freedom again, I'm still going to use the same principles with the frozen shoulder patient. And if they're a classic, proper adhesive capsulitis, then we'll use that to support them through that process. But the other ones that get called a frozen shoulder that aren't a true frozen shoulder, they're perfect for this approach.

APM- Okay. Jo, this has been great. You do run courses--

JE- I do.

APM- Two-day courses, generally?

JE- Four day.

APM- Four day courses, I beg your pardon, you've got one in London in November, 7th through 10th of November?

JE- That's right.

APM- And Sweden, 28th to the 31st of August.

JE- That's right.

APM- Places still available on those?

JE- They've only just opened the bookings on it. We've actually been over-subscribed so far this year, so this is actually an additional date that we've just put in but they're already booking, so they're going quite quickly.

APM- Right, okay. And you also, you have connection with Physio Tools, don't you?

JE- Yes.

APM- So, that's something which I think, actually, everyone who's watching this could make use of, is that right?

JE- Sure, absolutely. So the little photos that I showed you with the white backgrounds, like these ones, they're all from the home exercise software that's produced by Physio Tools. So, I did, originally, I've done two modules with them. Which is lumbar, pelvic, and shoulder work. All about how we would do it with gyms. Physio Tools do a special deal for gyms community people, and I'm sure that you'll be able to put up the email for them, but they, if you email them directly, they actually have a totally different deal for them that's not actually on the website.

APM- Okay. So, if I give all our viewers this evening, the JEM community will know about this, but all our viewers this evening that email, they can do that and there's a special deal, do you know the price off the top of your head?

JE- Um...

APM- You did send it to me, I didn't write it down, so.

JE- Okay, yeah, no it's--

APM- We'll make it available, it'll be on the website and it's a very useful—

JE- It's at least £100 cheaper to do it if you go, email directly and say, I've just seen a JEMS presentation, I would like that.

APM- Right, and it's a very useful home exercise--

JE- Well, if you use home exercise software with your patients then it's all kind of done out in a slight less traditional way, you might say, because I've left spaces for you to identify keywords that you and the patient have come up with together, instead of just saying this is how you do the exercise.

APM- Right.

JE- Although I do, obviously, provide instructions as well.

APM- Okay, and just to, I'm going to plug it once more, 'cause I really did enjoy looking through this book. I thoroughly recommend your book because it's got lots of the exercises we commonly prescribe, perhaps, with less thought that you put into them and it tells us where we might be going wrong as well. So, a very useful book, indeed, and thank you so much for your time this evening.

JE- It's been a real pleasure, thank you, it's been a lot of fun, thank you so much for being a ballerina for me.

APM- Stop laughing.