FICS ICSC Soft Tissue Interventions

Christine: Today, we are very fortunate to have two speakers on the topic of soft tissue interventions. Dr. Jon Wilhelm is the founder and CEO of Pro Chiropractic and Pro Physio, which is an independently operated, an integrated structure of chiropractic and physical therapy clinics, and that is in Bozeman, Montana, USA. He has ranked as a CCSP, and an American Board of Chiropractic Sports position, and holds a master's degree in Sports Science and Rehabilitation. Additionally, he is certified strength and conditioning specialist and he has specialized training also which includes as a CCEP, which is an extremity practitioner.

He has advanced Graston technique provider specialty, fascial manipulation, and SFMA, which is Selective Functional Movement Assessment. He is DNS-certified and Whiplash and Spine Trauma Advanced certification. Doctor Wilhelm was awarded the 2018 ACA Sports Council Sports Chiro of the year. Dr. Wilhelm currently travels and works on invite with the national team of USA bobsled skeleton, USA Gymnastics, and USA Track and Field. He is honored to have been selected to provide sports chiropractic services at numerous high-level events, including Bobsled World Championships, World Cup, Skeleton World Championships, USA Gymnastic National Championships, Big Gymnastics World Championships and USATF National Championships. As a member of the USA medical team at the oh, which is his one of I think is most wonderful accolades is he was part of the USA medical team for 2018 Winter Olympic Games in Pyeongchang, South Korea. So welcome Dr. Wilhelm. Thank yoy for being here.

Christine: I am also going to introduce another good friend from the UK. As I promised, we have doctors from all over the globe, presenting this weekend. Welcome Dr. Mika Janhunen. Mika is qualified in many, many acronyms. ICSC, FRCC sport, FIFA qualified from AECC Bournemouth, UK in 2007. He is been working in his private clinic in Shepperton, UK since 2008. Over the years he is been affiliated with about various sports club, ranging from golf to triathlon, and football, soccer, to rugby. Currently he prefers to treat in his clinic only, and his other passion lies in the endurance and extreme sporting Fields. Dr. Mika is highly knowledgeable on whole body adjusting and functional biomechanics. He combines various assessment, and treatment modalities together, to best suit the individual patient and their sport specific needs to ensure great outcomes. He uses a holistic model of assessment and treatment, were all parts of the athlete, including anatomy, physiology, neurology, functional, biomechanics, nutrition, recovery, and emotional health are addressed. Dr. Mika is a fellow of the Royal College of Chiropractors Sports faculty in the UK, a dynamic tape instructor, and oxygen advantage instructor.

He serves as the chairman of FICS marketing commission, and runs the world sports chiropractic chat show live on Facebook and on YouTube. Really great to have you both here today.

Jon: Welcome to everybody from around the world. We are going to be speaking about soft tissue interventions today. Listen, such a broad topic, so many soft tissue approaches. I feel like we are just going to give you, the what I like to call the 30,000 foot view. Sort of like when you are flying on a jet internationally and you get to see the groundwork, and then, maybe you will be better able to see where you want to explore moving forward. Soft tissue interventions, really are skilled movements. There is a motor memory component to what you do. There is a theory behind the soft tissue approach that you might be using, but really, all of these tissues have some commonality, don't they Mika?

Mika: Absolutely, absolutely. I mean when you start diving into various different techniques, and we'll get to that in a little bit later. But, the commonalities are a lot more than there are differences. So, oftentimes, people, people who repackage techniques and things, they are, they are kind of reinventing your stuff again, but as long as you have a solid understanding of the basic anatomy and physiology, you can't get it wrong. You can't go wrong with that.

Jon: You bet. And really the goals of these soft tissue approaches, whether you use an instrument, or your hand, or a needle, or a cup, are really to change something in the soft tissue complex. In the muscles, in the fascia, in the tendon structure, through the tensegrity of the system. We are really trying to induce relaxation, to help with swelling, to promote proper movement, to get tissues that are, I always say, to get the things that are too tight a little looser, and to loose a little tighter really, to sum it up. But there is there is a lot of different approaches, but they have these commonalities that you are going to see overlying. We made a list of a few of our just introductory thoughts and so Mika I will have you take on that.

Mika: Absolutely. Chiropractic is an amazing, amazing thing. I mean, you must never forget that as your baseline tool for treating athletes and that is where everything kind of stand strong in my opinion. Even in my clinic and practicing on its side, whatever it maybe, for me, the adjustment is always the first thing I would go to. But it is not only about adjusting, there are all these different issues. looking at muscle fascia, we are looking at ligaments, tendons, blood vessels, lymphatic. All these kind of different things that will help your treatment outcomes. The more conversant you are, the more comfortable you are with these tissues and different ways to actually address those tissues, the better you will be equipped in any eventuality. Any scenario that comes to come to your way. Therefore, oftentimes, if you are one trick pony, you are not going to really, really help that many patients. You might be amazing with like, 10% of the patient, but then the 90% of the patients, you are going to struggle a little bit. So, if you have multiple tools all of a sudden, you can help so many more people.

Jon: I really agree with Mika. I think of it like a pyramid. Your base is the chiropractic adjustment, the manipulation, and our understanding, and our mastery of this. Then there is blocks that go on top of it and soft tissues. I think the second level blocks, I believe, functional movement

analysis and functional taping, or on the kind of that second level. From that, you build the really solid pyramid that lasts through all of your years of treatment. I think you are right on track with that Mika.

Mika: Having a base of the pyramid, the adjustment techniques, real solid and it just, it just builds a foundation in for your soft tissue intervention, because in my opinion just makes so much more sense. and then they soft tissue interventions. They are great because they enhance your ability of that adjustment to hold and therefore, you actually can reduce the patient's recovery time or the athletes recovery time dramatically, equally. Also the healing time. So, that is why these soft tissue things are ever so important. Like Jon was saying about the 30,000 foot view on these things, when you just staring at while you are on a jet and you are looking down, he says it is all mass of black with lots of Lights. Where do you start? What do you hone in on, and with the soft tissue around as well? We can talk about different techniques for hours and hours, but, you kind of have to just pick one. I mean we introduced a bunch now.

If any of those seems very interesting get started with that, and then you can always, always look into other things as you go and as you learn and ask these makes more sense. So it is never one-size-fits-all plan here. That is something that you may make it into what is right for you.

Jon: hundred percent, and, and I am thinking like, that the students that are sitting here listening to us, chat about this. I remember sitting in their chairs and different factors come in with specialties in different adjusting techniques, or soft tissue techniques, or maybe they were great at taping. And I seemed almost overwhelmed, which one do I use? So, our goal is to really give you a background on six techniques today. Understanding that there are hundreds out there. But these are the six that we find, we use the most, or with the greatest effectiveness. And like Mika said, pick one, and use this, maybe, get yourself exposed to a couple but, but really you have to dial in at a certain point, and good at one, and then after some years, get good at another, and another, and it takes some time to build up your repertoire of soft tissue techniques. I think if you try to learn eight techniques, and master them all in the first two years, I think you will fail yourself and you will fail your patients, what do you think Mika?

Mika: If you try and bite more than you can chew, I mean, that gets very confusing and then again, I think what is going to be the biggest thing as they would make you confused, as a doctor, as a practitioner. That will then, filter into your treatment outcomes patient satisfaction, those kind of things. But the biggest thing there is that, you will feel confused, yourself.

Jon: Right.

Mika: Like I mentored a couple of younger chiropractors who are coming through the ranks, and, and always tell them, take it easy, you are in no rush. You do not have to be master, everything

within the first six months in practice. So just take your time. Let it sink in a little bit, it will make so much sense.

Jon: You bet. Well, what about these, you see a new technique come out, like you said earlier something repackaged, maybe you see it, boy, it must be good. It is 800 Euro, or you know. What do we do with these new shiny techniques? and is the cost worth it, on some of these, you know. To just take an example in America, there is Active Release Technique and each module is $1,000 USD, and there are several modules to get certified. How do you decide? What to grab first? Who do you ask?

Mika: Well, that is the tricky thing, isn't it? I did an a typical thing myself. When I first qualify, I did not go to really any seminars for at least three years. I just wanted to be a decent chiropractor and learn how to adjust properly. Then you started taking it from there, and I have got my good friend here, I show you this. This is something that I picked up quite early on, so it Anatomy Trains by Thomas Myers, which obviously then led me to understand a lot of the ideas behind these techniques. When you have a new shiny technique come along and somebody's saying that is the best things in ever and it is only, only $800 USD, whatever, only for you, only today. I mean, I am thinking. All right. What is that actually mean? Is there something more to it? I mean fair enough. If you got $800 USD burning a hole in your pocket and do it, no problem. You will learn something. But, oftentimes you know the basics are the same across the board.

Jon: a hundred percent. I took a very similar path as you, and maybe this helps the students that are listening. I took Graston technique first. When I was in school, it was just, just barely offered have been in practice, just over 16 years now. So I went out and took module 1 and 2. At that point, there was only two in Graston technique, and then I use Graston technique primarily on every soft tissue issue that came in for the first three years before I started learning other techniques. Mostly, that it was out of necessity because I did not have the money to go certify, or learn, or fly to new places to learn new techniques in America. So, I think we are hitting on the same thing. I guess the takeaway for the students would be, at least for me and my personal experience is, find a technique that resonates with you. One that is reasonably priced, that you see that a number of successful doctors are using, and then learn that, practice with that, gain a lot of experience with that, before adding another technique. I think often in school, I remember the academic process. The desire was to, if there is a new seminar, in a new seminar and I have to learn this, and learn this, and learn this. I think as a general exposure, that is okay. But once you dive in, commit to something. You are married to that technique for at least a couple of years, and then, and then, gain another one. That, that would be my take away.

Mika:. Now you are correct there Jon, and this is something that it is easy to kind of get pulled into the fear of missing out of something, where all your friends are doing seven different

seminars in the year and you thinking, I must be falling short of the mark, but actually, no, you are not. Hold on to your own stuff and do that. Get proficient.

Jon: Hundred percent. Well, soft tissue therapies have been around for a long time. There is nothing new in this, but what has happened is in the last, specially, 30 years, the understanding and application of soft tissue treatments and techniques has really moved forward exponentially with connection through the internet, and societies becoming more and more mobile, and thought being shared more easily through, like I said, through the internet and other digital means. But even back in the 5th Century, Hippocrates was adding traction to his manipulation, and the second century, they are adding massage to joint manipulation. There is a lot of evidence as you can see, a few of those even traction with ropes and different manual pressures over vertebra in the Renaissance period. This is really nothing new.

Mika: Correct there is nothing new under the sun in that respect. Then you go back to looking at the Chinese who were very clever thousands of years ago, and same as the ancient Caymans and Bone Setters, we are looking at the more of the European, or even North American rules. It is all the same stuff. I mean the human body has it changed? Might still the same.

Jon: We have talked about this 30,000 foot view, a few, just a few approaches, I listed here. Some of these, I have studied some of them, not at all, and you may have heard of these see cyriax, fascial unwinding, active release, positional release, rolfing. I know practitioners that, have been, spent their whole life, really just learning, muscle energy technique and becoming a master of that. So that is a path someone could take, once you find it, maybe you dive deep. Deep into the deep end. I like to swim in the middle, if I find something I really like, I learn it really well but maybe not to the master level. I do not know what your experience is that with that Mika, I think this slide just shows, there is a lot out there. There is a world of soft tissue approaches.

Mika: There is, I mean, like I said earlier, looking back to that. When you have lots of different tools in the toolbox, you will find it useful, all of that. It is not something that you cannot necessarily help everybody just by doing activities, technique, and may not help everybody by doing, what is that, positional release? I have not that is a new one for me, but if you got the basic understanding of all, you can, you can obviously then correlate it together, and using the combinations well. Which is totally legal by the way.

Jon: Sometimes the simple technique might be one of the best. I have used skin rolling. Skin rolling, decompressive skin rolling with great effectiveness over some acutely injured areas, something that is not taught a lot. Does not require an instrument, or really thousands of dollars, and hours, and hours of training. But sometimes, simpler can be better too, so, just know, there is a lot out there. I think, the more you learn about it, the more you will realize the bigger it is, but the more you will get excited about it too. We are going to set the path here. We chose some

of our favourites. Some things that we have used a lot or with great effectiveness, or we thought were the most common ones we used, and so yeah.

Jon: So, dry needling, therapeutic dry needling, is a manual soft tissue technique, where acupuncture needles are inserted into the myofascial trigger points. Now, there is a lot of discussion around. Is therapeutic dry needling acupuncture? It is not oriental medical acupuncture, which has a different premise, altogether. Different background and training. Obviously the approach there is to change a meridian, whereas therapeutic dry needling is really, more of a, a western approach intervention using the same instrument. We use the acupuncture needles to treat musculoskeletal conditions. There is a number of theories, why it works. Here is one of the things, there is a lot of research behind dry needling right now. But if you want a hundred percent evidence-based technique, this is probably not for you, because it hasn't caught up with it yet. However, there is good evidence, informing us that it is effective.

I would say it is, evidence informed and outcome-based. There is a lot of different theories, some of those have to do with in a bit, you see those on the right, alteration of sympathetic output, nociceptive change. There are some neurological approaches with, the descending inhibitory pathways. There is, a thought that, it is more of a biomechanical mediator that happens when you put this needle into these trigger points. There is other thought that it is more of an electrical change that happens in the tissue matrix. So not to get to sciences on it, but if you want to dive into dry needling in the research behind, there is probably about eight real good theories right now of why dry needling works.

WATCH VIDEO: Now we are going to demonstrate quickly some dry needling. There is a ton of different approaches to dry needling, and we are just going to show intramuscular dry needling through her qua. We always practice clean technique, so, alcohol wipe before we insert the real key, like, any good soft tissue technique, is palpation. So, we are going to find a good spot and drive in. Over here, you can see, that there is different sizes of needles. Of course, we are not going to use the hundred for this, but there is also different gauges, so different diameters, and different lengths that we are going to use for her.

We would use this, which is a 25 by 40. You will see that the needle is stored hygienically. Go back, palpate the trigger point. We are contacting little poke, and the needles already in the skin, and then we are in. Now that the needle is in, there is a few things that we can do. We can twist the needle, we could piston or pulse the needle, we could also put electric stimulation through a pointer, or through clips and a different type of machine, depending on the need of the patient, the type of tissue that is injured, the chronicity or acuteness of the injury. There is a lot of factors that go into that, but this is a simple demonstration of insertion of therapeutic dry needling.

Jon: There you have it. When you start and learn dry needling, intramuscular, the middle of the muscle, is where you learn. You will always know a new practitioner in dry needling, because they'll want to needle intramuscularly, because that is what you learn first. And then you learn muscular tendinous approaches, tendono-periosteal approaches. Then you, you originally needle over extremities, then, as you, as you gain training, you learn to needle over the thorax, over the lung regions, and things like that. Dry needling, is, is for me, one of my go to. I probably do it on every second, or third patient, in my clinic. It is something that, saved my body and saved my hands. In my experience, almost every musculoskeletal, I know this is a broad statement, but almost every musculoskeletal condition I found, can benefit from properly, and safely applied dry needling. What are the indications? Well, restricted range of motion, adhesions, functional limitations, tendinopathies. But really, we are treating myofascial trigger points in centers of coordination. There are some red flags with dry needling. You do not want to dry needle a pregnant patient. You must avoid, and be aware of any acute systemic infection, obviously. Blood flow is important around needling, so uncontrolled hypertension, or any anticoagulant or coagulant dysfunction, because there can be needling and you can hit vessels, in fact, you often hit capillaries and there is just a drop of blood.

That is why we are maintaining good hygiene around it. Sometimes you hit a vessel and it bleeds a little more. We are not talking serious bleeding, but you, you learn how to handle and control this. How to avoid the really, really important vessels, obviously, when you are needling around the femoral area, around the neck, and things like that. Obviously, skin infections and conditions. We already talked about bleeding. Some yellow flags. These are things to be careful around but not necessarily a hundred percent to avoid.

Can you needle a cancer patient? Yes, they use acupuncture on cancer patients all the time. But you just, obviously have to be aware that you are not needling into a malignancy. Generalized infection and viruses, you know. Can you, can you needle around that? Viruses are a big buzzword in this last year, obviously, with COVID, and everything else. You can, obviously, you have to be aware of, of your clean technique, and exposure to yourself, and to your patient into your other patients.

Acute inflammatory conditions. I needle around this all the time. But I have been needling for about nine years. Scars and burns. I do not need all around burns, but I needle around scars. In fact, that is one of the case studies I am going to talk about when we get to that point. I am needling, a young lady right now, who had a first rib resection, to treat thoracic outlet syndrome through her axilla, which I had never seen that approach. They cut through the axilla, remove the first rib and then she ended up getting indurated scar tissue. This big ball of scar tissue her, and we were able to needle and do fascial manipulation around that with great success. Couple other yellow flags listed there. So, why, why use needles? Well, I like it because it is a light force alternative approach. It is not hard on the patient, although it can be tender in the area. The

number one question, Mika then I get, is, does it hurt? They see the needle. They are worried. Yeah.

Mika: I mean some people can get a bit of reaction to it, and sometimes, I mean, personally, I oftentimes get a little bit of this conflict, but I mean, nothing dramatic. I would not say.

Jon: My go-to with patients, as I said, hurts, like, a one or two, but not a 5 or 10, out of 10 and I always ensure them, and a lot of them do not know this, the needle were using is much different than a hypodermic needle, which has a core in it to deliver fluid, or to draw fluid. It is more like a sphere that spreads the tissue, instead of something that course through the tissue, it is much less invasive, and painful. I like I can treat multiple areas at the same time. I could needle a calf, and a neck, and a low back, all at the same time. I can leave those needles on that patient safely while I go treat another patient in another room, that is a very common practice. Obviously to give them advice as not to roll over, and how to not move when you are gone. It preserves your hands.

There are treatments like active release or like, fascial manipulation that'll show, that are a lot harder on my body, and I like it that it is ultra-focused. If I have a point that is hard to get to, it is at the bottom of a lot of tissues. If it is through other tissues, if maybe my big hands are too, big to get to it. I like that, that it is ultra-focused. So, these are the things I like about, like about dry needling, and now we are going to pass it over to Mika for instrument assistant.

Mika: I mean one thing to say about this is, is preservation of hands, obviously as chiros, these are all primary tools of course, and the less kind of strain, you put on an acute, cumulatively over the decades, the better shape you are going to be in a more longevity you have. That is the, that is definitely a good point to make there. Now, instrument assist, it is different, it goes in the whole fascial release realm. Where you looking at various different techniques there, you got your Graston technique from the Chinese medicine, you have a gua sha or scraping, so, all those things are very, very useful and you can use lots of different instruments as well. Some of them are made out of corn, some of them are made are metal, you have plastic ones, you got ceramic ones, even seen some wooden ones around and I mean is one necessarily better than the other, well that depends on the sales pitch, but at the same time I personally have found that the metallic alloys are probably, I found best. Stainless steel works really well, but sometimes they use a slightly different alloy, which probably gives a better effect. To that degree in often times, I actually tell patients when they go home, if there is something that we have not completely got through, all the stages, use a handle of a table knife, that is stainless steel, got a nice roundly edge. So, there is run that, along the tissue. Just do a little bit of massage. Put a bit of cream on it or something like that, or bit of oil, and it will just glide easily and it will make my job next time a lot easier. So, it is not rocket science, this is actually really quite simple to use.

So, when we are looking at the indications, contraindications again very straightforward. You are not going to go and start instrument massaging or rubbing an open wound. Makes complete self-sense on healed fractures, things like that are just blatantly obvious. Of course, sometimes you know patients, who have eating disorders, kidney problems, then, you want to be careful, because again, it can cause a lot of bruising, which is not nice, and patients generally, do not appreciate that. Where do I use it? I use it on pretty much all soft tissues around the body. There is not really a place where you cannot sit, nicely. Around the collar, you might be a little bit, gentle little bit calm. Maybe there are certain cranial techniques that work better with those. Just about anything else, that is soft tissue.

Jon: Well, what would you say on these indications, of this list? What are the two or three that you see the best results, with instrument assisted?

Mika: Well, tell you what plantar fasciitis is very important. I mean, that is something, I have treated a lot of runners and athletes in running sports and lot of times, they have really stiff feet, which then can cause a lot of calf, and hamstring, and hip flexor issues. Getting to the bottom of the injury and getting that foot nice and supple, that is really helpful. Obviously carpal tunnel again, coming to that extra extremity on the wrist, very effective. Coming up the forearm, into the sort of tennis elbow, golfer elbow, massively, massively are helpful in there. When it comes to the tendon stuff like achillea, for example, it can be very difficult to get respond. With a bit of bit of scraping, gua sha type of work, you can release quite a bit quicker.

Jon: excellent. Well I am glad you said that, because on the list that you have for indications, plantar fasciitis, my go to is always instrument assisted. I grab my Graston or factor tool and go for it, so I can echo that really good. I have noticed around the elbow, you can really clean up some, some medial lateral epicondylitis, pretty fast, especially if you add some gripping or some motion to that, in my experience. I do not know if you felt the same, but what a great list. Achilles tendinosis or tendonitis can be so tough, and the first studies they did on Graston was with rat tendons. I have noticed some good results with that too. It sounds like we are on the pretty close to the same page there.

Mika: Coming slightly back to that, elbow, you are looking at tennis and golfer's elbow and that, when you doing you are doing, you are really some whichever direction. You just get the patient to actively move the forearm and the wrist of the same time. It can be really helpful as well, so you just added another dimension to it. That might be addressing some, circles in your combining different techniques, but I hope it works. So I am happy.

Jon: Well, when I took the advanced Graston module, they were just starting to add it. It was the development of factor technique, actually, but before factor was factor. But they said, well, if this works passively, what if we hold an isometric contraction, that changes it. It feels different, and

then they said, well, if that helps, why don't we move the area? Put a band, or grab a weight, or you move through an active range of motion, and then they said well that works. Let us add some proprioception, let us put them on a balance or baps board, or bosu ball and do some as well. Then, why not add a band with that, to challenge the system while we are doing that intervention. They are really, this is one of the deep dive kind of things. You can get into instrument assisted at all sorts of other things to it, our friend Tom Hyde and Todd Riddle, are some that are teaching these approaches with factor really, really brilliant. You think Mika?

Mika: So there is some new pictures of different kinds of instruments there. This is the image I stole from Christine earlier. Pending for a little extra, and there is a couple of studies there. I put just for your reference. If you are interested to have a look at it, have a read, there is, as always, there is research for and against. You got to make up your mind as to what you think is appropriate.

Jon: PNF, PIR is a soft tissue approach. PNF stands for proprioceptive neuromuscular facilitation. PIR is post isometric relaxation. I will use this one with my athletes, when I am trying typically to cool them down, after treatment, or when they are really tight from a training session. There is some research that this approach is not so effective pre-competition, so I usually do not utilize it, unless I really have to go to it. But it has been around since the 1940s. Originally, used to treat some really serious conditions like polio and MS, where tissue extensibility is really challenged. What it does is it keys into the body's reflex system. As when we contract the bicep, the triceps synergistically releases, and vice versa. It taps in to that system that relies on reflexes to produce deeper stretch.

It really tells the brain, "Hey, something's going to tear here so you need to relax it.", and that is what PNF, PIR does. I took one of my assistants here, we will watch little example.

Watch Video: PNF stretching. Proprioceptive neuromuscular facilitation or PIR, which is post isometric relaxation. Karina's here to help us out. If we were doing it for her hand strength, we go up until we feel a point of tension. I actually let off of that, and push against me about half your strength. We hold that, she is contracted right now. Hold through the glute, through the hamstring, and relax, and you will see now that the point of tensions change, we can go a little further. Push against me again. Hold. Three, two, one., relax. In each time, we gain a little.

Another way that we can do it is, we will have you contract against me again, and hold, and when I count down afterwards, I want you to bring your leg up with me, okay? Three, two, one, relax, and then bring your leg up with, and we can run through several of these. Really great for gaming. Quick range of motion, will talk about the indications and contra.

Jon: So here are the indications for, for PNF and, obviously we are trying to increase flexibility, range of motion. It is shown to actually improve strength and neuromuscular control. Really great for, for running mechanics. What is nice is you are able to get this release without, significantly, raising their heart rate, or challenging their system. So, blood pressure stays low, and we are still able to get a loosening without putting them on a bike, putting them through a circuit, things like that. The real key to this, and you sort of have to have somebody show you. You learn it from a book, but it is really a skill that you have to feel and have demonstrated. But I showed a quick one for the hamstring. That is very simple. But if you wanted to do it for a QL, there, for instance, sideline with one leg off, and an arm in a certain position and they are contracting. There is a lot of different positions to PNF stretching. But it is something that really is great for flexibility.

What are contraindications? Well obviously, you are not going to do this, somebody that is very unstable. Has a very acute soft tissue injury, if they have a bony block, you want a soft tissue feel on this. Obviously, if they are really bruised up or have an infection, have a recent surgical repair, you do not want to tear that loose, and clients, sometimes refused this if it does not feel right to them. That usually means you should dig deeper. If you are moving through this, it should be a comfortable thing, and if they say feels like it is pinching, you should not push through that. That is a contraindication for this technique. So just summarizing, PNF, my go to as part of a cool down, or part of a regimen if they have over trained, typically, not pre-competition.

Mika: I echo that sentiment there, that is something that, a warm-up is a warm-up, and the something that gets you ready to rumble and get you, okay, start, or heart rate up. Got some blood flowing all that, but these kind of, passing techniques to increase range of motion. They can actually be someone harmful as well in that sense, since the prior to competition. So next, let us go into cupping a little bit. So there is lots of different ways of doing cupping. Generally, it means that you have either a plastic, or a silicone or, or a glass cup, that you apply to the skin. You may have one with that has like a pump on it, use heat to draw the tissue up. So, the whole idea behind cupping, is to lift the skin inside the cup. Which then enables the tissues to glide differently, and you can help restore blood flow. You can help with drainage and more importantly, it reduces pain and inflammation as well. It is very safe, non-invasive and there are types of bloodletting cupping, where there is a very ancient method again, but I do not think that is really practiced these days anymore.

It can be just used as a healing modality. It can be extremely good as well. It is not just limited to athletic injuries and sports injuries, so you do not want to be using these around open wounds, fractures, or dislocations. They need a different management. You are not going to fix a broken bone with blind cupping, let us call it that. I mean, makes perfect sense and very, very simple, very easy to understand but you would be surprised sometimes. I think with children, as far as I understand concisely that you should not use cupping with children, especially on the age of seven. So, if you are treating junior athletes, put the cups away.

Jon: What cups do you like to use? Do you prefer a silicone cup? Do use a glass set, a plastic set, in your experience. What works the best for you?

Mika: I kind of like the silicone ones, you know. There is, there is a number of different ways of doing it. One of my masseurs he is very good with various different instruments and he uses glass as well. This really comes down to the individual preference. The silicone ones are more like a passive, where you get the tissue inside and let it lay be there. Whereas with the glass cup for example, this is a rigid cup. So, you can do the slide in cupping, which is quite neat. That is something that, I am learning at the moment. You are combining couple of different modalities. We get the cupping effect and as you slide it across the skin, what happens there is that you are really letting that fascia breathe. I mean that may be a good way of describing it, by you just introducing that flow on that movement, into those tissues in quite a deep level.

Jon: You bet. I think that is brilliant, like we chatted about with the instrument assisted, the primary way you would apply that technique and this is passive. The patient's laying down, or they are sitting up, and their passive. Then as you start to gain more experience, then you start gliding the cup. Then, maybe you leave the cup, and start moving the athlete, through range of motion, and then you can do both. You can glide the cup and move the athlete through range of motion, so, often I will work through that progression, visit to visit for instance, with the low back at first. It is six or eight cups through the low back. The next time I am moving the cups, the next time leaving the cups and moving the athlete, having them walk around, move through, maybe the part of provocative range of motion.

Mika: What stops you from going in? From applying the cup onto a golfer's back, for example, and giving them a wedge and saying, right, look. Now go through the swing motion a few times and see how that feels. Does that free up the movement? If it does not, okay, go and move the cup to addition place. If they are doing the cutting movement, and if they getting things like that, all right. Nothing stopped because it is very stable position, nothing stops you from actually sliding the cups they are doing the cutting. This is like a rabbit hole, where you can go as deep as you want, and get as sophisticated as you want, because there is no right or wrong answer in that respect.

Jon: Right. As long as you are playing it safely, you are not going to hurt the patient. A great thing about cupping, there are not a lot of contraindications beyond those that are very common sense. Because it is really one of our only decompressive, myofascial release techniques or soft tissue techniques, decompressing. You are not harming tissues very often unless the skin is broken or unless there is something dislocated or bleeding around it. So, it is very common sense with the contraindications. A very safe modality to learn, and to apply, and to get creative with.

Mika: Absolutely agree. So, there is a couple of different applications of cups. In the bottom picture on the left, you can see, that the pump or sometimes use the pumps, and sometimes it is like a top picture. You see a cup there, that has a squeezy top thing that then creates the vacuum, inside the cup, and lift the skin, and the tissue. So there is all sorts of different ways of doing it. Again, on the right hand side there, on the screen, you can see some, some research papers so you can review those at your leisure and see, see what you make out of that. But like Jon said, it is a low-cost thing to get into. The cost of cups is not very high, and all you need is a bit of lube, and off you go. So it is very simple to learn and, and basic anatomical knowledge will serve you really well here again.

Jon: Well, that is a good point. I had a young practitioner, young chiropractor, that was in her first year with me, and I had not observed her cupping because I thought it was so common sense, and then I realized that she was doing it almost dry on the patient's skin, which was quite uncomfortable, so do not forget a little bit of emollient or something to make up the friction. Sometimes, if you have been doing it for a long time, like you and I have, that seems very common sense. But as a student, sometimes I forget that the common things need to be reviewed as well.

Mika, I just had a, a bit of a revelation that a lot of our soft tissue interventions are based on Eastern medicine. We have already gone through dry needling, which is the Western equivalent of acupuncture, cupping, which has its roots in Eastern and Oriental medicine. We already talked about instrument assisted, which has its roots in Gua Sha. So it is kind of neat to see the blending of cultures, and of histories, and of approaches, east and west, and I think as chiropractors, we are really, uniquely positioned to understand, communicate around, and deliver these modalities. Don't, you think?

Mika: That is actually right, and I know when it comes to the chiropractic approach, which is to help a patient, not just an elbow, not just back, you need to have these different approaches, and be able to own them. I understand, your sometimes, practitioners of various different methods, they can be quite narrow size is about these things and I mean, but as chiropractors, I think we don't, we don't suffer with that too badly. We can we can mix and match as we like clearly. Feel totally happy about it.

Jon: Lot of value to that for sure.

Mika: Trigger points. Obviously, we have been, we mentioned trigger points in a few times. There is a heck of a lot you can do with the trigger point. I remember, you know what, when I first took my very first, I will stand, ICCSD module, we are in Lausanne, Switzerland at the time, and we had a legend, fix legend, Mike Murray was demonstrating some of the trigger point stuff for us then, and he was doing a very typical skinny compressions and whatnots? Somebody said, well, what else can you do? He said "Well, you can do whatever the heck you want.", and there is a lot of

different things you can see on the left hand side of the screen. I remember, he whipped out his laser pointer from his pocket, and he shines it on the trigger point, it seem to have an effect. Equally you can tape, and you can PR like Jon was saying earlier, you can dry needle them. Works a treat, you know. Sort of more pharmaceutical method is the trigger point injections, which I am not interested in doing that, or sending patients out for that, because it does not work any better than all these other things. Is one better than the other? Probably down to your preference, and the specific patient, which would dictate your choice of instrument on a given day.

Trigger points, as we know, they cause pain, and they restrict your range of motion. So, getting rid of trigger points is very helpful, because patients can move more freely, hence their form will hold better when their sport. They can obviously run with a better economy of the stride, so they are using less energy, go faster or both, and as the range of motion is restored, it prevents that kind of repetitive strain type of injury from, from developing later on. So these are the things where you looking at the overall management and even performance enhancement on an athlete. Even if they do not come reporting with pain in a particular place, but you notice there is pain in a trigger point, It is a good idea to get rid of it, because the will have an effect. Maybe will manifest it further down the line, but if you can prevent it by, enabling that good movement on function, then all of that and the patient will most likely thank you for it.

Jon: Oh, hundred percent. The studies are starting to show that a chronic trigger point can, can change really the chemistry of a brain. There is a neuromodulation that happens around that, that increases the sensitivity perception in our brain. So, what might have felt like a four, then feels like a seven, even though things are the same because your body has to compensate around that, but no, trigger points are really, really important. What I found especially as I help to train some young physios and chiros in my clinics, is that any of these approaches that you take, whether you are using a dry needling approach, or schema compression, or myofascial release, it matters not, are as good as your palpatory skills. That is where, it is really important, as a practitioner, to learn the differences, so if you are a student right now listening to this, and this, is all about the students, to me, you have to get good at feeling differences and tissues.

A lot of times I have young chiropractors or even patients, say, wow, how do know that is right where it hurts. You should get where, it hurts before the patient tells you. I often describe, well, you know how an apple feels, and if the apple is bruised or damaged, the tissue, it feels different. In the same way our body's tissues feel softer, or I say soft, or more dense, or harder. You have to learn to find those, and then to apply the soft tissue intervention. The trigger point release, very expertly right at those points, because if you are a few millimetres off the trigger point, you are not going to have much release. You are working, and the patient is getting an intervention that is no good for them.

So, for me, that is the biggest thing. Not what treatment approach, but how you palpate, and how you apply. What do you think Mika?

Mika: Finding that the actual culprit, and finding the spot? That is that is number one thing. Some evidence there, a couple of research papers for you all to have a look at and read. It seems to be pretty generally accepted now trigger point therapy and what not, so I do not think there is really any questions about that.

Jon: Well this is probably where your Thomas Myers comes in handy to understanding

Mika: These are the kind of things where, when you find a trigger point and you start looking at the anatomy trains, or fascial lines or whatever it may be, it will have an effect. Not only on that particular muscle, but will have an effect in a broader sense. And that is why that tightness in the hamstring, it may be, actually caused by a trigger point in a pot. You just need to figure it out. But, reading anatomy trains and understanding those kind of things, it will be so much more clear at that point,

Jon: We have talked about trigger points, and I also started like Mika really liking Thomas Myers myofascial meridians, understanding the connections of the sheets of tissue through the body, understanding these lines, or what he refers to as trains, and then I was exposed to fascial manipulation. I think the first module I took was nine or ten years ago, when they were first teaching this in the United States. Developed in Italy by a PT, Luigi Stucco and then his children, Carla and Antonio. Carla, who just spoke at the FICS Global Symposium are both MDs and PHDs, and they really have dedicated their lives, following in their father's footsteps, to understanding fascia, and the deep fascial systems in the body. Muscular deep fascia, visceral fascia. Really understanding the tensegrity, which is the relationship of how it moves together in a three-dimensional continuum. Really the approach of fascial manipulation is to localize specific areas of limited movement or densification, density in these tissues.

What is nice is you look at the picture to the right of this slide. They have mapped fascial lines and the anterior plane. They mapped arm lines. They have mapped spiral chains of connections and I found when I started utilizing and learning this technique. They are spot-on. I mean, within millimetres, you have these points, and you learn these points as kind of like a master's degree of Thomas Myers myofascial meridians. You can go to these points, and really, map and find these, these tender sense fascial centers, and really be very expert at then, applying the fascial manipulation approach to unwind. So really the technique is half analysis. I would say, I am a third analysis, a third mapping the points, then a third applying a deep friction release. What I found is a lot of trigger point or myofascial release techniques, find the point, and deliver some stimulus to it, but stopped short of actually unwinding that particular point.

What I really love about fascial manipulation, although it is slightly more intense, it is really great at unwinding these centers, because you have to apply the friction until you feel it actually release. The more adept you are at the technique, the better. So, I shot a video as well, of applying this technique.

Watch Video: Where going to talk about fascial manipulation, this is Stecco's theory. What we do is, we find the area, or center of coordination. We are going to put pressure into that area until we get a thixotropic effect, which is a loosening of the tissue, so it can glide and slide. The three contact points are: (first) the elbow. So fascial manipulation looks like this. We are going to get in a good ergonomic position, we are right on a good spot, the retro pelvi spot. 80% of your pressure is down, 20% back and forth, and you are going to maintain this very focused contact on this point, point of densified tissue, for one to three minutes. If we were doing it in a more focused spot, I would use a reinforced knuckle, for instance, at the QL. We call this the retro lumbi point, and I am going to put that pressure in, again, same thing, to get enough pressure for the tissue to start unwinding. What you will feel is the tissue unwind, it will actually feel like that very dense specific point kind of let's go. The third treatment contact is for a smaller specific point and is a reinforced fingertip. We might use this on a hand, or on a foot, so, reinforced fingertip. The key to this is your palpatory skills, okay, and maintaining that contact, enough heat, enough pressure, to unwind the tissue. That is fascial manipulation.

Jon: So this one is much more body intense for me. I will go back and forth often between dry needling these same points, and doing fascial manipulation, maybe the next time, Mika, so that is one of the approaches, I take. It is a lot of work to be in there with your elbow. You have to keep good ergonomics. A lot of times my patients say, man you must be tired from that too. I say I have been training for this my whole life, my shoulder set up for a 50k, no problem. But some of the indications are, really myofascial pain, repetitive strain, movement imbalances. You can really see when you unwind these points. Movement patterns change very quickly.

I use a lot on chronic pain syndromes or complaints, often. I will see that some matter of visceral dysfunction can unwind with this. So, maybe they are having an organ issue, or organs referring to their low back, a gallbladder. There are some visceral approaches in this and you unwind that visceral fascia. You can get a change, either from the muscle to the viscera, or from the organ to the soma, to the muscle. What I like to say, I put the star on this, is complicated cases, that are unresponsive to other soft tissue techniques. I always go to fascial manipulation. It is my number one for, if I have tried Graston, I have tried needling, I have done some stretching, they have been to the massage therapist, I have tried cupping, and I am just at the end of my wits, I go to fascial manipulation. Seem to have the best results with the crankiest, kind of cases.

Because the answer is because it is quite intense for the patient, and I put that on my treatment, may feel intense, but the results are worth the pain. While you could see me digging my elbow

into her basically glute medius, it is quite intense, and not all patients like that, on day one, as a first modality, when you are laying down, relationship with the patient. So contraindications, we would go over this and malignancy, obviously, you are not going to be pushing hard and moving around and creating blood flow around a malignancy or an aneurysm or an acute flare-up of a rheumatoid flare up. Obviously, if they have advance diabetes, there is a change in their perception, in their tissues, to how much pressure they can take. We want to avoid that. And severe osteoporosis, you know. If I have an 80 year old woman, with very frail, tissues and bones, I am not going to be putting that kind of pressure in and around that.

Mika: So one thing I like to do oftentimes with patients, is to carry the treatment effect over, until the next treatment, next time I see them. They can be very simple flowy movements, not necessarily stretches. They are not necessarily strengthening, their just flowing. For example, like, when you, when you see a patient who has got that to the deep anterior arm line, involvement through the bicep, the anterior shoulder, it can be a very simple thing. It is curly arm into the body, get that flex exchange going, and then go to pull extension, sometimes you turn the head away. Just do a very slow, flowing movement like that and saying with the forearms raise, ankles, calves, you know. It is a simple movement, but it keeps tissues flowing, keeps the blood flowing. It gives the patient a bit more focus as well. So oftentimes, I just make it up on a spot, I do not know if this is called a technique, but I just make it up as I go and it seems to work a treat as well.

Jon: Are you saying that you see their restriction in motion and so on a visit you will look at that and then just give them that movement flow for homework. Is that what you are doing or you working on it?

Mika: So it is sometimes a bit more elaborate. Sometimes it is a squat face thing, sometimes it can be a lunch or literally moving the wrist around, whatever it may be. Whatever is that kind of inhibited movement, and if it unleashes the joint or like a bony inhibition, if it is a soft tissue there, then I will give him this. Of course, if there is a bony restriction, they are not something that they cannot, they can't loosen it up themselves.

Jon: Well, really, we feel tight, tightness and pain because soft tissues are not gliding, so this is brilliant.

Mika: That is right. The very simple prescription. You just ask them to do a movement, you just do it, do it regularly. Little bits at a time but often.

Jon: Talk to me about what you think are some of these gold nuggets. These take homes as we finish up here, Mika.

Mika: These gold nuggets are exactly what it says on the tin. So, it is down to that experience, down to your preference. Like I said earlier, the more, the more tools you have in your box, the more patients you are going to be able to help. And one of my favorite quotes from a long time ago. Was that good decisions are made based on experience, and often times experience is gained from making bad decisions? Because you got to try it out, you got to listen to your intuition, give it a try and as long as you are not hurting the patient, causing damage, your learning. That is the most important thing when you are first starting out as a sports chiro. You are going to be learning all the time. Every patient you learn something, even if it is "don't ever do that again" and that is very important.

Jon: I agree. I think something I have taken away from experience, is, you have to operate safely, have to have an understanding of the anatomy you are working on. But if you are doing soft tissue work, and you are backing off all the time, because it is uncomfortable for the patient, you will not have nearly the results as if you get in there. Communicate with the patient that this may be uncomfortable, because ungluing densified, and strained, and loaded soft tissues is sometimes uncomfortable. But you have to go through this discomfort, like if you are training for a race.

Mika: I was just going to say, exactly the same mentality. Going to have to embrace the discomfort for the greater game.

Jon: but it is on us practitioners, as sports chiros, to understand the technique that we have, the tissues we are working on to make sure it is safe and we are not going to alter indications. But once you have done that, don't be afraid to do what the patient needs. I say one of my gold nuggets is, pick one technique and use it on everything. Try it on plantar fasciitis, try it on achilles tendonitis, use it on cervical strains, use it on everything, for six months minimum before trying another technique. My young chiropractors, get what I like to call analysis paralysis. They come out of school, been exposed to nine techniques, and they try each one, for one to two visits and wonder why the patient is not responding? I say, well, you did not give it enough time for that Graston to work or the ART to work and you are bouncing around and confusing the patient. So, really students, use one thing and become more expert at it, then add something else to your tool belt.

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