426 – Postural Adaptation

With Steven Bruce and Robert “Skip” George

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Steven

We have some more great stuff for you this evening. My guest today is a chiropractor, Skip George. He's a member of an organisation called the Postural Restoration Institute, and Skip's actually based in Utah across the pond in the States, and I really wanted to get him in the studio this evening, but sadly, we couldn't afford to cover his bus fare. That said, we have had a very brief discussion about getting him over here in the UK to run a course in the future, but obviously that depends on demand. Anyway, Skip. Good evening.

Skip (00:01:20):

Hello, Steven. Thank you so much for having me and everybody that's tuning in tonight.

Steven (00:01:27):

I say good evening. Of course, it's half past one with you, isn't it? In the afternoon.

Skip (00:01:32):

It's about, yeah, a little after lunchtime.

Steven (00:01:37):

Skip, obviously I've mentioned you're a chiropractor. I mentioned you're a member of the Postural Restoration Institute. Do you want to give us a bit of background about yourself and how you practise now?

Skip (00:01:47):

Sure. I'll give a brief history. I started practice in 1980 and I had a pretty traditional practice down in California in San Diego, a little seaside town called La Jolla, California. And I had a traditional chiropractic practice for 15 years. And as I was mentioning to you, Steven, I got a little tired of it. I got bored of, I felt like I was doing the same thing over and over and over again, but I wasn't progressing in terms of my skills. I took a year off and I decided to retool. I went back and decided to design a practice that had sport performance, rehabilitation and chiropractic, and I began searching for different ways to treat people. So I got into active release techniques. I

got into Janda's work, FMS SFMA, I am a strength and conditioning coach. And then 13 years ago I discovered PRI,

Steven (00:02:54):

Which is the Postural Restoration Institute.

Skip (00:02:58):

Yes, thank you. Colleague of mine, Craig Lieben. Some folks across the pond may know about him. But anyway, he was very involved with Janda and with dynamic neuro stabilisation. And we had a discussion one day at lunch and we were talking about PRI. I took my first course and the whole concept of the Postal Restoration Institute, even though it was run by physical therapists, had such an application for any profession, especially being a chiropractor or an osteopath or a physiotherapist. So I was the lone chiropractor in an institution filled with physical therapists, and I said, I want to be certified. And they said, well, we don't have any chiropractors that are certified. I said, well, how come? And they said, nobody has asked. And I said, well, okay, how about if I'm the first chiropractor to be certified? So I went through the certification process for a higher level of competence, and then they invited me to be on the faculty.

(00:04:09):

I teach two courses, one postural respiration, which is all about the form and function of the ribcage and how we manage air and the diaphragm. Respiration is such a hot topic with rehabilitation and sport performance. And this course is really the heart and soul of PRI. Another course I teach is called Cervical Revolution, and it's all about the cervical, the occlusal and the cranial system. It integrates concepts of physical therapy, neurologist, neurology, osteopathy, and chiropractic in addition to dentistry. So that course really connects what we call a top-down concept of cranium, neck and jaw. We have 10 other courses in PRI won't go into. So that's kind of a nutshell. And one last thing. I left California four years ago, and the main reason was to go to northern Utah. The short answer is less people, more nature. I love California, keep going back to it, but I was just ready at this stage of my life for a new adventure.

Steven (00:05:26):

Now those pictures on the wall behind you, are those ones that you took yourself?

Skip (00:05:31):

Yeah, as I mentioned before, Steven, I have a passion for photography. I spend a lot of time now in this part of the country up in Yellowstone National Park. The pictures behind me, those are the Tetons, the Grand Tetons of Jackson Hole, Wyoming. And then on either side, I've got a couple pictures of beavers up above the mountains,

right behind my house. We have a lot of wildlife, we have beavers, we have moose, we have some mountain lions that come downtown sometime. So I love it up here.

Steven (00:06:08):

Yeah, I suspect there are a few hundred people here who are quite jealous of that. Can I, before you start talking about PRI, you said that you used to practise as a conventional chiropractor. What does that mean in American terms? Because I suspect there's quite a few people in this country who are unsure of what a conventional chiropractor does in the UK, let alone in America.

Skip (00:06:35):

Well, thank you for that. The foundation, obviously of chiropractic is manipulation or adjustments for the correction of subluxations or misalignments of the spine. So when I got out of school, I had, if I define a traditional practice, set up, rent a space, get a staff front office at the time, an insurance department, I had a massage therapist on staff. I had an associate that worked for me. And so patients would come in, we'd adjust 'em, give them physical therapy in terms of maybe ultrasound, heat, muscle stim, electrotherapy. I had an x-ray machine, so I had this practice where I saw a lot of different types of injuries and all ages. So I would adjust or manipulate people, but I noticed that people kept coming in for the same problem, and I didn't feel like I was spending enough time teaching them anything new. I wanted them to learn new skills, but seeing 50 or 60 patients a day, I didn't have the time to do that. So I felt like more of an assembly line versus somebody that was really providing a skill that my patients could take with them and actually improve their life and their health in terms of fitness, in terms of movement and their own rehabilitation.

Steven (00:08:21):

Coincidentally, I had somebody, one of our members contact me only yesterday saying that actually found themselves in a similar sort of position where they were thinking, am I providing the full package here or am I just doing the same thing over and over again to try and just overcome symptoms?

Skip (00:08:38):

And we have a little bit different healthcare system here. And at the time, private insurance for all physicians, whether are chiropractors, osteopaths, medical doctors, they paid really, really well. And it was as if it was the goose that was laying the golden egg, and we killed it because the system was set up to be more focused on money versus quality of care. That was my experience at first. It was, oh, patting ourselves on the back. Gosh, we're successful in making money and at the same time there's something that's dissatisfying about this process because are we really delivering healthcare or are we just making people feel better? And then that opens up a whole topic of what exactly are we doing and are we courageous enough to examine our motivations and our outcomes?

Steven (00:09:48):

And I imagine that's something that goes through everybody's mind over here and in the states. We all want to make money. We want to make a living, but at the same time, I think we all want to deliver the goods as well. We want people to genuinely benefit from what it is we're charging 'em for. So tell us about the PRI.

Skip (00:10:07):

Oh, thank you. Well, PRI has been, and we're celebrating our 25th year. It was started by Ron Hruska. He's a physical therapist that grew up on a farm in Nebraska, kind of a savant. And Ron is a good friend of mine, we're about the same age. So he started off in dental school, decided that he didn't want to spend his life in a little box called a mouth. So he went to physical therapy school, came out of physical therapy school and started working at the Veterans Administration, which in America, I'm sure you have something that's equivalent treats our veterans. And at the time he started working at the Veterans Administration and those hospitals, there were a lot of young folks, young people, young men coming back from Vietnam that were amputees and burn victims. So he was the head of a whole wing of treating these returning veterans, and he started noticing patterns.

(00:11:11):

He's very inquisitive and he reads voraciously. So he decided to put together this system starting with, well, let's see how the diaphragm functions and how this diaphragm delivers air pressure into a chest wall, and then how the diaphragm and air pressure moves a rib cage, limbs, upper and lower extremity positions, the neck and the head. So he started putting together a system to begin to reposition or realign, for instance, a pelvis. He came up with a protonic system that he invented. Then he started putting together assessment, objective testing for the entire body. Seeing that posture is not just this static, well, Steven military straight position, it's more than that. Of course, it's important to have a head stacked on shoulders, stacked on top of the pelvis, et cetera. But he started looking at respiration primarily as it affects every part of our physiology, every system from obviously the axial skeleton, but lymph system, cardiovascular, digestive, et cetera.

(00:12:34):

So then he kept exploring and started adding courses. The first course in this institute is postural respiration, one of the courses, primary courses that I teach again is the heart and soul of PRI. And then he started looking into, okay, let's develop a course for the pelvis. Let's develop a course for the neck, for the cranium, for the voice box, for foreign locomotor movement, meaning gait. So he just kept expanding, and that's what we have today. We have this really comprehensive, in-depth institute that not only assesses people in the clinic in Lincoln, Nebraska, but now we're teaching facility with I think 10 instructors that teach 12 of our courses. So that's where it started with Ron Reka and a little town called Lincoln, Nebraska.

Steven (00:13:39):

Okay. And you mentioned the courses for those different elements of the body there. Yeah. I'm sure you're going to come onto this, but obviously the courses are designed for practitioners like yourself to go along and learn how to use the principles. But is there a protocol, a set format that patients go through, or is it entirely dependent on how they present?

Skip (00:14:02):

Well, there is a format and it's an evaluation process. First off, we have, excuse me, three primary courses, postural respiration, another course called Myo kinematic Restoration. That's the lumbar spine, pelvis or lumbar spine, pelvis and the femurs. And then we have a pelvic floor course called pelvis restoration. So with PRI, we have an assessment protocol, tests that we use as objective testing. What is the position for instance of a femur in relationship to a pelvis? We use a test called a modified obers test, for instance,

That will determine the position of the pelvis and actually help us through other testing. The patient that comes in sees us, doesn't matter what profession we have, for instance, what phase of gait stance or swing do they typically shift to? Is it the right or the left side? So that's one assessment. For instance, for the pelvis, we will do other assessments for the cervical spine, for the thorax, for the humerus in relationship to the scapula, all determining what side that we love or prefer to lateralize to and to rotate from. And so these patterns, which I will describe, start with for instance, neurologic asymmetries. Our brain shares some common functions, but there are also differences and strengths and weaknesses in our brain as well as we've got asymmetries throughout our entire anatomy. So knowing that we have these asymmetries that asymmetry are really a gift, and the reason they're a gift is because being asymmetrical, it helps us choose which side to go to and initiate movement.

(00:16:24):

That's really important. But then if we become, as we assess objectively at PRI dominant to one side or over lateralized, which I'll show you pictures of, then that can cause a problem over time. So our first goal is to assess what's the position of a human body based on tests that we use in PRI. Once we assess that individual, then what technique can we teach that patient to find and feel a new place to go in their body, teach them a new skill to where they can shift from one side to the other. There's nothing wrong being on one side of your body, but if you become over-reliant, for instance, on end ranges, then that can cause wear and tear. So you can have patients with knee, hip, groin pain, sacroiliac, pain, shoulder, neck, face, TMJ, and all that can be traced, for instance, oftentimes to the position of a pelvis.

(00:17:31):

What side do we really prefer to be on? So you say, well, how does a pelvis, what does that have to do with A TMJ or a neck or even a shore? Well, a lot as you know that everything is interconnected. I think in osteopathy, if you look at the sacral base and the sphenoid with the sternum in between, those are significant structures in osteopathy, but they're really significant structures not only in chiropractic but physiotherapy, but especially in PRI. So we assess, for instance, what's the position of those three bones, and that's one part of our assessment. And then again, teaching a patient how to find and feel new places to go in their body and give them options for movement.

Steven (00:18:24):

You said a few minutes ago that you've got different tests, and I think I know what you mean by this. You've got different tests if there's a humerus problem or a cranial problem, cervical problem, but surely you're going to assess the whole body anyway because if it's the pelvis that's causing that neck problem, that shoulder problem, you're basically going to do all those tests, aren't you?

Skip (00:18:45):

A hundred percent. I mean, I could list the tests, although our attendees tonight may not know what they mean, but we have a modified obers test. We have a modified Thomas test, Trunk rotation, we've got internal rotation of a humerus. We've got horizontal abduction test for the humerus that shows us the position of the rib cage, the scapula, and how that's affecting arm movement. We have a whole series of tests for the cervical spine in terms of rotation, in terms of lateral flexion. So all of our tests are designed in going back to the original issue of static posture versus three dimensional or tri planar posture and movement, which is what the institute is really about. It's about how do we assess tri planar motion and movement in our entire system, whether it's a cranium, a neck, a thorax, or a pelvis or femurs.

(00:19:59):

So those tests, and we've probably got about 20 different tests, assess all these different areas, and then we begin to look at the whole body and say, well, where do we start? What's causing, is it a chicken or the egg problem? So we start assessing, for instance, right away, can a femur adduct by definition with a modified obers test, that's when somebody is lying on their side and the top femur we're testing, will it go past midline? If it does, we know that person is able to go into stance phase because to be in stance phase and shift your mass left to right side, you're going to have to be able to effectively adduct a femur. That's one example of a test we use. And then we provide techniques for a home exercise programme for a patient to go home and to actually integrate and implement.

Steven (00:21:03):

Now my audience this evening, the chiropractors and the osteopaths watching us, they're going to say, yeah, we know about Thomas tests and Ober’s tests, modified

or otherwise, and we've got loads of tests for the show, and we do all those things. So how is it that the PRI has developed, taken it further, to assess that tri planar motion that you talked about.

Skip (00:21:25):

Oh, I love it. Well, let's move on a little bit then I'll show you some pictures. How does that sound? Well, first, managing gas pressure and gravity and introduction to PRI. So what we're talking really about the gas is air flow into a chest wall and that thorax needs to be able to move and rotate, and that rib cage needs to be able to move and rotate. So we've got airflow going to a chest wall that's not symmetrical. We're different left to right side, and I'll show you those asymmetries in a moment. Again, how are we delivering air pressure into a chest wall? We actually have a test for that called apical expansion. Can you put air pressure, for instance into the right side of your chest wall as well as into your left side And then gravity.

(00:22:20):

If respiration is the heart and soul of PRI, and I know it's big with osteopathy, then being able to walk upright, vestibular, ocular reflex, et cetera, is really our north star. How do we manage gravity as upright, using only our lower extremity, animals. Okay, erectus hominini, whatever you want to call us, to be able to manage that. That's our North star in PRI is what we say. So as we move on to the next slide, we're going to talk about, and I will get to this modified Obers in just a little bit. Two things we talk about that move the human body, you've got airflow, you've got chains of muscles, and we didn't invent polyarticular chains of muscles. It was, and excuse me if I get the French wrong, Francois Mézières, I believe, and I know I butchered his last name so I apologise.

(00:23:30):

Polyarticular muscles are muscles that are functioning in sequence with each other. And so we're looking at two poly chains on this diagram. We've identified in PRI four, we're just going to go over two of the four chains today. So you've got upstairs or above the brachial chain we call the bc, and then they lie over the anterior pleural and cervical area. And these chains influence the cervical rotation, shoulder dynamics, apical chest wall, inspirational expansion. Ideally what you want to have is that these chains alternate in their ability to compress one side of the body and turn one side of the body, especially with gait. So we call these chains gait performance chains, and you can see that the muscles are listed. You've got anterior lateral intercostals, the deltoid pec muscle, Sibson's fascia. That's that fascia that it goes up above envelops the pec minor and radiates or translates up into the neck.

Skip (00:24:57):

So you see in that chest wall, another muscle behind the chest wall called the triangularis sterni. That's a muscle really of exhalation. The SCM, the sterno mastoid, scalenes are really important in this chain. And then of course the diaphragm, that's the heart and soul of what we're talking about today. So these are really important chains of muscles that compress one side of the body, especially during stance phase of gait. But what happens, and I'll talk about asymmetries, is that you'll have a dominant chain. Typically the right side of our chest wall becomes more compressed and I'll show you pictures of people that have a shoulder that's lower on the right, et cetera, and you'll see that compression.

Skip (00:25:52):

Then what you have below, you have this other chain called an anterior interior chain. You've got two of them on either side as well. They also have a significant influence on respiration and rotation of the trunk, the rib cage, the spine, and the lower extremities. So what you're going to see in this chain is the diaphragm, obviously the iliacus, psoas, the TFL, the vastus lateralis and biceps femoris. So that chain of muscles goes from the diaphragm down to the lateral knee. That's the anterior interior chain. And I sent a handout out, I believe everybody has one on the left, a IC pattern. I believe that's in a handout. Hopefully people got that.

Steven (00:26:43):

We didn't give that out in advance, but we will give it out after the show.

Skip (00:26:46):

Perfect. And it's called the left anterior interior chain pattern that really describes this dominant chain. Now, this dominant chain called the left AIC pattern, really drives us over to our right leg. This is where we're going to get to the modified obers in just a little while. And you also, you have this dominant left anterior interior chain pattern, and you have a right anterior interior chain. The thing is what we do in PR, I say, okay, we all have asymmetries in our entire system, starting with our neurologic system. We have what's called a functional cortical dominance where our left brain loves to take us to our right side, but then our asymmetrical anatomy does the same thing too. In fact, let's just move on a little bit to the next slide. You'll see these chains of muscles where you have neurologically driven a dominant left interior anterior chain.

(00:27:50):

That's that lower extremity chain in the lateral knee on this picture, and it interacts with this right BC chain. These chains of muscles tend to put us into a right stance, left swing phase of gait and of being. Now this is what our tests are for what side does our patient and individual prefer to go to? Most people love and because of their brain and their anatomy, love the right side. Nothing wrong with that. What we look at in PRI, especially with symptomology is that if you're becoming over-reliant on one side, then you don't really and you adapt to that side, then you'll lose the

ability or compensate to be able to shift your mass and rotate and actually realise and excess both sides of your body. Body. And we postural respiration is one of the major courses that we dive into with this concept. Now let's go to the next slide.

Steven (00:29:07):

Before you do that, Skip, Sarah has asked us a question, which I suspect is on many people's minds. We've covered in the past anatomy trains, which Tom Myers writes about how do these correlate, overlap or equate to the muscle chains that you are talking About?

Skip (00:29:26):

I love anatomy trains and it is so important to respect fascia. What we look at in PRI is not only fascia, but our focus again is what's driving fascia, it's patterns. And how we get to patterns in PRI is by again, assessing these polyarticular chains of muscles and assessing how airflow is influencing centre of mass rotation, et cetera.

(00:30:16):

One thing I talked to other practitioners about a lot, we have a lot of people that bring in Voyer's work with ELDOA, DNS, with obviously from the folks in Prague, dynamic neuro stabilisation, FRC, all these different approaches. And what I say to people is, Thomas Meyer's work active release technique, whatever techniques you use in your toolbox, that's art. I love PRI. That's the centre focus of my practice, but I'll bring in other different movement specialties or soft tissue thought and I'll integrate that with PRI. So I think the best answer to that is that whatever your style of practice is, that's your art. And to be able to be creative and to integrate other disciplines into whatever you do, I think is really critical and important. So having a knowledge of anatomy trains and PRI together I think are two really potent and powerful approaches. That's what I think. I love anatomy trains.

(00:31:43):

Let's talk about asymmetries. If you talk about, for instance, the right versus left side in our respiratory system, it's different. Your right diaphragm, just a real quick review. It's bigger, it's stronger, it's got a bigger central tendon. The crural fibres go down one and a half to two and a half lumbar levels lower than the left side. It's got a dome shape on top of the liver. It's in a better position for respiration versus the left hemi diaphragm. The left hemi diaphragm tends to be smaller, weaker, flatter, smaller central tendon.

(00:32:27):

And that roll, you've got two rolls of the hemi diaphragms that roll of the left hemi diaphragm. And this is mean we really get into this a postural respiration course. It's more of a stabiliser of the spine, but then what happens over time as we're breathing about 17,000 times a day, that pull of that right diaphragm tends to take us more and

more and more and compresses with the right bc, the right brachial chain over into our right side, getting us stuck over into right stance, for instance, where that femur is compressed more into an aceta. So if you look at the difference, for instance, and I'll show you a difference in chest walls, that left chest wall is going to have more of a flared rib on the left side because of an anatomically less efficient or weaker left abdominal wall. Or let's put it this way, a it's neglected abdominal wall.

(00:33:37):

That's our pattern that we typically see. You also see in chests a pec on the left. Quite often that seems to be more enlarged, more inflated. Now, I used to go, I owned a gym, spent a little time in the gym, and I think there is in the world something called for guys, especially international bench press day, whether you're in Europe or you are in America. And where I was going with this digression is that you'll often see APEC that's bigger on the left side and then you'll have people, well, I've got to get my peck bigger on the right side, so I'll do more work on the right side. That's not the issue. The issue is airflow management. The issue is being able to deliver airflow into a chest wall for a more balanced function. So you'll see that we're born this way, we're born with asymmetries, and again, it's a gift.

(00:34:40):

But PRI is about recognising testing and then treating these asymmetries. So if we look at the next pic, okay, the next pic, here's a real person, he's a dentist in Lincoln and just observe his chest. And then we have a drawing from our artist, Elizabeth Noble that works for us back the institute. You'll see the individual on the right. That pec is smaller. You have a shadow, and that shadow of that pec means that he does not deliver air into that right chest wall as effectively as the left chest wall, even though his diaphragm is bigger and stronger on the right side, that diaphragm is actually helping with the left diaphragm deliver airflow into that left apical chest wall. And you can see that on that picture, he's got a bigger pec with a increased rib angle on the left side. And by the way, you can see his right sternocleidomastoid turning his head relative to his upper thorax to the left.

(00:36:03):

And in many ways there is nothing wrong with this picture, it's just that he's stuck there. Our goal, we call it reciprocating and alternating and lateralizing from the right side now to the left, our goal is how can we get him through muscles and an awareness of delivery of air to shift his mass to the left and counter rotate this spine. Now what we will see in a right or a left, AIC right BC pattern, that's typically what we see where those chains of muscles are working diagonally. That's very common. Going back to those chains of muscles, their gait performance chains, what we'll typically see is a sacrum that's oriented to the right. We will see a sternum that's actually more oriented to the right because that left chest wall is giving you more expansion compared to the right and the sphenoid from an osteopathic view in a cranium in a left side bending. And I don't want to go far into that Steven, but that

sphenoid will also be oriented to the right in a cranium along with the other S bones. But I digress. This person is in what we call right stance or a right oriented sacrum, and he's going to counter rotate because of his rib cage above a thoracic vertebra back to the left. That's half of the gait cycle.

Steven (00:37:45):

Skip, can I again interrupt? Jono sent in a question some time ago asking if we could just take another look at that muscle chains skeleton diagram that you put up.

I wonder if you could run us through that and perhaps put that in the context of that patient we just looked at.

Skip (00:38:06):

Absolutely. So great question. So let's start at the top

Steven (00:38:13):

Actually. It kind of looks like we've got the SCM up there very prominent.

Skip (00:38:17):

Yeah, I was just going to start there, Steven. Thank you. You've got a right SCM that's really prominent and that right SCM is prominent because in right stance, that head is going to be coming around to the left, normal, normal, and then you see that compression of that chest wall with those intercostals. You'll see intercostals, YOU'LL see delt and pec on the inside. What you don't see of this 3D diagram is the triangularis sterni. Oh, guess what? That triangularis sterni, and I have, I don't know if you can see this on screen as well, but that is on the right side. That is a muscle that is attached from the inside of the sternum to the ribs. And that is actually helping to compress that rib cage from the inside on the right side. Not only that, but you're going to also have a more dominant right abdominal wall on that right side compressing down onto the right rib cage. So that picture is describing and showing all of the previously mentioned pictures down to the diaphragm on the slide before.

(00:39:53):

And that also shows you that compression, the rib angle on the dentist, the guy with his shirt off where he's compressed on his right side. So he has an active right brachial chain that's actually compressing air out of the right chest wall. And that compression of the air out of the right chest wall is creating that little shadow. And because of that neurologic compression that doesn't let go, or what we talk about in PRI called inhibition of that chain of muscles, he's not going to be able to expand that rib cage or that apical chest wall and to actually then be able to shift as he's able to exhale and compress the left brachial chain to get the air out so he can actually shift to the side and then rotate, counter rotate back the other way.

Steven (00:40:55):

Can I ask, what did your dentist come in complaining of? Why did he come to see you?

Skip (00:41:03):

He came in with headaches and neck pain.

Steven (00:41:06):

Okay.

Steven (00:41:08):

I have to say, looking at the picture of him, I imagine he's a little bit more obvious than a lot of patients because you just say one look at the picture and you can see the asymmetries there. You might not know the cause of them, but I imagine a lot of your patients are far less obvious than that.

Skip (00:41:24):

He's beautifully obvious, and that's a good point. However, when your patients come this week or just wherever you're walking, if people are just standing, you'll notice they compress quite often on the right side. That shoulder will be low. They'll be standing with that left foot forward and the right foot back. When you examine them, when they're lying supine, you'll see their rib flare. Now oftentimes you'll see rib flares bilaterally, but quite often you'll see that rib flare on that left side that's really prominent.

Steven (00:42:10):

How do you determine the chicken and the egg in this? What causes what? I mean, it could be that the things you've mentioned with your dentist patient, there are an effect of something else rather than a cause of a problem.

Skip (00:42:24):

Yeah. Well, he sprained an ankle when he was 12. So as you know, you sprain an ankle and it's going to cause all kinds of problems. That pain will go away. But that neurologic pattern has been set and that neurologic pattern from the ground up will go right into the cranium until obviously they may then compensate in the cranium and create a torsion, a path of mechanical or a pathological cranial issue that osteopath very well about. So it can start as a bottom up issue and then become a top down and bottom up issue. So that's why we have so many courses and we start with the primary courses, what can they adduct a femur and more from there. But then human bodies are complex and that's why we have secondary and tertiary courses to really go down the rabbit hole of, wow, we've got a neurologic issue with every patient, but some are more obviously orthopaedic and have not developed pathological compensations.

Steven (00:43:44):

There's a good one coming here from Connor. Connor says, in the case of this dentist, we've been looking at how much of the pattern you are seeing there is due to his working posture. I imagine that he's curling around in the same direction over his patients all day every day.

Skip (00:43:59):

Oh yeah, thank you for that, Connor. He, he's reinforcing that, but then we reinforce our patterns, whether we're a dentist or we just reach with our right hand every time you take a breath. It was *[Czech researcher and neurologist Dr. Karel Lewit that said]* breathing is our most common movement dysfunction, meaning every time you take a breath, you are reinforcing a positional pattern and posture. So for him especially, and I treat Dentists, anything that's repetitive motion to one side, you can translate that to a lot of athletes as well. A lot of throwing athletes. I think soccer is better because at least you're using both sides of your body.

Steven (00:44:58):

But on the other hand, you're also walloping your head on a regular basis when you head the ball.

Skip (00:45:03):

That's a whole different thing. And let's talk about brainstem and concussion and neurology. It's like Absolutely.

Steven (00:45:11):

Yeah. If you don't mind, I'll run through some, I know you've got lots more to show us, but I'll run through some more questions if that's okay.

Skip (00:45:18):

Yeah, absolutely.

Steven (00:45:20):

Alice has kind of followed up on what I asked you about your dentist. She's asked if you can give examples of why people with these patterns would come to us. Now, you mentioned that your dentist had headaches and neck pain, I think, what else would they come in with? Would they come in with sacroiliac pain or

Skip (00:45:36):

Oh, absolutely. People come in with knee pain because it'll work my way up because of torsion in a knee, obviously low back pain, especially with golfers, the ability to shift a pelvis or rotate it from right stance, left stance on follow through. If that pelvis, because of that dentist right there, he will not be able to shift and turn his sacrum, for

instance, all the way over a femur. And I'll show you what I mean by that. I just happen to have a model right here. So for instance, hopefully you can see this.

(00:46:27):

If I am golfing and I need to turn my pelvis to the left, I've actually got a fixed femur. I'm turning my acetablum over a femur. That's my follow through. If I cannot inhibit my left anterior interior chain, which is the dominant one, that's the lower extremity chain, and I cannot inhibit right brachial chain, then the ability to shift my mass to the left, follow through, hit that golf ball is not going to happen. I'm going to attempt to rotate my pelvis, but it's going to stop because the flat diaphragm on the left as it attaches into the spine as it interacts with the left psoas muscle, and I'll show you a picture coming up, which is going to get to the modified overs. That pelvis is going to be flexed on the left side. That will not allow for femur abduction, and that will not allow for that rotation of that pelvis over femur.

(00:47:44):

Therefore, torque has got to happen somewhere. It's going to happen in a knee or especially in a lumbar spine. So that's one example of why people come in to us and why that pelvis model is such a big deal. Can they inhibit the left anterior interior chain, which you'll have a handout on, and actually turn the spine. Also, what happens is that people come in and once that pattern has become dominant, his neck was not able to laterally flex right to left side. It was not able to rotate very well. Well, that's going to start causing all kinds of obvious neck shoulder pain. Not only that, but it's also going to affect his jaw. So he is going to have jaw pain, he's going to have neck pain and stiffness trying to rotate, but he keeps rotating one side and he can't get out of that pattern.

(00:48:48):

One last thing, shoulder position. What is scapula doing? Well, scapula, we try to do all kinds of retraction exercises to strengthen paraspinal musculature and scapular musculature and all that, but do we talk about what drives the position of the scapula? Well, what drives position of the scapula and internal rotation problems, which he has impingement syndrome. What drives that scapula is how well are we delivering air into a rib cage. That rib cage then is determining or being positioned by airflow and how we manage airflow back to that discussion. And then that airflow and that rib cage is now positioning the scapula. The scapula is being positioned by that rib cage via airflow, via inhibiting or relaxing that chain of muscle. So I could go on and on and on with Symptoms.

Steven (00:49:53):

I'm sure you could. somebody who's known in the chat here as Spaniel Ears has just said that she's always had a slightly flared left lower rib cage. Even in her elite sporting days, she's always hated it, especially in a bikini. But she hasn't had any

health issues. And her question is, is symmetry really important or are we saying it's important if there's a problem?

Skip (00:50:20):

Well, first off, you're a totally normal human being if you have a flared rib. The second part of it is there's a lot of people that go through life that are stuck on one side of their body and their chains of muscles and their patterns keep them stuck on one side and they have little symptoms. They go through a whole lifespan. So in terms of your flared ribs, it's really easy to address that through engaging, for instance, a left hamstring and a left abdominal wall and a left adductor in PRI and people do we see changes in ribcage. So if you're interested in cosmetics, that's great. Yes, you can have flared ribs and it'll never bother you your whole life. So not to worry about that.

Steven (00:51:19):

So Your aim is not simply to address the cosmetics as you put it. You're not just addressing it because it's asymmetric. You're addressing it because there's a problem connected with that asymmetry,

Skip (00:51:29):

And you're always going to have tendencies. You can't fix asymmetries. You're born this way, but what you do is you've managed 'em. And I'll have people that improve their asymmetries, they become aware of their position, and what they do is they give that one side of their body a break. Let's give it a rest.

(00:51:52):

Let's share the load. Let's actually become more parasympathetic in terms of both sides of our body, but give ourselves options to be able to shift and move. And what I see, especially with a lot of my athletes over the years is that they would come to me not so much for pain anymore, because what brought them in was pain, but they noticed that they were just a little bit quicker in terms of shifting their mask from one side to the other or be able to cut on a sports field to be able to shift over to one skate when they're playing hockey, that sort of thing. So it goes beyond just, well, let's get somebody out of pain, but let's give them more options so they can perform better. And a lot of my athletes that I considered athletes that came into my office, 75-year-old grandmother that wants to be able to walk on a cruise ship on a moving deck without falling, those are bread and butter patients, I think. I hope that answered the question

Steven (00:53:04):

Well, I hope so. And if not, then I'm sure Spaniels will come back to us. One thing which will be crossing everyone's mind is the issue of evidence. You said earlier on that the institute was founded 25 years ago. You had lots of Vietnam veterans and

others that you were working with and on. I get the feeling that in the states you are at using that sort of population to gain evidence. What is the body of evidence behind what the PRI teaches and how credible is it? How well published is it?

Skip (00:53:36):

Well, I love the question in terms of direct evidence for PRI. There's a couple studies. I send out a bunch of references. One of the studies was the efficacy of pelvic repositioning exercises on pain, hip and shoulder range of motion and disability of patients with chronic nonspecific low back pain, a single blinded randomised controlled trial that was from the Journal of Rehabilitation Sciences and Research from 2021. Another. Let's see, we've got Babisch, the effects of pelvic alignment versus hip mobility on shoulder. Skip (00:54:36):

Okay. So I've got these two studies and then I've got a whole bunch of references for PRI itself in terms of double blind studies for the effectiveness. These are a couple of the studies that are really current. We've got another study by Boyle Lin and Lewis called The Value of Blowing up a balloon, or it's a paper actually, the value of Blowing up a balloon. I believe that's been included in, I hope that was included, that I can always send that out.

Skip (00:55:15):

Yeah, in terms of research for our work, it's just coming out in terms of evidence-based practice. I've got a sheet back here that I can also send out and we talk about in PRI. You've got patient values, clinical expertise, research evidence. What I can tell you from my own clinical experience, N-one, patient right in front of me, it's the most powerful technique I've used. Do we need more evidence in terms of studies? Sure.

Steven (00:55:59):

Yeah. And it's always, I feel slightly unfair putting people on the spot. It's legitimate to ask about the evidence, but oh, you have to. There is relatively little substantial evidence for so much of what we do, but we all know the reasons for that. Some other questions,

Skip (00:56:18):

Just one last thing. I think in this one course, partial respiration, we have like 144 references listed to support the synthesis of information. Yeah. But what you're saying, what totally agree with

Steven (00:56:43):

A couple of questions that came in very early on in this, Tom wants us to know whether the change you've described have any correlation with acupuncture meridians. Do you integrate with that sort of therapy?

Skip (00:56:54):

Some of our practitioners do. We don't have direct correlation in PRI, but I know a lot of people that dry needle and do acupuncture. In fact, one of our staff members, she correlates needling and acupuncture with PRI, but we don't do it directly in PRI.

Steven (00:57:16):

Okay. On that theme, I imagine that some trigger points could feature quite significantly in what you do, and we've run kneeling courses regarding that as well.

Skip (00:57:30):

I would love it. Well, think about ECCOs work, for instance. So again, whatever technique you are using now, I can't imagine it not improving whatever PRI approach anyone would use.

Steven (00:57:50):

Right?

Skip (00:57:50):

Yeah.

Steven (00:57:52):

Now, I know you want to get on with what you had prepared to say, but I did warn you we get loads of questions coming in, which will distract us.

Skip (00:58:00):

That's okay.

Steven (00:58:01):

We've had two people ask us in their capacity as clinical yoga osteopaths, what sort of assessment you do of breathing and what exercises you prescribe for breathing or training you give people for it.

Skip (00:58:16):

Every technique in PRI has respiration, especially a full exhalation and hold for four seconds with a breath in every technique. So we have 400 different techniques in PRI, I don't use 'em all. I use about 40, and then I mix and match, and then every technique in PRI addresses the inhibition or the facilitation, but the inhibition of a dominant polyarticular chain, a reposition of an individual with then a breath in to reinforce and expand that new position, not only through muscles but through airflow. So what we're interested in is how can we target and deliver airflow, for instance, in a right apical or anterior chest wall. But not only that, there's deficiency

of airflow in what we call the left posterior mediastinum. So to be able to give a client or patient a precise position, get them to find and feel and activate precise muscles.

(00:59:53):

For instance, a left hamstring, maybe it's going to be a left abductor, maybe it's going to be a left abdominal wall. Those are really common muscles used in a particular precise position with breathing to reposition and redirect airflow with yoga. Yoga is really important with PRI, first off, we love yoga because of the movement options that gives individuals the difference I think with PRI is, okay, where do you test for airflow deficiency? And then how do you learn how to deliver and reduce that deficiency in the chest wall, for instance? And then in using the diaphragm and respiration, those crural fibres are so critical. Knowing in A PRI position what the cruel fibres are doing as you are providing a PRI technique. Now, I know that sounds a little complex and you're not going to explain that to a patient. You're just going to put them in a position and say, find and feel this part of your body, a left hamstring feel of your left abdominal wall. Take a breath in. That's the coaching.

Steven (01:01:24):

It's interesting you say that because Felix has said, what sort of manual techniques do you use in PRI? Because of course coming from chiropractic, you must have been hugely versed in high velocity thrusts and so on. So how does that all relate,

Skip (01:01:41):

Felix? I love the question. First off the big one, if you're a chiropractor, in PRI we don't teach adjusting, but I've noticed when I get a patient neutral and get them in a better position, then if I go to adjust 'em, it's like nothing and what I mean by nothing. It's just so easy. It's like the articulation just falls into place. It just wants to go there. Now, we do have in, in the course that I teach called PA respiration, we do have manual techniques, but they're manual rib cage techniques to achieve, number one, a better position of that left diaphragm. We call it a zone of opposition. If you want to look up zone of opposition, we didn't invent it, but that's well worth Googling zone of opposition. So we restore a zone of opposition through reducing left rifb flare. Then we may also have to use manual techniques to restore what we call right apical expansion. You can see that on that dentist that he needs more air into his right side, and sometimes you need a manual technique to open up that rib cage. And finally, what we teach in this course in terms of a manual technique is if they have accessory muscle overuse of respiration, which is really common.

(01:03:16):

That's part of what you see with that right SCM. But underneath it, imagine you've got overuse of scalenes. Quite often we will have to use a manual technique to actually lengthen the scalenes and the scalenes attach to the upper ribs. Those upper ribs can become well elevated underneath a clavicle via subclavius muscle. So we have a technique that's called a subclavius release that we actually allow for

better airflow into the right chest wall simply by taking a clavicle and a rib cage and separating them from being glued together and keeping the ribs from rhythmically going up and down with respiration. I think that's the best way to describe it. So we have several techniques in that postal respiration course that we teach, but it's not adjusting techniques. However, when you are affecting that rib cage, that rib cage is deriving the direction of the spinal column on our dentist. If you have ribs that are up or an external rotation, especially above T eight, that spinal column will rotate in the same direction as the externally rotated ribs. So if you are affecting the rib cage and getting that dynamic movement back into a rib cage, you are affecting the movement and position of the vertebra.

Steven (01:04:56):

Okay. Maybe this is a time now to bring up that diagram of your patient sitting on his table there. First of all, Lawrence has said, is that flaring of the ribs the same as a Harrison's sulcus, which I confess is a term I haven't heard before.

Skip (01:05:14):

Yeah. Can I go back a little bit? Thank you for that. We call it a groove.

Steven (01:05:18):

Okay.

Skip (01:05:19):

There is your Harrison Sulcus or groove right there, and it's typically more prominent on the left. I don't know if you can see. Can you see a marker?

Not. Okay. So the picture on the left, you see the flared ribs and right at the level of the diaphragm, there's your Harrison groove or your and sulcus. It's more common on the left side. So we're

Steven (01:06:01):

Talking the right side side, this little bit Here.

Skip (01:06:02):

That's it right there.

Steven (01:06:05):

Yeah,

Skip (01:06:06):

That's it. And the cause of that, you can see the expanded upper chest wall, obviously because of the delivery of airflow into that chest wall. But then below that flattened diaphragm, you've got more expansion into that left chest wall. But you also

have the internal obliques. You have the transverse abdominis, which are muscles of exhalation. You have the triangularis sterni and the intercostal muscles are not as active on the left side as they are on the right. So that's where you'll see more of a Harrison sulcus or groove on the left side with those flared ribs below. Very common. Now, we'll also see it on the right side as well, but this is where we start on the right side, typically with ribs that are in more of what we call internal rotation on the right side versus ribs on the left side that are more in what we call external rotation elevated because of airflow.

Steven (01:07:19):

I've just had a really interesting question come in. Lou has said, are you in a position to apply these principles to newborns or young infants with challenging labour and birth problems?

Skip (01:07:34):

Oh my gosh. That's a big question that I would love you to go to the PRI website and contact Lisa Mangino, and she teaches our human development course. Her whole practice is paediatrics and scoliosis, and she is the person that if you reach out to her on the website, tell her about this talk today, mention my name, and just ask her that question. She is more qualified to answer that than I am, but she would be happy to answer that question.

Steven (01:08:25):

Well, I'll do that. I'll do that myself, and I'll send out the answer to everybody afterwards.

Skip (01:08:30):

Would be great

Steven (01:08:30):

To save hundreds of people and send her an email

Skip (01:08:33):

And I'll give her a heads up.

Steven (01:08:35):

Okay, thank you. Now, you mentioned scoliosis, and I've had two questions about scoliosis. Lucy says, what about patients with a structural scoliosis? Can you address that? And Mayoori asks about surgically corrected structural scoliosis. Is there a role for PRI in that one?

Skip (01:08:53):

Oh boy. Going back to Lisa, and we have a four day course called advanced integration, and day four is all on scoliosis. That whole day, pathologic and non pathologic scoliosis is broken down, including when surgery is needed and post-surgery treatment. So everybody has a curvature of their spine. Is it a diagnosed scoliosis or not? But most people do, driven by again, our asymmetries. I'm going to show you a picture coming up here. Ear of an individual. Here's somebody again that's pretty obvious.

Speaker 3 (01:10:00):

Yes.

Skip (01:10:01):

Now, I didn't include his back picture, but you can look. He's got a big S curvature in his spine. Okay. So again, chicken or the egg question, idiopathic scoliosis, what causes it? Well, we see a lot of skeletal asymmetry based upon patterns. He's got a real dominant right brachial chain. He's got a whole lot of compression. He can't leave his right side without help without a lot of coaching. Hence, he's got curvature of his spine, scoliosis as well. Well, let's just call it curvature. People are born obviously with malformations in their spine that anatomically perhaps you can help, but you're not going to correct all the way. However, saying that Lisa and Jean, Jean Massé, who teach the four day course, whose specialties of scoliosis, they've written a book on integrating PRI with scoliosis and for instance, Schroth approach to scoliosis.

I hope that answered this question.

Steven (01:11:30):

I guess the answer is yes, there is something you can do for a structural scoliosis and something you can do for one that's been corrected surgically

Skip (01:11:38):

And the before and after X-rays they have in their presentation. Really impressive.

Steven (01:11:46):

Okay. And the fellow in the slide you just showed us, were you able to do much for him?

Skip (01:11:53):

He was in the clinic back in Lincoln. He was one of Ron's patients, and he was a roofer that came in with shoulder and back pain. I don't think we have a post picture of him, but he was just a really good example of a pattern individual. So I don't think we have a post on him, but I was also trying to limit the slides that we can use today.

Steven (01:12:21):

Yeah. Well, we did ask you to do that because it makes it a lot easier for all sorts of reasons. Connor's asked about people who've had a stroke. Do you treat people who've had stroke?

Skip (01:12:34):

I have not treated many folks with strokes being that that hasn't been my patient population. But we get a lot of occupational therapists. I see a lot come through my courses when I teach. I'm just thinking of one right now, from the beginning of March that was in a course in Phoenix, Arizona, and she does a lot of work with stroke patients. Some stroke patients do Well, as you know, and this PRI is one more tool of working with stroke patients. But yes, the clinic has worked with stroke patients, but it's the occupational therapists that apply PRI with stroke victims for sure.

Steven (01:13:29):

Okay. And one final one before we let you go on to the next slides, Lou says, how does PRI address the integration of mental and emotional patterns with those of the physical body?

Skip (01:13:41):

Man, thank you for that question. This is something that we're really moving into with PRI from a personal experience last year, and my patients, a couple of patients, I had two case histories. The two case histories were defining, one that was psychotic and one that was neurotic. And the neurotic patient had had childhood abuse, sexual abuse, and she was connected to reality, but obviously damaged. And I put her into a PRI position, a standing position, kind of similar to the one in the handouts, but a little different. And she started crying, got very emotional, and I just sat with her and I asked her, what are you responding to? So for 45 minutes she just talked and she told me her whole history.

(01:14:51):

And the other patient who is a nurse, he had some bipolar issues and his history was a little questionable, similar, where he thought both of his parents had abused him, but he wasn't sure that he had a repressed memory. And it was hard to tell because that's not common, both parents. So the point is, for all of us practitioners, even though we're not skilled with mental and emotional development as psychologists having a safe place for our patients to be. Now in terms of interfacing, I think all of us need to have a good mental health practitioner on board to refer to, which I do a frequently when needed. And I also think that for all of us to be able to be in a place where we can just listen and be without trying to fix in the moment, but provide a nurturing environment. So what PRI we're right now looking at, we just had a summit this year where we had an LCSW (Licensed Clinical Social Worker) talk about case histories of her patients. I like for instance, an author by the name of Paul Hatherly PhD. He's written about 80 books on mental and emotional development, not only for us as practitioners to maintain balance, but to be able to offer energy,

interest and attention to our patients beyond just the musculoskeletal. So that's a suggestion if anybody's interested. And over the years, I have developed my own way of just connecting the best way I can with a patient

(01:17:00):

And get to know them personally.

Steven (01:17:03):

It's a whole different subject, isn't it? We talk a lot about the bio-psychosocial model and I think the, in a number of our broadcasts before we've talked about the importance of having a case history, taking process, a questioning procedure where there is a chance that those problems might become evident. But as you rightly say, there, we've got to stick within our own scope of practice and know who to refer to when emotion becomes a significant part of the issue. Holly wants to know how you treat breathing issues in a patient with Sheuerman's

Skip (01:17:39):

Like anybody else. Are you talking about Sheuerman's and they have a, they're very kyphotic. They

Steven (01:17:47):

Mainly juvenile kyphosis. Yeah,

Skip (01:17:49):

Yeah. Oh no, I love it. In the postural respiration course, if I am privileged to come over and teach one day, we have a picture of somebody with a juvenile kyphosis and basically teaching that child how to deliver air pressure into a chest wall. So in other words, you'll see a lot of people that have that kyphotic curve and their rotate it in with their shoulders and their neck is coming forward. How can we teach them to expand their ribcage via air pressure sense? Now with Sheuerman's, especially if there is a vertebral body, morphologic changes, you're going to be limited. But I've had a lot of, for instance, older patients that have that kyphosis with some compression fractures of the thoracic vertebrae actually be able to expand out of it with air pressure. Are they going to be absolutely redeemed again? Well, everybody's got their limitations, but that's a big topic in postural respiration is pho Sheuerman's. That's different and you may have limitations.

Steven (01:19:19):

Okay. Now this might well turn out to be our final question. We've got about 10 minutes left in total, but I need you to have a chance to deal with your final slides. Kim always asks us about the pelvis, and I don't think it's unfair to say that she likes to deal with the pelvis first and foremost in her patients. She asked earlier on about whether you assess leg lengths and correct pelvises before you proceed with your

PRI protocols. And again, I suppose it's a chicken and an egg question. Do you do those things? And if so, which do you do first?

Skip (01:19:55):

Yeah, typically I may look at a leg length, but as you know, an anatomical leg length, maybe one or 2% of the population actually has an anatomical difference. So if you look at this picture, we call this the left AIC. The left AIC is driving the position of this pelvis.

And you'll see that. And let's go back to that question Steven as well. In terms of abduction, drop test or modified Obers,

(01:20:36):

This is a drawing of what a pattern and even an x-ray may look like in what we call the left AIC pattern. You'll see for instance, the femur on the left side, you can see more of that ball coming out of the socket. You can see that the femur head on the left is higher than the right. You might see that picture and say, well gosh, that pelvis position, you've got an anterior tip pelvis on the left side that's externally rotated. You can imagine a psoas muscle that's driving that anteriorly tipped pelvis as it attaches to the femur while it's externally rotating that femur, that femur on the left side is in swing phase.

(01:21:31):

You can look at the obturator foramens. They are in a different position because if that pelvis on the left side or that ilium on the left side is in an anterior flexed position, then the one on the right stance phase side is going to be more posteriorly and internally positioned with a femur head that's buried deeper into the acetabulum. Now, if I turn that patient on their right side and I do a modified obers where I bring their knees up to a 90 degree position relative to their thorax, and I then extend and attempt to adduct that left femur, the neck of that femur will impinge on that acetabulum on the left side. And that femur will not abduct relative to the pelvis, stabilised pelvis toward the table and past midline. However, if I turn that person on their left side, again, Steven, back to the question on the modified overs, then that neck of the femur will clear the acetabulum and that right femur will adduct with the knee typically going all the way down to the plinth or the table that you are examining the patient on. So that's how you determine one test. Is the left AIC pattern more dominant than the right, and how is the thoracic diaphragm that I mentioned before, going back to pelvic floor work, that pelvic floor diaphragm of the outlet, okay, pubo rectalis, et cetera, muscles, how are they being managed in an outlet in relationship to a thoracic diaphragm because they will follow the thoracic diaphragm left and right side.

(01:23:39):

So leg length, sure, I can look at it, but it will change after you get a person what we call our goals to get them neutral or to get both chains of the muscles to relax and then go back and forth. I want to get this person into a right AIC pattern. There's nothing wrong with that picture right there. I just don't want to be stuck in it all the time.

Steven (01:24:03):

So if that patient comes in and they've got a sacroiliac pain, would you adjust that first? Would you go through your PRI protocols first? I think you said earlier on it's easier to adjust after you've done the PRI stuff.

Skip (01:24:21):

Yeah, I don't want to sound like a chiropractic heretic, meaning I don't adjust first. But now I do my PRI work first to take the stress out of the system and essentially through PRI, I'm adjusting that and realigning that SI joint. And then if they need a little extra help with an adjustment, that's when I adjust. So my coaching with chiropractors that call me up is, do your PRI work first, then adjust.

It's just so much more powerful I've found.

Steven (01:25:07):

I dunno if that's heresy. I think it'll probably chime with a lot of people watching that we use adjustments, HVTs as we might call them, sparingly, especially if we can fix things through another method. This will be the last question copmum has said, I have a patient with Digeorge syndrome and a megas scoliosis. Should they be focusing on the breathing rather than anything else?

Skip (01:25:32):

And what was the first part?

Steven (01:25:35):

The patient has Digeorge syndrome, which I know nothing about, but has a very large, large scoliosis.

Skip (01:25:45):

Well, again, great question. I think that when I have people come in with scoliosis, I'm aware of an assessment process. Are they pathological scoliosis, which there are guidelines for, or non pathological, and then that directs my treatment. My test will also direct my treatment. Where do I start?

Skip (01:26:12):

With scoliosis, it's really for anybody, I think it's hard to go wrong with breathing. It's just what do they need to breathe into. So it's a hard question to answer. I think I

could answer it better in a course if you came that are they deficient? Where are they deficient in their breathing and where they need to get better? Let's put it that way.

Steven (01:26:41):

Well, that's another question, isn't it? I'm taking it. There is no one providing courses in this country. So if anyone is interested, we've got to get someone like you over here to do it.

Skip (01:26:54):

Well, I would love to come over. One are the best courses based on this discussion to start is the postural respiration course because it includes everything we've talked about, but it really gets into the testing and the treatment and lab and demonstration

Steven (01:27:18):

How long a course is That?

Skip (01:27:18):

It's two days.

Steven (01:27:19):

Oh, two days, right.

Skip (01:27:20):

15 hours, two days. And then while I'm there, if anybody was interested, we do this, for instance, we go to Munich every year and teach courses. But the other course, and I was in Munich two and a half years ago, that goes really well with this course for the osteopaths and the chiropractors and physios as well is a cervical revolution course. Those two courses together are really helpful. So as long as I'm there, if anybody's interested, they want to do two courses, we I'm happy to stay.

Steven (01:27:55):

Well Skip, we've run out of time. It's been fascinating. We've had some complimentary comments come in already from people here and I will sound people out. Obviously, it's not just my audience here that would be interested. And there are 450 people, sorry, 540 people watching us this evening, but there will be lots of others around the country who could be interested. It'd be great to get you over. It'd be great to see you in action as it were. But thank you for giving up your afternoon for us.