Academy of PHYSICAL MEDICINE

Transcript

370R- Diastasis Recti with Claudia Knox

Steven Bruce

Good evening lovely to have you with me for tonight's extra show. I can't remember for the life of me why we decided to add in an extra broadcast quite possibly because the topic this evening is one that we've been asked to cover on numerous occasions. I'm joined this evening by osteopath cloudian NOC Snell cloudier is a graduate of the ESO but she now practices in Vienna or more accurately, she's described herself to me this afternoon as a sort of more of a nomadic lecturer partly at the Vienna School of osteopathy as well as elsewhere. But she does also supervise an osteopathic clinic in Kent. Her particular area of interest is in pregnancy and children. And of course, a common problem there is that of diastasis recti. Claudia, really lovely of you to come over it. Well, you didn't come specially for us. But we've taken advantage of you being in this country. And it's great to have you on the show. Replay. Did you justice with my introduction?

Claudia Knox

Oh, well. I just wanted to say that I'm not just interested in women's health as in pregnancy, but in women's health as a whole. That was so fun. Oh,

Steven Bruce

I stand corrected. And it won't be for first time this evening. I'm sure. I mean, one of the things I've struggled with is the whole diastasis recti is it diastasis or they ask this is when I've satisfied myself that it is diastasis because it is it rectus diastasis. Or do we care?

Claudia Knox

I think no I don't think we care. And I think I've worked out in the German speaking world we say rector's das This is an in the English speaking world. We say this this is Rector

Steven Bruce

Yeah, I suspect nobody really cares. We just say diastasis then, although that on his own is meaningless than people know what you're talking about. But you're half German and half English. Yes. So if 50% of the time I call you, Claudia and 50% electrical you cloudier. Is that? Okay? That's absolutely fine. There's I'm bound to forget at some point. So I'm sorry. We're going to talk about we're obviously going to talk about this disrespect i But I'm interested to find out a bit about you. First of all, it's established your credentials. You graduated from the so in 2005? Yes, that's correct. Straight into women's health and paediatrics?

Claudia Knox

Yes, because that was my interest from my previous profession. So I was a midwife before I became an osteopath that was a midwife in Germany and then moved to the UK to study osteopathy and then stayed in the UK. And so I was very early on interested in paediatrics and women's health. And so I was Renzo Molinari was my teacher at the ESO and then he invited me to assist him teaching on the course and then when he left the ESO, I was allowed to carry his work on so

Steven Bruce

right. And you still work with Renzo?

Claudia Knox

I still teach for Renzo now in a new framework. So Renzo has sort of started the Molly Nari Institute of Health and I teach the postpartum module for him in most countries where this course is run.

Steven Bruce

Okay, well, we'll talk more about education in this particular branch of osteopathy later, I'm sure that I'm sure there were lots of questions about it. And I'm very pleased to say that because I said I didn't know whether it was rectus diastasis, or diastasis, recti. I've spared Robin the embarrassment of admitting that he didn't know why, though. Sorry. I shouldn't have said that. Robin, should I? So that was that was our first question this evening. Robin is one of our old friends on the show, he's invariably asked very good questions. And he's not not shy about sharing his own opinion when it's important. And he will ask about the importance of barefoot shoe I was going to say. I've heard from you before. That's great. Okay, so let's get on to the main topic for this evening. Where should we start anatomy physiology,

Claudia Knox

why maybe I explain a little bit what we're talking about, just give us a review of why this is interesting at all. So the hdacis is recta is when the rectus muscles actually losing a little bit more of their connection through their connective tissue between the two bellies of ringtone of the rectus

muscles. And that is often predisposed by an increase in weight, abdominal weight. So that could be a pregnancy, for example, that's probably the most common cause. But it could also be just obesity or humans who have use intra abdominal pressure excessively, for example, patients with chronic constipation would be at risk for this as well.

Steven Bruce

Just a female problem is no no, no, no, the split was the balance between the

Claudia Knox

two actually, I haven't looked at that. So it's

Steven Bruce

not important, is it?

Claudia Knox

No, no. isn't that important because you treat it in a very similar way. You know, you can't treat it while the increase in abdominal weight is there but you can treat it that well. So in Seeing that pregnancies do end. But the, the beer bellies often don't. But you know, you might be able to treat women often better than men. Yeah. Yeah. Interestingly,

Steven Bruce

when when I've looked at the problem in men, of course, a lot of the images are of what I would have thought of as just that sort of middle aged beer belly that so many men get a very old shape of beer belly, but I've always thought of dialysis has been that sort of protruding line of tissue organs, it down the midline of the body, which you see when people get up from the table. Yes,

Claudia Knox

and you would see that more if they weren't over. You see the line more the line as such, if there wasn't so much fat as well. But it's, while somebody is very overweight, you don't see it that obviously but you can palpate it and as you say, when they're getting up off the table, then you can see it as well that they that it's this the visceral just protruding first

Steven Bruce

brings my own sort of ignorance or inabilities as an osteopath, because I can remember for years, you know, I'd see this in patients, and we talked and some say, Well, that's what that is. But at no

stage, did I ever say, Well, what can I do about it? And I don't know, is that something that is that one of the reasons that you're you're doing what you do? Yes,

Claudia Knox

I think so. I mean, I think that was partially why I became an osteopath in the first place. Because when I was a midwife, I was obviously confronted with women having rectus acidosis, or Das, this is Rick day, and they would, and we wouldn't quite know what to do with that either. And we would give them exercises, and often you would see the muscles aren't strong, and so they can't actually pull it together despite them trying to exercise. Now, since about since the research on fascia has come out, we have got more of an idea of how we can actually treat this. And so we understand more what the pathophysiology is due to the fascial research of why this actually happens, and therefore how we can reverse it as well. Because this new is relatively new. It's not quite 20 years old yet. I mean, the first flusher conference happened in 2007. So I always think many of our colleagues they think, Well, why don't we do that in school? And it's like, because we didn't know that yet. Yes. So a lot of this research has only come out after many of us have left osteopathic school.

Steven Bruce

So yeah, we've had a couple of fascinating shows on not purely on the topic of fascia and the latest research on how it works and what we can do with them. But I do remember being this is getting off the topic but I remember being told it to colleagues, you know, you can you can stretch the fascia subsequently seems that's a bit optimistic. You can alter tissues, but when you actually produce any stretch of the fractures be arguable. Sorry, I interrupted you. So tell us about the fashion. Yeah, so

Claudia Knox

the was was fascinating within the fascia is that the fascia is responsible as well for not just encasing the muscles and giving us shape, but it's also part of how we can recruit muscles. And in many of us, the model is more that we can muscle recruitment is given nervous system, the nervous system gives the nerve impulse and therefore the muscle contracts. And we don't actually acknowledge how much or how big a role is that fascia plays in allowing our body to recruit muscles. And that's what I want to look at with you this evening. As far as treatment concepts for diastasis recti. I go,

Steven Bruce

Yeah, sure. You take me down whatever you want to go if it's convenient with your slides. Otherwise, I'll just ask you questions. And we'll

Claudia Knox

show you a couple of slides. And then we might look at your questions. So if we look at this very first one. So you can see here an ultrasound image of the Diocese, and you can see the two wide crosses on there, so that and you can hopefully recognise the bellies as well, I'll try and highlight that. So this

these are the bellies of riktigt either side of this. Oops. I told you we're gonna have fun with this. So so this is actually an enlarged Diocese's. But what we can see that is that there's integrity of the fossils sheath between the two bellies. So there's no

Steven Bruce

including the fascial sheath is the the whiter

Speaker 1

white line between the two crosses, yes. So and this is widened and we talk about that it's too much enlarge so that it is a Das is such when it's larger than two centimetres

Steven Bruce

out of curiosity, what is that distance between the crosses on here? It's 3.5.

Claudia Knox

So this is slightly enlarged, but it's enlarged. So in a very healthy human being it'd be about half a centimetre.

Steven Bruce

I always ask this but you're happy for us to share these pictures with people afterwards.

Claudia Knox

Yeah, no, absolutely. And then so if we now look at the where this actually fits in the fascial continuity, and we have just looked at this, oh, no. Dancer suddenly done something I've gone back as opposed to forwards.

Steven Bruce

Okay, that's, that's interesting that we haven't talked some more about the past. Are we trying to make this work? Thank you. Whether I did that, or whether somebody in the gallery did it, well, there we go, oh no,

Claudia Knox

I carefully move around. So these are slides that we will look at. So what I wanted to show you was that, that we have just been here. So this is the gap between the two bellies of rector's. And then if you follow this around, you see that the fascia that holds the other abdominal muscles, so the

transverse and the oblique muscles will follow on the side ground, and then blend with the thoracolumbar fascia. So that is the continuity we're really talking about. And therefore, if you want, if we give patients exercises who after pregnancy, you have got a gap between the abdominal muscles, which is physiological after about the fifth month of pregnancy, that you do get this gap between the two bellies. And, and then we try and get them to use their oblique muscles in order to close this gap again. But if the fascia that holds all of this is not functioning properly, so if it can't lie, as well as it should do, then that we can't recruit these muscles, the woman can do as much exercise as she likes, but she won't be able to recruit the muscles effectively. And the same was true for the thoracolumbar fascia. And so we were having these insertions into the thoracolumbar fascia as the anterior leaf of the fascia go into the transverse process, the posterior leaf going to the spinous process. So if we've got dysfunctions, anywhere that we won't be able to recruit the muscles to pull it back together.

Steven Bruce

Interestingly, when I was looking at the outline for the presentation earlier on, and I was looking at the commonly prescribed exercise remedies, I was thinking, There must surely be a process, there must surely be a chance that some of these exercises are going to worsen the problem. Because all the muscles contracting around the side and the back of the body here are going to be acting to pull those rectus muscles apart. Okay, do you see that? Do you see that people will go away, they get the standard exercises from a sports therapist or a personal trainer or something, and they end up with a worst problem.

Claudia Knox

Sometimes, I mean, the good thing about the situation is that mothers often can't do exercises as much as they have been prescribed because they they're nursing the baby six times a day, and they're waking up every two hours or so. And so they don't actually do the exercise as much as they've been prescribed. So that sort of makes the problem you know ameliorates that problem a little bit. But, you know, we do often a midwives always tell patients that they shouldn't use the rectus muscles themselves, they shouldn't sit up straight, you know, it's like we do try and give them advice, or they don't do exercise that makes it worse. There has been in 2014, there's been a meta analysis of exercise based therapy for diastasis recti, which showed that there's no evidence that it works. So in a way,

Steven Bruce

this is a world we're familiar with, really, isn't it? Lack of evidence? Yeah,

Claudia Knox

well, it is lack of evidence. But it's, it's also that we I think we sometimes critically need to look at when we do interventions that we've done for many years, maybe for 3040 years that and then there is sort of the evidence that they actually haven't got an effect, then sometimes I think we might need to drop interventions that don't work.

Steven Bruce

Yeah, there comes a point where the evidence doesn't simply say that there's no evidence that it works, it becomes evidence that it doesn't truly

Claudia Knox

know exactly, and that is what this meta analysis was showing. So we've had that for 10 years, that we that evidence based medicine would not to give them exercises,

Steven Bruce

any exercises at all,

Claudia Knox

any Yes. And what any specified exercises for that.

Steven Bruce

I'm curious, you must have seen a lot of this given your previous profession and and what you specialise in now, what are the long term effects of doing nothing about bass versus director, or

Claudia Knox

there's there are a lot of side effects as far as sort of stability of the trunk go and therefore then, you know, back pain is probably your biggest thing, not being able to do other sports safely, because it will affect balance. It will affect posture, it might affect visceral function, because obviously, the you know, the the trunk is sort of creating a pressure field together with a pelvic floor in the thoracic diaphragm. And so if the visceral field in the middle will probably not be as happy as it could be. So it know not doing anything will not be good for us all health. Right.

Steven Bruce

And I suppose another perhaps, obvious question is if this happens to every woman in pregnancy, why doesn't every woman suffer from diastasis recti? Because

Claudia Knox

there, I think there is a fairly clear answer on that because I think it's that they are there, their fascial health is different. So some women will especially sort of in their thoracolumbar fascia developed quite a lot of densities. densification Because the pregnancy might be very strenuous, you know, it

depends on how much amniotic fluid she has, how big the baby is how possibly overweight, she was herself. So some women find pregnancy very strenuous. And so they might develop more identifications in the fascia, especially at the back to counteract this weight of the growing belly. And then this fascia is dysfunctional after the pregnancy, and therefore it won't allow the recruitment of the muscles, whereas other women might not have such a big belly. They might move more, they might eat more healthily, the, you know, what we eat influences the pH of our connective tissue. If that's the good pH, the fascists will stay gliding, and they will function well. So and then it obviously depends on previous injuries, posture, how much mobility did they have before, I mean, we have a lot of patients who don't move enough for stop and then starting to move just after pregnancy because they want to lose their mummy tummy sort of is is not going to work immediately because it might have been that the fascia needed rehabilitation in the first place.

Steven Bruce

I was half expecting you to say that actually having been obese in the first place was less of a contributory factor to dialysis.

Claudia Knox

No, no, I think it's, you know, anything that is weighed at the front will stretch those connective tissues, and it will put more strain on the back tissues, and therefore you have more chance of a long term densification and the fascia where the fascia can collide. And therefore that becomes the contributory factor to

Steven Bruce

all women aware of this being a problem, do they say, Well, women or women who have babies? And are they all aware that this is something that ought to be dealt with? by one means or another?

Claudia Knox

I think it depends on if they've if they think it probably depends on what caste system they live in. And so women that have got aftercare by midwives, they will be aware of that, because midwives will check that, right? That's part of the postpartum check that midwives will do after you

Steven Bruce

said it depends on which healthcare system they're in. I presume you're referring now to the UK healthcare system where that midwives will be doing that?

Claudia Knox

No, I think it's it's it differs from country to country. So in in Germany, for example, the midwives are responsible for women, after they've given birth until the woman stops breastfeeding. And that

could be two years old when the child is two years old, three years old. So that's what the health care the public health care peaceful. In Austria, it's only seven visits. So it's overall less. In the UK, it's the health visitors and the midwives. It's more, it's community based that depends a little bit and then depends on how understaffed systems are,

Steven Bruce

but the health visitors are generally nurses. Yes. So they should be aware of this. They should be. Since I have one in my family, I will ask whether she knows Oh, that'd be great. Before the show hidden, I really, that'd be interesting to find out. So

Claudia Knox

I think it does depend on who who's looking after the woman postpartum. But then today with social media and mommy groups, and that it's I think most women will probably be aware of that.

Steven Bruce

Okay, so let's go let's delve a bit further into fascia and muscles and all this stretching that's going on.

Claudia Knox

So, this is a slim simplified version that of the research that Frank will add has done this was published in foundations of osteopathic medicine and you can sort of see these cylinders quite well how they make a cylinder around basically the front of the body. And then there are cylinders of fascia that go around the back muscles. And they will function they come from an embryonic embryo logic different initially same and then diverging background, but they will react to the very similar impulses. So this is how the myotomes distribute themselves. We can call the front aspect, the hypaxial fascia and the posterior aspect, the epaxial fascia and they will react to each other. So the epaxial fascia will so what's around the erector spiny will be irritated? If there's an irritation at the front and as having a problem in the connective tissues at the front will contribute to things like back pain, but the other way around it my function as well.

Steven Bruce

Has that been demonstrated? Yes. Right. Okay. Yeah. A purely fascial connection rather than through muscles or nerve, it must be it must be a nervous connection somehow.

Claudia Knox

Yeah, I mean, they are nervous connections as well, but there is a it would this whole system would function completely without nerve impulses. So

Steven Bruce

when I am quite taken in what the two left hand images are showing,

Claudia Knox

yeah, so this is the the top left is just a blown up version of this aspect that goes around the vertebral, the posterior aspect of the vertebra, how they Lincoln and then the bottom is an MRI at that level. that will show you that these fascial connections are continuous and that the cylinders are continuous and obviously the the epaxial fascia posterior really is have enveloping a much smaller cylinder, then the FE hypaxial fascia, but they will react to each other. So and we can for example, see that as well when we treat abdominal scars from appendix surgery or laparoscopy or gallbladder surgery, but we will practically know that that has got an influence on our back pain patients and how their erector spine

Steven Bruce

we had a wonderful show about treating scars within a bulletin some time ago, which I think came was quite a revelation to me, and I'm sure lots of the audience contacted us afterwards to say is how well how well they've done. Yes, sorry. So distracted. I just want to go back a slightly because we were talking about exercise a moment ago. Imran has asked what do you have to say about encouraging patience for weight management and more of plank exercises rather than core strength? Or do you remake it recommend both or neither?

Claudia Knox

I tend to, I'm going to chicken out a little bit because as far as exercise base, their practice is concerned, I do tend to where I work, now refer them to the physio in my practice, okay. And so I get her to deal with that, because she's the expert on that note me in a way. But the the other thing I do tend to recommend is that, that women, as opposed to doing individual exercises, do something that's possibly good for their whole bodies similar to Pilates, or there is sort of postpartum yoga that is available that will make sure that they don't do things that are detrimental to them. But that way they move through their whole body. And that's also good for sort of emotional relaxation and stress management. So I would more recommend that they do something as more holistic than just do this exercise. Is

Steven Bruce

it necessary to check out practitioners of yoga or pilates or advertising postpartum classes to make sure that they're actually they've done some training in this rather than just I don't know that? Maybe it's a teacher who's had a baby who thinks, well, I'll just do Pilates with people and call it postpartum? Yeah,

Claudia Knox

I think it might be useful to give them a ring and ask them what they're teaching and what what sequence they're doing and what their philosophy is in the area. I think that's always good for networking. I mean, that's what I like sending people to this practitioner in my practice, because, you know, I know that she's very good at how she handles Yeah,

Steven Bruce

I was just concerned that it some people for marketing purposes or for whatever reasons might be saying, well, this is for postpartum women. And actually, they're not doing anything differently. There's no science behind it. And you've said that it's important that they're applying these techniques properly. Evergreen, whoever evergreen is has asked what you meant by densification of the fascia.

Claudia Knox

We have come to that for me if that's okay, right. I'm gonna ask you one more than

Steven Bruce

before we get on to that. Jess says hi. cloudier so lovely to see you here. Always an awesome teacher. And I thought that's why I wanted to say that because people have obviously had experience with your teaching the past. Couldn't be more fitting for me personally, there were seven months and as a seven months and do have a diastasis help. She's seen quite a few very hyper mobile, hyper mobile patients with dialysis, both men and women. Is that another contributing factor? And what you think of Katie Bowman's book on this that's been on my go to so far for exercise prescription, but after hearing about your meta analysis, I'm not sure. Okay, did you take all that in? Or do

Claudia Knox

I try and do it systematically? So maybe I go backwards? I'm, I'm not I'm not familiar with that book. So I can't comment on this book. It's one thing

Steven Bruce

just you need to send us in some information about that book.

Claudia Knox

So the other aspect No, I have lost it. Now. You need to give me

Steven Bruce

this was just so she's seen quite a few very hyper mobile mobility.

Claudia Knox

So because we're talking about connective tissue, obviously, if the connective tissue has got hypermobility like and Ehlers Danlos Syndrome, for example, you the problem will be worse. So, you the muscles can hold that the connective tissue is prone to injury there be more densification So, maybe I do talk about densification now and what I understand by that, so the the fascial layers should all be able to glide and especially our super layers of the superficial fascia should be able to glide on the deep fascia. This gliding is made possible by the presence of mainly hyaluronic acid which should be liquid and then should basically give make gliding possible there are various situations where this this fluidity gets lost. So for example, when the pH in there the pH in the tissue changes. This will lead water to actually exit this area, and then the hyaluronic acid will become like glue and stick together and we palpate that as the increased as as areas of fascia that have got increased density. So as we try and slide, slide the fascia around, we realise an area that won't move so well. And that will feel more dense. And that's what I mean by densification.

Steven Bruce

So is that changing the hyaluronic acid reversible? Yes, it is

Claudia Knox

reversible. I mean, the the stucco family have shown without a doubt that it's reversible. And it's, there are various measures that one can take. But one very easy measure for manual practitioners is that we apply pressure and friction to that area to create warmth. And then the and if we do that at a measure that's creating a tiny bit of inflammation, then this warmth will be maintained for maybe a day or two, ideally about 48 hours. And so we don't want to tell our patients were aching the next day to take anti inflammatories because we want that inflammation in there. And then the hyaluronic acid will become liquid again and the water content will be higher. That's

Steven Bruce

interesting what you say there because that must put you in conflict with quite a lot of conventional practitioners who you know, if you go to the GP the first recourse will be a non steroidal anti inflammatory for for most things.

Claudia Knox

Yeah, I do stress that with patients that, you know, they can obviously, otherwise take anti inflammatories, but not in the two days after they've had treatment. Right. So if they need to take a painkiller, they should take something out paracetamol, right. Okay, so much anti inflammatory.

Steven Bruce

One last question before we go on, if I may. Carry says as someone who sees a lot of postpartum mummies, most are aware of diastasis and most have not been checked unless they've gone privately for assessment or treatment that well, it's an observation of a question. Yes, sir. And perhaps a poor reflection of postpartum care?

Claudia Knox

Yes, I think so. And I SSA I think most midwives that do postpartum care will check. But maybe you work as a midwife in England? No, I didn't know I didn't they made registration really difficult for me. And so I never did. Yeah.

Steven Bruce

Well, I mean, I will delve into this. And I'd be interested to find out from my daughter, who is a children's nurse, and has done the Health Visiting herself, be interested to find out what she knows about it, and what midwives know, but I suspect that there's some midwives watching who might be able to tell us what midwives are trained to do with it. Yeah,

Claudia Knox

and, you know, maybe they don't know what to do with it, other than possibly refer to one of us, as in the manual practitioners. But the assessment is really easy, we'll have a look at the assessment in a moment. So

Steven Bruce

just knowing about it and knowing that something should be done is important. Alright, let's get back to your slides. And

Claudia Knox

so, so this is just another increased view of the fascia how the fascial connections go. And I think for us, it's especially interesting that these these leaves of the thoracolumbar fascia will envelop the quadratus lumborum. And that is sleeve of that fascia will also envelop sewers. And so I want to basically raise awareness of that these are areas that we deal with in 90% of our patients. And we're very aware of this anatomy, but we need to be aware of the envelopes as well, and then that they have the connection to the front. So that's why I wanted to highlight that. So when we come to assessing the DAS stasis, we basically get the patient and we'll look at that practically in a moment. But we will get the patient to bend her knees up, and then we are going to palpate between the bellies of rectus and get her to lift the head and then it will be these borders that we've indicated here on this ultrasound will become really obvious. And then you can we can palpate for the quality of the borders. So we can palpate for the quality of the Diocese, and some women it will feel really empty. So the palpation the sense that you get as an emptiness, which in a way is worse than if you feel something but it's wide. So if the connective tissue is completely flaccid, underneath that is problematic. And then we need to wake up in inverted commas, this connective tissue first of all

before we can work with it properly. But then it's also interesting to palpate the quality of the borders, sometimes they feel quite dense and quite linear. And sometimes they feel quite hazy. And as if you couldn't really palpate a border, and that's the the in that sort of the worst stage. So once you if you can still feel a border, that's actually the body is still coping quite well. And if it starts to feel hazy, then it is actually more problematic.

Steven Bruce

But as you said, we're going to do some practical where you can show us what you would do for real. I was just wondering whether you have any problem communicating all this sort of stuff to your patients, because it's all very well talking to practitioners who absorb all this stuff about fascia connections and all that sort of thing. When you start saying to a patient who's just had a baby and he's got a lot on her mind apart from the fact that her back hurts or she doesn't like the appearance of a stomach. and that this is all connected to fascia in the back, and viscera and so on. How does that go. But

Claudia Knox

I don't have a problem with patients accepting that actually, if I say, you know, this is we are basically one big tube that holds the viscera inside. And I need to look at this at the front and the back in order for your tummy to actually do what it needs to be able to do. An analogy that often works well, as well as that I say, Look, if I'm pulling on the tissue here, the back that will make the front tight. And then a seam can come together. I mean, it's even more obvious if you did it on a shirt like that, that you'd see that the buttons would. Yeah, so the analogy of just showing that if you pull tissue together somewhere, it has to give somewhere at the front. It's, it's quite obvious for patients. So what's

Steven Bruce

been telling me recently that apparently, the material in my shirt does look a bit tight, I'm not sure why. And it goes without saying that to do what you're going to demonstrate what you do in practice, then clearly, you've got to expose the patient's midriff at the very least. And so many people these days are having concerns about undressing patients. Do you ever find this a problem? Do you get specific consent for patients to do undress, you give them gowns,

Claudia Knox

I normally ask my patients when I speak to them on the phone to make the appointment, I will ask them to come and soft clothing in something that's ideally not elasticated because the elastic fibres I've got about as much elastin as our connective tissue. I do explain all that. And then when I come to actually assessing the middle, I will say look, I would like to look at you for a moment just to assess how that's moving. And then you can put your T shirt back on afterwards. And that often works. And I mean, I treat breasts as well, for example, I'm in actual breast tissue. And so for that I often get the patient to take, you know, I will leave the room, they take their bra off and their T shirt off, and then they just put their T shirt back on again. And so I don't I try and have them covered up

as much as I can. But I find if we explain to patients, why is that we want to see something then I haven't actually never had an issue with that.

Steven Bruce

And I don't want to delay on practically any further. But one thing just does occur to me there is is this a problem, which is more of concern in the UK than is saying in the rest of Europe, because my experience for the rest of Europe is that people are much more what they're less concerned about the fact that they've got bodies we're over here we we worry about taking anything off.

Claudia Knox

Yeah, I think the only place I've recognised more concern was in New Zealand. I really Yeah. So they were more even more shy. But ya know, otherwise, this consent in Europe is a completely is a much more easygoing issue.

Steven Bruce

Yes, I've noticed that in France. Right. Okay. Well, I suspect they'll learn from our litigious society at some point,

Claudia Knox

yes, maybe I want to just show you two. Before we do the practical, I would like to show you two more pictures. Of No, actually three. I want to I have talked about these enveloping tissues. And so what you see here on the left hand side is sort of a blown up connective tissue off inside a muscle. So you see in the museum, which is labelled with an E and epi parry magnesium, which is labelled with a P, and then the epi magnesium, with EP. And this is interesting because the I was talking about control of muscles, and the muscle spindles are actually attached to the paramecium, that they're gliding in these e areas, so in the endomysial, but they're attached to the Perry museum. And so we need to have good lighting so that the muscle spindles can actually move freely and do their job and convey what stretches on the muscle etc. So that's the reason why this is important. Now, I'm going to hop over that. Part of why that is important is that the muscle fibre doesn't, not the muscle fibre, the muscle spindle doesn't only have alpha motor neurons, but also have gamma motor neurons and these gamma motor neurons were other than that they keep the spindle taut will be able to recruit about 10 times more fibres to one nerve impulse. So instead of one nerve impulse, just recruiting one fibre, you can then amplify that and recruit another roughly 10 further without expending another nerve impulse. So it's actually given the brain a much easier job to do. So

Steven Bruce

we can accept that that's a fact. Why is it important? Because perspective when we

Claudia Knox

don't have fascia where when our fascia can't glide, the gamma motor neurons can perceive what's going on, and they can't recruit further muscle fibres. You know, I was saying we need fascial glide in order to be able to recruit muscles. That's our main problem in in hdacis, as rector that we can't recruit the muscles because the density Keishon in the fascia doesn't allow glide, right? That's what we're looking at now. This is area these are areas of fascia that are connected to the hdacis as rector so if we look at the left hand picture, we see this white triangle that's over, there's a FoId process, this is where the abdominal fascia will blend with the pectoralis fascia. And so if there identifications in there, we can't recruit our neither the pectoralis muscles nor the abdominal muscles well, and then you think about the all of the your viewers who treat families, young families, they will know of patients where the mothers will say, Oh, my, I've got shoulder pain after birth. And it's probably because you're carrying the baby so much. And it's probably not because they're carrying the baby so much is probably because that fascia doesn't move well, and therefore the shoulder is struggling. Right. Yeah. So that this is much more. And then to give us a quick look at the back. Yeah, so this is an image of the thoracolumbar fascia. So yeah, just to see what we're going to assess. And part of what we're going to assess is the is over the iliac crest. So the attachment point of this rock lymphatic over the iliac crest, and then along the erector spine, so that we can actually help our patients to recruit those muscles better. So just to have a visual of what we're doing practically now.

Steven Bruce

Right, so let's go and do that physically on our on our model for levelling? No, I would love to introduce the model to you. But this is Ross, who you brought with us earlier. So thank you, Rosen for coming very kindly support Moses and osteopath ourselves.

Claudia Knox

Yes, that's very good. So we would start with an observation. Like any good osteopathic assessment, you'd start with an observation. So we'd have especially look at sort of the middle of the trunk, it's always good to observe sort of the gap between the arms and the waistline to see if the shape is the same, we can have a look at muscles, we can have a look at the belly button, if that sort of central, it's got a little bit of a tendency to pull over there. And then I would get her to do a few movements. So if you could just raise your arms in front of you over your head. And we would want to observe this area how that opens. And we're just going to drop your arms back down again. So how would it look if it were wrong. So it could be that this, this doesn't open it one on one side or the other as easily as on the other side, we will and then you would pay a special attention to that in the patient if there any densification. So if you just slowly do that, again, that you lift your arms over your head. And we just see how the pectoralis will open. And if it can do that well. And if you bring your arms back down again. And then we do that from the side. So if you could just go into AB duction. lift all the way up. And we can see that that was hanging a bit. Yeah, while she was lifting this. Yeah, so it'd be interesting to see if the fascia there's restricting this, bring your arms back down again. Lovely, and then you turn around and we have a look at your back. So we again, we would observe sort of symmetry of sort of skin folds, we would observe the symmetry of the curve of the waist and the gap between the arms and the waist, we'd have a look at the levels of the iliac crests. And then I would get her to do those movements again. So if you just lift your arms up, bring them back down again. And lift them up to the side all the way out of your head and bring them back down again. And there's some restriction here. So that's not gliding as easily. So I'd be more interested in that. When I come to a patient now if you step back, just a little bit so I can get you to put your chin to your chest

and bend forwards. So I'm observing, especially in the lumbar spine, if there's any area that can't open that well if you could just slowly come back up again. And then I would stand behind her and watch from there but I just didn't get you to do those movements. So if you lift up we just get the audience's see that if you just no say that, but lift up one knee all the way, all the way and we observe how stable she is. And I know she's not unstable and then foot so I've I just stayed close to her. But what we want to observe for really is when she lifts the leg how, how the glutes stabilise her and if she can recruit all the glutes well and fast. And so one part of balance for example, could be If you've got a problem in the curriculum or fascia and densification, it's there that the patient can't recruit the glutes fast enough to stabilise.

Steven Bruce

So this is effectively it's a Trendelenburg.

Claudia Knox

Well, but it's it's more inefficient Ellenberg. If I don't get that wrong, it's sort of you you actually looking for actual drop? Yes. But this is more the I'm also looking for quality of motion. And if she wobbling while she's doing it. So it's not only a positive test if, if she's, if she's dropping,

Steven Bruce

yeah, I think where I was going with that is that a lot of these things everybody would have done before, but you're actually introducing here, an aspect of examination that might be a little bit might be taking a little

Claudia Knox

bit further. So see if I must admit, I feel often when we, when we teach, or we have taught or we have been taught observation and movements, we don't actually get told what to look for. And so I'm trying, you know, and we just say, well look at them, and it's a back and I'm trying to be specific about what I'm actually factually looking for. So if I get you to lift the other foot and she's got more stability on that side. Good. Great. So I will then assess her prone and supine, okay, so if you come and lie on your back, first of all

so for the assessment of the actual Diocese's, I'd get the patient to bend up the knees. And I do a palpation without strain. So I palpate between the two bellies of rec die, and then I'd get her to lift her head and lie back down again. And now we I can bring a model with a problem that has this is Rick That's alright. But so I would I could feel if there was more of a gapping so hearses about two centimetres is completely physiological. But I would otherwise then palpate the borders for density to just see what how is the fractured light of the borders. So that Okay, so I'm just going to go down all the way you're the middle line. And then I get her to periodically lift the head again. Good, and can make

Steven Bruce

damn, sure that gap be equal all the way down? No,

Claudia Knox

it's often bigger. Above, because the fascial connections are the transversus is giving us fascia here as well, which it doesn't do higher up. So the propensity for gaps high up is higher. So it's much more it's much more prevalent that we have got bigger gaps on the top big just because we haven't got that many fascial layers coming together. So I palpate all the way down, then I would palpate the the sides of the rectus sheath. So if you just lift your head again, and come back down, and then I would palpate these four so between the lowest rib and the iliac crest at palpate. Those four densities because there are areas that can be problematic. And then I can palpate long the inguinal band until they come to the symphysis pubis and the symphysis. pubis is a bit of a hotspot for that. So I want to just palpate the skin against your bone over your symphysis is that okay? Of course

Steven Bruce

when you say a hotspot, because

Claudia Knox

so many fascial layers come together. So on the symphysis we've got the we've we've got visceral fascia coming over that so we've got the in women the round ligament of the uterus and comes out of the inguinal canal and then blends with the connective tissue of the labia and the symphysis. But we've also got obviously, the rectus muscles, the other abdominal muscles, so all of those fissures will blend there. And then we've got fascia from the adapters that will blend into there and flashes from the or slips from the fascia data that will blend there. So you could have you could have a lower extremity dysfunction because of the abdominal dysfunction. Or you could have an abdominal dysfunction because of the lower extremity dysfunction. It could go both ways. It's a real crossover point similar to the one I showed on the near the zip code, which we'll come to in a minute. Carrie,

Steven Bruce

sorry, not Carrie Kim asked a question earlier on. She said do you check the position of the pelvis and sacrum before you do all of this or would you correct anything like that before you go through this

Claudia Knox

exam? Yes, I would I would normally integrate that into an osteopathic examination. So I'd look at the pelvis as well if I would correct it beforehand. But not necessarily because it could be that any dysfunction in the pelvis is actually being maintained by the densification. It's in the fascia. So if the rectus hdacis is on my main treatment aim, then I would probably not do bony corrections first unless they are blatantly obvious. But that but do the fascial corrections first and then see what's left of the bony

Steven Bruce

malalignment. But you might still do it in the same treatment session. Yes.

Claudia Knox

So I would come to palpating on the symphysis. Is that okay? And there's, there's a spot that's actually dense. And so I look at the patient and say, I can feel that dense is that painful for you? It's a bit tender, a bit tender. Yeah. So that would be that may be something that I might want to treat. In the end, I won't read all the dense densification that I find, but I'll choose six to 10 if they are that many that are the most dense, so I wouldn't necessary otherwise I could treat as I go along and assess, but I would assess everything first and then choose six to 10 to treat. So I palpate along there. And then we will come to the Ziff void or the area around the Define design. Okay. So I'm just going to palpate the tissues against your ribs.

And so we want to glide the superficial fascia against the deep fascia. So we need a certain amount of pressure in order to do that. And there's another spot of those Yes, yeah. That okay. So which correlates a little bit to her arm lifting that she had more trouble lifting, there was a hesitancy in lifting one arm more than the other. And so there's this densification. So that might literally pull the pectoralis fascia down, which gives her that delay. So she then came and said, My shoulder hurts because I carry my baby so much, it may well be that we need to release this in order to give the shoulder better move,

Steven Bruce

could that have been caused by carrying the baby?

Claudia Knox

That's less likely? It is. Everything's possible. But in that sense, it's more likely that that was the pregnancy that set up this densification. Okay, and then we would have a look at you lying on your front please.

So you can just Yeah, are your arms comfortable like that? Right? I'm just going to palpate your muscles of your back. Is that okay?

I have, by the way, written up the sequence in a note sheet that I think you said you were going to?

Steven Bruce

Yes, I'll send out an email tomorrow with your slides and the other handouts or references that you

Claudia Knox

have, if anybody's interested in incorporating that in their practice, they can I often use a sensory in a motor home so that I can perceive that better.

Now I'm going to just palpate over the iliac crest. And there's another one of those spots. Very painful. Okay. So they are my mentor Renzo would always call that exquisite. They cause an exquisite sensation. So and I look at all vectors. So I look at you know, once I found identification, I'll check it for

you know, it's like, it's like going if it had cornice, I check all the corners of it. Yeah, it move into all these lectures. So we do it there as well. And then you could go depending on the the nurse another one. Yeah, so they are probably clinically relevant. You could go down the sarcolemma fascia all the way over the sacrum to the coccyx, depending on what the rest of the case history gives you. Not not if it was just a plane that says but if there was an accident, for example, beforehand fall for and in Australia, many people fall on ice. So it's sort of you know, I have that very often in my case the streets now. So yeah, and then I would start to treat those. So I would choose the most dense ones and begin to treat those and then check on the patient movement wise again, and what was treatment consistent. So treatment in this case consists of literally finding those identifications and giving them pressure and friction, which might, can I demonstrate one of those, okay. This might briefly hurt Nine or 10 out of 10. And if you want me to stop, you just lift your arm and tell me to stop.

Steven Bruce

So I'll hold your arms down.

Claudia Knox

So, so yeah, here's one. So I would, I would basically polish I often call that and polishing the fascia. Because it's literally you make it until it until it feels liquid. And often the patient when will say that the pain will get less. When you can feel that it's getting the fluidity is getting better.

Steven Bruce

Ross, how does that feel to you? And I know you're not miked up so the audience might not hear this, but I'll let them know feels good, is definitely reducing the pain as she goes on doing it. Yeah. What was the level of pain when Claudia started? Eight. All right. But I'm good sense of you can

Claudia Knox

put up with a lot. So it's getting better now. Yeah, it's getting liquid. So I'm getting sort of I can let this glide and the sense of density is not there anymore. And so she will immediately be able to recruit these muscles better, because of this amplification that the gamma fibres. This is what you don't want affected by the anti inflammatory. Yeah, exactly. So for 48 hours, exactly you want this will be cooking for a bit. And this little inflammation that's there should just carry on?

Steven Bruce

When would you really need to do this again, would you get it back in in a week or three days, or

Claudia Knox

probably more like two or three weeks, because I would like I would like, depending on if she has other pain issues. If it's just the desk, this is I'd wait a while.

Steven Bruce

So you're not worried that these will just spontaneously densify again, because they've already been there,

Claudia Knox

once you've cleaned them, you've cleaned them, they won't come back and they affect us and meet this recruitment of muscles is immediate. So I would go round and do this to the points that are found, as I say specific hotspots are these for the stabilisation of the glutes anything along the erector spiny would be important. And then the near the Z Floyd and near the symphysis. I'm

Steven Bruce

guessing the answer to this will be no but Could these densification points of densification? Could they be mistaken for trigger points? trigger points tend to be in deeper muscle Don't be yes. So it's

Claudia Knox

more it's this sensation of that you get the superficial fascia which obviously, you know, this area involves a little bit of adipose tissue can glide on the deeper fascia. And, and it's not difficult to learn. It's just trying you know, superficial fascia is what you can lift off. And deeper fascia you can't lift off. And so it's this gliding between those two that needs to be able to happen and so known a trigger point would feel different, I think. Yeah. So I would do this systematically, on all of those points and then look at movement and possibly recheck if there was a certain you know, the instability she showed us on her glutes. I'd be very interested to normalise that. If you just turn back on your back again, briefly. I just wanted to reiterate that, you know, she hadn't she now hasn't got his Diocese's. So but if the patient's monotone,

Steven Bruce

did you have one before? No, I don't think so. It

Claudia Knox

fits to her that she actually gave birth very easily. Because that, you know, that goes together these fascist leads, they belong all together the diaphragm and the pelvic floor if, if people have if women have got a problem with pelvic floor function, often this may be predisposed by how this fascia is working. So I just wanted to reiterate that if there was a Diocese's, you'd want to palpate along especially these borders of the rectus and reinvigorate those because the muscles will respond better. And you will feel if if there's a sensation of emptiness between the first improvement that you will get is that the sensation of emptiness will they will, the tissue will show more of a presence again on palpation as in you can actually feel it as opposed to drop just dropping into a hole so you're treating some of these points and before the muscles come back together, you will get more of a sense of that the tissues are more present. Unfortunately,

Steven Bruce

it was in my simple brain I can't work out what the stimulus is for muscles which have had a three and a half four centimetre gap. Why would they come together now that connective tissue is stretched? What's the stimulus to make it get shorter Can

Claudia Knox

I reckon that's postural enough impulses, okay, large and that the the oblique Yes, the oblique muscles sort of want to do that as soon as they can. And they will do that. If they can, the you can get in a session. So if you can measure centimetres after acidosis you can get one or two centimetres improvement in one session. Okay, so from before and after. Yes. So in that sense, I wouldn't necessarily see that Patient next week again, because I want her in our day to day life to use those muscles. How she would by carrying a baby walking around, doing whatever she does. And then now we'll check form further densification.

Steven Bruce

And what about those male patients who they're they're getting up off the table, and there's a sort of a little alien monster sort of bulging out of the abdomen here. Have you treated those? You get the same sort of responses?

Claudia Knox

I must admit I haven't because I've been haven't treated them for that. Yeah. And often I I don't necessarily isn't listened to losing weight. I have had the conversation before that a patient who said to me, I don't want you to mention that ever again. And I went, Yeah, okay, I went, that's your choice. So you know, because I try and find ways of how you could lose weight. And so I think losing

weight is essential. There's sort of no two ways about that. But the other thing is too often they have got so much tightness here, their thoracolumbar fascia is so tight. And so they need to, you know, you could systematically work through the thoracolumbar fascia if they were losing that weight. But while that fascia needs to stabilise the weight at the front, you're never going to get rid of all the densification. So it's

Steven Bruce

okay. And when you say the, the thoracolumbar fascia is tight, you mean there are lots of identifications there preventing it from sliding? Yeah. Okay. Are we done with rose? I think so. Do you want to talk I know you give this job to your physiotherapist. Yeah. So um, do you want to talk about the sort of exercises that you might allow for your reckless patients?

Claudia Knox

Okay, so I would I beginning, I would like them to do exercises on all fours, so that they use or use breathing, first of all, so to actually recruit muscles just while they're breathing outside, get her to take a big breath in. And then to breathe out and just try and bring this area together. So to create awareness, so that'll be I don't know, if you class it as an exercise already, but that would create awareness as part of postpartum care. Thank you. Yeah, and just do that several times. And then I would combine that with pelvic floor recruitment. So I would ask her to breathe in, breathe out, recruit the pelvic floor, to reconnect the nervous system to the change in the function of the abdominals sphere. And then exercises that are good to do out on all fours would be sort of to bring the opposite knee and the opposite elbow together. Because that's sort of, you know, it's relatively easy. You're recruiting muscles. It's also good for circulation of the breast lymphatic drainage.

Steven Bruce

So it's kind of the opposite of the standard Superman. Yes, yeah.

Claudia Knox

So to just gently get through movements of that. And I tell them not to do crunches under no circumstances. And I wait a long time before I get them to do sort of diagonal crunches, because I think they often do them wrong. And I'd rather they don't do them at all before they do them wrong.

Steven Bruce

Okay, good. Thank you, Ross. And, yes, let's go back over here. And I've got a load of questions in my iPad here for you. Carrie, who had a question earlier on, she's asked whether you're familiar with move to mama programme for postpartum mummies, and whether it helps for best assists?

Claudia Knox

I'm not that familiar with it, that I can answer that question.

Steven Bruce

No. Well, that's one for you, Carrie, you're going to have to tell us about the moody mama programme and then we can make a decision on that one. This is a good one from this person who is known as evergreen. These dense areas of fascia, will they show up differently on ultrasound? Says it's denser areas of hyaluronic acid rather than fascia, isn't it? Yes,

Claudia Knox

they might show up differently because they will have a lesser water contents. I don't know if every ultrasound would see that. Or if that would just be specialist ultrasound. That is the I mean, there's the research around college deco they have obviously used ultrasound a lot as well. But I'm actually not, I don't know if that would be a specialised type of ultrasound to see that.

Steven Bruce

I think we had someone in the studio the other day with some ultrasound. And it's a state of the art ultrasound which seemed to be much more readable than the machines that I'm more familiar with. I think you actually need to be a cinematographer to be able to understand what this thing is seeing anyway. So I guess if there's no, no one's had, if nobody's been driving any research into it, there's no reason for some geography to have looked at whether there's densification of

Claudia Knox

the family or the names deco would be the source to look for. Yeah, as far as research goes.

Steven Bruce

My always says Can the pressure from hernia mesh or pedunculated fibroids affected is stasis.

Claudia Knox

The latter Yes. could be so, so large fibroids could are obviously a source of increased abdominal pressure so that they can increase that mesh? I don't know.

Steven Bruce

Yeah, I mean, it sounds to me as though it's quite likely doesn't it? Because to have inserted a mesh, you must have buggered around with the factor a certain amount. So it's going to affect the balance of the factory. And

Claudia Knox

that would explain why women who have surgery after or for Diocese's, they haven't actually. Well, I know it's, I haven't seen patients yet who have had surgery, and I've been successful with that. So I'm personally really hesitant to recommend to anyone they should have surgery for this problem

Steven Bruce

that does that mean, you've seen them who haven't been successful with surgery? Yes, yeah,

Claudia Knox

quite a few. And then and those who can't, you can't a lot of changes, you can't make any more. So they might have mesh in where that so this is this. The fascia is very rigid, they have back pain, they don't move well. They've got a wonderful flat tummy, but they're not functional. Right? So they only upright standing. But I'm saying that with hesitation, because obviously only see the people that have problems. So there may well be lots of people that have does this and surgery.

Steven Bruce

So that was a really good point to bear in mind is that we only ever see the people for whom those things haven't worked. What this might be an unfair question, since you spend most of your time in Austria. But what is the normal course? That pathway in the NHS? For someone who goes to the GP with anyone male or female, who goes to the GP with their stasis Rector?

Claudia Knox

I would assume that they would get prescribed physiotherapy.

Steven Bruce

Okay, so that would be the first court and the surgery would be a it's usually a last resort. But I wonder at what point they would say surgery was necessary. Do you have any idea

Claudia Knox

it's only if there is a lot of pain. So the the criteria for surgery would be if there's a lot of pain, it's not the size of the Diocese, in the diocese is all in the back. Okay. So that that would be all if it gets herniated. That that would actually that will be the only real medical indication. So if you get not every day is this this is a hernia despite us, you know, you said that the men that live and they lift up and all the visceral pushes forwards, but that's not necessarily herniated. So that's really important to keep in mind. But sometimes, you know, the tissue can thin so much that you do get a herniation as well. And then that might warrant surgery, that

Steven Bruce

you said over there that what you were showing us is not terribly difficult. Of course, it's not if you've been doing it for 20 odd years. Do the physiotherapists in Austria or in this country? Are they generally aware of the sort of treatment methods that you have indicated?

Claudia Knox

I think some and some I think this is this is still relative this thinking about the that you need fascial integrity and good fascial glide in order to be able to recruit muscles is still relatively new. I think, generally most people still work on the basis of there's a muscle, there's a nerve impulse of that muscle, that muscle will contract. And we can see that beautifully in, for example, children with cerebral palsy, that you know that muscle recruitment is not just all about notes, but it's all very well also about fascia. Yeah, so there's, you know, there is evidence of children learning to walk who've got cerebral palsy just by doing fascial treatments. So this is still as a concept relatively new, but it's well evidence based. Yeah.

Steven Bruce

I know you sort of answered this, but and he said, Do you ever recommend surgery for a dialysis? I mean, after you've treated and has has it ever not worked your treatment?

Claudia Knox

No. No, it always works? Obviously. No, no, most patients get so much better than they don't need anything else. And then often the motivation of getting somewhat better will help them with weight loss. And, you know, it's it obviously depends on the patient's resources and their willingness to engage in the process.

Steven Bruce

And is it always painful as always back pain or abdominal pain or because people sometimes come to you just because metic reasons. Yeah,

Claudia Knox

no, that's quite a few women will just like a flatter nicer tummy back. Yeah. Especially if they are actually quite thin.

Steven Bruce

Yes. Yeah. And I'm presuming that the you have just as much success with them as you do. Yeah. Okay. Just says this is great. Do you work on these densities during pregnancy to help with birth, even if you're waiting until postpartum for the diastasis? Yes,

Claudia Knox

absolutely. And especially in the thoracolumbar fascia, it's really important. I might, you know, we will be careful with working on the abdominal points. But the symphysis pubis is really important. And you see when people get symphysis pubis dysfunction during pregnancy that the fascia is obviously having a problem there. But the thoracolumbar fascia is so important for the pelvis to sort of open up you know, if you have if you think the fashio that attaches to the iliac crest, it attaches to all the spinous processes, it joins down to the coccyx into the pelvic floor. You know, if you pull here, this will affect the whole of the pelvic mechanics that they need to do during birth. You know, during birth, you want the whole pelvis to be able to open up like that. So you need to take whatever restrictions you have up here away. So I personally look for that very distinctly as birth preparation.

Steven Bruce

And what about after childbirth? Kim's asked how soon you start treatment afterwards?

Claudia Knox

It depends on if the if the family has a problem. So is there pain or discomfort or? And I there's no reason you wouldn't treat them early. But I don't really want people to leave the house in the first two to three weeks much or so I wouldn't recommend to do treatment that early because I think they need time to establish breastfeeding to just have general wound healing happening to sleep when they can. So in that sense, but there's no reason that you wouldn't treat really early on if necessary.

Steven Bruce

Okay, and what about Caesarean section that presumably can cause a whole host more?

Claudia Knox

Yes, because obviously, you know, you're cutting through all the fascists here when you're doing this as Aryan section and so that needs to be mobilised and you've had this beautiful show where you looked at abdominal scars and back function as well and it's, they need to be mobilised anyth any type of peritoneal scar for the peritoneal sphere but also scar tissue in the abdominal muscles would need to immobilise and that can be a caesarean or any other scar, there's evidence for that the fascial thickness actually changes after Sirians that you actually get a thickened scar i Sorry, thickened connective tissue and a thinner, muscular tissue after Caesarean. So the again the shape goes looked at that. And, and, and obviously where fascia is thickened, the propensity for densification. And not gliding is, is there, it probably thickens because it's not gliding. And

Steven Bruce

just going back to that knock gliding thing, Pepper's asked, and you get demonstrate this, you could talk about it, but just very quickly, could you run through what it feels like when you find densified elements of the fascia? Yeah,

Claudia Knox

so if you, I mean, you could do this on your arm. So you can on the arm, you can see really well this, this is superficial fascia, the bit that I can pick up, and so you moving the superficial fascia against the fascia of the muscle. So the deep fascia, and I think you can see that probably that this can glide fairly well. And you are basically checking all the vectors. And then you, you get into points where it doesn't glide. And so you would, you would come to a shortstop and the distance wouldn't be that big. And then you just check all the vectors. And it's denser as you run over it. So once you've been doing that for a while, you find them really quickly, and we're talking sometimes about densification that might only be that big or a couple of millimetres square, and they will be disturbing the overall net glide. Right.

Steven Bruce

Okay. Darcy has asked whether in see an acute diastasis could taping of the midline linea alba area for a few weeks be of help? Yes, it can be. And you can show us what taping should look like. Yeah, yes, I can bring that that's like, yes, we can.

Claudia Knox

So I've got so taping, practical could look like that. So we would, we would I offer this to women when they have because it's soothing for them. Many women find this stabilisation soothing, that they actually get an increase in stability quite quickly. And then it would look like this. So we would make an anchor, we cut a tape that would go across the whole of the rectus. And we put the anchor medial, sorry, lateral to the attachment. And then as the patient breathes out, we would stretch the tape as such from one side to the other.

Steven Bruce

So now my limited understanding of katp is that you stretch the first bits in the last bit more than you do the middle bit almost all the other way around. Is this evenly stretched,

Claudia Knox

this is quite evenly as sheet so the patient is taking a breath out and it's recruiting those muscles and then it's sort of in one sweeping motion. So if the I'm holding the end, but we're stretching, so breathing out and stretching around it. So in this particular scenario, it's just one sweeping motion. And they they find it soothing, they find it very soothing. And it gives the information you know you were saying what gives the indication that these muscles come back together I think it gives them I have a fatter the information that this is the direction we want to go. Yes.

Steven Bruce

I still feel the jury's out on how and why KTP works So I'm assuming this is key tape RockTape or whatever the particular brown people prefer, is it? Does it matter if it's pink?

Claudia Knox

No, it doesn't matter. I just like pink.

Steven Bruce

So, Darcy Hope that helps with the taping problem. Interesting one from Kim, she's asked whether if a patient has a dialysis, is there a greater risk of uterine prolapse later in life? Do you think?

Claudia Knox

I wouldn't I don't know what the evidence for that is. I would assume that Yes. Because the the the issue about prolapse, either of the uterus, the bladder, or the rectum has a lot to do with that the pressure on to the organs in the small pelvis from the other organs is distributed well. And if you've got a lack of integrity of the column of this, this this fascial column, then that that will be a disturbance and pressure distribution. So we we, you know, Burrell has stated that because of our breathing our liver actually effectively onto the other organs only weighs about 400 grammes. So you know, breathing needs to be good, we know that breathing isn't as good when we've got hdacis as rec die. So this section that the diaphragm does on the other organs to not push down is it's really important, because we all talk about that, that we do pelvic floor exercises in order to prevent prolapse. And it's not the job of the poor pelvic floor to push that all up. It's, it's the job of the other organs to stay away, and our breathing to suck it up. But it's the, you know, apparently he knows that thick, it can't be its job to push the other organs up. So it's

Steven Bruce

interesting, I hadn't actually thought about it that way. And you're right. About that.

Allison says, Hey, Claudia, you said diet can impact the pH of the fresher what dietary changes can help to change it.

Claudia Knox

I think the biggest thing is probably to reduce sugar in the diet. So that that's the biggest thing really to reduce my address as a whole then No, no, mainly, mainly white sugar and also fruit sugar if it's taken in in smoothies and juices. So I have got no issue with people eating fruit as a whole. But, you know, sort of eating sort of a fruit basket full in a smoothie is just too much sugar as such, because

Steven Bruce

we do tend to forget them with it. Most of the fruit we resist.

Claudia Knox

Yes, so I try and there is this fabulous book that I've been recommending to lots of patients. Since I've come across it last year the glucose Revolution by Jessie and Shilpi I give that to all my pregnant women to read or listen to as an audiobook and and to follow that religiously from about week 32 Because it has got all sorts of beneficial effects.

Steven Bruce

Now I'm gonna have to push you for some short answers to questions because we are running out of time. We're going to do time here but Sarah says with a foam roller do something similar to your treatment cloudier if a patient couldn't get to their osteopath or other practitioner in time?

Claudia Knox

No, I don't think so. I actually don't think it would do the same thing might enhance circulation, but I'm struggling

Steven Bruce

to see how it could do the polishing technique that you were using over there on those densification

Claudia Knox

but I think you should get a partner to find the sponsor hurt and rub those if you can do anything else.

Steven Bruce

Yes, because it is just rubbing isn't is scientific. The

Claudia Knox

thing is, if somebody unskilled does it, they probably cause more hurt but I don't think that cause harm. Okay, so I think the more skills you get, the less pain you inflict by having the liquidating result. So when we do this in babies, they can sleep through that. Right?

Steven Bruce

Okay. And Sarah has was talking about the mental roller in particular, which has been designed if you're familiar with and designed by an osteopath. My wife swears by them. I swear at it because it hurts. But it's really it is very, very good. So a bit of a plug for the mental roller then we get no commission we get commission. What about athletes? Do you think people with strong abs are more or less prone to blastocyst?

Claudia Knox

I think it really depends on how healthy their fascism if they eat a rubbish diet and sort of over and for example, do a lot of crunches. So we know that you know, straight rectus training will give you a higher propensity for dialysis.

Steven Bruce

D wants to know if a woman has left a diastasis, postpartum, untreated for several years and then develop lower back pain. Is there still a chance that what you you're doing here will help?

Claudia Knox

It's never too late. You can do that 40 years later if you wanted to. Right, good or longer. It's never too late. Okay,

Steven Bruce

Groucho says Do you have any experience about cannabis oil to help with the fascia glide? No. I don't know who Groucho is. Maybe Groucho has any puts ticular interest in CBD oil maybe he's got some interest, do some research to share. Darcy Darcy's asked, What about taping vertically to actually support the pressure? Your pressure or taping was horizontal, more or less with a curve?

Claudia Knox

I have never tried that. So I would say, you know, try it out, let us know.

Steven Bruce

Good thinking. And this might well be our last question and he says I'm currently working with a 43 year old woman with two children in their teams. She developed severe symptoms following Hang on a second this a bit. She developed severe symptoms following partly first pregnancy then more permanently after the second pregnancy. symptoms persist and include difficulty swallowing, reflux, thoracic and spot thoracic spine pain, upper abdominal pain, she has EDS tendency. All scans and checks have come back clear. Only positive findings are large versus is wrecked. I could her ongoing complex presentation be related to the vastus? Yes. Okay, so basically what to do what you just demonstrated and she'll be fixed. I

Claudia Knox

don't know if fixed but I think that might well make up part of her treatment plan. Yeah.

Steven Bruce

And Robin says beyond the initial very gentle exercises would sling based exercises be useful. I'm a big fan of sending those that can stand up paddleboarding. This can be done gently with the patient on their knees or standing a little bit almost as much as barefoot shoes to get the Barefoot issues in at some point. Thank you, Robin. Yeah, I can tell those on barefoot shoes.

Claudia Knox

But it's not my everyday life.

Steven Bruce

The patient needs to be able to tolerate not just the exercise but also getting back on the board obviously and as long as they can find a waterway that isn't smothered in hot delicious sewerage. But what do you think paddleboarding is a diagonal exercise special slings being stimulated?

Claudia Knox

Yeah, no, I go with it. And we you know, in Vienna, we've got a lot of opportunity to do water sports. I can I could see that I think you need somebody to look after the baby.

Steven Bruce

field of work. It's another sling you can wear

Claudia Knox

health and safety.

Steven Bruce

And this will be the fight. This is a very irritating question from an a very irritating person, Claire short, and I don't normally give them their surnames. But Claire short says I can check up on it. But she doesn't think that treating my lumbar fascia will help with the dialysis in my shirts. Okay, yes. Well, thank you for that opinion, Claire. What I was going to ask is you said this is all very easy, but what about training what's available?

Claudia Knox

So I would really recommend too if people are interested in that type of work to do fascial manipulation training after SticO because it's it's just the perfect add on to osteopathic training. It's not only open to osteopath and Caros is open to any money or practitioner, as far as I'm aware, and, and this is fabulous that they've so systematically gone through what's necessary. They teach the palpation they teach which factors are they teaching the physiology of fascia in a fantastic way. And that's a fantastic,

Steven Bruce

this is SticO foundations.

Claudia Knox

I think their courses are just called fascial manipulation, and they are worldwide. So you get them anywhere. Right.

Steven Bruce

And what about Molinari? We were I knew you treat in the Molinari foundation courses.

Claudia Knox

Yes. Yeah, I do. So they yes, they run in England, they run in London. They run in Frankfurt in Germany in Vienna and Austria in odunsi. In Denmark, they will run in Rome from next year. We have a course in Lausanne in Switzerland to school is that runs over two years and is depending on which country it's in between 12 and 18 weekends. So the 12 weekends are three day weekends. The 18 ones are two day weekends. Yeah, and we cover anything from the young woman's health, puberty, pregnancy fertility, birth obviously postpartum and then face to face weekend they all face face weekends or no country dependent in Frankfort there's a lot of online work as well.

Steven Bruce

Just idly wondering if there's any online training people might be able to take part in. Well

Claudia Knox

there is online I mean, I'm I've just had, you know, my own online course

Steven Bruce

I think is your your your postcard information that picture out to people as well. Yeah,

Claudia Knox

that's great. So in fact, the Vienna School of osteopathy is has been so kind to host me as a as an online course and at the moment we have a this as a paediatric course and we've just launched it in English as well. So it was launched last year in German enough to slip today. We've got the communities now about 125 participants, and the English community is still small thing that that literally launched last week Tuesday. But it's a pity Yatra on demand school. So I I teach everything that I think is worthwhile knowing about the child in the first year. And I'm planning to do a second series about the preschool child and then the third series about the teenager. So

Steven Bruce

it's an online course, but lasting how long you've talked about a whole year there. Now,

Claudia Knox

this has access for a long time, there are 17 chapters with various amounts of lectures and other material and quizzes and discussion forums. And I also provide four times a year live webinar with a topic we

Steven Bruce

want to talk about competition. Now it's

Claudia Knox

no surprise supposed to support the paediatric communities often in individual places so small that they can discuss cases, for example, and I want to have a community where sort of the baseline knowledge is similar. And people can then discuss what the what they would, you know, I've had case XYZ that has happened, I've done Tata Tata, what would you guys do anything else you could recommend? And then there's an there's an SSA and the German group. There's quite a lively discussion about cases. And I love that that people are able to support each other. And I'm having sort of a soothing I have

Steven Bruce

I haven't warned you about this, because it only just occurred to me, we periodically run case based discussions, in fact, a week from today, not because this is an unusual broadcast, but a week after our evening broadcasts, we do a lunchtime case based discussion. If we have paediatric cases, might you consider joining us for one of those jobs, your own expertise? I mean, obviously, you have to fit in with your own clinic and your own

Claudia Knox

team. I'm my own boss. So I can usually organise that or that will be

Steven Bruce

that will be really appreciated as well. And in the meantime, for those people who haven't yet got onto one of your courses. Is what you've demonstrated enough here to make a difference? Yes, absolutely. So they can go away, they can try that. And they will then realise just what a wonderful instructor is you are and and then they can book themselves on what to do, of course, well,

Claudia Knox

hopefully, I mean, I've known for about a year that I was going to come and talk here. And so I have in this year, whenever I've had patients with this is I've sort of tried to look at what do I do specifically for this? And so I've tried to just put together what I do specifically for this. Okay.

Steven Bruce

I got one question here that didn't get sent through while we were standing over there with Ross. And I'm not sure who this is. I think they're calling themselves captain. It says just curious about the findings in your single leg standing test, which I said resembled Trendelenburg. They're saying looks like a stork test. Doesn't really matter what you call it. It depends what you're looking for, isn't it? But a positive test is normally associated with the inability of the ilium to rotate posterior, Li if there's an issue with QL or Sik. So the pelvis rises on the positive side and the patient hitches the hip up on that side. Does that reflect what you were doing?

Claudia Knox

No, no, not in that I wasn't looking for that. I was. I was mainly looking for how welding can chi recruit muscles? And is this transition this crossover area where the glute fascia joins into this rapid lumbar fascia? Is that looking like it's holding back somewhere or causing a hesitation? That's what I was looking at at that moment in time. So yeah, no, I didn't even consciously take in if that rotation was happening or not, because I'm looking at this more superficial, I'm not looking on a bony level. I'm looking at the body more on what what does the glide of the superficial fascia on the deep fascia? Show me? Yeah.

Steven Bruce

So I guess I would recommend that people and people must be interested in this because it's fascinating, but also a couple of shows that we've done on fascia itself specifically, which support all of this and be well worth a look. What's there's always a big issue, isn't there about advertising to the public that you can treat cranially You can, as you say, you can treat cranial but you can't talk about the things that you would treat cranially Is there any problem with saying to people that you will treat diastasis recti? In the UK? Yeah. And it's not on the list of things that we're allowed to say we treat but equally is not on the list of things that we're not allowed to say we treat. And we're

allowed to say we treat pregnant women and women. Not that they're the only ones who suffer, obviously, but are you aware of any concerns that

Claudia Knox

people have? No, I don't think I am I think I would word it in the context. I wouldn't word it in. I'm trying to stay away from lists. I would word it in the context that we are treating women as they recover from birth and pregnancy. And as part of that, a das This is rectum may benefit from treatment. I think that's sort of the wording I do. I mean, I do. I have been my own website and Canada's been pulled up on I'd said you know that they criticise birth. That sounded like birth was always true. Matic and I wanted to really comment and say, Well, have you ever been that one? But I just, you know, just changed the wording and then we were fine. So it's, it's, since then I'm always trying to just give

Steven Bruce

think I remember it might not have been your website, but I do remember that particular complaint coming up. Or at least I remember reading about the fact that we weren't allowed to say that birth was traumatic. And I remember thinking, or maybe it was traumatic for the baby was the expression that I remember reading about, I mean, surely no one can deny that it's traumatic for the

Claudia Knox

woman, even if you look at the MRI scans that look at what happens to the baby's head during birth, while they're going through the birth canal in their head is massively misshapen while they're going through, you know, you can see the brain. I mean, this is fascinating pictures. And so you can see it's not I mean, it's the hardest day of our life going through there. But you know, it's like it's pleasing. So I try and word it in, I will try and word it is as part of postpartum care, you know, we will help the body to come back to pre pregnant state. Right?

Steven Bruce

Interesting. Yeah. And I would always say to people at this stage that if they're going to put things on their website, they should look at what is permissible by the Advertising Standards Agency. And the cap, whatever that sounds we can't remember now. And there are two lists, there's what we can say and what we can't say and anything else there's got to be we've got to feel is backed up by evidence. But for osteopaths, if you say something and someone complains to the Advertising Standards Agency, you'll just be told to take it off your website, it's a little bit more difficult for chiropractors, unfortunately, because the general chiropractic Council has taken on itself, the duty of them following up on these things. But I've always thought, you know, if you can say, Look, I've seen these patients, I've done this, and my evidence is that hundreds of patients who've come through my clinic, show you that's good enough. And if they say no, well, fine, take it off your website, but I will always err on the side of being a little bit older. Unless it is actively prescribed on the Advertising Standards website.

Claudia Knox

Can you then ask the Chiropractic Association to just say I would like to write this as that okay.

Steven Bruce

Or you could do I suspect that you might get answers, you don't want them? Because the easiest answer for them is to say refer to the AASA. If it's not on their list, say no. And we all know what general counsel's don't like they don't. God forbid they should act in the interest of the practitioners rather than the patients supposedly, Annabelle here has said brilliant speaker, plenty of food for thought, can't wait to start looking differently at patients with regards to the fascia, thank you very much. I seriously suspect that she isn't the only one thinking that we've had 528 people watching this evening. So there's a lot of interest in what we've been doing. And again, I'm very grateful. It might have taken us a long time. I wasn't aware it's taken us a year, but I'm

Claudia Knox

taking me a year to come. It was literally like finding a spot where I'd be here anymore.

Steven Bruce

Of course, we had to overlap in our diaries. And we but yeah, I'm really pleased that you did. Thank you. And we will definitely take you up on the case based discussion offer as well, because it's been it's been fantastic. Thank you very much. Thank you.