

Knee and Foot Pain

with Simeon Niel Asher

18th May 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!)*

Steven:

It's great to have you back. We're going to talk about knee and foot pain today. So where should we start?

Simeon:

Well so let's just do a little overview. So I thought we'd cover a few. The idea with these workshops is that we're going to cover a few common problems and we're going to explore them together and see if I'm going to show you how I approach them using trigger points and hopefully we'll add something clinically to the outcomes. Yeah. So I thought we'd start with runners knee. Should we do that?

Steven:

Yeah, please.

Simeon:

Perfect. Okay. So just an overview. You know, the thing for me about, foot pain especially is that we jump and run around and we use our feet and we, we hardly ever think about them, but when they go wrong, it's almost like the patients are completely obsessed.

Simeon:

You know, I'm sure you see it clinically as well. There are two areas that you find patients get completely obsessed. One is foot pain, and the other is TMJ. And it seems to be this kind of really kind of separative problems that, that people really suffer with. So in terms of knee as we said here from comma 33% of all musculoskeletal pain interesting that we said 66% is the shoulder. So that's the whole body covered, right? But anyway incidents again increases with age. More common, more common actually in patients that are physically active. And that's important. That's important as we go through some of these conditions, especially Achilles tendinopathy you know, the body is constructed for locomotion. We know, we know that locomotion is incredibly important in terms of integrating the nervous system.

Simeon:

I don't know if you remember the, the anecdote about the research on cats that weren't allowed to walk. They took kittens, they didn't allow him to walk and their, the whole nervous system didn't integrate, their eyesight didn't integrate. So locomotion, incredibly important. And of course, it's a fundamental part about the way that the way our nervous system works. As we've showed you before in some of the shorter lectures, the hip, the knee, the foot, the biomechanics of the lower extremity have an effect on the rest of the body, on the, on the shoulder and the neck and the low back. So in terms of this sort of myofascial chains, everything really is interconnected and the knees are very much a part of that in the, in the foot. Thing we said, remember when we looked at the shoulder, we said if someone's got osteoarthritis of the big toe, for example, they won't be able to recruit the muscles of the leg and that will change the way they want to recruit the shoulder muscles during tennis. So everything's interrelated. Should we move on to the next one?

Simeon:

Thank you. So, so gait itself well I've talked before about holding patterns. And of course we do see holding patterns in the knee and the classic holding pattern of the knees, fixed flexion deformity that we see in osteoarthritis. So that is a kind of holding pattern if you like. And the muscles that are involved in that are the hamstring and popliteals, they're the main two muscles that we see and of course that weakness in the quads. Now in terms of locomotion turning points in any of the muscles of the lower extremity, as we've said before, cause the muscles become shorter, fatter, inefficient, and can lead to mechanical inefficiencies. So here are a few holding patterns if you'd like during gait. So we've got the hemiplegic gait and you can see how, remember we talked about the default of the shoulder fixed flexion scissors-gait.

Simeon:

So remember the, any sort of gait or walking problem will have an effect on the knees. The other thing about trigger points is when they're there, as we've said before, is that they have an effect of sensitization on the local spinal reflex arc. So the thing about trigger points in the lower extremity and legs in the knee and in the ankle is they are really hugely relevant clinically, I believe for, for relieving these kinds of problems. The ones that we're going to explore together. So I thought we'd start with runners knee,

Steven:

Just on your last bullet point there Simeon, it says you can reduce the patient's dependency on analgesia for things like arthritis. Some patients particularly, but also practitioners are going to struggle to see how the trigger points are going to reduce the pain of a degenerative condition like arthritis. You have an idea of, can you explain the mechanism on that?

Simeon:

Yeah. So remember we looked at spondylolisthesis and we said, look, we're not changing the Spondylolisthesis. This, we're not affecting it; what we're doing is sensation modification. And really it's the same. It's really the same principle here. It's that what we're doing is we're changing the feedback, the dynamic sort of loop if you like, at the reflex level, spinal cord level, and we're lowering the threshold for, for sort of nociceptive drive if you like. So we're, we're bringing down that threshold so that the, you know, again, chemically analgesics and stuff will feed into both the, that reflex and also the the upper spinal reflexes as well. So that would be awesome. So we just start with runner's knee because it's kind of relevant, so well runners knee is a bit of a misnomer in some ways because it really does talk about several different conditions together.

Simeon:

And the main thing about runner's knee is it tends to be sort of periarticular sort of patellofemoral pain. So generally when we're talking about, excuse me, runner's knee, we're talking really about patellofemoral pain syndrome or PFPs. That's the most common sort of a prevalence of runner's knee. But, but again any problem mechanical problem around the knee immediately laterally can also be sort of bunched into that runner's knee. But patellofemoral pain syndrome is the one we're going to focus on. And in terms of the relationships sort of the kinematic relationships, the muscles really, we're going to look at all the ITB, the glut Maximus, the medias and the quads and also the hamstrings. I didn't want the hamstrings there, but you know, Matt Walden would kill me. But of course they're very much involved in acceleration, deceleration, mainly for runner's knee.

Simeon:

You mentioned, you mentioned Matt Walden, you've said here that the quads and the hamstrings, if they're too tight, can aggravate the problem. What's the mechanism for that? You can all see how the quadriceps might do that. How do the hamstrings aggravate the problem?

Simeon:

Well, hamstring, trigger points in the hamstring, which are common by the way in runners will reduce the efficiency. And remember we said early on that there's heads and Hilton's laws. So by the law of reciprocal inhibition, if you've got one muscle that's inefficient, then the equinox, the antagonist will struggle with that. In fact, the quads itself is really interesting in terms of what the patellar is and what the patella does. Remember the patella is a sesamoid bone. It's embedded in a muscle. It's, it's, you know, we have very few sesamoid bones in the body.

Simeon:

We have the thumb, the bits on the knee. And I'm going to explore that in the, the, the procedure I'm going to share with you, but in general so it was really, these are the muscles. Now, the other thing is that often symptoms, we'll cover that in a second. It is this kind of giving way. So the knee feels like it's going to give way and that that tends to be pretty much the quads/Hamstrings issue. So, so in terms of the symptoms and again when I was at college, they talked about a tight sort of vastus lateralis and a weak vastus medialis. And it's because of the Q angle thing shifting. We're talking about that shortly, but the evidence isn't so heavy for that. But in terms of the symptoms, so it usually was a peripatellar pain.

Simeon:

So pain around the patella often behind the patella. Of course there is chondromalasia patella, we know about that, where they got this roughening on the chondral cartilage on the back of the patella and it rubs on the femoral condyle. But in general, pain around the kneecap, pain on flexion, kneeling, squatting or sometimes pain, pain from sitting to standing around the knee, sometimes a crack or a click the knee or grinding sensation. And sometimes people feel it's in the lateral band of the ITB runner's knee or ITB syndrome or sort of lateral sort of fascial pain around the knee. And again, myofascial but one of the big symptoms is the knee tends to buckle or give way. And that's really disturbing. I found, I had a young girl last week who had that. She was feeling great. She's got, she had some underlying Ehlers Danlos or type five Ehlers Danlos, which is severe hypermobility syndrome. And she's usually fine. And then she just stood up in the wrong way or she'd been in the pool knee gave way and, and it was a classic patellofemoral pain. So the other thing is increased pain when walking up or down Hills or stairs around the patella. We're just

Simeon:

So in general now women are more prone to runner's knee than men. And some people believe this is because of the sort of bio dynamics of the femur and the Q angle of the hip. Remember that in general, the gynecoid pelvis is slightly larger and there's a larger Q angle as the femur comes down. And that causes this kind of sort of valgus stress on the knee and the knee cap which is often well compensated. But if you're running, now the thing about running is you're doing the same activity repeated, repeated thousands, tens of thousands of times every time you run. So generally it's younger runners, generally females also those that run recreationally. These are what we call the weekend warriors which we'll talk about later. Because of the nature of tendon that we explore

before, it doesn't like sudden changes in stretching. Hikers, cyclists, office workers, people that are sitting for prolonged here is also susceptible to this condition. And around 40% of professional cyclists from the literature report, some symptoms of runner's knee.

Simeon:

And also other athletes. So anything that revolves involves sort of running, squatting plyometrics, which has this kind of dynamic sort of activities through the knee, jumping, biking, and walking. So they are people that are prone to it.

Simeon:

Thanks. So of course, as with everything when someone comes in with a runner's knee, we need to sort of think about other things that I guess that the main ones here that I wanted to talk about. The Plicaseartilaginis which is a fold of the synovium, which can sometimes really mimic a runner's knee. I've seen that a few times. Again, even though it's medial, the pes anserinus, bursopathy or bursitis, the pes of course. Semimembranosus and Sartorius they will come together and form that kind of sort of geese foot webbing around the medial part of the knee. That's often another differential diagnosis, lateral patellar compress, compression syndrome, and also occasionally stress fractures. Of course the anterior posterior cruciates and of course the meniscus as well, so that they're the main kind of sort of differential diagnostics. And again, we've put this in there just for completion. We've got that in the notes. If people, people look at that later

Steven:

Simeon are you going to tell us how to differentiate those conditions?

Simeon:

Uwe could cover some of them. I mean, in particular. The, I guess the patella, I guess Pes anserinus for example, tends to have localized tenderness in the Pes itself. And again, you can usually kind of, okay. [Inaudible]

Simeon:

According to the area of most intense pain,

Steven:

Simeon your audio almost ran out, could you just run cover that bit again?

Steven:

Yeah. So, so often it's helpful just to, to find the location of most tenderness around the joint. Obviously the history is going to be important. And again, with things like bursitis, we've got several bursae of the knee. We've got a super patella, Retro Patella, Infra patella, so you'll look for swelling. You, you'll look for weakness neurologically, of course L4/5 nerve root. You might want to do a femoral nerve stretch or do some other investigations. I mean, in general you know, as a rule, if you're not sure, investigate, if you think you know what it is, but it's not getting better after a two or three sessions, not really no better, then it's good to sort of get more investigations and it just, as a rule, that would be my rule of thumb.

Steven:

Yeah. Okay.

Simeon:

Okay. So, so, so let's bring in trigger points now. Now these are slides you already remember, I'm sure. So what are trigger points? Well trigger points are exquisitely tender, hypersensitive spots in taut bands of muscle. That's really important. You're looking for a taut band. So what am I going to talk about? These myofascial trigger points in the gastrocs and then Soleus, you are going to be looking for a taut band of muscle or a band that you can roll over somewhere within that band, Embedded is the trigger point. And when it's there it causes, when you can find that that localized tender spot and hold it for more than 10 seconds, it causes a referred pain map and it's the referred pain map that's kind of pathognomonic of a trigger point. And that's what we're showing you in the software as a different pain maps and they're not exactly intuitive as we showed you before.

Simeon:

For example, the back of the wrist pain from subscapularus or quadratus lumborum that can mimic exactly sort of trochanteric bursitis of the hip so, so it's really important and really helpful to have a way of remembering those pain maps when someone comes in. So referred pain, hypersensitive spot taut band of muscle. Again the thing about trigger points is that they have these maps but they are part of the myofascial continuum. So when a trigger point is present, it will have an effect on the agonist, on the antagonist inhibitory effects. And the other thing is that they keep firing nociceptive input to the spinal cord. And that can lead to,

Steven:

Can I, do you want me to go on, I wanted to ask you a question cause someone's just starting.

Simeon:

Is there one missing? Oh yeah, sorry that came a bit to soon, sorry, your question?

Steven:

Yeah. The question, first of all, observation from me, you mentioned the software there; maybe people who haven't seen the previous lectures from you were talking about trigger 3D the software that you've developed which we'll see in action a bit later on just in case they were worried. Phillip asks, what's your view on patellofemoral pain coupled with a patella Alta measured at 1.7 very specific there.

Simeon:

Hmm. I'd have to look at patella Alta 1.7. I don't know what's his, what's his?

Steven:

I don't, I don't have nothing more than that. So Phil more information on?,

Simeon:

Yeah, I have no view at the moment.

Steven:

Ok, come back to us. We'll see what we can do.

Simeon:

Yeah. So again, stay there. Okay. Yeah, so, so some of the trigger points we're going to look at today are attachment trigger points. Now we've started to explore those last week. We haven't really looked at them before that and specifically the ligamentum patellae. Now I talk about super trigger points. These are trigger points that are permanently switched on during certain holding patterns. And the holding pattern for me specifically around runner's knee is the patella ligamentum patellae. And I'm going to show you a little bit later how I approach that using inhibition, compression of the attachment trigger points. But essentially an attachment trigger point is a trigger point where the tendon attaches to the bone. And what we do know is that when you look at, let's say for example, ligamentum patellae, if you do a needle or treat the trigger points in the muscle itself, the attachment ones tend to be less sensitive.

Simeon:

So there's clearly an a relationship between the myofascial trigger point within the failure of the muscle and the attachment trigger point, what we do know is when you look at, let's say for example, ligamentum patellae, if you do a needle or treat the trigger points in the muscle itself, the attachment ones tend to be less sensitive. So there's clearly a relationship between the, the myofascial trigger point that within the failure of the muscle and the attachment trigger point. We do know is that when you look at, let's say for example, you do a knee or treat the trigger points in the.

Steven:

Justin, weve got some kind of loop thing going on in the audio.

Simeon:

I got some kind of loop thing happening.

Steven:

Yeah. Okay. I think we're back down to normal room at last.

Simeon:

That was Groundhog's day.

Steven:

Definitely. It's one of those days.

Simeon:

Yeah. Perfect. So, so as I've said before attachment trigger points are in the literature and I think very, very much related to both Achilles tendinopathy and a runner's knee. And we're going to explore that a little bit later on. Okay. So let's carry on if that's okay.

Steven:

Okay.

Simeon:

Okay. So again, the other thing as we said about trigger points is that they, they cause a an increase in nociceptive drive. So that means when they're present in a host muscle, they, it's going to be firing sensory signals nociceptive signals that starts to overload. The dorsal horn and then over time if they remain present in the muscles will cause be part of peripheral and central sensitization. And we talked about that, the idea with this idea of dorsal horn, wind up, where we get this increased nociceptive drive through to the dorsal horn. And the next slide shows a peripheral and central sensitization. Now, why are these important? Because if something, if a pain has been there or trigger points or pain syndrome has been there for up to a month, we tend to get what we call peripheral sensitization. This is a, a, a condition where we lower the threshold potential for further nociceptive pain. So what happens is, is that the sub threshold, what normally would be a sub threshold stimulus becomes threshold. And that's peripheral sensitization occurs between two and five segments above the spinal reflexes coming in, so below and below. And here's some of the, the sort of

Simeon:

Neuro pharmacy, if you like, of, of, you know, quite in terms of central sensitization. After things have been there for more than a month, we tend to get real Frank changes in the thalamus. And also the descending and ascending spinal thalamic tracks as well. And we really start to get the, the chronic kind of pain loops. So certainly trigger points have been very much implicated in both peripheral central sensitization and the literature. And kind of getting rid of them really helps to, to, to work on those loops. So keep going. Perfect. So what I thought now as yet we completed a video, we're going to have a look at some of the muscles. So I think we've got a list of muscles here. Is that if you can, here we go. Perfect.

Steven:

So this is taken from inside the software.

Simeon:

Yeah, I did a screen grab from the software and again, it's just lovely to show your patients as well. So in terms of the course, we can see this is rectus femoris, actually rec fem tends to cause knee pain actually around the knee itself. This vastus lateralis and vastus medialis, you can see that tends to be more, the pain map tends to be more in the thigh itself. It's just showing that you can access the videos for each muscle from (inaudible). So that's the vastus lateralis medialis and quad fem, tensor fasciae latae, TFL, transport for London is a thick band now that goes into the ITB, into the tibial band. We know that the posterior fibres also of glute Maximus also go into the iliotibial band. So that's where the glut max and the ITB TFL go. Here's the hamstring. So interestingly, this is the biceps femoris. So this is the semimembranosus tendinosis now and they have different pain maps here. We've got glute max and we've got an upper middle and lower pain map. You can see they're slightly different and we said glut max because it's sort of is the antagonist with TFL.

Simeon:

And what else are we having a look here? Hamstring. Oh yeah. More most important is popliteus. Now popliteus is one of those muscles that I use all the time. Trigger points in popliteus when it comes to knee pain. I'll explain it to you shortly. Comes from the popliteal fossa and inserts into the tibia just show you some of the videos and again, just to let you know, this is a self help inside the software that you can share with your patient if you think that that's relevant to them. So these are the muscles quadratus femoris vastus lateralis, medialis, TFL, ITB and Glut Max because they're agonist, antagonist again, the height, the hamstring, both the By Fem semimembranosus and tendinosis and also popliteal. So, so these are the guys to look at if you think someone's got runner's knee and we're going to explore some of them now. So let's have a look now. So what I thought we'd do now is just to show you how I now

Simeon:

[Inaudible]

Simeon:

It's not the whole thing, but I just thought I'd share some interesting things. Like let's try it.

Steven:

Okay. Justin

Simeon:

[Inaudible]

Simeon:

[Inaudible]. So in general, when I treat the knee, I like to start by looking at the popliteus. Now the popliteus when, when the knee is in,

Simeon:

In passive, when we're standing and it's locked, that requires zero energy from the body. And it's a very efficient place to have the knee in a sort of standing position. But when we want to move the initiation of flexion comes from the popliteus muscle and it's, it's what I call a super trigger point, which means it's a trigger point that's always active when we have knee problems. So we're going to start by inhibiting through popliteus muscle. I'm going to look at her left leg and we're going to look at the left when we sit down. So you've come through, popliteus is a little bit tender so you have to go in slowly and also of course come out slowly. There it is there. So we're just going to hold that and wait for a change.

Simeon:

That's popliteus. Yes. So for, for runner's knee or for patellofemoral pain syndrome in general. There are three key areas that I always like to incorporate. I've, I've looked at her popliteus. I've actually looked at her hamstring as well, just clearing things out there. And then we're going to look at the vastus muscles, the quadriceps themselves. Now there's vastus lateralis. What's really important here is that you'll find as you come over the, the iliotibial band, the ITB you'll feel as a long thin string just above it in the lateral fibres of vastus lateralis of the quads. And it's pretty

obvious. It's pretty tender. So we're rolling over, we're finding the sulcus on top of the IT band and just there you'll feel a thin long taut band. And that is the key to run as needed. That absolutely is.

Simeon:

Now, I would I, I like to needle it ; If I'm going to needle it. I haven't got a needle here, but I will, I'll come in at this angle here and I will needle into that vastus lateralis and we'll get a lot of very, very strong powerful Twitch responses there. But you can also do inhibition compression through here as well, just holding through it. The next one I'll look at is the vastus medialis. And again, I will either needle here into the vastus medialis and I'll get some Twitch responses here or we can use inhibition compression techniques through here. So in general, when we're coming to patellofemoral knee or knee pain, the trigger point for the quads, for vastus femoralis for rectus femoris is here up by the hip. So we might want a needle there, but these are the two really for the runner's knee.

Simeon:

And then the last one is this, and this is really crucial. This is an absolute gem of a technique, I'd love you to try it at home is this is looking at the ligamentum patellae. Now lig patellae the patella itself is a sesamoid bone. We're going to that perhaps in the lecture, but the reason there's a patella itself is it allows four times as much force to be generated by the quads because it's a bone within a, an in a muscle. And that force all comes through the ligamentum patellae. Now what I like to do is to drive to come up to the lig patellae and find the inferior border of the patella itself and then just drive through and generally just at the base of that patella, there's a really nasty attachment trigger point which absolutely reproduces the patient's pain.

Simeon:

So we're going to drive through here. This is generally for patellofemoral pain syndrome or chondromalacia patella Also runners knee especially. I'm going to drive there. We're going to feel that symptom. I think the patient is wincing, which is always a good sign. And from there I can actually drive it laterally. Hello. So that's where her problem is. Hello Madame. And we're just going to drive it there, hold it there and we really free up the patella or we can come medially and drive it to the bowstring medially and feel around there. But that's not too bad for her. All of her pain is actually here. There we go. You can see the Twitch sign and we're just going to hold it there and wait for a change. Again, two, three, five minutes. Depends how long the patients go. If you get a rumbling of the tummy, that's a great sign as well. And remember because it's a deep tendon, we're going to come away really, really slowly, really slowly. So that's really it. So that's the runner's knee or patellofemoral pain syndrome in general. As well as the other things we talked about in the lecture.

Steven:

Simeon I've got some questions again for you if I may.

Simeon:

Yeah, yeah, I'm coming back to the patella alta. I think just, I think what he was talking about is a high riding patella. Because sometimes the femur itself is the, the femoral, the patella can actually ride up high above it. It's like a sort of an anomaly I think from what I remember that there was, it's between 1.2 and 1.3, 1.7. I'm not sure about. That sounds really high. Anyway, more questions.

Steven:

Yeah, just a few. Taking you back to your central nervous system changes that you mentioned earlier on, Elizabeth has asked what the evidence is to show that there were changes in the thalamus or the spinal thalamic?

Simeon:

Yeah, there's plenty of evidence. In fact, you had Robert Cartwright on in here didn't you?

Steven:

We did. Yeah.

Simeon:

So Rob and I wrote a whole paper about exactly about this, but it didn't, unfortunately it got rejected. We tried it three or three times. Happy to pass it on to you to publish to people if you want.

Steven:

I'd love to. Yeah.

Simeon:

Yeah. We worked really hard on that paper as well. Unfortunately it got rejected, but the pain science is very complex, but there's a lot of evidence about central sensitization. I'm happy to share that paper there.

Steven:

Dare we ask why it was rejected?

Simeon:

Can't quite remember. I can't quite remember. [inaudible].

Steven:

Siad has asked would you suggest, would you suggest doing any relevant adjustments to the affected knee before using your trigger points or the other way around?

Simeon:

It's a really, really good question. Thank you. Look, it's a really good question. The thing about trigger points is sometimes you'll do an adjustment and then all, the trigger points kind of vanish, right? I'm not all of them or they or they diminish. So for example splenius capitis, splenius cervicis, you might do a C5/6 adjustment and then they're just not there or they're minimized. In terms of adjustment on the knee the main adjustments I do on the knee are the, the head of the Femur, sorry the head of the fibula. And I do a kind of modified sort of medial lateral glide to do an HVT on the meniscus as well.

Simeon:

So I guess the answer would be if you think that there's a problem with the joint that, and that might be why the trigger points are there in the first place, then it's worth doing it otherwise, not really. Because I guess if I'm thinking about it, it's more that the, you see, cause I have a different, slightly different take on trigger points, which is that they are there on demand trigger points on demand. In fact, before we come to the Achilles, I actually had, I used to do a lot of work with Olympic badminton team in the UK. And I remember once being at match and one of the players, a really great player twisted their ankle pretty badly, aversion strain. We had them down and I was looking at his, and within 30 seconds he started to develop trigger points in the fibularis group.

Simeon:

You could just feel them all coming out. And I think to myself, you know, it's not disuse, you know, there's no disuse, its 30 seconds. So what is, what is happening? So I've got a theory which I cover in my book which I called trigger points on demand. I mean, it's not evidence-based, that's all, but it seems realistic, which is that actually trigger points are woven into the web of the myofascia, in potential something called poly modal receptors. And under certain circumstances, biochemical, physical, they will switch on. And why is that? Because the trigger point is, is useful for resting an area. It makes it weaker, it makes it, it makes you not want to use it. So it's really part of that whole system, which is fine short term, but of course if its there long term as with other things, you know, and it can stop causing problems including nociceptive drive and sensitization.

Simeon:

That makes sense?

Steven:

I think so, yeah. Jill's asked: that technique demonstration you just showed us are those videos or something similar to that. Are they included in the trigger 0.3 D software? We've got loads of loads of videos on 3 D software. So very good question to ask. We've got a ton of, videos we will have, we might even have these lectures if that's okay in the software.

Steven:

Yeah, of course.

Simeon:

And so, so they'll be included we've got tons of stuff in there and I'm actually (inaudible) , we're actually hoping to have a Academy an Academy hub in there as well. So, so we've actually got, the other thing we've got, which is extremely honoured and grateful is that we have Leon Chaitow channel inside the software and Leon's Daughter Sasha very kindly is putting a lot of his material in there. So the idea of the software is that it's going to be your go to place to share with the patient, show them what's wrong and also for you to do a CPD or learning or stuff on the fly.

Steven:

Luke asked about medial fat pads and whether you have an opinion on their involvement with anterior knee pain.

Simeon:

Yeah, I mean, again, that's one of the differential diagnoses. I should have said that that's one of the differential diagnosis is the fat pads. Again, it also near Achilles. We cover that in the Achilles as well. Yeah, I mean they can be a source of pain if they, as anything, if they're becoming irritated. Before we carry on. So I want to share with you that, that, that, that, that inhibition compression of the attachment trigger point and ligamentum patellae is absolutely super. I will tell you, I use it all the time on knee pain and it is, I really would love you guys to try and see what you think. It's, you have to be a little bit careful because it's easy to roll off it, especially if you're with your elbow.

Simeon:

And once you get the hang of it and you know, you're in it, it's incredible. You will reproduce the patient's pain in a way that is exquisite and they, the benefits are huge.

Steven:

And long lasting?

Simeon:

Long lasting. And I think also it's neuro proprioceptive as well, you know, especially which we're going to cover in the ankle. I think there's a lot of proprioceptive stuff going on in the ligamentum Patellae.

Steven:

Yeah.

Simeon:

And in all the ligaments actually.

Steven:

Okay. I've got a few more questions. We will let you carry on though. Are we going to go into Achilles tendinopathy next?

Simeon:

Apparently so!

Simeon:

So yeah. So let's move down from the knee now to the foot and the ankle. So we're going to start with the Achilles tendonopathy. So let's see where we are. So this was taken from medical science sports journal 2013. So the Achilles tendon is the largest tendon in the body, bigger than the ligamentum Patellae. Um and it is packed with deep pain receptors. Now, very familiar. There's, there's not that many areas in the body that have deep pain receptors, the dental, scrotal and the Achilles. In fact, Oscar Wilde has a wonderful quote about it, which I want to use now. But the Achilles tendon has got a lot of deep pain receptors, which is, it's both fascinating and important that we realize that when we're, when we everything that in for treatment now the, Achille's is the, the end point of the soleus, lower slip sometimes of the plantaris as well, which we didn't put here.

Simeon:

And the gastrocnemius and these are huge muscles, you know, the gastrocs are really big muscles, especially in athletes, people that are working that muscle group, they used in many activities, locomotion, jumping, running, and they are commonly injured. You know, we see calf injuries all the time. The, in terms of the tendonopathy of the, of the Achilles tendon pathology it is one of the most frequently diagnosed ankle conditions in terms of overuse as well, commonly associated with explosive or plyometric physical activities such as jumping. And may affect up to 9% of recreational runners and believe to be up to cause it up to 5% of professional athletes to end their careers, which is sad, isn't it? There are different areas. Generally there's, we either talk about insertional injury or a retrocalcaneal or a midportion injury or plus or minus a bursa, kind of once the bursa gets involved usually bursa's don't get involved until there's a chronic problem there. And of course the bursa itself has an inflammatory nergia which is packed with nociceptive fibres and has you know, in bursopathy, bursitis the chemicals inside the bursa will stimulate chronic, actually perpetuate chronic inflammation as well. So generally you won't get bursa involved until it becomes chronic. The tendon injury becomes chronic generally, even though the, the, the Achilles is designed to be adaptive for these kinds of forces. Unfortunately it can tear and that could be either a partial or true partial or rupture. So we're going to look at that now.

Steven:

A number of people have asked whether the, how much of the Achilles is affected by the knee or vice versa. You've got an opinion on which way round it happens or most commonly.

Simeon:

Okay. So the question is would an Achilles problem be affected by a knee problem? And I think the answer would be not necessarily, I mean, theoretically, yes. In terms of holding patterns for the knee, like O/A with a fixed flexion deformity, you will definitely get Achilles problems there. But in general, I think the Achilles is more to do with the calf muscles than the knee. But of course, you know, everything's interrelated. Don't get me wrong. I mean, if an argument could be made for, for that,

Steven:

I interrupted you, sorry. Let's go back to this lovely picture of your wife Galina on a night out.

Simeon:

Thank you very much. I just thought I find the most ridiculous shoes, but then I apparently they're not the most ridiculous shoes apparently, so.

Simeon:

So yeah. Let's talk about what, what can cause Achilles problems? So repetitive activity leads to microtrauma or micro injury of the tendon fibres and that heals with sometimes with fatty deposits and the fat the fatty deposits within the tendon weaken the tendon architecture and they can cause a weak part that can fracture and tear. Also associated with tendinopathies is oxidative stress. So antioxidants can be helpful in tendon helping tendons get better. The, as things go as, as the tendon pathology progresses we get absent sort of Frank structural changes within the tendon within the, remember we talked about in the rotator cuff, the proteoglycan aggregates and the fibro kind of fibro sites and that can result in pain. Now the other thing is that tendons, including the Achillies do

not like rapid change. So we're talking about like things like the weekend warriors, people that just don't do anything during the week and then they just go out and hammer it on the weekend, go to these long runs and Ironman and things like that.

Simeon:

They will tend to or go and play tennis on the weekends. So it's the people that don't do it all the time and then go and do explosive activity. Again, causes are old trainers. I've got a story to talk to you about that in a second. Interesting case; improper footwear. Again, questionable whether orthosis/orthotics are good or not. And are your shoes because of course high heel shoes decrease the, increase the short, the calf muscles. So of course the other thing that has been associated in the literature is excessive or hyper pronation of the foot which has been associated with Achilles tendinopathy. And again Pes planus, flat foot or cavus where there's over-high arch may affect the, the muscles of the foot and the leg. So in general when we're looking at the Achilles tendinopathy, then main muscles, we're looking at our gastrocnemius, it has a trigger points and it's soleus.

Steven:

Having talked about high heels and talked about overpronation and so on. We have already had a question in asking whether you have an opinion about the merits of barefoot footwear, it's anonymous, but I, my suspicion its Robin Moody because he always asks about barefoot footwear.

Simeon:

You know, I'm no expert on barefoot. I do know a bit and I know that I have attended quite a few of Matt Walden's stuff. I have patients that absolutely swear by it. So again, you know, barefoot, it's difficult to go from wearing shoes to barefoot, you have to transition. But let's put it this way, the people that I know that have tried it generally rate it very highly, but I think it's, I think it's not for everyone. But yeah, that makes sense. It does make sense. You know, there is some sense in it like, well orthotics sort of makes sense in a way as well.

Simeon:

Right. But the evidence is not brilliant for it, but, but it sort of makes sense as well. I just want talk about a case. I had a case that was really fascinating, which was a guy came in with bilateral calf and ankle, Achilles pain and it was bilateral and I treated him before for a back problem and I liked him and he came in and I quit. I, for some reason I was going to delve in and do some deep soft tissue work into the calf, but I just, for some whatever reason, I sort of wanted to question him more. And he said that it happened because he'd been playing tennis on a, usually plays on a grass court and he had gone on a hard court. So I thought, okay, it could be the calf muscles. And he borrowed someone else's trainers; they weren't his trainers. So everything sounded biomechanical.

Simeon:

I had a look at him and the legs weren't, tender or swollen, but just something was wrong. And I just said to him, you know, and I, I looked and I did the, I thought maybe it was a DVT for some reason. Anyway, I said to him, look, I'm not going to treat it today. I think I would like to get this investigated. And then I didn't hear from him for a week, I thought. And I, thankfully I didn't treat him because I was, I would have sort of delved in some deep soft tissue, whatever. Anyway, he

phoned me back a week later from hospital, he had an 18 centimetre DVT in one leg and a 16 centimetre one in the other leg. And he said if I'd have treated him, you know, he'd have died on the table, you know, chances are pulmonary embolism on the table. So I just thought I'd bring that in now. Maybe it's in differential diagnosis, but I always remember that. I always, always remember that case and I was extremely grateful that we

Steven:

Right. Yeah, of course. It's a really useful thing to bear in mind because we've got to keep these red flags in the back of our mind, haven't we? As I recall the, the evidence for various tests for deep vein thrombosis are not particularly conclusive.

Simeon:

Yeah. Well, like I said, I tested, you know, and he had no signs and he had no swelling. No dusky blue. There was no positive clonus. Nothing.

Steven:

So wait, but actually, as you've just said, if it's bilateral, then you might have swelling in both legs. You wouldn't know cause you're supposed to compare the opposite side, aren't you? It's a difficult diagnosis. That one well done you for not treating him.

Simeon:

Wow, that was a big get out of jail free card. Let's carry on. Shall we so quickly cause our, cause I, I wasted a lot of time here. So in terms of symptoms the Achilles symptoms are swelling, pain, pain in the heel difficulty pointing and flexing the toe, stiffness, sometimes a snapping or a popping sound. If you get that, you can recommend that something pretty nasty has happened. And also sometimes painful or enlarged nodules, pain in the morning and pain after activity. So the degree of pain will vary according to the amount of damage of the tendon. Pain may be mild and worsen gradually. But in general, if it's a rupture, it's pretty nasty. People sort of hopping and limping around. I've seen a few now in terms of the etiology we talked about two things. Intrinsic naturalistic extrinsic factors, intrinsic include the biomechanical and anomalies of the lower extremity, for example, leg length discrepancy as we said before, hyper pronation of the foot, varus deformity of the forefoot, Pes Cavus or limited mobility of the subtalar joints.

Simeon:

And the extrinsic factors are things like errors in training. For example, increased interval training, abrupt changes as we said, tendons don't like abrupt changes, excessive Hill training hard or changing the slopes people training on sand, on and off, sort of increasing the mileage rapidly or footwear with degraded shock absorption. So that would be the etiology. Let's just go through quickly now the muscles. So yeah, there we go. There it was DVT, a true story. I knew I had it somewhere. So in terms of differential diagnosis, we have something called a paratenon which is inflammation. That's one of the differential diagnosis. Also plantaris tendinopathy, which is very uncommon. There's sometimes you can get an accessory Soleus which can be a little bit uncommon, So generally gets worse with activity and then it doesn't warm up after activities.

Simeon:

So it's a bit like a compartment syndrome rather than some of cases without activity. And also fat pads as we said before, usually the fat pad around the proximal mid portion of the Achilles is affected rather than more distally. So they would be the main differential diagnostics and most of them available on imaging. Yes. So red flags DVT careful with a slapping sound and if a patient comes with a gap above the calcaneus, you can be sure that that might be chances of a, a rupture. I've seen a few, I seen a few, I had a few acute come to my office, "oh, I've got leg pain" and then you can just see that the whole Achilles is ruptured and of course surgery has to be done pretty quick to save as much of the tendon as possible.

Steven:

Alright. Well I had one of those myself when I was very, very newly qualified was a cricketer who had injured himself setting off between the wickets.

Steven:

And

Steven:

I misdiagnosed it because I carried out that gastrocs squeeze test and I got a response from the ankle. And actually

Steven:

According to him, it was completely ruptured.

Simeon:

Yeah. So it could be you got, you know, soleus or plantaris assistance.

Simeon:

Yeah, yeah, absolutely. For the squeeze testing. But yeah. okay, so I think we've only got two muscles to cover next so let's cover, those, again, this is taken from the marvelous trigger points 3D software. And we're going to look at the trigger point maps for the gastrocs and the soleus. So in terms of gastrocnemius, we've got look on the left picture, there's different pain maps. And you can see how, the different sort of parts of the, so the medial and lateral heads, have different kind of pain maps. So, so here we've got the medial head and look at that. You see the pain under the foot there. So actually plantar foot pain can be from medial belly. U

Simeon:

Again, we can have proximal tends to be more around the back of the knee itself, but the, the lower one, lower down in general trigger points lower down tends to reflect lower down. It's just showing you some go in videos in there and I think next, Oh yeah. So within the software also to some self-help images and let's have a look now I think that's soleus, yes. So, soleus we're going to look at the most proximal part because that's the, but again soleus tend to cause pain here and the distal part tends to cause pain down at the back of the ankle so that basically the lower down you go in the muscle of the further down the trigger points map sort of tend to be, so those are the guys that we're going to look for Achilles tendonitis. Now I think that's just carrying on maybe there. Okay. So I'm going to show you now what I do for actually, we're going to get Bob Gerwin, Dr Gerwin,

Professor Gerwin, head of neurology at John Hopkins, head of pain medicine, let's hear what he has to say about the, the gastrocs. Okay.

Bob Gerwin:

Muscles of the posterior compartment of the leg include the gastrocnemius and soleus and the posterior tibialis muscles. The gastrocnemius muscle is a two joint muscle that crosses both the knee and crosses the ankle by virtue of the attachments proximally across the knee to the femur to gastrocnemius muscle test. The capability of both stabilizing the knee, preventing hyperextension of the knee when the leg is weight bearing and assisting in flexion at the knee along with the hamstring is active in propulsion of the foot, plantarflexion of the foot and it's active then in propulsion. Trigger points in the gastrocnemius muscle are commonly felt in the back of the knee, can extend into the leg trigger point pain from the soleus muscle can go down towards the ankle, can also cause plantar pain that is pain at the bottom of the foot, particularly under the calcaneus or under the heel is commonly misdiagnosed as plantar fasciitis pain.

Simeon:

Thank you. Thanks Dr Gerwin. As I said, you know, it's just the most incredible anatomy ever. So I just want to show you now how I would sort of the things that are little tricks that I found that really helped with Achilles ankle treatment. So is a little video I made

Simeon:

And now we're going to look at her ankle. And in general, this is the procedure I use for any sort of instability in the ankle. Any loss of proprioception, we're going to look at her left ankle and she's got an Achilles tendinopathy, so it's swollen. And what we're going to do first is this is we're going to modify sort of internal, external rotation and we can just kind of bring the foot through here and we're going to stretch. And people often can't do that if they've got an ongoing ankle problem. So you have to approach it slowly, hold it there for a few seconds, and then we're coming into the opposite and we're going to stretch it this way and we're going to do this three or four times slowly. Going to feel the tissues as we do it. We're going to palpate through them, see if we can improve that range of motion as we do it.

Simeon:

So really this is a proprioceptive technique, that felt good and now we're going to treat the Achilles tendon. Now in terms of the Achilles itself, I'm going to do it direct inhibition at the muscular osseous or sort of tendon osseous junction, generally speaking. And I get a lot of really good results with this. I'm going to be aiming right here down almost on the periosteum. So we're coming into the Achilles as the tendeno osseous junction here. And what I'm going to do is again find this attachment trigger point. I'm going to just come into the ankle and I'm going to lean through, I'm going to hold, and this is a direct, it's not really friction, it's an inhibition compression to the attachment trigger point. It's a little bit painful and sore so you want to go in really slowly and then hold. And what we're going to do is find the exquisitely tender trigger point which is around about here and we're just going to hold it and kind of drive down and find that balance, that kind of balanced tension where we're on it and it's sort of gently letting go. Now I might stay here for up to five, even up to 10 minutes. Just on that one point. Remember the longer you stay, the slower you have to come away from it. And we're driving through as you feel the point soften and its softening now. Now I can just deepen it a little bit and I'm now just moving slightly this way immediately to

another point. Part of that trigger point and I'm holding it, often We get tummy rumbles with this as well. So again, just slowly coming away. So that's the Achilles tendinopathy.

Simeon:

Hmm. Worth pointing out that I will have done also work on the gastrocnemius and soleus as well. Sometimes with or without needing. Yeah. So that's my little take on Achilles tendinopathy works really well.

Steven:

It's twice now that you've mentioned tummy rumbles and the only word I can think of is Borgen villiae. And I know that's not what tummy rumbles are called, but it sticks in my mind. If somebody is already, somebody has already asked what's the connection?

Simeon:

Well, I tended to, we didn't, I didn't think I covered that in your lecture. I did it. I did one for the EFO on frozen shoulder. So the connection is this, is that when, first of all, this is an autonomic connection. That's the first thing. Now a lot of classical osteopaths and John Wernen and people like that, used to like to talk a lot about the autonomic nervous system. The more I sort of figure stuff out and the more interesting that the autonomic nervous system is for me. But in general, I think when there's a holding pattern, when something's been established there for a few weeks, a few months, the ans gets involved and you get changes, sort of autonomic holding if you like, around the area and that when you release it you, you get borborygmi off. And as a result now its something that I wanted to do a PhD on, to be honest.

Simeon:

In a frozen shoulder, when you're holding the long head of bicep on or round about, the third treatment that we do with my treatment, you start to get a massive, huge rumbling. And when, when you hear that 99 times out of a hundred, the patient will come back and say, I can sleep at night. My night pain has gone. So clearly there's something to do with pain. Autonomics sympathetics, Parasympathetics, Vegas nerve. I haven't really got it all quite figured out, but there's something to do with dysautonomia. But you, you yourself known therapists, I'm not saying anything new. You, you know, sometimes you will be doing something, some cranial work and you'll feel something go and then you hear it confirmed by a tummy rumble. But I don't think enough. I mean look, don't get me wrong. There's a lot written about it. I know a lot of you would probably write in and tell me there is a lot written about it. But I don't think osteopathically people have really acknowledged it as much as they should. So that's what I would say.

Steven:

Can I ask, going back to about to to the ankle in terms of people who have, let's say repetitive inversion strains, is the sort of work you've been doing here going to be a value, cause you've talked about its proprioceptive effect.

Simeon:

Yeah. So that that bit the internal external, now it's kind of like a modified HVT' remember we used to do those, those HVT's but what I found is that actually when people have instability or ankle dysfunctional, but actually when you start taking into that plane they really, they go, Whoa, Whoa,

stop, stop. You know they really can't handle it. So instead, you take it slowly and as you start to move you change the proprioception. There's one other super trigger point that I didn't put in there. Which really, really helps with ankle instability, but I didn't include it cause we didn't cover instability. But yeah, that it does, that that alone can really help with ankle instability. That's super true. Thank you.

Steven:

Before we move on, since I'm asking questions Justin has asked, have you had any thoughts as to why it's the deeper elements of the Achilles tendon, which are more commonly involved problems on the surface area?

Simeon:

Yeah. look, I mean I off the top of my head the, I know that the, the, the arrangement of type one collagen tends to be kind of like thick and thin spaghetti, remember we talked about it in the rotator cuff, so you have the deeper fibres are kind of surrounded by more superficial fibres. So I imagine this leaves you with the tendon architecture in terms of, of something like that via the thick and thin kind of fibrils. But I can't see any more than that. Is there a sense of collagen arrangement

Steven:

And the same, Justin asks what your opinion is on the thought, that difference tension activations of Solaris and gastrocs causing sheer forces within the tendon and therefore leading to tendonopathy?

Simeon:

Yeah. Oh, you mean trigger points? I agree. Trigger points do. Absolutely.

Steven:

Excellent. Good.

Simeon:

Thank you.

Steven:

Do you want to move onto the foot?

Simeon:

Go on then let's finish off with the foot. So, so we're working our way down. Tantalizingly near the bottom of the body. And again, heel pain. So heel pain. We're going to talk about two things - plantar fasciitis and a heel spur, which are actually interrelated. But in general, let's talk about heel pain. As I said at the beginning of this lecture that we jump, we bounce, we run around, we think nothing about our feet until they go wrong. And when they do, we can almost think of nothing else. Heel pain. Really commonly presents with plantar fascia apathy or plantar fasciitis. Opaty meaning

sort of pathology of the fascia. Most common cause of heel pain make up for the 11 to 15% of foot care complaints affecting adults, the plantar fascia, thick band of connective tissue.

Simeon:

I've got some nice photos in shortly. Connects all the way along the bottom of the foot from the calculus to the navicularcuneiform and the metatarsal. So inserts all the way along, supports the arches of the foot, the longitudinal arch. And if strained becomes weak, swollen and inflamed and repetitive strains can bring about micro tears as in other tendon sort of fascial disease leading to pain, swelling and other fat other sort of symptoms, and it can be unilateral or bilateral and it is implicated with heel spurs. Now just having a look here, you can see the plantar fascia where it kind of drives into that calcaneus there and you can see the heel spur. The, the other muscle that goes in there is the quadratus Plantae. So QP is very much involved in heel pain as well, which we're going to talk about.

Simeon:

Weak association between decreased first metatarsal phalangeal joint extension and ankle dorsiflexion, heel spurs have been reliably implicated as a risk factor uh, for plantar fasciopathy and there's a significant association. But despite the high prevalence of plantar fascia, the information about pathogenesis is still limited and the histological changes suggested degeneration rather than inflammation. That's why I don't really call it 'itis' anymore. Same with like a tennis elbow lateral epicondylitis. It's more, it's Epicondylopathy. Uh, Fascia is usually markedly thick and gritty in these patients with pathological changes, more consistent with fasciiosis or degenerative process rather than fasciitis.

Steven:

Simeon, er, the Heel spur. I was under the impression that yes, there's an association, but no evidence of cause or effect between either the plantafascia or the heel spur and the problem.

Simeon:

Yeah. So I put the research down there.

Simeon:

You're welcome to have a look at it.

Steven:

Yeah, I will do.

Simeon:

Yeah. And actually for a trigger point perspective, the big gun for trigger points is quadratus Plantae, which is, I brought it up later and we're going to show you that. Okay. So in terms of the symptoms usually, and it's really important, it's this pain first steps in the morning. So heel pain, pain, plantar fascia pain. As you load the foot first thing in the morning, ouch. As a foot warms up, it starts to, the pain starts to decrease and then it comes back after prolonged standing or changing a position from sitting to standing. Some of the stretching of the foot may cause a tearing sensation. I've actually had a bit myself. It is really horrible. It's actually really horrible and extreme cases even cause

numbness in the foot. It's, it's, it's an awful pain actually. Thankfully I've kind of managed to fix it, but let's look at the plantar fascia.

Simeon:

So it says here approximately 10% of people experienced plantar fasciopathy at some point in their life. That's, I'm one of those more commonly in middle-aged, obese females. That's me and young male athletes. It may be, it can also occur in younger people after they've been spending hours and hours sort of bouncing on their feet. Usually typical for runners to experience plantar fasciitis. It may occur if one starts running on a different surface. Other like changing from a road to grass to track. So the change of surface seems to affect the myofascial kind of tendrils. Also maybe associated with extreme pronation of the foot, which is connected to flatfoot or pesplanus. So here's a lovely picture. They look, this is a picture of the, the plantar fascia. And you can see that the calcaneum is separated from the plantar by this.

Simeon:

There's a fibro fatty pad there, which has kind of shock absorber. Interestingly when I've had patients that have had injections for plantar fasciitis, sometimes the steroids injected into the fat pad and you get degeneration of the fat pad. And that is an awful condition where the fat pad kind of weight wears away and then people are in much more pain. So it's just that a contraindication of, of, or it can happen as a result of, of steroid injection. So the posterior tuberosity, the calcaneum has two processes a medial and lateral, you can't see them here, but they give rise to different attachments. One is the flexor digitorum brevis. We've got FDB here; I don't think we can see it. But the other one you can see is the adductor hallucis and you can see the adductor hallucis here. That's it. Perfect. and the other one which is a little bit lower is the quadratus plantae.

Simeon:

And the QP is a really interesting muscle. It's we talk about it shortly, but it's it inserts into the extensor brevis as well. Flexor digitorum brevis. The sorry, (inaudible). The, the try and get a fibrocartilage, which is this triangle that we're seeing here is this dilly sort of diverges into sort of the mid metatarsal level into five separate strands as we can see here, which are so attached to the different forefoot through the plantar surface of the skin as well into the phalanges, the metatarsal phalangeal joints. And also as we said before also into the navicular and the cuneiform bones as well by myofascia. So, so this is the plantar fascia and it has these kinds of ligaments that hold it in place and it, and it sort of is an anchor point for, for other muscles as well.

Simeon:

So let's come now to the next slide if that's ok quickly, we're nearly there. So in terms of differential diagnosis, of course foot pain can be a difficult sign and it is worth ruling other things out. I guess the, the things are tarsal tunnel syndrome, which again can be cause of foot pain, stress fractures, which I do see you do see. And sometimes I guess spinal pain as well. Rarely sort of the carcinoma's, psoriatic arthropathy I've seen that reactive arthritis. I've seen that. And of course Paget's disease or some, some such inflammatory diseases. So gout. Okay. Big toe pain. So we need to rule out some of those, but once we've done that, we can look down at the muscle. So let's have a look at where we are now. I think we're at the muscles.

Simeon:

So what are the muscles that we look for the heel pain? So let's have a look now. So again, we're going to start with the gastrocnemius. Remember we said before that the gastrocnemius and the soleus both have sort of myofascial referred pain patterns that go down under the sole of the foot. So the both of them can, are, can cause sort of foot pain as well. But the big one is (inaudible) now. Okay. So proximal, the big one is going to vary. Let's have a look - flexor digitorum longus. So the FDL comes down, splits into these five strands, actually can be a source of heel. And foot pain. So we're going to look at the flexor digitorum longus as a source of pain. And actually that is the tendon that the Quadratum Plantae inserts into, which we'll show you later.

Simeon:

So here's a QP and you can see the cut end of the QP as we go. But look at that heel pain. Bang. It's exactly the heel pain that people describe when they come in with a heel pain or plantar fasciitis. So QP is an amazing muscle to look at. If you suspect someone has got heel pain. I'm going to be doing this lecture actually because it was, I'll tell you in a second. The other one is tibialis posterior. So tib posterior, part of the compartment, posterior compartment, look at that, look at that pain map all the way under the foot. And again, the trigger point is actually more in the calf. So some of these muscles you're looking at in the calf, like the gastrocs soleus tib posterior and sometimes the flexor digitorum longus and the rest of them you want to look for actually in the foot itself.

Simeon:

Interesting. So, why am I saying this? Because I mean, I remember how to, sorry, just to complete, this is some, just some other self-help bits from the software. So let's so I I remember really struggling with heel pain for many years. I remember I had this patient oh dear, its embarrassing, now I remember this so clearly and she would come and she came for honestly I was ages and ages and I kept saying to her, I'm not sure we're doing any good, but she'd say, no, you're really helping me. So you know, whatever. She came back and I remember I would dig into the foot. And so actually I'm really glad to be sharing the trigger point thing because I think for me, learning these trigger points is really absolutely ramped up my, my treatment of foot pain. And again, just to show you those muscles, which was the gastrocs that again, when we have them in the slides there, so really worth looking at those muscles. A lot of them when they get trigger points can actually cause referred pain into the front heel. That looks like plantar fasciitis and can have a huge benefit. But what I want to conclude with now is the quadratus Plantae and QP has changed my, absolutely changed my therapeutic outcomes for treating foot and heel pain. So we're going to ask Dr Gerwin to talk to us about the QP

Bob Gerwin:

The intrinsic muscles of the foot. All the quadratus Plantae muscle flexes, the second, third, and fourth toes, as well as acting as a pulley or a lever to straighten out the action of the flexor digitorum brevis. The pain from the flexor accessorius or the quadratus Plantae tends to be pain, which is located over the heel of the foot. So the pain from these muscles, Oh, like occurs from trigger points that develop with overuse of, of the foot. So this is ill fitting footwear, a long marches landing on the foot hard when jumping a high heels may put pressure on the forefoot. Certainly high heels, shorten the Achilles tendon, then shorten the soleus and the gastrocnemius and they give trigger

points in these muscles. Pain that occurs from intrinsic muscle foot trigger points may be comorbid or coexistence pain with pain and trigger points in the more proximal muscles of the lower leg.

Simeon:

Thank you, doctor Gerwin, he put it a lot better than I put it.

Steven:

Vera's asked about your opinions on treating Morton's neuroma.

Simeon:

Oh, well, Morton's is interesting. I get, again, I'm using trigger points a lot for Morton's. I actually needle into the interossei on it and I get really good results with that. It's.

Steven:

Into the neuroma itself or elsewhere?

Simeon:

So what happens is when the interossei, so Morton's neuroma is a, another topic, but basically, normally it's between the fourth and the fifth or third and fourth. And it's a, an inflamed ball of nerves. And what tends to happen is you tend to get trigger points in the interossei on the lumbricals, where the toe comes together. When you needle it You can actually, the toes just do that. So you actually decrease the pressure. Of course, people that wear these clothes shoes tend to have the, they tend to develop trigger points so you, you don't needle into the, into the, not into the neuroma itself. Trying to avoid that. Awesome.

Steven:

Okay. One serious question. Sally is asked whether you can use trigger points on old injuries and if so, how old?

Simeon:

Yeah, you certainly can. Look again, you sort of just have to sort of think it through how, how you do that, how you bring it in. But yes, you can that you can use them in, in chronic injuries of course. Along with stretching along with myofascial release, along with still looking at the biomechanics you know, again, with everything you have sort of think, why is that trigger point there? What's it trying to achieve and how am I going to sort of disable it to the, to make a difference.

Steven:

Okay. And the last, I mean, not the last question. There are loads more, but the last one here comes from France as that's what I'm going to ask. She wants you to finish that Oscar Wilde quote.

Simeon:

Oh yeah. Do you know what, stay there. I was actually going to look, I was going to look that up.

Steven:

Okay. While you're looking that up on the screen behind me is about your final in the series of lectures, which is next Monday, the 26th chaos, vitalism and super trigger points, trigger points of strange attractors, all of which is a very intriguing title. So we're looking forward to that one.

Simeon:

Perfect. Yeah, I'm writing it at the moment. Pleasure for the body, but pain for the beautiful soul suffering is one very long moment. No, as far as I remember he said, he said this, he said there are three types of pain that a man cannot endure. One is dental, one is a foot from the Achilles and one is Scrotal. And he said given the three, I would choose dental. So I would, so something like that, I'll try and find it for you. But yeah, and also there's plenty more on trigger points. Even on our Facebook group as well.

Steven:

All of these are in the, the slide handout, which is available in the recordings page. So we've got a bit more here about trigger points 3d, which you've been demonstrating here. And of course your early bird launch special 25% discount on it. So as I've often said, I don't like to use these broadcasts as a sales pitch for anybody, but you know, when we do mention something, we do it because we think it's a good product and you've demonstrated how good this is.

Simeon:

Thanks very much.

Steven:

I'm really grateful to you. We've gone over by 20 minutes, so what we should have done, I hope the viewers aren't too disappointed by that.