

Myofascial Release

with Ruth Duncan

2nd June 2020

TRANSCRIPT

Please note, this is not a verbatim transcript:

- Some elements (repetition or time-sensitive material for example) may have been removed*
- In some cases, related material may have been grouped out of chronological sequence.*
- The text may have been altered slightly for clarity.*
- Capitalisation and punctuation may be erratic...*
- There may be errors in transcription. If something appears odd, please refer to the recording itself (and let us know, so that we can correct the text!)*

Steve:

We have the amazing Ruth Duncan, who is one of the pioneers of myofascial release in the United Kingdom. She's been in the business for 20 years and is one of the founding members of the fascial research society. So Ruth, thank you so much for stepping up at short notice, and it's great to have you with us.

Ruth:

Thank you very much. It's good to be here.

Steve:

You've done an awful lot of things with regard to fascia haven't you? You've lectured internationally. You've obviously produced the book, the Handbook of Myofascial Release, so you're pretty active in your field.

Ruth:

Yes, I try to be. I think fascia has certainly piqued interest in a lot of different people throughout the manual therapy industry so I like to try to promote what the new research is and how it can be used in clinics so I've been doing it for a little while now. Every day is a new day and you learn something new so we just keep sharing the new knowledge.

Steve:

Well, I was going to ask you about the Fascial Research Society because as I just said you apparently are a founding member of that society. Is there lots of research going on? Do you generate research yourself?

Ruth:

I have, the only piece of research I've actually managed to produce so far was a small abstract, and that did actually go into the handbook for the 2015 Fascia Research Congress, which was in Washington. So that has allowed me entry into being able to access certain journals just because I wrote an abstract and I had a lot of help actually from the late Leon Chaitow. I was determined I was going to write the whole paper, but it just hasn't happened yet. But I'll get there, I certainly will get there.

Steve:

So you've not been published in the Journal of Movement and Bodywork Therapy yet?

Ruth:

Well, yes, actually the abstract was published in the JMBT but not the full article. It was still in bits and pieces and Leon kept saying "well, you need to think about it this way and write it this way" and it felt too much at the time to get it done properly, but we'll get there.

Steve:

So what's keeping you busy at the moment? What's going on in your world of myofascia?

Ruth:

I think between having to change the way you work, that's certainly been keeping me busy, and how I can support my own students and people really interested in wanting to learn myofascial release and diversify as we're all having to do at the moment. Besides that, the things that always pique my interest is the relationship of fascia and the pain experience and the relationship of fascia and held and stored emotion. Those have always been really, really interesting for me. And then I think it's been an interesting journey, particularly in the last five years with fascia alone so I think we are really quite strongly moving forward from just talking and isolating fascia to actually beginning to accept and realize and promote that you cannot take fascia out of the body and treat it on its own, you have to look at the whole and that's certainly where I see what we do moving forward.

Ruth:

We need as therapists to realize that you can't do self-care just for your fascia, or you can't just do myofascial release. You've got to look at the integrated, the dynamic approach and I certainly think that in the manual therapy world that's coming. It's been a bit of a journey though. For a while fascia was, you know, Robert Schleip even called it the Cinderella of orthopaedic tissues. Yes, it has come to the ball, it also now needs to move on. It needs to go in and be this integrated approach rather than just in isolation.

Steve:

So let's start with the first of your two main points at the beginning, the relationship between fascia and pain. How do they fit together?

Ruth:

Well again, I think it's an interesting dilemma that we have because a lot of the times when we talk about fascia, sometimes the way we describe it is not completely correct because we don't have pain in nerves, there's no pain in your body, pain is an experience generated by sensory input.

Ruth:

So when people say that they have myofascial pain syndrome, then what's actually going on? What's gone wrong for them to experience that pain. So being able to look at the nervous system and understand the top down, bottom up relationship and how that is being affected by what we call densification and the fascia. I think that's quite an interesting way to go about it because we know that when you do fascial work, yes, it does make a difference to somebody's pain experience, but why does it make a difference? Are we actually affecting the nervous system or are we actually affecting the tissues? And that actually applies to all manual therapy. What goes on in the nervous system? Are we managing to regulate it by the top-down, by the emotions do sometimes catastrophizing make your pain experience worse? But we do know there's some recent research that was done on the lumbar fascia that when hypertonic saline was injected into the lumbar fascia and not the muscle component, that there was a heightened pain experience.

Ruth:

So we do know that fascia is sensitized. Substance P obviously is a great potent stimulator of the nociceptors. So if you have a fascial area that's densified, then you are going to have a greater pain experience because of the chemical irritants throughout the fascial tissues. So there are some pieces of research there. There was also a recent piece of research discussing hyaluronic acid, which is

always a huge mouthful to say! And it was a piece of research done with Antonio Stecco and they were looking at hyaluronic acid and densification of the tissues. I think if I remember rightly it was chronic lateral epicondylitis, and they realized through doing imaging that somebody with densification of their tissues or fibrotic tissues, the hyaluronic acid became concentrated and hyaluronic acid are quite large molecules. So hyaluronic acid plays a big role in the sliding capacity of the fascial tissues.

Ruth:

So when the hyaluronic acid became concentrated because of the densification of the tissues, the sliding mechanism of fascia wasn't able to be produced. So there are some pieces of research out there, albeit some of them are very small groups of people and they need to be reproduced, but there's a lot of positive stuff coming out about fascia's role that's contributing to dysfunction and then elicits the pain experience. So that's interesting.

Steve:

Are you using the terms fibrotic and densified as the same thing?

Ruth:

Yes, densification and fibrosis do tend to be the same thing but that is different to what people think about as scar tissue. There was a piece of research I think that wanted to clarify what the difference was between scar tissue and adhesions because they've been used interchangeably and they're not, but densification and fibrosis yes, tend to be discussed as the same thing.

Steve:

Okay. Do you have a take on adhesions yourself?

Ruth:

I do like the work of Susan Chapelle and I actually lifted out one of these books, which some of you might have seen. This is Fascia in the Osteopathic Field. It's a really, really good book published by Handspring and Susan Chapelle's got a really nice chapter in this book about scar tissue. She says that when you work with scar tissue - I don't know if you remember, she's the lady along with Geoff Bove a number of years ago, I think probably around about 2011, 2012. She was doing some research into visceral fascia and she had a control group and an experimental group where she cut open the rat's abdomen and she took a toothbrush on the experimental group and she used a toothbrush to abrade the visceral contents and on the control group she just cut the rats open but didn't touch their peritoneal cavity.

Ruth:

And then she did myofascial release using her fingers, soft, gentle manipulations of their tissues, and then when they euthanized all the rats they opened them up and they saw that - they must've had two groups actually of where they abraded and some they did myofascial on and some they didn't - because when she opened them up post-mortem she realized that the rats that she had done myofascial work on had less adhesions than the rats that she hadn't done the myofascial work on. So she was then seeing, and Geoff Bove was seeing at the time that they thought that fascial body work and manual therapy could make a difference to the adhesions, which are when the tissue gets stuck together. It's not necessarily a scar. It's the dehydration of the tissues that causes these additional

fascial links. She thought that manual therapy could actually change the adhesions, but they actually came back out later, I think around 2018, and they said, actually they'd realised that that's not correct, you cannot break up scar tissue. What you do is you attenuate the scar tissue and the adhesions, so you decrease their influence on what goes on in the tissue. So that's the kind of person that I follow. I really like her research. She makes it really clear and understandable. And I think it's really important that we do look at the research.

Steve:

I was going to say that the research that I'm aware of and I don't claim to have read it in the depth that you have suggests that if you've got adhesions you're not going to break them up with your hands, and if you look inside a dissected body where you find adhesions,, they are rigidly stuck together. Presumably with your rats that you were talking about, if you're giving those rats treatment before those adhesions have formed, then there's a good chance that you might prevent them forming surely.

Ruth:

Yes, that's what she was saying. She said that and this is again where you need to know your tissue, what tissue has been injured. I did a course with her just after the 2018 Fascial Research Congress in Berlin, and she was saying that the reason that adhesions form is because of blood in the area, one of the main reasons. So you really need to get in and work as soon as you possibly can. But the problem is, of course, is that it is too painful. If you have a lady who's had a Caesarean or a hysterectomy, for you to actually stop adhesions forming you need to get in and do manual therapy ASAP but she said, it's just not possible. So yes, I would agree that the more work that you can do, the less adhesions will form.

Steve:

We have had a question for you. Julie-Anne's asked if you'd explain the role of hyaluronic acid?

Ruth:

Hyaluronic acid is a glycosaminoglycan. It's part of the ground substance. So you tend to see it called HA and it's quite a large molecule. Glycosaminoglycans, the easiest way you can think about them is they look a little bit like a toilet brush and they are hydrophilic, which means that they attract water and because of the properties of the ground substance and it attracts water with the hyaluronic acid, it creates that gliding capability between the fascial tissues. But in densification, when you get an ischemic condition, you get acidity in the tissues, lack of oxygen, lack of blood supply, lack of nutrients. So the tissues become quite rigid, and because of that, it actually increases the viscosity of the ground substance. In other words, the hyaluronic acid is no longer able to be part of that gliding mechanism. They use hyaluronic acid a lot in face creams and makeup. You'll see it on adverts a lot that such and such a cream has got hyaluronic acid and it's because it's water loving, it boosts the tissues because it hydrates. So that's the role of HA.

Steve:

I had it pumped into my knee once before I had a knee replacement, when I was having one of my many meniscal repairs or wash outs, it made no difference. The interesting thing was the orthopaedic consultant who recommended it clearly didn't think it was going to make any difference either, and I wonder how much that affected my outcome.

Ruth:

You never know do you? It's always worth a try, I suppose.

Steve:

Absolutely. It was better than just another washout or a knee replacement. Earlier on you talked about an emotional connection with fascia as well. Talk us through that one as that sounds a bit unusual.

Ruth:

There's Paulo Tozzi, again I think he's got an article in this book, but he wrote a piece of research or a piece of literature for the JBMT, the Journal of Bodywork and Movement Therapies, and he spoke about does fascia hold emotion? And again, I think a lot of the way we describe things could actually be better described if the right language was used. We talk about the body-mind connection. We talk about emotions being stored in the body. And I think, even down to one of the most recent ones has been epigenetics, can trauma memories be passed down through genetics? And I think there certainly seems to be some research about epigenetics being very plausible, but does the body actually hold the emotion? I think we have to take that a little bit with a pinch of salt because every cell in your body has to have some kind of memory where it does something automatically, that's the job it's supposed to do. In the same way that when you get in a car for the first time to learn to drive, you're having to remember mirror, signals, manoeuvre. You're having to remember how many turns of the steering wheel to reverse your car. You're needing to memorize these things, and then eventually you don't even realize you're doing that. So every cell in your body has a responsibility. It has receptors, it binds glycans or it's got gap junctions or an endocrine process. It has this ability to know what it needs to do so that that can be described as body memory. But the brain itself, these engrams in the brain that receive information from all of your senses. The sense of taste is the strongest sense that you have in your body and that goes all the way back to Stone Ages and before where, when man needed to know when they put something in their mouth was it going to be good for them, and if it wasn't they immediately had that sick response.

Ruth:

So taste has a very, very strong memory associated to it. So all of your senses, your auditory, your taste sense, your olfaction, visual, and your somato-sensation goes through the brain and it comes together and it makes this engram and it's this three-dimensional picture inside your head. So it's stored there and we talk about it like it's stored like files on a computer or it's stored like files in the filing cabinet. So when we say your body has memory, it's not that it's just in your cells, it's actually this engram that's stored, this three-dimensional, almost holographic picture inside your head of the experience. So when that experience is triggered, and the classic one that we'll all know is that when you walk into Boots the chemist or somewhere and you smell suntan lotion because they're selling it, and all of a sudden you go back to being on holiday. That's context-dependent memory.

Ruth:

So if you're in a situation where all of a sudden it triggers part of that holographic image that you've had in your head, yes, you can have that memory of whatever that experience was good, bad or indifferent. So when you touch the human body, the whole point of touch is it down-regulates. It allows an increase in the feel-good emotions, and that then allows you to drop down in your HPA access, so your cortisol levels drop. I do actually think there's a gate mechanism. We talk about

Melzack and Wall's pain gate theory. I do think there's some kind of gate mechanism for emotions, that when any manual therapy takes that person and drops them down, it's almost like it opens a gate somewhere to allow them to access these engrams so that they can maybe look at them in a different way.

Ruth:

So body memory is a very interesting thing. I cringe when I hear therapists saying " Oh, I know that we have to bring up trauma". No, we actually don't need to bring up trauma, that's not our role as a manual therapist. A manual therapist, without even realizing they're doing it. If they just touch somebody in the right way, that person can just release and let go. And that's where I think you need to teach a therapist that possibility, because if you could add that dimension into your manual therapy, it's an amazing experience to see somebody heal, and I say that word lightly, heal in a very deep, physical and emotional level. So that's kind of where I come from with bringing emotion into body work.

Steve:

I have to say, I think like you, I struggle with the idea that individual cells have memory. I don't believe that a cell which has receptors on its surface doing what those receptors are designed to do when stimulated is the same as the cell thinking, "what did I do last time"? That's different. I'm very prepared to believe actually that one's own emotions might cause a reaction in the body which will then affect the tissue. So classically, when let's say if you're stressed, then your shoulders will tense up. Well, that's going to have a knock-on effect on all sorts of other structures isn't it? So I'm prepared to go along on that one, but I'd be interested to see further research into how stresses, strains and emotional trauma would affect the tissues. Somebody who's remained anonymous asks what is fascia actually made of? And are we now saying that there are pain receptors in it?

Ruth:

They're not pain receptors and, again, this is language. Nociceptors exist in every tissue. The only tissue that nociceptors don't exist in is the brain. And nociceptors, as we all know, are free nerve endings, they are A-Delta and C fibres and they're small fibres. So there are nociceptors within the fascial tissues and this has always been controversial because people just don't believe that fascia is anything more than a packing organ. So yes, there is a nociceptive input coming in from fascia. So when fascia is densified, when it's fibrotic, when it's stuck together, like all injury, it's the fact that densification occurs and creates ischemia. So you do get that pH level dropping to acidic, and that then is going to sensitize and activate the nociceptors that are inside or embedded within the connective tissues. And that's what that piece of research was looking at for low back pain, specifically about the nociceptors. And this book actually has got a really, really good description of sensory nerves because it's to do with the sensory nerve itself. A percentage of that is actually sensory. Some of it is involved in vasodilation, vasoconstriction, some of it's proprioception. So it's looking at the polymodal component of a nerve and absolutely yes, nociceptors do exist in connective tissues.

Steve:

Bearing in mind little things you've said so far, what do you think of the term myofascial release and Laurence has sent in a question asking what is it you're actually doing in terms of treatment? Are you

working on the fascia itself? Are you working on the myofascial junction? Are we actually releasing anything in the fascia?

Ruth:

That is an excellent question. I just actually posted this week a repost from Leon Chaitow's own Facebook page a number of years ago. And he posed the question "what's in a name", because there's a gentleman that I know and Leon knew very well called Andrzej Pilat and Andrzej Pilat originally, I think, is Polish, but he works as a physiotherapist in Spain. He had originally done some of the same John Barnes training that I had done in the U S and he felt that as a physiotherapist, that the term myofascial release wasn't quite correct because what is it we are actually releasing and I have the same debate. I absolutely agree that there is a huge ambiguity in the term myofascial release but unfortunately that's just what it's called and it's been called that since, I think it was Robert Ward that came up with the term probably in the seventies, and John Barnes is the one who's pioneered the term, but that's just what it has happened to be called.

Ruth:

So Andrzej Pilat said, I don't know that I like the term myofascial release, I'm going to call it myofascial induction. And he teaches myofascial induction in a lot of the universities in Spain and is quite well known. I think he's speaking at the Australian Fascia Symposium as well. I personally don't like the term induction because I think it sounds like you're being plugged into a power socket, but release, what are we releasing? Can you release fascia? Can you stretch it? No, absolutely not, you cannot release it. What I do think you do is the perception, we release the perception of tension and that is purely subjective for the patient. Myofascia, myo stands for muscle, fascia is obviously the connective tissues. So it's not only the myotendinous junction, it's the tissues and the muscle, the connective tissues and the muscle together. Some people say that myofascia is just the epimysium, perimysium and endomysium. Yes, that's absolutely true, but I think myofascial release treats the soft tissues because tendons, ligaments, joint capsules, these are all connective tissue, so they're all fascia. So myofascia is the muscle so we're treating the muscle and all of the connective tissues. So that's the way I look at it.

Steve:

We've heard this question before and again, it's anonymous, but every time we talk about fascia, somebody wants to know the expert's opinion on those myofascial blades, the soft tissue devices that one can buy at vast expense.

Ruth:

Yeah, and for me, they come in the same as foam rollers. Do you know what, if manual therapy is supposed to be 30% placebo, and if you're getting 30% placebo at least from using a tool then have it, I think it's very, very subjective. I personally would not go anywhere near any of my patients in chronic pain, because I predominantly treat chronic pain. I wouldn't touch them with a blade or a tool. However, if I had a sports person who had say an Achilles tendonitis or had had a complete separation of the Achilles tendon that had scarring on it, yes, I would use a blade there - I think it's appropriate. I always remember Leon Chaitow at the first British Fascia Symposium, he said, well, a jam jar lid's just as good. And it created this huge uproar in the auditorium, but he's exactly right. You know, what are you doing? Do you need to pay a lot of money for a blade? But if having a blade makes it work for the person and the person thinks yes, that has definitely made a difference. I

think you have to take that into consideration. I'm not a huge fan of them, but I know a lot of people are and find them really beneficial and, if they work for you then, absolutely use it.

Steve:

Or more importantly, if they work for the patient. What we're doing here is we're going over ground which comes up in every single discussion we have about treatment, which kind of suggests that you can't isolate any particular form of treatment. Be it myofascia, be it whatever we osteopaths think we're doing, whatever the chiropractors think they're doing, you know, the whole lot, the emotional part, the physical part, all has to be taken into context. And part of that emotional context will be the patient's perception of what you're using. Now I suspect that if you went to a sports person who was in significant pain after an injury and you use a jam jar lid on him, he wouldn't get as get well as quickly as if you use the nice, shiny Chrome Graston tool. And that's a perfectly reasonable thing, isn't it? It's perfectly reasonable to use that placebo effect, that's the patient's belief in the healing process. Debs has said "doesn't the environment in which we were brought up have a huge influence on epigenetics?"

Ruth:

Yes, absolutely. That's back to the nurture-nature, epigenetics point of view. We look at epigenetics - in fact, there's actually a precursor to that - there is quite a lot of research out there suggesting that nurture-nature to be - in fact it doesn't just suggest it, there is some really good research where for example, the classic one always does seem to be fibromyalgia. You have the mother who has fibromyalgia, they have a young daughter, the young daughter has much more chance of developing fibromyalgia because the mother has had it. You can also have it round the other way. You can have the parents ending up with chronic pain conditions because they have a young child who perhaps has terminal cancer. There's a lot of research done into children who have been abused and traumatized as a child end up with a greater propensity to arthritis.

Ruth:

So that's the nurture-nature debate. Epigenetics, and this is what is essentially most talked about. One to do with genetic transmission was the holocaust. People were saying that grandchildren of Holocaust victims could still remember the trauma. What they've managed to deduce is that it's not about the memory, it's because of the physiology of that person as they were enduring the holocaust, the physiology has changed their cell and essentially their DNA. So when the DNA is then passed down to the child, that DNA tends to be more susceptible to stress, anxiety, and certain health conditions. And then of course, that then creates that forward loop of that person having perhaps difficulty with regulation of their cardiovascular system, which then puts an imprint onto their DNA and they then pass their DNA down to their children. So there is a really interesting link between nurture versus nature with the pain condition and also epigenetics and genetic follow through. So it's a really interesting topic to look into.

Steve:

You've mentioned research a number of times and we've had several people ask us whether they can see the research? Obviously you were bounced at very short notice for this discussion and again, I apologize for that, but you did say you'd be able to give us some references that we could then put up on the website afterwards if people want to follow those things up. Also, before we came on air, you talked about meeting Simeon Neil Asher in India, I think it was some time ago, and Simeon, of

course, is an old friend of the Academy. Steve has asked whether you actually use trigger points as well as myofascia in your work.

Ruth:

I was taught the massage therapist's guide, I'm just going to call it that, to trigger points because I think I was very lucky in my training as a massage therapist because I trained in the US, the remedial or neuromuscular aspect of my massage training was really good quality. So I was taught a lot about trigger points and I still would absolutely look at finding a trigger point, maybe mapping it with Travell and Simon's books and working with it. But, the way I look at it is, a trigger point is a fire alarm. You wouldn't want to go in and just turn off the fire alarm without going in and looking for the reason the fire alarm has gone off. So if I cannot figure that out, if I cannot treat the person to at least turn down the noise coming from the trigger point, then yes, I will go in and do it.

Ruth:

But I look at it from two ways. If somebody comes in and the classic trigger point is GB21 up here in the trapezius and it's giving them that classic over the ear headache I'll say to them, okay. I think the pain in your shoulders is because of this, this, this, and this. I could do that, but I recognize that probably that trigger points driving you nuts. I can certainly work on it at the moment but I need you to come back so that we can resolve some of the issues that are maintaining that trigger point. So I do both, I do use trigger points and a lot of the pain experiences, well, you know, the drip feed from acetylcholine and the fact that they also said, that paper that I was talking about, that Antonio Stecco did the research into the lateral epicondylitis.

Ruth:

They also had a hypothesis that the densification and the concentration of hyaluronic acid could actually be the precursor state for trigger point formation. So yes, I do think there's a big overlap between the densification, the ischemic condition and the trigger point, because the trigger point is an ischemic condition anyway, it's almost like the trigger point creates this - the way I look at it is it a bit like a donut where there's an outer ring that stops the blood getting into the trigger points. The trigger point is always highly acidic, which is then going to sensitize the nociceptors and create that cascade up through the spinothalamic tract.

Steve:

Have you had a look at Simeon's new app for trigger points?

Ruth:

I have, he showed me it when we were in India a couple of years ago, he was really, really proud of it.

Steve:

It's come on phenomenally even in the last six months and saves you carrying around Travell and Simon's books for your treatment. It is really amazing looking at the pain maps and everything else. Another question, again from Steve. He's asked about whether you use you theraguns or not to break up fascia? I don't know what a theragun is, so perhaps you could explain that one.

Ruth:

Yes, there's a lot of these things. The one that we've got, I can't remember the company that makes it, basically it does look a bit like a nail gun and it's got a point on it. Sometimes there are round balls on the end of them, they can be slightly more nodular and they put a huge amount of vibration so that the gun basically makes a vibration onto the body.

Steve:

Is it a bit like Shockwave Therapy?

Ruth:

No, I don't think so. It's more a precision vibration tool and the word there "breakup", that's completely wrong, you cannot break up scar tissue, it just shouldn't be done, you just don't break up fascia in the same way as you don't melt fascia either. The Pacinian and rafini corpuscles are supposedly the two particular mechanoreceptors that are used for fascial work. The rafinis like slow sustained pressure, the pacinis like vibration.

Ruth:

So what the hypothesis is that with the vibration, you're actually stimulating the pacini corpuscles and when you stimulate them, you're sending signals up the dorsal column, medial, lemniscus tract I think it's called. And it down-regulates tonus within the body. So I think that's probably more what you're doing. And I think a lot of these machines are excellent for people and the vibrating foam rolls as well for the fact that it stimulates the nervous system to do something. There's a little bit of controversy over what it actually does to the tissues, but I do think it's the nervous system makes a massive difference for these types of machines.

Steve:

Once again, it may be that in the past we thought this is what they're doing, but what we're really monitoring is an output anyway, so it's whether the patient improves or not as a result of the interference. Helen has asked about how fascia interacts or relates to the newly defined interstitial.

Ruth:

Same thing. Neil Thiese was the gentleman who, and it became, to his astonishment and perhaps even embarrassment, he is one of the authors of a piece of research about the interstitium and I watched an excellent webinar that Carla Stecco and Neil Thiese got together. I've met Neil a couple of times, an incredibly nice guy. The interstitium is another word that is used for fascia, but we tend to talk about the interstitium more in the visceral tissues. But they are the same thing, the visceral tissues visceral fascia and the interstitium are the same.

Steve:

Okay. Elspeth says, does densification create a trigger point or is it the other way around, do you think?

Ruth:

That's a good question. I would have thought it probably would have been more densification creates a trigger point, but I am not a hundred percent sure. It possibly could be both ways. It would make sense to be fair. But as far as the information I've read, it's densification that creates a trigger point.

Steve:

Okay. Now I guess there'll be a lot of people wondering about this and you hadn't had time to put together any slides, but they're all asking whether there are any good images of what's happening with a trigger point formation and densification and so on. Are you aware of any resources like that? And do you have anything?

Ruth:

The only person I think who might have something along those lines would be Jan Dommerholt from Myopain Seminars, which is over in Washington. And he, along with, I don't remember the name of this gentleman, César Fernández-de-las-Peñas I think, has just published the new version of the trail assignments books. And again, I met Jan Dommerholt at a conference and was chatting to him and my colleague, Linda, who teaches with me, she has done the manual therapy of the trigger point training with Myopain and Jan Dommerholt publishes. I think it's every two to three months, a meta-analysis.

Ruth:

He's written the new Travell and Simon's book, so he's done a lot of meta-analysis into the different trigger points research that's out there, so he might be the person to ask. The other only other person I can think of would be Jay Shah. They are the two that talk about trigger points and central sensitization, which is another interesting concept as well.

Steve:

Well, I don't know if we'll get any images out of it, but Simeon was saying in several of the lectures he's done with us recently, there's some new research into trigger points, which apparently confirms without any doubt whatsoever, the existence of trigger points, which of course has been an issue for some time. So we'll have to see where that goes. And he's promised to let us know where he is when we are able to post it. Lee says "is myofascial release actually a change simply in proprioception then?"

Ruth:

You mean, as in manual therapy is myofascial just a change in proprioception? Okay. Again, it's interesting. These are controversies, you can go and expand that slightly further. Is all manual therapy, just a change in sensory input? Myofascial release, I think, works with a couple of different mechanisms. It may be even three mechanisms. Yes. I absolutely think that we down-regulate the nervous system. And for those of you have read anything about the polyvagal theory then myofascial release and manual therapy, when you touch somebody, you do bring them down out of the fight or flight response. Some people live in flight or fight response every day, all day. So yes, there's a down-regulation of the nervous system, but I do also think that when you put your hands on somebody you've got a change in the hydration of the tissues and the water content of the tissues, and this was

by a gentleman called Gerald Pollack. The book that he wrote is called *The Fourth Phase of Water*. And he's spoken a few times at the Fascia Research Congress. So the idea is when you put your hand on the body and you let your hand really, really slowly sink down because proteins are semiconductors and because proteins are hydrophilic, they're water loving, with the gentle weight of your hand what you're doing is you're exuding and gently pushing out the water in the tissues at that place round your hand. And if the water is in a high acidic environment because there's densification then the water becomes what Pollack calls chaotic water which means that the collagen and the elastin fibres, elastin is hydrophobic and collagen is hydrophilic, these fibres are too close together so they repel each other and they create this densified area.

Ruth:

So I do think that there is something to be said for the rehydration of the tissues when you're working with them, plus the fact that you have to encourage some amount of circulation into the skin. So you've got a little bit of vasodilation there, but not to the extent that makes a difference because circulation is a closed system, so if you increase it somewhere, you're then decreasing it somewhere else. It doesn't quite work like that. But I think the heat and the weight of your hand does make a difference. You've also got electricity, and again, this is because proteins are semiconductors so they do have an electrical charge. Every cell in your body has got an electrical charge. So something happens because of that mechanical stimuli. And it does change at the tissue level.

Steve:

Well, Alex has asked when the next international fascial research conference is; he also says you're a great speaker, by the way. So I suspect he echoes a lot of people's sentiments there.

Ruth:

The next Congress is in Montreal and it's in September, I think it's September next year, 2021 Montreal. You'll find the information on the fascia research society webpage they also have a Facebook page. The only thing I would say is if you love research then go to the FRC. If you are not good at following research it can be really challenging, and maybe that's what we should all be doing, we should all be challenging ourselves to climb out of the little box that we're in and see what's out there. Some of the speakers are international speakers as well so you have to struggle to follow along their English. I've only missed one. They first started in 2006, 2007 at Harvard. I've only missed one and I thoroughly enjoy them but I remember being at one in 2009 and just thinking, I haven't got a clue what you're talking about, but now I'm managing to hang on with you. I'm hanging on with fingernails. It's hard going, but so interesting when you actually begin to understand it and then you can put it into your clinical practice. There was one person who was talking about stroke. They're now wondering and hypothesizing that when somebody has a stroke, the spasms or the lack of movement sensation down the affected limb is actually because of densification and lack of the ability of the hyaluronic acid to do its job. So they injected hyaluronidase into these stroke patients and some of them began to get mobility back. So there's lots of things that you can take from it and put into clinical practice, it takes a little bit of time though.

Steve:

Yeah, I have to say my own take on research is that it's, as you say, hard enough to follow the research, it's much, much, much harder to analyse that research and work out whether it's good

quality or not. Ruth, we have run out of time, we have had 45 minutes already. People are of course asking whether you run courses and I imagine if we go to your website, which is myofascialrelease.co.uk.

Ruth:

It is yes. With the situation at the moment, everything is up in the air. I don't know what's happening, but yes we do. We have quite a number of osteopaths that come, not as many chiropractors, but we have a lot of osteopaths that come, because I think MFR fits really well into osteopathy. And on the website, the new dates will be published soon. I've got my final exams this year for university next Monday. So once I get them out of the way I'll get onto the website and try and get some things organized.

Steve:

What's the feedback from the chiropractors who have attended a course? Did they not feel it fitted in with their work?

Ruth:

Some of the traditional chiropractors tend to use ART (active release therapy), which is bit like Rolfing. Whilst I do teach some of that work, I integrate it in with the lighter stuff, which is more like the John Barnes approach. We have a lot of McTimoney chiropractors and a lot of osteopaths.

Steve:

We like chiropractors. We like McTimoney chiropractors here so let's hope that more of them were interested in doing your courses when you can finally get them rolling again. And I think people would be really impressed about the way that you've been able to talk the science of this, not just talk about the theoretical aspects of what goes on. So again, thank you very much.