

## Transcript

## Christmas Case-Based Discussion With Chris Heywood & Ruth Tarry

## Cast List

Steven Bruce	S
Chris Heywood	C
Ruth Tarry	R

S: We thought we'd play this one a bit differently. We thought we'd have a more relaxed evening than we sometimes do. We thought we'd open it up to lots of case histories from you, assuming you've got any. We throw in a few of our own and we try to find as many that related to Christmas as we possibly could. Because I couldn't do this all by myself, I'm joined by two expert guests, well sorts of two expert guests. On the one hand, I've got Ruth Tarry, Ruth, great to have you in for the second time on the show. Thanks for joining us. Ruth is actually two people at the moment. She's four months pregnant almost, so no danger of a Christmas baby or any accidents during this particular show, thank goodness for that.

I'm also joined by Chris Heywood. Now, Chris actually appeared on one of our shows before, but he was in the background on that show. Chris is a research clinician at the Chris Moody Center, which is where Nick Birch hails from. Nick, you might remember, has joined us on a number of occasions to talk about spinal conditions, he's shown us surgery, he took us through MRIs and he runs a fantastic multidisciplinary team at the Chris Moody Center, of which Chris is one of the senior physiotherapist. Chris has been a physio for 20 years. He specializes in spinal conditions and he's got a wealth of

experience in rehabilitation treatment and everything else that goes with it. And of course the fact that he works with all those other professionals, chiropractors, osteopaths, hydrotherapist, Polanski's instructors, orthopedic surgeons means he's got a lot to add value for us this evening. So Was that a fair introduction?

- C: I think that's fairly accurate.
- S; Is there anything else we should say about the Chris Moody Center, have I missed anything out?
- C: There's quite a few of us that work there. You say we come together as a big MDT. There's a lot of independent therapist as well-
- S: A multi disciplinary team.
- C: Yes, a multi disciplinary team, we all come together and we kind of share knowledge. So it's very much a modern view on no one thing is best, there's multiple ways to treat patients and that's why we try and do it, we need to refer-
- S; We really enjoy, Claire and I both come along to the MDT sessions that you run, is it quarterly run?
- C: Yeah.
- S: And of course they're all case based and more and more it's clear that the case based discussions are so much more valuable in terms of CPD than many of the other things that we could be doing, which is why we've had Nick on this before and it's why we were really pleased when you and Nick facilitate us coming along and filming one of those meetings.

Hopefully there's not too much resistance from anybody else, they'll have us back again. I know we missed everyone around that night by having them all sort of tucked away in a different room with lights all over the placement.

- C: I think is interesting. It's different isn't it? And it brings everyone together and reaches out a little bit more. So it's good.
- S: Yeah. So anyway, we're going to talk about all sorts of saving and I sent an email just before every couple of hours ago to say that we were about to kick off and I said we'd be talking about case histories, we'd be talking about some first aid stuff. We might even have some marketing information in this, but of course the big thing is we'll be answering questions from the audience so hopefully they'll get those coming in as soon as possible. Where are we gonna start?

The first one is actually one which came through our own clinic in Higham Ferrers and I don't think you were involved in this one Ruth but it's-

R: I'll tell you in a minute.

S: 56 year old lady, she's playing some sort of game I've got it down here as twister, but she then came saw an osteopath. Osteopathy was a bit worried about osteoporosis despite the fact that that lady was otherwise fit and healthy. And the reason I thought this was quite topical is because the last MDT, we were talking a lot about osteoporosis and the new guidelines which have come out, which are really, really good, I think having looked at the background there, so I thought actually this is a chance for us to sort of chew over what are the risk factors for osteoporosis, what might get that bell ringing in our mind and what are the screening questions and the tests that we need to get done to prove or disprove that theory. I don't know, was he one of yours? Do you remember this one?

R: No that doesn't ring a bell.

S; All right.

R: I've had the twist, I would have stuck in my mind

S: The lady is coming complaining of low back pain in this case so, 56 year old lady with low back pain is not necessarily a red flag in its own right, is it? Especially if you've been playing twister or some other ridiculous game.

R: Well is she quite active in general?

S: Yeah very fit and healthy.

R: And not sort of physical because obviously we're sort of trying to look for the petite lady who perhaps doesn't move very much.

S: Yeah. And of course I think the osteoporosis guidelines are that if you're looking for people who've got a history of eating disorders or their BMI is low, then you start thinking about it, don't you? I tell her, do you know, I mean presumably it's a risk factor for men as well as for women, but there's far fewer men with osteo, is it one in five men over 65 and 50% of women according to the statistics?

C: Couldn't give the odd base but it's far more frequent in females. It's interesting what you were saying that some of the risk factors before, so I think with the bone scanning that now gets done over at the Chris Moody Center that you definitely see almost what we call phenotypes, certain body shapes that come in. And so you almost have a predicting factor if you like, and it is, if you see very petite and thin, not necessarily really underweight, but you generally see that the smaller, if you like, petite someone is you tend

to think, okay, there's going to be more likely than if they're the other way, and that seems to be going with the scanning. So I think actually what Ruth was saying, we would probably look at that just the stature of the person as a guideline to begin with, as gross as that may seem, but as a first-

- S: Would you rule it out in somebody who's heavier though? Or do you think there's other factors?
- C: I don't think I'd ever rule it out but it would kind of lower down my-
- S: Your diagnosis preference.
- C: Exactly, probably, yes it would.
- S: And I don't want to bang on about the stuff you're using it the Chris Moody Center, because we've mentioned it on two previous broadcast we did it on the one where we filmed over at the multidisciplinary team and also we mentioned it last time when we had Nick doing case based discussions with us. But the big difference is this piece of equipment that Nick's using and it's the only one in the country at the moment, is that there is no ionizing radiation isn't it?
- C: No.
- S: Whereas the convention, the standard in the NHS is dexa scanning, which is dual something x Ray.
- C: Yeah, don't test me in that one.
- S: But it's x rays isn't it? Yeah it's X rays, so you're limited in the number of times you can do it, whereas you could have somebody in every week to do whatever it is that-
- C: If you wanted to. Yeah, it's very quick. It's very easy. It's a traffic light system and the patients love it. They go in half an hour, they have an answer as to what their risk factors are, is very clear and concise, and you've not got the waiting around and I think everyone knows the waiting around regardless of what you're being investigated on, it causes the most anxiety and worrying. And if you can get it in half an hour then, yeah patients are-
- S: Sensitivity, specificity, that sort of stuff, that's pretty spot on, isn't it?
- C: It's gone through the FDA in America, which is good. But yeah, it's obviously the miles on the clock, the more that it goes, the better we will be able to tell this in the long run, but yeah, to date it seems to be very accurate. And I think Nick or Mr. Burch was saying that there's some updates coming to the software shortly which will allow it to look even further other things. So don't quote me on that, but I heard that in a conversation the other week, so.

- S: He's like a kid with a shiny new toy, isn't he?
- C: We all are when we get our toys, aren't we?
- S: Yeah, but actually there's Ree, if you were watching, Ree is one of our members. Ree has actually organized a clinic with Nick, her own clinic, I think it's in Brighton where he's doing osteoporosis skinny. I'd love to hear if there'd been any clinics, what the feedback is from them, how it's working, so on. I don't know if Nick's got any scope to do other clinics around the country, but it will be limited and if anyone wants to get involved than perhaps they should get in touch with us.
- C: Yeah for sure.
- S: Anyway, we've got the key test is at the moment dexa through the NHS, or what's it called? Nick's-
- C: Osteo scan.
- S: Osteo Scan. He gave it a different mnemonic I think, RE something.
- C: Maybe Nick's got a special name, but I would know it's Osteo Scan.
- So Osteo Scan. So those are the two quality scans for osteoporosis, we're looking with underweight people. I don't actually know whether this lady that we were talking about was low BMI or not, but the upshot of this is she was sent away and they did find a fracture, they were three and they found osteoporosis on imagery. So yeah, she had osteoporosis so it was a good call center in. But I seem to remember when thinking back to, I think I did a CPD day somewhere down in St. Albans and they were talking about caffeine is a risk factor for osteoporosis as is alcohol and smoking.

And I sometimes do wonder though whether ... there was a lobby who is after sort of health food and so on and will say, "Well actually we don't like caffeine, so let's put that in there as a risk factor." Or maybe it's the lifestyle that goes with caffeine, sitting down a lot because a sedentary lifestyle is-

- R: Could you not say that caffeine, smoking and alcohol are risk factors for almost every pathology?
- S: Yeah you probably could, It's fair enough. What else we got?
- C: I've got some other things on here-
- S: Previous fractures, previous falls. Now if you look at the National Osteoporosis Society website, they've got some statistics up there about if you've got a history of falls then or history of previous fractures other than through serious trauma, then you are likely to have osteoporosis. But they

also gave a risk, I think the mortality rate for hip fracture is extraordinarily high, and I wasn't sure whether that statistic was based on the fact that it's mainly elderly people who are getting the hip fractures because it tends to be later on in life that you get the osteoporosis and that you become unstable. So maybe actually, it's not surprising that there's a greater risk of mortality.

- C: I think really though it's going to be the fat embolus, so really, regardless of too much age, if you fracture that neck of femur and you're really sort of fat embolus anyway then you get a not kind of risk factor of death from cardiac say here, I think that will be why the high mortality is. I'm just trying to think, the other thing is going back to the thing, the things that I would be looking for as well, how did she actually fall if it's extended flexed on the head, I mean twister, it could be any position really, couldn't it? And whether it's unremitting and was there any loss of height? All of these kind of things that you'd search out for, local pains.
- S: Of course there's no guarantee that the pains she got from the twister was anything to do with the osteoporosis. It may have been quite incidental, but when she was screened in clinic, someone said, "You could be at risk for osteoporosis and I'm not going to do any nasty manipulations on your spine until I know better." And it may just be sort of an incidental finding from a normal low back pain.
- C: Yeah. And if any of your viewers have patients that they do suspect, I would personally get mine to look on the osteoporosis website because there are certain guidelines on there as to whether that client or patient would be at risk and whether they should be able to gain access to a dexa scan-
- S: Is this the National Osteoporosis Society website?
- C: Yes, I believe it is-
- S: Certainly if you go on there, you can do a self test which can take you through the risk factors and it'll email a print out you can get your GP.
- C: Yeah, and if you actually go onto the nice guidelines as well, they will also put down, there's easy to see risk factors on there as well as the risk factors there are points that if you get, you should be scanned, but unfortunately that's not always done via the GPSs. So if you can empower the patients more and give them more information to take with them, because it is something that is increasingly hard to get hold of, even if they do tick all the boxes, I'm not quite sure why, but yeah it seems difficult-
- S: Is it because GPs were reluctant to refer people for costly scans?
- C: No, I was speaking to a GP friend colleague of mine the other day asking this very question and he didn't seem to think so. And in fact if anything, they were trying to get more people to go and get scanned. So it seems to be a bit

of an anomaly when you get patients to go and ask, but then you don't know what the client GP interface has been at that point, miscommunication, however it's been. But yeah, it's a funny one. I don't understand.

S: I thought that, I don't know if you had a chance to look at, I thought that self test thing on the national osteoporosis society website was really, really good. I had to struggle a bit to find it-

R: I don't have it yet.

C: Okay.

S: And I actually thought the rest of the website was not so good because it gives you lots of stuff about what they're doing, and it gives you lots of stuff you can subscribe to and so on, but actually as a clinician giving you information on osteoporosis, what to look for, what the latest research, my new show and all that stuff, I didn't think it was terribly hot. But what they have done of course is they have produced these brilliant new guidelines, haven't they? Which I've got in colour and you got back and you've got black and white and we're going to make these available for the audience when we finish this evening or at some stage during this evening. And this is I think a 19 page document, which is the latest osteoporosis guidelines from the NOS, and then there's a full page thing which is real simple, quick reference on that and I thought it was really, really clear, really, really good and much, much more useful to a clinician and to a patient that I've seen in the past because they've got this theme, haven't they? Which is strong, steady and straight.

So you're building people's bone density through exercise and impactful exercise and weight training. You're getting them steady so you stopping them falling over and then you still have to straighten up their spine, but they don't just say bland things like that, they actually give you some really good guidelines on what you should be doing to make those things happen. What sort of exercise is useful.

One of the things, I think they said that people doing weight bearing exercise in a chair was actually bugger all use, they need to be standing up and they need to this number of impacts per day, I think it's 50 per day. So it's really, really useful stuff in there. Great stuff to hand to patients and it shows the interaction between all those things and it shows you how to sort of work out whether you're doing the right exercise, gives you examples of, for example, getting yourself stronger, circuit training and gardening is in there. Pilates comes out very well, Ty Chi comes out very well for preventing falls, it's really, really good for preventing falls.

R: And on that note, I've got somebody who again is anonymous, so several of their patients think that weight bearing exercise means lifting weights and this person was starting to question their own knowledge. Weight bearing

means walking and bearing one's own weight, not lifting weights. Whereas this guideline is very clear on the fact that yes, it's walking, but also it does include lifting of weights.

S: Yes, walking is for people who are really, really at risk, isn't it? Whereas actually it's okay to do weight bearing exercises, it's okay to lift weights, it's okay to jump up and down things. They make it very clear in here that the risk of causing fractures through exercise is very, very small indeed. And in the past osteoporotic patients have been told don't do anything, in fact there's one quote in here I think where the GP says don't do anything until you've spoken to a physio, and the waiting list for Physio 19, 20 weeks so poor patient sits terrified for that length.

C: And I think there's a really big fear factor involved with clinicians because if you give out the wrong information and something does happen and society and litigation is nowadays. And so there is that fear factor that comes in and there's more and more information available on the Internet, patients become much wiser, if you like, and you have to be able to prove your knowledge a bit more. So I think things like this where there is a lower degree of discrepancy, you really know then what you can and can't do. But yeah, there was this misconception about not being able to do impact, you can't bend forwards, you can't ... really if you don't do these things, these are the very things that are actually probably going to help you. Obviously depends on what your scores are, I'm aware you lay on the risk factor, but it's important to get these out there and for patients and for practitioners alike to try and just dispel some of the myths going forward.

S: It took me, I think 10 minutes to skim through the thick document and to look at the quick reference guide. And I reckon that we should all have that similar in our clinic, so you can say, I see these are the latest guidelines. You can dispel those myths that have been brought about by GPs and friends and family who say you mustn't do anything if you're osteoporotic or you must must limit yourself to walking, or you mustn't bend forward. So anyway, like I said, we're going to make those available to you after the broadcast or sometime during the broadcast, you can just download them. I'm sure you can get them through the national osteoporosis society, on their website, but I found it quite difficult to find some of the references on there. So wherever you're get them from they're going to be useful.

R: I think somebody's just given us some extra things that we haven't mentioned from the point of view of possible indications. This was a person who was diagnosed with advanced Osteoporosis after a fracture, but is tall, active and big boned. Okay, now most likely an absorption problem or gluten intolerance. Other indications would be a history of steroid use or something.

S: More than four months I think, isn't it? Corticosteroids. And you start to risk density loss.

- C: Yeah. And it's above a certain dosage as well.
- R: Thyroid medication, which is something I haven't thought of but again it would make sense. Over exercising, early menopause, low vitamin D or CELIAC, but the big one is stress. Coffee would up the adrenaline and calcium is pulled out of the bones to neutralize it. So potentially those are good.
- C: I think to maybe build on that as well, again, depending on the age, if you have young, very active females that are training at high levels, be it, even if they're gymnastic or they're doing high impact, but if they're training hard and they are actually delaying puberty onset, that can really upset a lot of the hormonal balances and then they can be quite at risk factor as well. So that's almost at the other end of the age spectrum to look at.
- S: Interesting you say that because I remember the same place, I forget where it was at, the told me caffeine was a risk factor. They also said late menarche was a factor for osteoporosis. Well, I couldn't find that anywhere else on Wikipedia basically, but actually there is a disease which involves late or absent puberty, isn't there? Kalimantan, something like that or syndrome. So that disturbed puberty in only the sex because there's another one which involves primarily boys, again contributes to the loss of bone density and I probably ought to have the names of those two conditions.
- C: But even if people don't have those conditions though, if you just look, if you're any kind of therapist or sports scientists that's looking and treats pediatrics or adolescents really, and if they are high level athletes, that's a conversation you should be having with them, really because that should be then part of your assessment to look at that risk factor.
- S: Yeah. And I suppose also there is a growing potential for people who are chemically altering their hormonal makeup, aren't there? People who are transitioning, who want to delay their particular sexual characteristics, what I'm saying-
- C: I have never thought of that.
- S: Very young children who are transitioning from one sex to another.
- R: That's a really good point because there was a program on the television not long ago, I don't know how much it's done here, but in America it's quite a big thing when they feel they've got children who want to transition, they are chemically stopping puberty, so it's something to be aware of.
- C: So if anyone is on the internet at home, Google that for us and let us know if there is such a thing because I'm not aware of that one yet. But yeah, it would make sense.

- R: I've got a couple of little points here. One is Nick's, R-whatever it was, it's RANKL, Receptor Activator of Nuclear Factor, KB Ligand, whatever that means, and then the-
- S: He never said that, that's not the term he used.
- C: I apologize for not remembering that-
- R: He would have just said RANKL, I'm sure. But then also before we started, Chris you were talking about the new drug that is being used in the new class of drug is Denzo Mope, I think it's potentially how you pronounce it, and it's a RANKL inhibitor.
- C: Denzomope. Yeah that was slightly ... it will come back to me I'm sure. And when we come on to something-
- S: What's the significance of this? This is a new drug for?
- C: So for the treatment, no that was for the anklyospondilitus that we were talking about, we'll re visit that slightly afterwards
- R: Oh sorry, sorry I'm getting ahead here.
- C: But actually they're quite a few drugs which might alter one's bone density.
- S: I always ask this question to people and there's no reason why you should have any more knowledge than I on this, but do you worry sometimes that GPs, are perhaps less aware or have less time to consider these potential side effects in dealing with their patients?
- C: I think less time, definitely one of our practices that we have is in a super GP practice where we have 60 GP partners, it's massive. So you get to talk to these people a lot and there is a huge time issue. We sit here and we say about the ways that we can talk to people and we have the risk factors and quite often we get half an hour, 40 minutes to sit down with our patients. They get five minutes and if you think how much you can glean from that, it's no wonder that things either get missed or they get glossed over or that's just not an ideal situation. I think, it's not always the practitioners. I think sometimes it's the situations perhaps.
- S: Also the other thing, looking at you directly for this one Ruth of course HRT in osteoporosis. There's no reason why you should know it because you're not on it, but I always questioning Peri menopausal women about whether they've been advised to take HRT, and of course we've had obs and gynae experts on here before who said HRT is fine if you keep it up for five years, but I've read recently that you could go much longer than that, but without it, the risk of osteoporosis increases dramatically, so I was led to believe, is that still the case?

C: As far as I'm aware-

R: I would understand that, yeah.

C: That would be another screen question for me anyways, previous hysterectomy or ovary sparing and again they're the things to really be watching out for in the medical histories.

S: Our last speaker was an obs and gynae consultant Nitu Bajekal. She's heavily into how diet can do a lot of things that drugs can do and I think she's heavily into diets for HRT rather than going down the drugs route, and we can revisit what she'd said about that, but we wouldn't do that here. Yeah, good.

R: I feel like I've got a nice link going on here because we have a twister patient, so this is going to take us-

C: It's not the same one, is it?

R: No it's a different one, but she has a spondylolisthesis which is generally stable and asymptomatic. She sees whoever messages, I think it might be Claire, every six months or so on when it's a bit achy and importantly she finds yoga really helps. After playing twister it flared up and has responded very well to treatment, but she's desperate to get back to yoga. But her therapist is very worried about her doing all the back bending exercises. She's convinced that the backward bending helps. Chris, do you have any thoughts, suggestions or recommendations for somebody in this situation?

C: So if it's a very low grade, a grade one and it's stable. I wouldn't have too many concerns about doing simple back bends. I wouldn't maybe go to the nth degree, but in terms of, anything in moderation, if you never back bend, you're going to get stiff and you're probably gonna have more problems than if you don't. If you're talking about something that's unstable over both the grade two, I'd have a different conversation, but grade one, I would be listening to the symptoms if the symptoms are not too bad, I would gently go back in with no hesitation.

S: Is it Yoga she wanted to go back to?

R: Yes.

C: Yeah yoga pilates.

S: The only reason I ask is, I didn't realize it was pilates it's just that I always have this worry in the back of my mind that some yoga teachers are really keen on extreme poses and things like that. And of course that's not always the case. For some reason I feel pilates teachers tend to have more hands on control of their classes than some, not all some yeah.

- C: I think that's down to an individual. I think that would be like saying any osteopath, physio or anything, you're going to get different degrees of skill sets, if we leave it at that-
- S: But isn't yoga more about challenging your ligamentous stability than pilates which is more about building the muscular stability, answers from the audience.
- R: That's a broad generalization, isn't it? My feeling or personal feeling on it is yoga tends to attract the people who are perhaps more flexible and so can get further into those poses. So again, I'm not convinced it's necessarily always the instructors, but I think it's the sort of the type of person that ends up at yoga ends up possibly pushing themselves more than they need too.
- C: I think there's also been an increasing convergence of the two. I think there's a lot of pilates instructors that have done yoga courses and will also teach that as well. So I think there's a natural amalgamation of some things that that occurs as well. So yeah, I would tend to say if it's more stability I would tend to refer into pilates, if it was more flexibility, I would go into yoga but again, it's more the teachers doing it than I would suggest, but yeah.
- S: You presumably in 20 years of physio and specializing now in spinal, so you've seen quite a few spondylosis. So how reliably do you think you can diagnose clinically a low grade spondylo.
- C: Good question, it depends, I think you may suspect more just from an overall examinations, where they're getting the pain to the symptoms. The obvious one is the steps on the back if you're running down, but that really is a degree of maybe if they're getting past the 20% or it's 15 that you can stop feeling that. But before that you'd question, but how many people walk around with a grade one spondylolisthesis? Never know, it's never symptomatic and is never going to be a problem. And again that's the problem, having a spondylolisthesis doesn't mean you've got a problem, it just means that you've got a spondylolisthesis. So is it something that I would look out for? Not unnecessarily though there was a big instability related to it and extension based stenosis presentation, something like that. In that case, I'll be relatively confident if there's a step.
- S: Yeah. If you can palpate the step, and I suppose that's what I was concerned about because the number of times in my own clinic when one or all of us is calling others to say, "Well what do you think? Could this be a spondylolisthesis because we can't palpate that step.

But what about rehab then? What do you do? Instead of sending to pilates, what's the physio route for strengthening stabilizing somebody who you believe you've now scanned and known is got spondylolisthesis?

I would say to begin with this, it's pretty similar, I would describe to my patients that I'm doing a modified version of pilates that is a lot finer so that they can then get into pilates, that will be the way that I suggest it. So it's much more, and this is with no disrespect to the classes because I think they're good, but sometimes if you have to have that one on one so that you're really getting the going on the education, I'm heavily into getting themselves palpating to know what muscles are working when, because one of my big bugbears is when people come to me saying that they've done using pilates and they can't show me what to do, they can't show me where muscles are that are really important for doing this in the right way.

C:

R:

Although we should at this point say that pilates are moving away from specific muscles into more generalized work. But I'm still very keen on getting a really good specific strong core, but rather than strength, I'm much greater believer in what I call muscle memory or form. So rather than brute strength is how does it work, when does it work? And because that's much more learned through repetition, for me it's very important and from day one, even when they're just doing the feedback's, really finding out how the muscles are working, that they know how to do that properly and how to self monitor themselves. Because I believe that if they do that wrong, then it won't work.

- Well something that has occurred to me listening to you talk there is can you achieve that by sending your patient to a regular pilates instructor for one on one or is it better to have somebody who's done some physiotherapy training or sports therapy training to then teach the pilates?
- C: Yeah, I think anyone that's had the experience and has the finer knowledge to do that, can deliver that. If they've got the confidence, I don't think where my profession is no more than anyone else, we've only learned it so everyone else can learn it. But I think then if it's a very simple, low grade, it just needs to be strengthened, you don't need to mobilize anything above or below to reduce the stress from it or you're not looking at the wider picture, then there was no reason why it couldn't be done through that. Yeah. Why not?
- S: I could see that you'd probably have a very interesting conversation with a chap we've had on this show a number of times, Matt Walden. He did a series of six with us, but he was talking about some of his rehab exercises for low back pain, which included, it was a lot of multifidus training, but it wasn't just, let's strengthen it, it was tiny movements, and he said, "What we're trying to do is get control over this part of the back." And it was neutral spine stuff and it was what you said, it was all about doing it so often. First of all, those stabilizing muscles or postural muscles actually got some exercise, which takes a long time, because the movement ... the other term is the movement muscles, mover muscles, they exercise quite quickly, but to get anything into the stabilizers takes a lot more time. But it was tiny stuff, and it

was a really ... It was well-researched as well, but it was also a very useful demonstration of how to get the exercises right.

C: I've not seen that. But yeah, I would say if you look at things like shoulder rehab, and you're looking very much at the end stage proprioception type of exercise, slapping arms when they're up in the air with eyes closed and things. There's no reason ... Even I probably don't do that with the multifidus or the low... But there's reason, there's no reason why we shouldn't be, and in fact, it should probably be quite a good thing to do. Certainly I encourage people to try and have the backbone holds in everyday life, because I think it's important not just to be good on my ball or on the bed, they've got to have it transitioning through to other areas.

But I think there's lots, and when we mentioned back in the Chris Moody, where we do the hydrotherapy, one thing that I found really by accident, was that working people through their upper limb shoulder girdles whilst they're in the water, just engaging some base core in the background, and they seem to have these really, really positive gains: reductions in pain. And it was like, "Well, why is this happening? I don't understand it."

But then, I think it's not necessarily unknown, but the floating attachments of things like the multifidus onto the thoracolumbar fascia, so I think if you're tightening that thoracolumbar fascia, through working more up through the shoulder girdles, you get it more toned, and then that floating attachment of the multifidus then has something to pull on. I think it's something that we don't really appreciate; we're kind of, "We'll work here; let's just leave it there," but actually, in the water doing that resistance thing was a bit of a Eureka moment for me, so that's one thing that I really do try and get patients to do alongside in their own time some simple water-based stuff, while I'm working more on the land. Because it all really does come together.

- S: So you get someone else to do the water-based stuff, do you?
- C: No no, so if it was to be ... Unfortunately, a lot of the insurance companies have backed out helpfully from these things, for whatever reason. I would now tend ... The simple things where I don't need to be in a pool, I can just explain what to do, and then they can go home and they can do that in their own time, so they don't need the expensive although-
- S: So what sort of things do you tell them to do, then? Specifically...
- C: It would be so ... In the background to have the tummy on, but doing different amounts of high knee walking, different ways of ... I look like a mannequin doll, but moving your arms backwards and forwards ... You do slide step, arms coming in, arms going out. If you're ever in doubt of this, if you stand up and you start feeling for the muscles, and quite simply, you just put your hand in a bit of water and you start moving it, you will feel these

muscles work massively, even though you've got no movement going through the trunk. So if I've got someone that's actually quite uncomfortable moving through ranges, and therefore some of the land-based stuff didn't work, I would put them in the pool, so I can actually work them to a sweat to where they're really out of breath, but because you're not moving them through range, they don't get pain. But I'm really working them a lot harder, and they're the ones that then did really, really well. It's just ...

Yeah, I don't want to give away all my secrets, but it's a series of just using the properties of water with floats, doing concentric, e-centric, depending whether you're using the flotation or resistance properties of the water. But yeah, I would say that's something for people to ... If they don't really look at that side of things, as an adjunct to land physio. Again, it's not difficult; certainly I used to spend time in the hydro pool on my own experimenting. And that's the way that you come up with most of these things, like what do I do if I move this? Where can I do that? How can I make things work? And I think that's an important thing.

- S: Yeah. So there you go. That's 20 years of physio experience in a nutshell there. That's all there is to it, really. Sounds a piece of cake.
- C: I'm done now.
- S: Do you remember one of the recent MDT meetings, we brought along a case with an MRI, and we suspected there was some spinal fusing, possible ankylosing spondylitis, and actually what we discovered was that the paraspinal muscles were completely infiltrated with fat.
- C: Yeah.
- S: And actually, the theory, the conclusion we came to was actually was the inactivity of those muscles, which was probably contributing to the quite severe pain this guy gets for some time. So that sort of ties in with a lot of what you're saying there, about getting the small muscles working, and not just concentrating on the big show muscles-
- C: Yeah, that's a good point as well for the practitioners out there, that if they do get a hold of MRIs ... I'm not an expert at reading these; I've got Nick that I can ask, but if you're looking down through the lumbar paraspinals, you can really appreciate the size of muscles. And when we look at these things, we look at bones, we look at the facet joints, we look at the discs ... all the big, obvious things. But actually, you've got some really key indicators of muscle size in there, and you can get the fat infiltration at a very localized level as well. We're not talking across three or four ... just down to a single or a double level, but it then gives you an idea as a practitioner of okay, really, really try and work through these areas or look, are they being stiff so when you're moving them, are they moving above and below but not that bit? Why

have they got that? You can pick those up, so if you've got access to patient scans, I would just maybe not use them for frank diagnoses, but it's good to learn, just to see what size they are.

S: And it's hugely advantageous when you've got an expert like Nick on tap, who can just ... the speed with which he goes through this.

C: That's why I don't have to learn how to do it.

S: Yeah, exactly.

R: That actually brings us very nicely to a question that somebody sent in earlier, and it was in reference to that patient that you were talking about on the last show, who had that infiltration of fat into the lumbar paraspinal muscles.

S: It was thoracics, wasn't it?

R: This patient has said lumbar.

S: Oh, okay.

R: Nick recommended very slow-paced rehab, but didn't say what that should be. So Chris, can you give us some ideas of where to start I guess with a patient with something like that.

C: For me again, I'd be looking very much at the quality of movement. For me, it would be really making sure they're moving what they think they're moving. So when it's slow-paced, it is really for me, give them some mirror feedback, see what they're actually doing, but make them understand. You can have someone complete a hands to the floor as many of our colleagues will know, and not move the back at all. They're just good in hamstrings, good in hips, and therefore they think they're doing it, but they're not. And it's all about doing roll-downs and things, but make them aware of what and how they get these finer movements.

Sitting on gym balls, I think is fantastic. Just in front of the mirror, on a gym ball, 90 degrees, knees et cetera, and just show them really small pelvic tilts, forwards and backwards, side to side, just to really get those little fine muscles moving. They will have almost no stamina, so very quickly, they will go into their accessory muscles, and that's where they'll then work. So get them to understand, little and often. But again, it's all about education for me. If they don't understand the anatomy, if they don't understand what they're meant to be doing, it won't work. So, yeah.

S: We were very worried with this particular patient, that like me, he has a military background and therefore he believes that it's got to be hard work, and the more of it you do, the better it's going to be. So we needed to

educate him to do smaller exercises, not to try and tire out his big muscles. What do you do? Do you do goal setting for people like that, and so you can say, "This is what we're trying to achieve, and when you've done that, that's good."

- C: Yeah, and I think it's important as well to give the patient ... so get the patients to make their own goals. A bit like we've all moved over to PROMs now, so the patient-reported outcome measures that hopefully everyone uses. We're not looking at whether you think it's a successful outcome, because at the end of the day, that doesn't matter. It's does the patient think ... Has it made a difference to them? That's really what they're coming to you for. Yeah, again, I think you educate them as what is a realistic ... i can't say that ... realistic expectation, and you get them to goal set, and you have a few short-terms, and you have a few that are maybe bordering on unrealistic, but it gives them the long-term goal to go for. But you've always got to give them things that they can reach, otherwise then you'll go through the anxiety and the depression, the, "I can't get there, why can't I get there?", which is no good. I think you have to mix that in, but yes, for sure, I'd definitely use those.
- S: With this particular patient, one of the challenges or one of the ways we've had to approach it is to explain to him that this could take a year before he sees some serious improvements. That's managing his expectations; he's not going to fix it in six weeks of going to the gym. He's got to do little exercises frequently, and expect a long-term-
- C: I think that's ... for people like that, I think it is important to explain the difference between a brute strength and a control, and the way that we can pretty much do any movement through our body, rightly, or we can do it in a compensatory way ... that's just the way that we're built. Life goes on; we have to survive. It's a case of they have to understand what they're doing, and like you say, sometimes it takes time. Sometimes it's much easier to build a bit of bulk than it is to actually change a muscle memory, some kind of form getting through that neurological mix, and really, yeah, I think it can take a long time. And that's coming back to expectations. If they get to three months down the line and they're not better, they have to understand that that's not a failure, that's just that you're only a quarter of the way through the time that it may be to recover. And that's really an important point.
- S: You talked about PROMs, patient reported outcome measures. Did you have a tool that you use for that, or a particular brand of PROM?
- C: Yes, so you ... It is right to say, you have to be careful, because a lot of these things are licensed, and people don't realize. Now, they can be licensed for individual practitioner use, but actually as a commercial setting, if you're using it for your own company, you will then have to buy licenses for them. So you do have to be careful; read the small print. A lot of main ones out

there are protected. Now, I actually use one called the MSK-HQ, which is something that actually comes from Oxford University, and because of my dealings with them in the past, they've been kind enough to let me use that. So we actually send that out by mail along with other things.

We use the STarT Back Trial, for anything spinal. We use the DASH for any upper limbs. Just trying to think what else ... I know we can go into things like Tampa scales of kinesiophobia, for fear avoidance, the HADS scale for anxiety, depressions ... They're the ones that we might use more specifically, but certainly for every one of the patients that comes through the door, we'll do an MSK-HQ, which is the musculoskeletal ... it's a 10 ... like a scale, five point on each one, that you then get a score from. They would do that, so we can score them. It's worth saying, if actually doing this for insurance companies, then actually by contract, you should be doing these as well.

S: Yeah. I raised my eyebrows when you mentioned it, not because I don't believe in PROMs, but because I do recall when we had our NHS contract, we put a lot of work into doing PROMs, and we used a modified form of the Bournemouth questionnaire, which is of course a well-established, general outcomes measure questionnaire. And for four, five years we had this contract, and at the end of the contract, when the NHS pulled in its purse strings and said, "We're not doing this with anybody any more," they said, "Well actually, we haven't done anything with any of those outcome measures. We just did it because we knew we had to, and they're all sitting there in a big pile." And they're all paper.

C: Yeah.

S: Actually no, sorry, they weren't. They were very long Excel spreadsheets with 37 different questions in them. So that was my skepticism about those, but also the skepticism is about the amount of time it takes to get patients to fill them in, and getting questions that they understand as well, because the Bournemouth questionnaire, if you use it in its purest form is almost impossible to make sense of if you're just an ordinary layman.

C: I think yeah, it's ... They're never ideal. If you give a patient anything, they don't want to fill it out, what with your GDPR forms, and registration forms, and every other form that comes out of the hat now, which is why we give the option with all of our new patient assessments: they're sent out automatically, so that they can do them at home before they come in, so that it doesn't detract away from clinical time, and I think that's quite a big positive thing, that people don't do that, do that. But it is important; I think on a treatment basis, you have to have an objective basis from which to tell if you're improving or not. And yes, we can measure range, we can measure this, but it's so very ... It can be biased. Not many people are going to use a gurniometer on every single shoulder movement they do. It's not realistic.

To have these things, it is good, even if it's a VAS scale or a numerical rating scale, whichever version you like. Just something that you can quickly go to, and we certainly within our practice management software, we have in-built now the ability to capture the scores, so that we can go back, and we can look. So if we have someone that's primarily in for a lower back or shoulder, we can just look at pre's, we can look at posts, and we can see that is what we're treating, are we having a good effect overall, or are we having a good effect, but it's not showing up on there, i.e. they're not working? I think it's always good to self-measure what you are doing.

- R: I think part of that is also actually showing the patient that they are making an improvement, because we're all very good at pointing out and clinging onto why ... what still hurts, and what we still can't do, and we're very good at forgetting what we have achieved. And actually being able to point out to them, "Well, actually last week it was X, and now it's Y," a lot of them go, "Oh yeah, good point." And any tool that can help with that surely is a good thing.
- C: And I think going away from the pre-validated ones that we've just been discussing, and just reverting back to what you're saying about goals, if you get patients to make goals, really you're making a PROM from that, because you're asking them to report a change in an objective measure. I use phones a lot, so if people have stomatic pain or if they're ... let's just say a knee problem, and we need to get them to walk so far. So get the phone, download a GPS thing, download whatever it is. Use that as an objective marker, and that's an outcome measure as much as anything else. But it's theirs, it's not yours. That's the important thing.
- S: Do you know what I really loved? We had one of your colleagues in ... John, the chap with the robotic exoskeletons?
- C: Yeah.
- S: And he had got those little sensors that you could fit to any joint, which measured accurately and reliably what the genuine range of motion was, because I do feel in clinic, we tend to see what we expect or want to see. Either we think it's not going to have got any better, so that's what we see, or we think, "Oh, you've got five degrees' extra motion there," when we're being a bit optimistic perhaps. And they were wonderfully objective, and they cost about 200 quid a set, I think. So they're not desperately expensive.
- C: What were they? Do you know?
- S: We're going back a year or so, I think, when we saw them. And it's on the website, but it was just a strap that you could put around a lower arm or an upper arm, or ... move the arm, and you could fit one to the head, and you could see change in motion. And it was nothing more sophisticated I think

than the sensors that you have in an iPhone, but it was designed to give you an onscreen indication of precise number of degrees' movement.

- C: I think there's a few of them out on the market. I've trialed a few. I don't think I ... I know John well; I've not ... I don't think I've trialed the one that you've been talking about. The only thing I would say is that I think as an independent therapist that you should do a rough reliability test for yourself, because I have used some before that you test, retest, and you can get quite different readings. So sometimes, they're only as accurate as the therapist is to put them on properly.
- S: Yeah.
- C: And each time, if you're putting one on now, and you put one on six weeks later, have you got the same joint positioning? They're advancing, and I'm sure they're better than when I was using them before. I'd have to ask John.
- S: Yeah, and also I thought if you're looking at let's say, cervical rotation, there's always the danger that your patient's moving their body. You've got to make sure that they're not doing that, and fudging the answers.
- C: It's ... yeah. It's a contentious issue. Does five degrees equal this, that and the other? I'd much rather have a patient with less movement that was not in pain, than could get an extra 10 degrees and walked out worse than they came in.
- S: Well except ... You take something like cervical range of motion: if you're driving a car, you might be out of pain, but you can't look over your shoulder, and you get rear-ended by the car you missed as you pulled out of the parking space.
- C: That's very good. As long as it's not my car -
- S: That makes five. Yes.
- R: Whilst the conversation is flowing beautifully, I just need to point out, we've got quite a lot of questions coming in.
- S: Well come on. Ask away, ask away.
- R: If we can go through some.
- S: Do you know? I feel naked without my iPad. Why are you asking the questions, not me?
- R: Because I like it. Anyway, something that somebody came up with, I thought was just very good, and fantastic for the fact they're we're coming into Christmas: somebody took part in an osteopathic student research

questionnaire recently, and the infographic claimed that moderate to high alcohol intake was associated with a reduced risk of Parkinson's. So with Christmas coming up, I think it's a case of cheers.

- S: But there was a spoof paper once, which made it into the press, wasn't there? It was some years ago, and it was the one that maintained that chocolate increased your wellbeing or your longevity. I can't remember which. And it was deliberately spoof. It was made out to look like a research paper, and it was just thought, "This will get into the press if we say this," just as whenever you say something that people want to hear, it's going to make headlines somewhere, isn't it?
- R: It's going to get everywhere.
- S: I hope it's true. I really hope it's true. But it won't change my lifestyle; I'm going to drink either way.
- R: There's been a few points of people mentioning that fact that too much fizzy drinks, Diet Coke ... phosphoric acid leaches calcium from the bones.
- S: Okay.
- R: Big problem in America, and actually I would say it's probably coming over here more. I know quite a few people who live on Diet Coke, and it's quite scary.
- S: But in America, they're compensating by the increased BMI, aren't they? So less risk of osteoporosis.
- R: Good point.
- S: I didn't say that, I didn't say that.
- R: What else? We've got quite a lot coming in about ankylosing spondylitis, so we need to get onto that soon. But just before, Chris, do you have any views on the different methods of teaching Pilates, because we've got body control versus Scott, and some of them are much more based on-
- S: Scott!
- R: ... dynamic movement, some are based much more on control. Do you have any ideas or-
- C: Yeah, good question. I can't remember what the last number was, but there are a growing number of governing bodies, and I think ... I actually tell my patients to be very careful in who they seek out. Now, that's not the ones that I don't recommend aren't good; let me just say that so I don't get into trouble. You tend to find body control Pilates are the most widely I would say

trained in this country, and they're relatively well-monitored, have quite good training, so I'm normally quite happy with my patients to see those. Stott Pilates, rather than Scott.

R: Stott, sorry.

C: Stott. It's Stott Pilates. I don't actually know if they're still training. I heard somewhere that they weren't, but I also know a couple of very good Pilates teachers that are Stott trained. Beyond that, apart from the APPI, which the training or the Australian Pilates Physios Institute ... I might have got that round the wrong way. So it's where the physios go and train in Pilates, that's the APPI. So those three are the main ones that I have come across and know that there's good teachers within, but I'm sure there's others out there. As to what they teach, I don't know their curriculum, and again, I would be more down to a particular teacher; if they had proved themselves with my patients, I would be much more ready to send patients back to them rather than just 'cause someone had a different training body.

S: Okay.

R: Right. There's a couple of things coming in about ... There's just to cover off the osteoporosis before we move on, and I have to just find it again ... What do we think about the saying that unfractured bones in an osteoporotic patient can still hurt? Have you come across that before?

S: Unfractured ...

R: Unfractured bones in an osteoporotic patient.

S: If they're an osteoporotic, does that mean they're more susceptible to that slight compression without a fracture? Bone bruising?

C: Yeah, you might be pre-fracture ... I'm going to go out on a limb and say that I probably don't know the correct answer to that. That might be one for Nick with his-

R: I'm not sure where that question has come from. It's sort of in quotation marks. And I don't think it's something I've heard about, but I could believe it.

C: Can we get back to them on that?

S: Yeah, we can get back to them on that. We will get an answer on that one at some point.

R: Okay. Shall we move on to ankylosing spondylitis?

S: Go on, then.

R: Because we've got quite a lot with this. The first one on the Christmas-related case is a chap that-

S: We should point out that these things can occur at other times than Christmas, shouldn't we?

C: Yeah.

R: No!

C: It's not just a festive-

R: The gentleman with ankylosing spondylitis last year, said his pain got worse after hanging decorations from the ceiling. He's improved with treatment, but the person who's asking the question doesn't know what rehab advice to give, beyond keeping moving and active. Given that backward bending made the pain worse, what do you reckon, Chris, for recommendations for the future? Is there anything in particular special that we should be recommending to somebody like this?

C: Yes, I think pharmacological management. So you often find with AS, or ankylosing spondylitis, that they will go through flare-ups. It's effectively an autoimmune problem, so it will come and go to a degree.

R: Is that the drug that we got wrong earlier? I'm not even going to attempt to pronounce this one.

C: No, they're individual drugs, where I'm thinking of a group. Don't worry, I'm going to find out, and I'm going to email this at some other point. Yeah, so I think it's important to get things under control. I'm an avid believer in good old fashioned ice in these things, and heat to try and take the muscle spasms down.

S: Which, when? How often?

C: If I think someone is in an acute flare-up, and I think there is the probability of an underlying inflammatory component, I would definitely have them on an icing regime. And really with the spondyloarthropathies by their nature, there's going to be something like that going on. If they have spasm in muscles, I would be getting them to heat that. So an ice/heat mix, as they're going through that. I think that's where I think maybe a little bit of experience comes in. It depends what I'm looking at as to what I would say is more appropriate, or sometimes just a mix of the two.

S: I've always said in the past, there's limited evidence for either therapy. Is that still the case?

Yeah, I think it's a hot potato, is the best way ... I think I use what I've found best knowing that I'm not going to hurt someone if I give them perhaps the wrong heat or the wrong ice generally. But yeah, that's the way I work it to myself. If it's just ... If I think there's an inflammatory base, I will go heavier on the ice. If I think there is not so much of that, and it's more a muscle overworking or spasm, I will go more on the heat to try and give that temporary relaxation down. But it's not a foolproof plan, okay? But yeah, that will be that.

Going back to the patient there, so again it's important when they're not in flare-ups that they do try and maintain a degree of the extension. Interestingly, the Pilates, yoga question earlier: I think I would actually go onto yoga for those, so they're actually trying to keep their mobility through the spine going. I don't necessarily want there to be a lot of muscle-induced stiffness. Arguably, the other one will still help, but I would maybe go down that line of things.

So try and keep them mobile, but if they are in an acute flare-up, drugs. Speak to your GP: the antiinflammatories ... As long as they're safe to do so, it's important for those to work as well. They use ARCOXIA a lot as well. I don't know if you've come across these. You normally have your over the counter, your ibuprofen. I just have to say that I'm not allowed to give advice officially on meds, but I would just talk about it. But the ones that you mainly get from the GPs, the diclofenac is now slightly more out of fashion, but some people much more prefer that to naproxen, which is a more widely-used one. In things ... spondyloarthropathies, they ... I can never say that word. Sorry. Yeah, yeah, yeah. Maybe I need the alcohol ... is to use things like the ARCOXIA, because it has a lower irritation rate for the stomach, which is the one reason we don't want people on long-term NSAIDs, basically. And so that's the... under control.

Now, I will just say at this point: there is a medication that I've been trying to remember, and I do apologize, that is fairly new in the treatment of these things. And I will endeavor to find this out and come back ... that they use across a lot of other areas. In lots of autoimmune conditions, and basically what it's doing is it's turning down the immune response of the body. Now, it's fairly new in use in ankylosing spondylitis, therefore there is no that I know of longitudinal studies looking at the long-term effects of this. We do know that these drugs can have significant other effects, and the fact that if you start turning down your immune system, it starts ignoring other things that you wouldn't want it to, which is why I think for some people, they don't like to take these things. But I think that's a watch this space in that kind of area, that there's potentially another route away from just the quite dirty antiinflammatories, to actually working with the immune system itself. But where that goes, I think is something that over the next few years, will progress.

- S: Can I just go back to the physical needs of the AS sufferer? When you talk about extension, do you think it's important that it's active extension, they're using their own muscles, or is it equally important to do passive extension through mobilization exercises? Sorry, mobes in your terms.
- C: Mobes, yeah. I think in both, or whenever you're doing passive, just by using gravity to an extent, are okay
- S: So foam rollers, for example?
- C: Yeah, or maybe not as brutal as a foam roller. Something ... maybe a small towel or something, so you've not got such a big drop, or something coming over the other side. But yeah, it doesn't have to be mobes. Mobes generally ... I think you have to be a little bit careful sometimes, depending how far along the advancement of the condition they are as to what you want to start mobing as well. If you start on calcified deposits actually on the ligaments, how much do you really want to be pushing through that? The same thing: one of the biggest problems with ankylosing spondylitis is the SIJ pain.
- S: Yes.
- C: Which, if anyone's involved in it, that's one of the key diagnoses. So if you're actually being tested apart from HLAB ...
- R: 27?
- C: Yeah.
- S: Yeah.
- C: Which is the mark, which interestingly if you have it, it means that you've got ankyspon? But if you don't have it, you can still have ankyspon. So go work that one out. But from a diagnosis point of view, that's that. Do you know, I've gone so off track now.
- S: Well, I asked you about active and passive mobilizations, and you then went onto ...
- C: Yes. But yeah, going back to that, what I think is important passively as much as anything else, because if you're always using active muscles, you're effectively going to be bringing the facet joints together more so when you're actively extending, which may cause pain, which you won't necessarily get if you were doing more gentle, passive things.
- S: Yeah.
- C: So both.

S: Okay.

R: I have a question from Vlad, thanks very much.

S: From who? Vlad.

R: Vlad. I know you've taken a long time to work out how to pronounce it, so I will as well. But I don't quite get it, so if I read it out, it might make sense to you, Chris, and you can help us here.

He's got a patient who has AS, and is very keen to get off the Humera? Humara? And was wondering what the viewpoint on this was. The patient is very understanding that we as osteopaths or physios wouldn't be the ones to recommend starting and stopping medications, but they're just looking for as many options as possible.

C: If that's a medication, I'm not familiar with it, so I don't know.

S: Could it be an auto correct typo perhaps, or ...

R: Possibly. It might have to be ...

S: Give us a ... Send him another message: "Can you clarify a bit for us, because you've stumped us on that? And we'd like to help, but we're-"

R: If it's an auto correct, or if it's some method of treating. But then, that's something you'd have come across wouldn't ...

C: Yeah, it's certainly something that I'm not familiar with.

R: Hopefully we will-

C: Clarify that.

R: Have some clarification on that in a minute.

S: So we've done AS to death now.

R: I think we have.

S: When we came out here, when we started, just like every other guest hour, we said, "90 minutes. My God, how's that going to happen?" It's an hour gone already.

C: Is that right?

S: Yeah. And we've only done two conditions, really.

R: TNF blockers, such as HUMIRA.

S: Ah, okay.

R: I think that's what they mean.

C: Okay. In fact, anti-TNF. That's the medication that I'm trying to come up with.

R: Ah, we've got it!

S: So Vlad has solved the problem.

C: Vlad, thank you, anti-TNFs.

S: That's saved you some work afterwards as well, hasn't it? Right, yeah.

R: Okay.

S: Right.

R: I have a question that is going to throw everything out the window a little bit. And again, I don't really know who this is from. So please don't forget to give us your name. This person has a patient with cervical dystonia. Any thoughts on treatment?

S: Do you do anything with dystonia?

C: No, there's ... No.

S: Well, I tell you what: the answer to that is you look at the broadcast, the first broadcast we did with David Vaux. Because he talked entirely ... It was almost all about musician's dystonia, and he talked about mirror box therapy, and he talked about various other therapies. It was a long term intervention, but it made a big difference. And the particular case history he was discussing was a very high level orchestra musician, who never got back to playing at national level, but got back to playing his instrument, whereas his dystonia had stopped him from playing that instrument. But that's as much as I can say about dystonia.

C: Yeah, it's not something-

S: It's quite a special hysteria, I think, treating dystonia, isn't it.

R: Definitely. I-

S: Look at David Vaux's book, because it's good.

C: Sorry.

- R: Okay. It's fine, at least it gets out there, doesn't it.
- S: Or better still, look at David Vaux's website, because he is an osteopath and has a real interest specifically in dystonia.
- R: Okay, this isn't really a Christmas question, but it's something for you, Chris. Patients hurt their neck, doing headstands in yoga-
- S: She's like this, yoga again.
- R: We're not going to bash yoga, we like yoga. Responding to chiropractic treatment, but she wants to use traction, because she thinks that we reversed the injury. This particular person doesn't use traction. Chris, Steven, anyone? Any thoughts? They're wondering about saying yes almost as a placebo.
- S: Yeah, what's the physio view on traction generally?
- C: I don't mind traction. I think we used to a lot in the hospitals, and it went-
- S: Mechanical or just manual?
- C: Both. Yeah, mechanical more in the hospitals. I think I would use manual traction as part of almost my facial release, if I'm doing it cervically, up a cervical spine. I think as long as there's no spasm, I don't like traction with any hypertonic muscles, because I think they tend to come back and bite more afterwards. But ... Yeah, I don't mind traction. It's only in the right way. I think if there's more than axially related problem, i.e. top down gravity issue loading, the more chronic wears and tears and things like that. I think they can do really well, just with a little bit of traction to relief. Yeah, I do that myself.
- S: And in this case, if you said it's the patient who wants traction, not the practitioner-
- R: The patient wants that, because they want to ... They feel like can they reverse the injury, because obviously it was a compression injury doing a headstand in the first place.
- S: Our great guru Nick Birch, the spinal consultant. He's very fond of the over the door traction device isn't he? They cost about 20 quid I think on Amazon.
- C: Easy to get hold of an Amazon, you can put some weight or water on them. I think the thing to look for on that, I would be tempted to say it's a very simplistic view of a compression injury but you may well have been compressing fasits or if you compressed centrally. Actually distracting may not be just the answer, I think like I said have a look and see how much muscle overtone there is in there. Because if they put something on with

really high tone muscles, you may not become the most favorite therapist in the world for advising or saying that. So have a look at that but if you think it's something just low key and there's no complications, yeah.

- S: There's a bit of a skill in there isn't there because you can put a huge amount of water in the bag, in the weight bag or you can put a little amount and I think telling them how much weight to use and how long to do it for is probably a key element in this. Have you got any guidelines that you use? I think Nick gave us some last time he spoke to us.
- C: Yeah, no generally speaking Nick gives them the guidelines so I don't get too involved in that. I normally see them after that it's been given, if you like.
- S: I think he says he starts them off at 5 minutes doesn't he on a relatively low weight and if it's okay, they tolerate that then increase it.
- C: I think if people want to know that, let us know and I can find that out and I'm sure Stephen can put that on somewhere, we can find that, it's an easy answer to obtain. I'd rather find the right one if people want to know that rather than just say a number out in the air.
- S: But I think you are going to get at least one person saying yes they want to do that, so let's find the answers-
- C: That's fine we'll sort that out, yeah let's find that out. Yeah, that's fine.
- R: Still lot's of questions coming in. The next one is again, I'm sorry I don't know who it's from. It says, "Thanks for the broadcast, we didn't cover exercises when they were training millions of years ago"
- S: Must be an osteopath.
- R: I have a ladder fall for you. The patient is 17 and plays both high level cricket and rugby. T-spine and TL pain for two years made worse by the fall. No fractures, he responds well to treatment but they're worried that he's over training. Also this person plays tennis and quite frankly doesn't understand cricket or rugby. They're prepared to refer him to a colleague but would like some thoughts in the meantime.
- S: Hang on the questioner plays tennis.
- R: The questioner plays tennis and doesn't understand rugby or cricket enough to know the forces that he's putting into his body.
- S: Okay. How long ago was the injury again?
- R: They haven't said.

S: Did they say 14 months and they're still in pain with it, or 12 months. R: Two years. S: Two years. R: But the fall is more recent, so he's had this T-spine and TL pain for two years and it's been made worse by the fall, so I'm assuming that fall is a bit more recent. C: For someone that age to have back pain for that long I would suggest that they need to be investigated anyway. R: Especially if it's thoracic pain. C: Yeah if it's non-traumatic. S: What was the age again, sorry? He's 17. R: S: Oh okay. C: So from 15 years of age. You could argue a lot of these things might be postoral, is it muscular, is it not. There's a wide range of things underlying, but certainly if someone has persistent pain that doesn't go of that age regardless of the fall, I'd be wanting to know why, regardless of the sport they're playing. Maybe you could give us some more information on-S: Tests that have been done. C: Yeah exactly, a bit more than just the two years. R: Bit more history. C: Yeah perhaps and we can come back to that one if they say more. R: Okay we've got lots of clarification on what humeral is. It is an anti, I did read it somewhere, TNF factor I'm typically used for rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis, Crohn's disease. It's known as a biologic for human with the adults with ankylosing spondylitis. I think we've probably covered that one now. C: Great. When you got access to Google watching this is-

Yeah, exactly. He always suggests-

S:

- R: Now, there is a question that I've just seen. And again, this is one that I'm going to go, I don't know what this means but Chris, hopefully you will. Chris is the Watson technique an effective form of treatment for migraine. What is the Watson technique?
- C: Yeah. Okay.
- S: You're not a headaches man, either, are you?
- C: I'll come back. I can go with headaches a little bit. No, that's fine. But I don't know what the Watson technique is. If someone can tell me what that is. It's Stephen says seems to be a common thing, doesn't it? Tell us what the Watson technique is. And we can let go. No, we actually see by proxy a lot of cervicogenic headaches. I'm quite happy dealing with headache. I know at some point that there was actually about two engine, 50, 260. Maybe someone can hopefully do with that one as well categories of headache. Believe it or not. So it's a huge amount.
- S: And there's been some major study up in Edinburgh recently into headache as well, hasn't there? And there's an osteopath, Helena Bridge, I don't think she's the ring leader, but she's certainly very active in a society looking into headache and in particular migraine and I will again post more details about what they've been doing on the website-
- C: I think that is what I say is important. You may be different shape from Migraine, which is more of an internalized issue to a Cervicogenics which is more muscular when your logical referred up from. So you look at those I think quite differently, I certainly would. If it's a migraine I probably wouldn't be doing that much with it.
- S: No, everything I've read from what I've seen from Helen from other people, is that actually there may be some benefit from physical intervention, but there's so many other sort of lifestyle dietary interventions which might have a factor with migraine. And of course migraine might respond to different triggers and different people and therefore the approach might be different as well.
- C: Exactly.
- S: So anyway, we really can't answer the question because we don't know what's inside you.
- R: No. Actually going back one, Martin I think this is, who works in Premiership Rugby, his suggested as stress fractures for the teenage lad who's a good player. Hopefully. I think most of us would have paused possibly flag that off.
- C: Exactly. I would be going for. Again it depends if he was playing rugby at the time when it came on but I completely agree. Anyone under that-

- S: It's two years. It's a long time.
- R: I suppose the problem with stress fractures is you don't always see them on first X-ray, do you?
- C: No, you see them healed. Not when unhealed.
- R: Here's an interesting thing and it's a good one because it's something that all be interested in know about is overtone the new hyper tone as a descriptor. Both were considered unacceptable. Should we just say contracted or spasm?
- C: Yeah, go for it.
- R: Doesn't really matter.
- C: The muscle's heart and that's it. Yeah. Is that in response to me using that?
- R: I think it-
- C: I apologize. It's my pet name that I would use. I think whether it's acceptable or not, that's how I use it in my notes and I know what that means. I think if it's tight, if it feels non-pliable to the touch, I would say so you've active or hypotonic or the-
- R: I remember when I was studying we were told not to use hypotonic because it ... Is it hypotonic? I'm going to get it wrong now as to which one it was. But because it referred to a neurological drive rather than if you feel that is a spasm, it's an overactive muscles-
- C: And I think that is a fair point to make a mess. That's probably more bad habits as opposed to anything else.
- R: But I'm sure we'll find it very easy to put HT next to a muscle rather than overactive or something like that and it comes down to the-
- C: Muscle. Just doesn't make sense.
- S: Another one. If we use dictation for our notes as well, we've taught our dictation machine certain words and it's easier to tell them that than other ones.
- R: Okay. We'll get a little bit of clarification about our 17 year old. They've been X-rayed but not scanned. And the concern is that the coach is over training them. Is that possible? Surely coaches care about their kids. Do they, as much as they care about their winnings?

Yeah. You play, so it's not the case. I think X-ray is not going to be the best way to do it. The only thing is the age CT scan would be ... It'd be nice to have an MRI so you can actually see all of the structures there. They're not going to be nearly as clear on an MRI perhaps as a CT scan. Again, one thing that we would possibly use is if ... I actually have a client at the moment who had some low back problems ongoing 18 months or so that we've had investigated for a number of things, big lab for the age. And in the end I actually asked them to undertake a SPECT CT, which again she'd come across a little.

They're not widely used, but it's where the CT scans meet with some kind of injection. So it mentions the uptake of bone. So you're looking at fractures or areas of increased bone uptake and they will show up as bright colors. If you look in the normal CT scan, you can look for any of the gross fractures. But if they're not even there, if you've almost got come back almost to those pre French's stages where you can't see them and you look in the puzzle things like that. Then the SPECT CT sometimes can show these up a little bit more because I just did bright intense colors. Then some of the age, you would also have to look at normal growth patterns and you look for asymmetries, but certainly they can. The only thing is that they, anything like a CT has a very high radiation dose and they are very unhappy to do those things. It's normally under sixteens I think, he might just be on the limit. But you see you have to be at a clinic to justify it. But I would suggest that actually is not sufficient for that-

- S: Would you get enough familiar with an MRI do you think? It's nothing like a CT when it comes to bending down is it?
- C: Not exactly. I think the only thing is though that the MRI ... Because you have got an age group where you do not want to radiate them. If you can do an MRI and you can rule out all of the things. Then you can then perhaps clinically justify irradiating them more, and sometimes when you have received MRI, so you will be able to see, translucencies. So indicators as well it may be not be as clear cut, but certain you could pick those up. Or you can pick up maybe old hued fractures as well. I think that would certainly be the way in someone that kind of age maybe.
- S: Can I have a quick digression?
- R: You can.

C:

S: Because only said earlier on in the Intro, I said we were going to do a hope swathe of things. I remembering anything about case histories. Just get for just two seconds, I just wanted to talk about marketing, not because that is our reason that would, but most people in private practice have got to make themselves known. And we are constantly hopping onto people that they

need to have communications with patients and actually this sort of thing gives us that opportunity doesn't it?

C: Because one of the conditions that Claire has been talking about is turkey back. It's the person who bends over to get heavy turkey out of the oven and gets back pain. And of course it's just back pain related to exercise, but if you can give it a name like that, it gives you an excuse to send an email out to your patients and say, well, look out for this. You know the patient was hanging the decorations and you have caused some difficulty there or whatever it might be. And I guess I don't want to go. I don't want to bang on about marketing. It's just there is an opportunity to communicate with patients, which in private practices is so important, just to keep yourself in the back of their minds that when they do get the injuries or the aches and pains, they know that you're there and you have got that back.

S: Make sure you have got permission to contact them for marketing purposes.

C: We could have another discussion about GDPR, of course.

R: Let's not go down that route.

S: See my earlier broadcast on the subject.

R: I am thinking of this could be something to do with Christmas trees, and wrestling them in and out of cars.

C: Well if you could really there is a genuine increase in the number of people electrocuted at Christmas through watering the Christmas tree.

S: I am hoping these are not artificial ones?

C: No that I have ever presumed and I presume it's going to be the tree that is giving them electricity is presumably the lights on the tree, but apparently there is an upsurge. It's Darwin actually if you ask me.

S: Upsurge is a planet.

R: Would you like to know what the Watson technique is?

S: Yes.

C: Yes.

R: Okay. It's a protocol for the scale of assessment and management of the upper cervical spine, and headache and migraine conditions. The Watson headache approach is recognized as a scientifically researched and method of examination and treatment. The diagnostic accuracy of the Watson headache approach is unparalleled. It can confirm if disorders.

- C: It does sound like google marketing to me.
- R: Sounds like Wikipedia to me.
- S: I think it sounds like Mr Watson's work.
- R: They can confirm if disorders in the upper neck are responsible for headache or migraine and determine the exact nature of the disorder, as well as the spinal joints are involved. There is no guesswork. No cracking no manipulations, is unique and powerful feature involved tWe did have useful input from several people, that case based discussion on Tuesday talking about those. And I just remember thinking that it must be awfully difficult to get them out of that cycle of depression and thinking that I'm too tired to do the exercise or I'm not going to exercise, therefore am not going to get any better. And the psychological therapy that they want to be getting as an Adjunct it is very important.

That's a sort of thing I would say I've come across because I have treated a few people with chronic fatigue or I may have worked with Fibromyalgia and the problem seems to be more the fear of doing because they're afraid of how they're going to feel afterwards and that it's going to put them back or put them in bed for two or three days. So that actually encouraging them to try something however small that something might be. And actually maybe the problems are useful thing and this is for the patient's benefit and saying, well, the last time you came in, this is what you said. You've done what I told you to do. And now there's a little bit of improvement here, we've got to show that continued improvement.

C: I think that's where we come across this Kinesiophobia. So the fear of movement in case it's going to hurt, not the fear because it does hurt and the catastrophization that goes with that if they'll get a pain or what am I doing to myself? So I think both of those were recognized in many chronic presentations of pain not just with that. And I think they ... Again, if you want someone to be on board, in my experience, you have to make them empowered and controlling it. If they sit there and be a passive patient, there'll be non compliant. If you give them the knowledge, the skills and the understanding to drive it.

And you can then be their adviser. I think that's when you normally bring them on board. That would be my ... And again, the goal setting, get them to reach really small goals because anyone knows if you do something and you've not done it for ages or you've not reached something before you get that euphoria, that sense of self achievement, that kind of maybe something can be done. So even if it's the more new goals do it so that they can start to get that psychological kind of benefit, that well being, that self belief.

- R: Do you have any tools for that? Because I'm thinking that's great, but do you have to give them a diary? Do you give them a calendar? Do you write it out for the mother, or any tools out there that we can use?
- C: I use diaries a lot. I do use them a lot. You have to be careful that you make from positive and not negative so that they're not concentrating on what they can't do. You're trying to concentrate on what they can do, but then as well putting down, if they do have spikes in pain or reductions in function for whatever reason. And then you can at least try to identify maybe some of the origins of that so you can correct it, but I think done in the right way, they can be very positive. But again, it's the key information that is not necessarily the more they do, the better they are. It finds out what their own levels are. And also that a lot of the forums online, I think they can be very powerful in one sense. You can get a of people that have a common ailment, a common series of sufferings and they can gain support from that.
- S: From a group hysteria.
- C: Yeah, it can be very positive, but also these things can be very negative and the fact that you can get a lot of people that don't do well for whatever reason that might be in it can become very toxic and people believe they'll never actually doing well. So I think they have to be well controlled.
- R: Its interesting you picked to bring that up because somebody just sent in the fact that nicer, withdrawn their current advice under pressure from CFS groups determined to Cherry pick evidence that it's bad for them and therefore justifying the lack of compliance. So, and I guess that comes from these things.
- C: Yeah, it's difficult. I think amongst ... I think you can take any chronic condition that anything really that if you have a form for it and he have people that are there that for whatever reason I can say I've been fortunate enough that they do not respond. They don't get better, then that happens and unfortunately I have no evidence for this. But you tend to find that the people that have got better are no longer having time to go onto forums because they're living life. And so I do think you get a bias that the toxicity on the forums, not all of them but because their life is still being controlled by that negativity, by the illness. So I didn't think it's a true picture for the whole.
- S: But regarding those CFS patients, one of the things that came out about the lunchtime discussion we had was that actually the number of therapies and the frequency of intervention that they need can make this seem prohibitively expensive to a lot of people and actually spending all that money is probably quite depressing as well. Isn't it? And am quite serious. He probably is, if you think I'm going to spend all this money just to get these different therapists

R: And also I'm guessing that the majority of people with those sorts of conditions have probably lost their job or are unable to work. So finances are probably quite tight for the majority as well. We've got a fantastic thing as not necessarily-

S: You have 30 seconds.

R: To finish, but somebody had a call from a lady in their late forties with sudden back pain and who just vomited. So you told them that she'd seen their osteopath before for similar pain and it helped. No aggravated by movement and thankfully they told her to get NE. Husband told her later that she was having a NI and scans showed evidence of a previous one. So trust your gut.

S: Literally. And that business have a heart attack actually the symptoms are not standard.

R: No.

S: And the Pet hate of mine. There is no female heart attack. The symptoms are the symptoms and don't ignore them just because they were women don't get these symptoms while men don't get these symptoms. There's a lot of Facebook nonsense, there's a lot of Facebook bollocks about women get different heart attacks estimate, but that's a useful one because the pains are different the vomiting might or might not occur. The nausea might or might not occur, but people equally just don't look right, you've got to trust your instincts here.

R: Definitely.

S: We've come to the end. That's our 90 minutes up, I'm afraid.

C: It's amazingly fast!

S: Brilliant, isn't it? It went so fast. And I'm really sorry, we went through only a fraction of the case histories I had on my list. We probably got through a fraction of the questions, but...

R: We still have lots of questions, so if you're both happy to answer them and put them up on the website later.

S: Yes, we will, as always, we will.

R: That'll be great.

S: That's okay. Anyway, Chris, thank you for coming all the way here, your expertise is invaluable, it's invaluable.

- C: Well thank you for having me.
- S: The groups we attend in Molton, and great to have you here in person and give us 20 years of physio all condensed into one 90 minute session, thank you very much indeed. Lovely to have both of you on, Ruth.
- R: You're welcome.
- S: Hope all continues to go well with your pregnancy, we'll get you back again, as long as you still fit on the sofa. And, of course, to have you join us for this evening's presentation. That's all we've got time for this evening.