Academy of PHYSICAL MEDICINE

Transcript

Breathing Techniques as an Adjunct to Therapy With Anji Gopal

Cast List

Steven Bruce	SB
Anji Gopal	AG
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SB: Now, I'm joined in the studio this evening by Anji Gopal. Anji was with us earlier this year and she's back by popular demand. She came in last time to talk about the use of yoga as an adjunct to physical therapy and dealing with chronic back pain. Today we've got a slightly different slant as you'll have seen from the intro.

Anji's own credentials, she's an experienced osteopath. She has been a yoga teacher for over 12 years and she has a particular interest in chronic pain. She's also for the last four years, she's been a musculoskeletal specialist at UCLH in London within the NHS. So Anji, great to have you back.

AG: Hi, thanks for having me.

SB: Thank you for coming in to share all your wisdom with us. One of the things you asked us to put up that very long slide as part of the intro. Can you explain what that was all about?

AG: So obviously I use yoga in my practice, in my therapy and helping patients and the students that I teach. And so hopefully I'm going to bring some again of the flavour of yoga to how we can use that in manual therapy. From a yoga point of view, breath is really important. It's not just from a yoga point of view, actually. If you think about it, the first thing we do when we're born is we take an in breath as we pop out, however we're popping out, and as we pass away, the last thing we do is that we breathe out. So breathing is fundamentally important, and the yogis knew this.

The text that I gave you to put up on the screen was from a scripture called the Upanishads, which is part of the Vedas. Excuse me for two moments of scriptural sort of discussion, but they're the oldest scriptures known to man. So they come from over 1000 years ago. The one that I put up is from about 600 BC and it goes to show that even in those days, the scientists, if you like, as yogis who were practicing with the breath, knew how important the breath was. And prana, as it's called in yoga, is a bit like chi, where it has a similar sort of description as chi. It's the life force that pervades everything from the table, to your trousers, to what we breathe in and out, to the energy that's in the water. So this ability to control that energy at the very grossest level through breathing is really vitally important.

SB: That's great. That's the first time one of my guests has touched me on the knee, thank you, Anji.

AG: I can come again.

SB: I was going to say it's blatantly obvious, isn't it, that breathing is essential. And in the sign in the beginning I think it was the tongue and the ears and the eyes and whatever, and we all know you can live without any of those things, but you can't live without breathing.

But clearly there's more to it than just sucking air in and out, because both you and Leon Chaitow, when we've had him on, I think we've had him on three times before. He was absolutely obsessed with breathing and getting the breathing right and and so on. So what is it, what is it you see, what does yoga bring to this party? How does it influence wellbeing generally?

AG: Well just coming back on the breath. The one thing that we probably all know as manual therapists is that no one ever comes in complaining that they can't breathe. Okay. Because if they can't breathe, they've gone to the doctor or they've got their asthma pump or whatever else. So on the one hand we might think actually why is breathing even relevant to us, because no one ever comes in and says, "My breathing mechanism isn't working." They'll come in complaining of neck pain or back pain or knee pain or whatever else it is.

That said, in my practice, and I'm sure in yours too, I see dysfunctional breathing, as Leon would have described it, in a vast range of patients and I'm seeing great effects from teaching patients how to breathe properly and helping them learn how to breathe properly.

SB: Do you reckon... it's only just occurred to me this, that actually many people breathe badly and therefore seeing people breathing imperfectly has become a bit of a norm so we tend not to recognize it so easily these days.

AG: I think that's probably true. I mean if you look at how we dress, we wear belts, so we're restricting the incursion and excursion of the diaphragm. Ladies are wearing bras. Nobody wants to have a floppy belly or you know, let everything hang out. And we're always on the go. So actually our breathing patterns probably have changed. And if you just compare a baby when it's born that has this lovely big round tummy that's moving in all directions as to how you're breathing now or even me being a bit, you know the start of an interview, we're breathing very differently to how maybe we could breathe.

SB: Yeah. You breathe a bit easier 30 seconds into an interview, don't you? Both of us, I think so.

AG: Yeah.

SB: So what are the fundaments of this, the fundamentals of this thing?

AG: Can we put that slide up?

SB: Yeah, let's put that up. If I can get the buttons right this week, which I failed to do last time. Yeah, and I'm failing to do it this time as well. They're not working.

AG: I'll keep talking. The somatic and emotional effects of breathing have been so well researched. It's easy to think, oh, yoga, pranayama... I'll tell you a bit more about that in a moment, are just these woo-woo sort of subjects. But actually breathing-

SB: Finally.

AG: Finally. Breathing's been researched absolutely loads by a whole raft of people. So we have the evidence to show that the effects of breathing well or breathing badly can be mitigated or improved. Should we talk through it?

SB: Yeah, please do.

AG: Yeah. On a physical level, if you see people coming in with neck pain, we all learn at college that the muscles of respiration, if you're breathing up here, we'll look with the model later. But if you're breathing up here, maybe how

you breathe is influencing the fact that you've got neck pain or a headache for example, or even back pain if we think of how the diaphragm links down from its connections downwards into the low back. So people might be presenting with neck pain, they might be presenting with back pain. Some of this might not be the cause, but maybe breathing could help them.

The secondary in the physical is the well known sort of hyperventilation syndrome. And this has widespread effects. We get people with tingling fingers, replications of panic attacks, or anxiety, and again, we see loads of these patients in our clinics, and actually maybe some of what they're experiencing isn't neck pain or chest pain or anything else. Just the effects of bad breathing.

SB: Do you know the mechanism by which that happens?

AG: People think that you end up breathing too quickly and actually as opposed to what you might think that breathing quickly gives you more oxygen, actually what it does is elevates the carbon dioxide levels and then you get all these secondary physiological effects in the body of respiratory alkalosis and things like that. And then all of a sudden nerves start firing that shouldn't and the blood chemistry changes. And people don't know about this obviously, and these are worrying symptoms.

So physically breathing badly can give us effects. Yep. And then that's largely then the more subtle effects are down to the physiological changes. So the chemistry in the blood, then the chemistry in the brain of course, because all the blood is traveling through the whole body, and then we also know that the way we breathe affects our heart rate variability. So all of a sudden you've got changes happening in the cardiovascular system because of the way that you're breathing.

SB: And of course most of this will be overlooked in a conventional practice. And I don't say that... First of all, I don't say that with disrespect to general practitioners, but actually probably to many osteopaths and chiropractors because I know certainly until we had Leon Chaitow come and present years ago, it hadn't even occurred to me the myriad features of imperfect breathing, some of which you've outlined here.

AG: I think maybe my osteopathic education was relatively recent-

SB: Was better than mine.

AG: Compared to yours. Sorry, Steven.

SB: No, I suspect you actually listened which I didn’t.

AG: We did cover breathing, but I seem to remember it focused largely on over recruitment of the upper respiratory accessory muscles rather than actually

the techniques of breathing and how that can affect the whole body and also how those patterns can be unwound, because it's all very well being able to see it, but then knowing what to do then is another matter.

SB: I don't know how long it takes to become a level one yoga teacher, but how much of that training do you spend learning how to develop correct breathing techniques? Is it a major factor of yoga?

AG: It's a really, really big part. It's one of the eight limbs of yoga, which we're going to come on to next actually. So that'll be a good sort of place to address that. Breathing is central to the practice of yoga, because by having a calm breath you're then able to calm the mind. Well, let's come back to that.

SB: Yeah.

AG: If we just finish up here on psychological, the psychological effects of bad breathing aren't as well researched as the effects of what good breathing can do for the mind. Does that make sense?

SB: Yes, yeah.

AG: So we know that if you can train somebody... Plenty of studies have shown training people how to breathe can improve scores for depression, for anxiety, for insomnia, and for general quality of life. So again, looking at our patient bases, in this sort of stressed Western world, lots of our patients will have these sort of co-habits alongside their pain. So if they could just breathe a little bit better, might their anxiety be lowered and therefore their pain scores too?

SB: You'll have read plenty of these studies I'm sure, but was the suggestion that the improvements in depression and so on, is that due to the fact that something has changed chemically in the brain, or just perhaps a normal response to somebody taking an interest in how you live your life?

AG: I'd say it's probably the former because what we also know is through the action of the vagus nerve and breathing calms vagal tone. So this is the sort of balance of the sympathetic and the parasympathetic systems. So actually breathing the most basic breathing techniques, which we'll talk about later, can have an effect on vagal tone and therefore can lower the effects of a raised sympathetic nervous system. And we know that lowering that sympathetic tone has all these knock-on positive benefits.

SB: How receptive are the staff at UCLH to this sort of philosophy? And I don't mean other osteopaths or chiropractors or physios, or maybe I do mean physios, but if you were to say this to an orthopedic spinal consultant and say that actually a lot of people coming in with neck pain for example could be helped by breathing properly. Would they take it on board or would they just think that you're being a little bit woo?

AG: So at UCLH, my clinic is a chronic back pain clinic, but most of those chronic pain patients will have some, if we're looking at a proper bio, psycho, social through that lens will have some element of some sort of psychological condition. So breathing, we know there is evidence galore to show that breathing better will influence that aspect of their care. Most of the studies on breathing haven't been done by yoga teachers. A lot of the studies on breathing have been done by neurologists, by pain specialists, by neuro-psychiatrists looking at breathing and how that actually impacts the whole person or their specific area of interest. And even down to the latest studies have been on functional MRI and how teaching somebody to breathe coherently, which is just breathing in and breathing out for the same amount of time can affect the amygdala. So really deep sort of neuro-physiological benefits. Once you start to talk about not yoga breathing but better breathing, and if you can explain it in that way, then of course anybody's receptive to something that will help their patients get better.

SB: Well, I'd hope so. I mean we do have long history of the conventional medical professions not being responsive to what osteopaths and chiropractors would suggest. But if it's conventional research behind what you're saying, it means that at least there's a chance they'll sit up and listen and take on board that you're helping and you're not just... I'm not sure that you're a great back cracker, but we're not just cracking backs. We're doing other stuff to help the body holistically, which is supported by evidence.

AG: Yeah. So working in the NHS, you have to have an evidence informed practice and that's how I work and that's how I work in my private practice as well. Even though I use yoga and yoga as a therapy, I'm looking for the evidence that supports what I'm doing. I mean what we're also seeing... The probably gold plated study in yoga research actually was published in The Lancet in 1975 and was done by cardiologists looking at teaching patients with hypertension, whether teaching them a 12-week breathing course and it was a proper RCT as well, would affect their heart rate variability, which is how variable your heart rate is and the higher the variability, the better actually. Shows how the heart is responsive to changes. So that's the gold standard study, actually, still in yoga and is really very well known.

So again, when you're talking about that quality of research published in journals like The Lancet, again people are more receptive. And since then, I mean we've seen studies recently, lots of the respiratory doctors are trying out these trials of teaching their patients breathing as adjunct therapy. It's not an alternative therapy, they're doing it alongside the pharmaceutical medications for people with COPD and other chronic diseases, and that's working really well. And then we're also seeing now some quite technical studies into teaching breathing to people with chronic diseases such as IBS or Crohn's to look at the inflammatory markers and what happens when people breathe better. And again, the evidence is really promising.

SB: Yes. Again, I do recall, and I'm not trying to drag everything back to Leon Chaitow, it's just there are echoes of what he's saying in what you're saying. But I remember he specifically mentioned those inflammatory diseases in what he was saying. And of course it's perfectly obvious to say if you've got COPD, well we should help you to breathe better, but it's less obvious when it comes to inflammatory conditions, isn't it?

AG: Yeah, absolutely. Yeah. But if we're looking again, and I think even a lot of medics now are coming back to, there seems to be this big surge in sort of the approach of integrated medicine, of looking at the whole person. So the diet's important, exercise is important, and actually I'd argue breathing is really important too. And it's free.

SB: For the moment.

AG: Absolutely.

SB: Yeah. Have we got another one of your things on here? You've dealt with conditions?

AG: No. So that one's done. Yep.

SB: Okay.

AG: Oh.

SB: So moving swiftly on.

AG: How about a case study? So should I give you a case study?

SB: Yeah, give us an example of how you'd use this.

AG: On somebody that I've been working with. I've had a patient earlier this year, young 30-year-old lady who presented with headaches. And as osteopaths, I'm an osteopath, we see lots of patients with headaches. Her headaches, daily, daily headaches, but much worse at work. So when we dug into it, it transpired they were anxiety related. So I can do my business as an osteopath or a manual therapist and release what's tight and etc, etc. But what actually all that was giving was symptomatic relief and what this patient was experiencing, was holding her breath. So the moment she was in any stressful situation at work, she would literally just hold her breath and we role played a few scenarios. That's where it got to. And then of course-

SB: For how long? Any idea?

AG: How long was she holding her breath for?

SB: Yeah.

AG: Don't know, 30 seconds, maybe a minute. But you can see, just this action of doing this. Number one, we can explain away neck pain and also anticipatory headache. But actually then even when she released her shoulder, she was breathing high up here. And again, we know those symptoms of hyperventilation, then you're getting tingling, then you might have some chest pain.

SB: Did she have all these?

AG: All of them. The whole. You could literally tick the list of the questionnaire that we're going to look at later, and actually she could come to my clinic week in, week out for treatment, but just the hands on isn't going to do anything. I've got her into a talking therapy now. That took some time to persuade her, but actually just teaching her some very basic breath control techniques of what to do in that situation reduced the symptoms by about 50%.

SB: Okay. So how long had she had this problem for?

AG: About four years.

SB: And how long did it take to teach her some sensible breathing techniques, or to train her to do it naturally rather than to do specific exercises?

AG: No more than four treatments. It was probably three or four treatments. Just starting to get those basics. And this is where I would say some of the yoga techniques help, because yoga teaches you to be more aware, and of course in order to change your behavior, you have to be aware of it first. So first she had to recognize that she was doing it and from then on then we were able to start to teach her. I was able to teach her to start to unwind some of-

SB: It always surprises me how difficult it is to spot traits like that in yourself until someone points it out and suddenly it becomes glaringly obvious. Anji, we've had a couple of questions come in. I'm going to do this one first because this person has told me who they are.

AG: Okay.

SB: This one's from Liz. Thank you, Liz. Do you think that shock or compression of the thoracic cage, due for example to a fall from a horse, could irritate the GVE fibers of CN10 and cause palpitations or breathlessness? Cranial nerve 10.

AG: The vagus nerve? Very important. Any shock, if we just look at... If I reached over and tried to punch you now, I won't, I promise. What would your response be physically? It would be to, to do this. We can see these automatic responses and what that would do to the diaphragm. So yes, I would think so. Just the element of shock, let alone the fall.

SB: Yeah. Okay. And falling from a horse has the potential to disrupt the mobility of the ribs.

AG: Yeah, absolutely.

SB: Elasticity of the ribs, along with whatever other muscles might tighten-

AG: Yeah. Who knows how the person fell, what they fell on. But yeah, certainly you'd expect some sort of contraction.

SB: Okay. And the other question that's come in, for whom I don't have a name. It says, "Have you heard about rubbing the ears to calm vagal tone via the auricula branch of the vagus nerve?"

AG: I haven't, but doesn't that sound interesting? The Japanese-

SB: It sounds like you have to explain that very carefully to a patient if you're going to use it as a form of treatment. And I mean that actually quite seriously because rubbing someone's ears might not instinctively felt to be credible treatment.

AG: I know that Japanese acupuncture uses the ear points.

SB: Yes. Yeah.

AG: And certainly there-

SB: Well they didn't send their question in, but if they got more information it would be nice to know, wouldn't it?

AG: Yeah. Interesting to look up.

SB: Yeah. All right. I've got someone else. Somebody anonymous is sensing that they suspect that my response for being punched would be to kill you, isn't that what Royal Marines do?

AG: I didn't know you were.

SB: Which is not the case at all. Someone else says three or four treatments or sessions for breathing advice, and they think that's pretty good going to get someone to change their behavior in that space of time.

AG: She was desperate but also she was willing to listen, and there are definitely some patients who aren't interested at all and you can't... You can lead the horse and all that.

SB: So have you got another case study for us?

AG: Let's talk a little bit, if we can, going back to one of your questions before about pranayama and yoga and how breathing fits into yoga.

SB: This was the question I asked before we went on camera, because I can't pronounce pranayama.

AG: Yep. So pranayama is one of the eight limbs of yoga. And I think I said this last time when I was here, remember that yoga is not acrobatics. So I seem to remember-

SB: So many people feel it is, don't they?

AG: Yeah. And if you Google yoga now and look at the images, it will be invariably 80% of them will be lithe, young women wearing bikinis on a beach and doing something acrobatic, and that actually is not yoga. So I'll remind you again that one of the definitions of yoga is yoga chitta vritti nirodhah. This is Sanskrit.

SB: I was going to say that.

AG: I know. I know you remember it. Which means yoga is the cessation of the fluctuations of the mind stuff.

SB: Right.

AG: Is your mind stuff fluctuating on a regular basis?

SB: Yes, pretty much.

AG: And sometimes does that give you suffering?

SB: Well it certainly causes a bit of stress and anguish from time to time, yeah.

AG: So really in yoga, what we're looking to do, the ultimate goal of yoga is to calm the mind.

SB: Right.

AG: And it's a system of eight things that you do, one of which is the Hatha yoga. So toning the body in order to let you sit for a period of time to meditate. And one of the quotes is when the breath is steady, the mind is steady. So pranayama is control of the breath. Prana, breath or vital energy. Yama, control. Controlling the vital energy.

SB: You're right. So when one looks for yoga instructors and you Google something like that, you probably come up with lots of pictures of people in quite contorted poses. Poses are quite an important part of yoga, I was led to believe whether they're there, whether they're necessarily very stressful

poses is another matter. But do all yoga instructors follow a similar pattern, and actually are they following the sort of philosophy that you just outlined? Or are there instructors out there, teachers out there who are putting people into contortions, which they're not fit to get into?

AG: Oh yes, completely, completely. I mean there's the whole range of people who are ex, and the profession as a yoga teacher attracts all sorts, just as osteopathy does, chiropractic does, physio does. We're all within each of those as a range or a spectrum of people. The aim of yoga is what I've just described, but a lot of yoga, probably the majority of yoga, 80% maybe, that I see, I teach in London, is the yoga of postures, Hatha yoga. So the Asana, which is postures, and for some people that is about working through a system, level one, level two, advanced, whatever, and getting more and more into the yoga postures.

At the same time, you might have seen a fortnight ago there was a report on the BBC about how lots of yoga teachers are getting hip problems. It's now recognized that hip injuries and early hip degeneration is an issue in yoga teachers or people that do a lot of yoga, and it is precisely because they're trying to move the body into non-anatomical postures, that whilst it might work for somebody, it doesn't work for everybody else. And yet these books and pictures show quite extreme variations.

SB: So I guess the question that will arise, so I'm going to anticipate this is, and we would have asked this last time, but there'll be lots of people watching that didn't see that, how do you make sure that when you send someone to a yoga teacher or yoga class, that they're not just going to be pushed into crazy poses? They're actually going to be taught something which is beneficial for their physical wellbeing.

AG: I think I would have said this last time, talk to your local yoga teachers and find the ones that you rate, the ones with more training, who've done longer courses, who are interested in health and wellbeing as opposed to acrobatics, let's call it that. So there's particular schools of yoga, Iyengar yoga teachers know a lot about anatomy and a lot about breathing. Iyengar, I-Y-E-N-G-A-R, so that would be a good place to start. There are probably Iyengar teachers in every town across the UK. But otherwise I would really... I'm not an Iyengar teacher though, so look out, talk to your local yoga teachers and find the one that fits your needs.

SB: Okay. There's been a followup on our ear question, which is apparently rubbing the tragus of the ear is supposed to be particularly good.

AG: We can all try that then.

SB: We can, yeah. Well I can't, I wear an ear piece and it wouldn't work. I'll have lopsided breathing if I rub this side.

AG: So, going back to yoga.

SB: Pranayama.

AG: And pranayama, yeah, absolutely. Which is control of the prana. Remember, the vital force.

SB: Yes, the vital force. Stilling that mind stuff.

AG: Stilling the mind stuff. That's the next level up. There are hundreds of studies on pranayama from all the Indian universities, from a lot of American universities now, and then within the medical profession on the specific breathing techniques. And there are also hundreds of techniques. So you can buy thousands of books out there describing how to manipulate the breath in different ways. And that would be lengthening or shortening how you breathe in or out. It might be where you breathe, so directing the breath into a certain part of the body. We'll do some of this later with our model. How long or how many repetitions you do of each of these breaths and whether you retain the breath or not. So there are ways of manipulating the breath.

And these yogis were clever old people up in their mountain... on their mountain hilltops thousands of years ago. They really quite scientifically noted all the different effects of the breath. One of the scriptures talks about how if you can manipulate the breath, you will overcome the sorrows yet to come. What a goal to work towards.

SB: Indeed.

AG: And I think it's been interesting working in the hospital. So as an osteopath, you rarely get the opportunity to work in NHS. I work actually in a hospital, not in a primary care setting, and there are breathing techniques used all the way through medical. Going back to what you were saying before, so I've seen classes run off something called autogenic training. I don't know if you've ever seen this. It was a German breathing technique that was developed early in the 1900s, and it is basically based on some of the yoga breathing meditation. So you start with your big toe on your right foot and you relax it as you breathe in and out, and then you work through the whole body. And it's something we can teach our patients. It's a way of relaxing and a way of breathing. I spent a couple of weeks with our insomnia clinic at the hospital where I work and they were very excited about something called progressive muscular relaxation, which is breathe into your right leg, relax as you breathe it out, which again I would say is just yoga breathing.

SB: Which I've heard as being described as a hypnotherapy technique as well in working from the distal bottom of the body, just relaxing all the way up to get yourself into I suppose some people would call it a trance-like state or whatever, but effectively calming yourself down.

AG: Absolutely. Calming the sympathetics. It actually doesn't matter what it's called, does it, whether it's yoga or breathing. Who cares? As long as people are getting a really good outcome.

SB: I annoy a lot of people by saying that osteopathy doesn't fix anybody. We can all call ourselves osteopaths. It's what you do with patients that matters and most of those techniques are common to various other skills, professionals, and disciplines.

AG: Yeah, absolutely.

SB: Going back to what you just said, does this mean that the hospital asked you to look at insomniac patients?

AG: No, we have an insomnia clinic, one of the few in the country, and I went and spent a bit of time hanging out with them.

SB: Right, okay.

AG: But it was interesting talking to the clinicians there about the crossovers between yoga breathing and some of the techniques that they're teaching.

SB: Right. So do you think they took away any of the-

AG: It was interesting, at one of their other centers, they actually had a clinician who's a yoga teacher, so they were already thinking in that way. So yeah, I think yoga teachers are slowly getting into the NHS and across the world, really. There's an all party parliamentary group in the UK already looking at yoga in health care and how it can be brought in, especially given that prevention is one of the big sort of planks of the NHS forward plan.

SB: Yes.

AG: If we can teach people to move more and breathe better, there's absolutely no downside at all.

SB: It occurs to me that it's probably in their interest not to say, "We're using yoga to treat patients, but we're using this particular mechanism to treat patients." And I'm only saying that because there are elements of the press, elements of the public, who would jump on the idea that we're using yoga to treat various things. Whereas if you say that we've got research that shows that breathing helps with this particular problem, then we can do that.

AG: Yeah, and-

SB: Just happens that yoga instructors are bloody good at teaching you to breathe properly.

AG: Do you know what? Again, I don't think it matters what you call it. And if we look at the NICE guidelines, it's NG59 for chronic back pain. They say manual therapy is allowed, but alongside a mind-body exercise group.

SB: Yes.

AG: I don't care.

SB: No, no quite.

AG: Okay.

SB: So, do you want to get on and start doing any actual treatments? Would you want to talk some more about the science behind what you're going to do?

AG: Let me just show you. Can you bring up that next slide?

SB: I think I can.

AG: Because I think a lot of our viewers might think again, if you Google pranayama, so if you Google yoga, you'll get the acrobatics. If you Google pranayama, all of a sudden you're going to see some of these fantastic diagrams.

SB: That's not meant to happen, sorry. Go back up again. This guy here, he looks as though he's having fun.

AG: So this is B.K.S. Iyengar, so the head of Iyengar Yoga and widely credited as a person that sort of invented yoga therapy. And that is a posture called Simhassana, which is lion pose, maybe if we've got time at the end we'll have a go. And it is considered to be a posture that stretches your platysma and the connections into the thyroid gland if we're looking at it from a therapeutic point of view. And also the hyoid, because as you can see, he's sticking his tongue out.

SB: Yeah.

AG: And if we think about it, what exercise do we have in any sort of ... Have you ever heard of an exercise that will stretch your tongue or stretch your hyoid or activate the anterior tissues of the neck? I've never heard of another one that's an active technique, so it's a brilliant, brilliant technique.

The second is alternate nostril breathing, which again people watching today might have seen, considered to be balancing of the energy from the left to the right, but also some really good research on sinus problems. So asthmatics and people with sinus problems breathing in and breathing out through alternate nostrils. It's a bit more technical than that, but.

SB: Yeah, I'd have thought just looking at that, that since the airway is combined pretty shortly after the nostrils, I'd need to see some evidence to show that that had a beneficial effect. But you say it's there.

AG: Yeah, yeah, yeah, there is, there's quite a lot of evidence on that. And actually that's one of the things when I teach classes that people report back really, really regularly over the last decade and a half, that that has made a really big difference.

SB: There is also, I believe there was a study done, wasn't that, that shows that the, the vibration caused by nasal breathing is actually useful in pain relief.

AG: And also a lot of people mouth breathe these days, so these techniques of teaching people to breathe through the nose ... The one here, the third one along, is bhramari breath. That one there.

SB: This fellow? Yeah.

AG: Yep. And it's a breathing technique for people with depression or anxiety. So closing all the sense organs, I don't think you can see, but his thumbs would be on his ears, on that tragus, funnily enough.

SB: Yes.

AG: Pressing that down and then closing all the sense organs and breathing quietly to draw the awareness inwards.

SB: One thing that scares me, do you have to have your legs in that lotus position, or what-

AG: I still can't-

SB: I can't do that.

AG: I still can't do the Lotus position. But my hip, and this is one of the things that I teach on a sort of tangent, teach my students, one of my hips will not externally rotate to that extent. I've tried over 25 years of yoga practice, it aint going nowhere. Does that make me less of a yoga teacher? I think so. And then finally, this is quite an interesting one here on the bottom. This is Kapalbhati, the skull brightener breath, and it's a pump of the diaphragm.

SB: Right.

AG: So you can see there on the first picture he's pumping his diaphragm, drawing the belly in to really force out the exhalation, and it's considered a really cleansing breath.

SB: Okay.

AG: One thing to say here is that there are contraindications in yoga on how much pranayama you can or should do. And there are clear steps as to how far you should travel down the road until you are ready. And so people with anxiety or depression are not considered ... shouldn't be taught to manipulate the breath too much. Because they really, in the yoga scriptures and practice, too much manipulation of the life force can really stir things up.

SB: Okay.

AG: And then the other thing, I don't know if this is interesting-

SB: But that was interesting too. And I was just going to say, do we have, I mean, I didn't want to disparage evidence of that vintage, but do we have modern evidence to show that that's the case as well?

AG: Actually I haven't looked at that but I can give you one anecdote, because the only time in 47 years I've had a migraine was when I did really aggressive Kapalbhati, that bottom breath. I'd had a really stressful day. My son had gone to A and E and all sorts of things that happened, and I thought, right, I need my skull brightened, I'm going to do this breath. And I did a few rounds of this breath and literally within seconds I had full aura-

SB: Really?

AG: ... headache, everything. I've never had a migraine since, but it just goes to show-

SB: So it was worth it?

AG: Yeah, it was a scientific experiment.

SB: Here's a question which I think we ... I'm looking quickly through, I think we might've answered, but whoever it is, doesn't give me the name again. It says, "Hi, I'm a keen yoga practitioner, but I only recommend Iyengar to patients. There are so many," in inverted commas, "yoga teachers who actually just teach what amounts to a bendy workout. Do you have any recommendations for finding a good, safe yoga teacher? Well, you have done that. "I remind patients that yoga is totally unregulated and that some people just go on a two week training course."

Is that true? You can call yourself ... I suppose nothing can stop you calling yourself a yoga teacher anyway, but you can just do a two week course and think yourself to be a yoga teacher?

AG: I'm not sure there are that many that are that short, but I do agree there really are varying standards. So, talk to your local yoga teachers, the ones that know their anatomy will be happy to talk to you. There'll be a great source of referrals, whatever your flavor of practice, number one, because

they're going to get injured and their students will always be looking for good therapists. So there's great symbiotic relationships to be built, and they'll be able to teach your patients how to move and breathe better too.

SB: The other question that came in as well, again, anonymous was about the connection between mindfulness and yoga. Are they directly linked or is there an overlap in what's taught?

AG: So yoga and Buddhism came out of the same area roughly the same time, so they have shared roots. And mindfulness is considered to be Buddhist style meditation, but without any religious aspects so it's all there. And yoga is about having awareness and mindfulness is about being mindful, which is awareness. So they're all similar bedfellows, just with different lenses.

SB: Yeah. Okay.

AG: Okay. Should we move on?

SB: Yes, please. Can we put some of these slides up?

AG: So, do we want to put these slides up?

SB: Yeah, let's have a look at these because it's always useful to have a bit of a look at the anatomy, isn't it?

AG: So let's move away from yoga then and go back to the nuts and bolts and the squidgy bits of our breathing anatomy.

SB: Some squidgier than others. He says, sucking his breath in.

AG: Yeah. Everybody's going to recognize that first picture there, that's the one that I was taught. These are the two that I remember really from-

SB: Yes.

AG: ... from my training. Those muscles of inhalation, the muscles of exhalation, and then your lovely diaphragm there on the other side. And I think that's part of the picture. And when we come to examine our model, these are the things that we're going to be looking for, I guess, to start with. And then just as a reminder here on the diaphragm, those crus of the diaphragm ... I never was sure how to say that word.

SB: Crus.

AG: Crus. Have this-

SB: I'm trying to work it out as well.

AG: Yeah, have this really intimate relationship with the lumbar spine.

SB: Of course, yes,

AG: So for anybody with that pain, are they breathing properly, is their diaphragm working? But pumping action comes a lot ... The pumping of the lumbar spine comes from the diaphragm movement and then linking down into psoas below that. Let's move onto the next slide.

SB: That's the wrong one, let's go to the next one.

AG: I think what I feel was missing in my training of breathing, and some of this work has come from-

SB: As an osteopath? Not as a-

AG: As an osteopath. A lot of this work has come from yoga teachers and then me putting things together, I guess, in my own head, is how we didn't really think of breathing as 3D. In the fact that actually you breathe in a 3D shape, not just in an up and down, up and down shape, if that makes sense. And here on this first diagram ... And also then this newer theories that are coming out that the core, and I know you've talked a lot about the core on your broadcast, is a cylinder as opposed to just this ... There's still lots of people out there who think the core is this flat six pack thing here-

SB: Yes, yeah.

AG: ... that you and I would aspire to. Really we're looking at this sort of circular shape here. We've got the thoracic diaphragm at the top, we've got the pelvic diaphragm at the bottom. We've got the TA wrapping around the sides and in the front, the transverse abdominous, and then also the multifidus, as stabilizer of the spine. And then looking at this second diagram there, I don't know if you've seen anything like this one before.

SB: I've never seen that until this evening. No.

AG: Again, here we've got multifidus at the back of this sort of Coke can shape, TA at the front, the thoracic, the pelvic bowls, and then the psoas as the connector all the way through the center. And when we breathe, we'll look at it again as I say in a moment, we breathe in a 3D shape. We don't just ... that diaphragm doesn't just breathe up and down. If you remember the bucket handle and rib ... What's the other one, pump handle-

SB: Pump-handle.

AG: ... ribs, those ribs go all the way around the body. And we need to really think about breathing in this circular shape and also including the pelvic diaphragm, because people sometimes present with back pain. And actually

sometimes we know as osteopaths, sometimes, or manual therapists, they've got issues in their pelvic floor. And actually that might be the source or another contributing factor to breathing well or breathing badly. So I think we have to look at the whole lot together, and that's where something like yoga really does encompass all of those.

SB: It is very easy in practice though, perhaps not for you, but certainly for me, and I suspect the others, it's very easy to just devolve to simple, straightforward, not, "Here's your pain. I'm going to treat that bit." But do the structural stuff, the the spinal stuff, rather than look a little bit further afield and do this ... I'm not going to call it esoteric, but it's a little bit more difficult to handle than simple manipulation of joints and soft tissue to muscles, isn't it? Putting all this together. I didn't explain that very clearly, but I can understand why probably a lot of practitioners don't cover this aspect of wellbeing.

AG: Yeah, I can see that. And I would say, our training, probably the initial training, doesn't focus on these sorts of things.

SB: It doesn't emphasize it, certainly it just ...

AG: No, at the same time though, we call ourselves holistic practitioners who look at the whole of the human, and we use that sometimes to differentiate ourselves from other practitioners. So if we're not doing it, then what are we doing?

SB: Yeah, absolutely.

AG: And my approach as, you would have seen last time I was here, is very much to bring in an active component, passive treatment on its own. Because I primarily work with people with chronic problems, passive treatment for chronicity isn't always the answer. In fact, it's rarely the answer. So they've got to learn, the patient has got to learn something new that's going to break them out of that cycle.

SB: Yeah, sure. And actually Claire's just asked me to remind people that, so they will have access to these pictures afterwards. So you'll be able to download and they don't have to just rely on what they can remember from seeing them flash up on the screen.

AG: Great.

SB: Because we always do that for people, right.

AG: Yeah.

SB: So we're going to look at somebody, a real person?

AG: Shall we?

SB: Yeah, I think we should.

AG: Okay.

SB: Right. Come on, let's go meet our guest for this evening, our model. Ollie, would you like to come and join us, sir?

OE: Good evening.

SB: Thank you for giving up your time to come and see us, Ollie. It's Anji. Anji, Ollie.

OE: Thank you very much.

AG: Hello, Ollie.

OE: Hello, hello.

AG: Nice to meet you.

SB: Right. So what are you going to do with Ollie then?

AG: So, Ollie is a new patient and he's coming in for the first time, so I would do my normal assessment of him. And then I would start to look at some of the sort of factors relating to breathing and the gross respiration. So, we will have looked at his neck muscles to see if there's any extra tone there, in the scalene CSEM, if you remember, our muscles of inhalation, we'll be looking at the first ribs. So I would ask Ollie to breathe in, and breathe out. And we would just notice if there was any difference in the first ribs, and I can feel a little bit of tension on that left side. Can you feel that?

OE: Indeed.

AG: And then I do my normal, our normal, any of us musculoskeletal examination of the ribs. And you can't see from the angle ... Maybe you can see from this angle, just seeing if there was any tenderness or tension. And I'd come down to the back of the diaphragm, the base of the rib cage here, and I'd ask Ollie to take in a big deep breath, and breathe out. And I'd just be noticing what incursion or not is happening under my ... incursion, excursion happening between my hands. And I'm not sure with the camera angle, but I can see a big difference from one side to the other, can you ...?

SB: I can't. Ollie, do you want to spin around and just-

OE: Yeah.

SB: You'll have to sort of try and judge your position according to the camera. But if you could do that sort of facing the camera then ...

AG: Actually I have to go all the way around.

SB: You go around that way, right.

AG: Yeah. So these are Ollie's sort of 12th ribs roughly there. Breathe in for me, and breathe out. And so I can feel, and hopefully you can see a lot more movement on the right side is adjusting now. But initially, again, the right side is moving more than the left. So I know all of a sudden, I know now, there's something happening between there and there that we're going to need to address.

And then if you're in the standing exam, I probably would have also just looked at whether the breath is traveling down into the pelvis by having my hands on the pelvic rim, and just seeing it on the SIs and just seeing if the sense of breath is moving down. And again there you don't-

SB: What are you going to feel? You're going to feel a little bit of rotation with the diaphragmatic effect on the lumbar spine?

AG: Yeah, just a little bit of lift and flair.

SB: Yeah.

AG: Yeah. And then gives you some idea of the QL attachments down from the 12th ribs down and whether actually there's a sense of motion and breathing. Again, if we think of those diaphragm attachments as coming to the front of this TL area, you want that to be moving and some of that movement to be connecting down. We don't want the breath just to be happening up here and then nothing to be happening below. Okay. So we would have a look at that from that side. And I would have had to look at his psoas muscles and his hip flection as well probably in standing.

SB: What do you use to check psoas then?

AG: I get everyone to do a couple of yoga postures, so I get them to do a lunge and just have a look and see what happens. I get them to do child's pose to look at the back. I get them to do a few things just to see what's-

SB: We were taught Thomas test when I was back in college, and I always thought it was a very uncomfortable one for anybody who had any back discomfort at all.

AG: I sort of always feel that on a first meeting you don't necessarily want to be tipped backwards onto the table by the practitioners. So I save that for a second appointment really.

SB: Sure, okay.

AG: Come and lie your back for me, Ollie. So, we're looking for breathing and we're going to look from this side. So first obviously just the observation of what do I notice about where he's breathing and what happens. Do this without asking him really just so I can see any patterns. And then I'd be looking at, from a structural and anatomical point of view, the pec muscles obviously attaching into the upper ribs here. And whether the lower back has a lordosis or is flattened and what's going on. So normal structural factors.

I'd also probably just have a gentle palpate into the diaphragm tissue just to see if there were tenderness. Thank you by the way. If there's tenderness on either side, because that's going to give me an idea. And then, if I'm moving into breathing, I'd be looking for specific things. So I would ask Ollie to breathe into my hands here, and then breathe out. And again.

And so this is just to start, so we're thinking ... And breathe out. So we're thinking of the rib cage as having three sections, if that makes sense. So we've sort of got upper ribs, the middle ribs, and then the belly, which gives us an idea of what's happening with the diaphragm. And so checking here you can see he's quite happy breathing up here at the top of his chest. And then I'm going to ask him to breathe into his tummy, and I can do that with my hands or with his hands, so for somebody ... Different patients would demand different things. I could ask him to put his hands on his tummy, and just to see can you breathe into your hands. And actually he's doing a great job there because you can see that belly rising and falling.

SB: Do you find that we should point out that Ollie is actually osteopath, so he's probably been through a bit of this already. Do you find with a normal lay patient that you have to work quite hard to get them to do this?

AG: So belly breathing is much more difficult than it should be for most people.

SB: A lot of people don't like to do, do they? Because it makes them look fat.

AG: Yeah. And also what you would see with Ollie, and in our practice actually Ollie was doing this, so he's breathing better now, is most people can breathe a little bit here, but the upper chest and upper ribs will still rise.

SB: Yes.

AG: Yeah, so they can't quite isolate just this section, whereas he's doing a really good job of isolating this. So upper ribs, belly breath. And then the third bit in the middle is a sense of the 3D from the bucket-handle and pump-handle and would be ... If I'm going to be quick in an assessment, I would put my hands here on these lower ribs and I would ask him to take a breath into my hands, and breathe out. And hopefully you can see it's quite a small movement, but hopefully the camera is picking it up that you can see this lateral flare of the

ribs. And even here though, hopefully Steven, you can see it, the left side is moving a little less that the right.

SB: I'll take your word for it.

AG: Well, I can feel this-

SB: I have to stand in a position which suits the camera I'm afraid.

AG: Yeah, okay. So there's a bit more resistance here on the left. So I'd probably be looking around there, so I can feel good breathing here, where you'd expect most people to breathe well up there. Good breathing here. And then maybe something around this left side. Okay. So that's my assessment of Ollie. And then I would also probably look at the TM, depending on what he'd presented with, if he's got neck pain, we'd have a look at the TMJ and things like that.

And then from a structural point of view, I would work, as any of us I imagine would work, using a variety of techniques to release any tension that I find. TMJ, neck, first ribs, the pec muscles, soft tissue, quite a lot. Anything in the thoracic spine, those ribs at the back and at the front to check they're moving. And then there's a whole raft of techniques for the diaphragm.

SB: Well, actually one of the questions that has come in that I've been saving for this very moment is, "Anji, do you do hands-on work, and if so, how do you address the diaphragm?"

AG: So, my favorite techniques are from the BLT, but for working on the-

SB: Balanced ligamentous tension.

AG: Balanced ligamentous tension, taught by the lovely Sue Turner at the SCCO, to release the 12th rib from underneath. So it's not very exciting to watch, but it's the release of the 12th rib.

SB: And it's also not something that we can teach on a video camera, isn't it?

AG: Yeah, yeah. Absolutely. So I like that one particularly from the posterior angle, and then I'm-

SB: Would you mind, since we talked about BLT and some people, I don't know, I don't think chiropractors go to the SCCO. But I mean, would you just like to quickly explain what balanced ligamentous tension means in terms of treatment?

AG: I'm not a balanced ligamentous tension teacher, but how I use it-

SB: An outline.

AG: ... is it is to find within a particular structure a sense of ease within those tissues. So holding onto the 12th rib and having a sense of it lying, as Sue would describe it, in its stocking or sheath of ligaments and fascia. And you finding whether it's elevated, whether it's depressed, whether there's a side bend or any torsion. And seeing if there's just a place where it feels that all of a sudden it can breathe, and that would be her language too.

I was lucky to ... Actually I spent some time in a study group with her and she talks about that 12th rib breathing. And then using the patient's breath as well. It's quite important in the BLT world, because once you found that position of ease, you'll ask them to hold their breath and then you wait for the release. So I would work on those 12th ribs but there are so many 12th rib techniques out there, aren't there, from HVT all the way to the more subtle ones.

And then I also really do a diaphragm, getting them to breathe in and breathe out an MET on the diaphragm with this compression. So I would probably do that just to wake that up. And then there are also some interesting diaphragm techniques from the myofascial release schools. Working here, if it isn't too tender, just below the ziffy process just to find those sort of fascial connections into the diaphragm. And you can feel there this, can you feel that tension there?

SB: I can certainly see the difference in depth that you're palpating.

AG: Can you see the difference?

SB: How does that feel to you, Ollie?

OE: Yeah, no, I can feel it too.

AG: So, if we had the time we would be asking Ollie-

SB: Maybe you should poke him a bit harder.

AG: ... ask Ollie what's going on there and around that left quadrant. And then obviously there are techniques then working down through from the diaphragm down to the psoas.

SB: Yeah.

AG: And it was interesting seeing Leon's leg pull technique with the psoas release.

SB: Which is, I mean, if anybody hasn't seen that, it might be well worth watching-

AG: It would be really good.

SB: ... having a look at that Leon broadcast that we did, because it was a very interesting technique for releasing psoas, wasn't it?

AG: Yeah, yeah. I'd like-

SB: And one I'd never seen before.

AG: And very gentle as well.

SB: Yes.

AG: So it involved a gentle traction of the leg in slight external rotation, and then a breathing element of pulling and releasing. So it's well worth watching that, I'll be trying it out next week.

SB: What were you taught at college for releasing the psoas? Do you recall what they said?

AG: Retching. I went to the BSO, so I guess it was quite hands-on. So you know, there was stretching and MET type work.

SB: We were taught, at my college, we were taught about deep inhibition technique on psoas.

AG: I must admit, I quite like that too.

SB: Yeah. The only reason I mentioned it is that we had one incidence in my own clinic where that actually caused a serious damage to a patient, and nobody had ever taught any of us that there was a likely contraindications to this. And there was nothing in the patient's history to suggest that there would be contraindication. But actually it has risks.

AG: Do we know what happened to them?

SB: Yeah, I think he suffered a hernia and had permanent disfigurement from it, and they couldn't be repaired and ... Yeah, so yeah.

AG: Well, that's a cautionary tale.

SB: It is, that's why I bring it up and, so it's not going to happen very often. But it's worth knowing that there are contraindications to techniques that we were taught as being bog standard osteopathy techniques, soft tissue techniques.

AG: On another of my anecdotal self-treatment experiments, I gave myself a psoas spasm once by doing that technique, by just digging in with my fingers to myself. And I could barely walk for about two hours, it was really, really interesting.

SB: Okay. Let's all practice Leon-

AG: We all learn, yeah.

SB: Let's all practice Leon's technique, it's nice and gentle.

AG: Yeah, let's all practice Leon's gentle technique. Okay. So there we go. We've got our patient, we found where he's breathing well and where he's not breathing well. And we're going to work from a structural approach just to address any structural factors. And then we need to maybe teach him how to breathe a little bit better. But you breathe very well already, so this is .. half the job is done for him.

OE: Thank you.

AG: Okay.

SB: All right.

AG: Shall we go?

SB: Yes, please.

AG: So if you could come up to sitting again for us then, Ollie. So one of the techniques that I teach the most in my yoga classes and in my clinic mainly because ... Well, so I work in West London, everybody's very stressed. It's not like here and out in the countryside where you're all really chilled out. And most people walk in with their shoulders up here around their ears.

So a really simple ... So these are techniques now hopefully that you could all use, everybody can use at home or start using in the clinic tomorrow. And the first is just a haah breath, okay. So we're going to breathe in through the nose and hopefully everyone will practice at home with us, and breathe out through a big open mouth. Are you going to join in?

SB: I'm joining in.

AG: Okay. Now, so carry on, but can we make a big noise while we're doing it? Because actually, we want to let go, like a sigh, and hopefully you're all practicing at home on your own. So do that a few times and start to notice ... So we've got our anatomical knowledge, start to notice what's happening to your TMJ muscles as you sigh out the breath. Big loose jaw, big open mouth. I know ... Thank you. There you go. And also what's happening to all these traps that are probably tight in most people, and the neck muscles.

SB: I notice you haven't talked about the balance between in breath and out breath?

AG: Not yet.

SB: Okay.

AG: Not yet. So for now, just these most simple techniques, and relax. What do you feel?

OE: An ease, an ease breath.

AG: An ease.

OE: Yeah.

AG: An ease in your breath. So, the most simple technique, and also really useful if you have a patient that comes in in pain, for example, anyone in acute pain would just be to get them to do five haah breaths. You don't want to say, "Calm down Mrs. Smith," do you? But just say, literally get them to breathe. Get that switch into the parasympathetic going before you even put your hands on, what a quick win.

SB: Is this the sort of thing you would send them away to do at home when, if you're going to do that, is it five breaths a day? Is it five breaths an hour? What would you expect?

AG: Generally, what I say to people is if someone has tension, for example, with my headache lady, would be to do five. Yeah, we don't want to start feeling dizzy. We don't want to manipulate that prana to a point where you're starting to get effects, deleterious effects. We're looking for just a calming down and for those shoulders to drop away from the ears.

SB: So it's five once a day?

AG: Five breaths whenever you need them.

SB: Okay.

AG: Whenever you need them. If you're stuck in traffic and you've got road rage, rather than gritting your teeth and swearing at the person in front of you, which is probably what I do, just take five long haah breaths and see if the moment passes.

SB: Yeah.

AG: Yeah. Pranayama in yoga is overcoming the sorrow yet to come. Don't get punched by someone in a road rage attack, just do five calming breaths and see if that just lowers the tone.

SB: Very hard to measure the effectiveness of overcoming the sorrow yet to come. I've been puzzling over how we'd study it and set up a research project on that one.

AG: We'll get there one day.

SB: But it sounds great. And I do recall back in one of the studies, again Leon brought up, he said that doing this sort of thing for smokers can make them quite dizzy. Because if they suddenly start getting a much better balance of CO2 and oxygen it has a serious effect.

AG: Yeah, absolutely. So five breaths is a small amount, but it's enough to notice just your shoulders falling away from your ears, or to break the cycle of something worse happening. So that anxiety or something coming up. Okay, right.

SB: Somebody has actually commented here, and again, people are not telling me who they are. It's a bit disappointing because it was nice to know. One of this person's patients has actually improved her inflammatory marker of RA by breathing mechanisms from Baba Ramdev.

AG: Yep.

SB: Which is quite extraordinary, they say. Which, I mean, that is lovely to hear, isn't it?

AG: Yeah, absolutely. And again, there's a paper in the references, we'll look at the work by a lady called Patricia Gerbarg or Gerbarg, G-E-R-B-A-R-G from New York because she's a neuropsychiatrist and she's been working on the inflammatory markers and breathing.

SB: Robin's actually asked as well if we can have, if I can put up a link to the psoas release technique that Leon showed. And what we'll try to do is, we will try to find just that clip from the video, and we'll isolate that, and put it up with this one just so there's a link to that as well.

AG: Yeah.

SB: Sorry. I interrupted you.

AG: Ready?

SB: Yes. Ready.

AG: Okay. So then, we come to the belly breathing. I'm just working through these in a simplistic... from simple to a bit more complicated. So we've got a belly breath. So most people, as we were saying earlier on, don't know how to really breathe into their belly. And we know that breathing into the belly

and breathing out, has a number of impacts. So number one, it's attentional because if you're stressed or something's going on, just bringing the mind to the breathing. Mindfulness will lower the tone. If you've got back pain, we want that spine to be massaged by the action of the diaphragm and the action of the belly moving. And again-

SB: I'm going to ask you a complicated question.

AG: Oh dear.

SB: Can you actually work on this patient? Perhaps artificially, but from the opposite side of the table. Because my team are telling me it's bad on the camera to have you on that side. I'm sorry about that.

AG: Okay, yeah. That's okay. That's all right. Can we swap places then?

SB: Yes, of course.

AG: Okay. So this can be done in sitting, standing, or lying. The easiest way is to do it lying down.

SB: Okay.

AG: So if it's okay, come and lie down for me. And this is easiest for the patient, not easiest for me. So first of all, I would also teach a patient how to lie. So this is a bit of a tangent, but important. I don't know if you've heard of a position called constructive rest?

SB: Yeah.

AG: Okay. So it was invented or named and by an anatomist called Mabel Todd, whose book is from 1936, if you want to go and look it up, and she calls it the constructive rest position. And it's finding the balance of your lower and upper leg bones and your pelvis, such that your psoas can release.

So it's well known in the Pilates, bodywork, and yoga fields. And essentially you want to be moving your legs inwards, closer towards your feet, and then outwards until you feel that the leg bones are holding each other up like a tripod.

OE: Okay, yeah.

AG: So you want absolutely no effort involved in holding up your legs, the wherewith your legs need to be. And for some people, it might be that they bring their knees together too and take their heels out. Is that more comfy?

OE: That's not one for me.

AG: That's not one for you? Okay. Good. But now we know.

SB: This is going to be a lot easier with shoes on, isn't it? Because if you're on a floor, for example, or even on a couch like this, bare feet are more likely to slide. You don't think so?

AG: Yeah, no. But okay. Yeah. Shoes, bare feet doesn't matter. Anyway, a comfortable resting position for the pelvis. But if you are interested, look up the constructive rest position, those of you that are more interested in this work because it is a psoas release, a passive psoas release position.

Okay. Then belly breathing. Just getting the patient to put their hands around the plump bit of the belly, so around the belly button, and just asking them to start with, to watch their breath under their hands. And for most people just realizing that their belly can lift, rise, and fall is a revelation for a lot of people. Okay?

And to allow it to rise, allow it to fall. And obviously if they've got any tight waistbands, you need them to undo them or to undo jeans and things like that. And then, to start to actually deepen the breathing. Breathing in and breathing out. And if they come in, for example, with back pain, this is just a great basic exercise to start with.

SB: Again, number of repetitions?

AG: I would say three sets of five. I would just say, start with five. I like it as a number. This is not scientific actually. But for these I would just say, start with breathing into your hands and breathing out. And I wouldn't-

SB: Probably the key thing is getting them to do it at all, isn't it?

AG: And I wouldn't even give them counting as step one. Because it's hard enough for some people to breathe into their belly without getting a corresponding tension in their neck.

SB: Yeah.

AG: Yep. So just five breaths in and out, and then building up to maybe three sets. And they would need to stop obviously, if there was any pain, if they started to feel any angst in the breath. So if the breath started to go hard or tight, then they would need to stop. Or if they felt any discomfort anywhere. So mental, physical, emotional discomfort. So from a yoga point of view, we would stop any breathing work as soon as you start to notice anything antsy happening. That's not a technical term. Okay?

So belly breathing. And again, it can be a really simple technique to calm people down, to get the back out of a spasm. For example, if they're sitting on the tube, if people are standing, if they're waiting for a bus, they can do

this and no one else will know. Really good for calming the system down. And-

SB: How important are the hands? Once he's learned how to do this, presumably he can stand at the bus stop without advertising the fact that he's, as you put it, got his hands on his plump belly. Poor chap.

AG: I didn't say that, I was thinking of my plump belly. But people often, you'll say put your hands on your belly and quite often they'll put their hands here.

SB: Yes. Yeah.

AG: So actually you want the hands over the belly button because this is the bit that we want to breathe. Okay? And then the second, so we've done the Ha breath as a calming thing. And again that was great for people with acute pain, or anxiety, or neck pain. This is really nice for anyone with low back pain, maybe insomnia, can't sleep. It's a good calming quietening breath.

And then if we're looking for more health benefits and we'll... we would think about maybe a diaphragm breath. And you might think, oh this is a diaphragm breath. But actually, this is just breathing up and down. And actually a true diaphragm breath would be giving us this 3-D shape that I was talking about earlier on.

SB: Yes.

AG: So in a way, for a diaphragm breath, I would be asking the patient to cup their hands around the lowest ribs. And again, teaching them where their ribs are because most people will put their hands on their waist, which is not what we want. And then encouraging them just to start thinking about breathing laterally. So here, this is really interesting. I'm hoping that one of the cameras is picking it up because Ollie is breathing... can you see the chest breathing here?

SB: Yes.

AG: And so this is again, quite common because lateral breathing is really something that we never think about. Yeah. We think... if I said to you... you can relax for a moment. If I said, "Take a deep breath", what would you do? Yeah, so most people would breathe here or some people would go, try and breathe here.

SB: And men particularly want to do that, don't we?

AG: Yeah.

SB: We all do that, don't we?

OE: Yeah.

SB: Because, we want to have our prominent chest.

AG: There's a book called, I don't know if you remember this, it's by Stanley Keleman. It's really old. I've got this ancient copy that's all tied together with bits of string and it's called, Emotional Anatomy. It was in the BSO library. It's from the fifties or sixties and in there, there are some really beautiful hand drawn pictures of people breathing, so everyone could look that up too if their bored.

So we need Ollie to start to think about being able to breathe into these lateral ribs, while keeping the upper ribs soft. And the easiest way I've found to teach people how to do this is to get them to just put a tiny bit of pressure. So imagine you're playing the piano accordion.

OE: Okay, yeah.

AG: You know that thing that comes out. And can you put in, just about a centimeters pressure inwards, and now breathe in, into your hands. Yeah. And then breathe out.

SB: You're not suggesting that he can do this without moving his chest, I presume, are you? Is he?

AG: No, but he can learn to do it. So if you look at how... so I've learned to do it.

SB: Yeah.

AG: More here.

SB: Yes.

AG: Well, that's taken quite a lot of practice, so it can be done.

SB: You need to practice?

AG: You need to practice.

OE: Start practicing.

AG: But if we're really looking for 3-D breathing and we want those lower ribs to come off the thoracic spine... thank you. Oh you can carry on if you want to. And that area around the kidneys, just at the top of the TL junction, and we want all of that. Remember all those important connections traveling through there. We want that flare to happen.

SB: Yeah. We got another observation here, it says, come from Mike Bourne. He says he runs a yoga studio and osteopathic clinic in Bude, in Cornwall. Mike, I thought you were in Morven. Anyway, he's found that Maha Pranayama moving onto Kapalabhati, useful for patients suffering with reflux. You didn't think I'd be able to say that, did you? Useful for patients suffering with reflux by strengthening the esophageal sphincter.

AG: Yeah. Great.

SB: So more clinical evidence of what you're saying.

AG: Yeah, absolutely. I can imagine for some people, it might be irritating of the sphincter. But as long as you're teaching them to stop if they notice any negative effects, I think that would be a great thing.

SB: Yeah.

AG: If you really... there are, like I said, lots of books with lots of different conditions treated by different breathing practices. What I'd say is, go and practice some on yourself first.

SB: Yes. Yes.

AG: Because, like everything, then you know what you're dealing with.

SB: Yeah.

AG: Okay? So Ha breath, belly breath, diaphragm breath. Yep. And then the... you mentioned when we were talking before today, the pursed lips breathing of Leon Chaitow. So I do teach a pursed lips breath, but I teach it in, I suppose with a different lens to Leon.

SB: Okay.

AG: And it really links back to that sense of, do you remember the Coke can shape of the core of the body? Because I teach the pursed lips breathing mainly to people with back pain, or who need to develop strength around this area for the multifidus, TA, pelvic floor, and thoracic diaphragm.

So if you could come up to standing Ollie, because this is how we practiced this before. And hopefully the camera will work. So you're just going to take a normal in breath and breathe out with, as if you are breathing out through a straw. And then, when you get to the end... you can carry on... just, so breathing in normally and breathing out through the straw. And you could try this too.

SB: I could.

AG: If you wanted to. And everyone at home can as well. And now on your next out breath, breathe out for a second or two more than you think you've got breath to breathe out. And notice what this is doing in your body. And then breathe in. What do you feel?

OE: It's a much deeper breath. The way that I inhale afterwards, it feels like I can inhale more than I would otherwise be able to.

AG: Yeah. So this is the-

SB: I think that last couple of seconds also, that it just feels as though, I would have said, strength is draining from the muscle. I could also put it that there seems to be a sense of relaxation generally.

AG: Yeah. It's really good pulling everything down. If I can put my hands on your core cylinder, is that all right?

OE: Yeah.

AG: And then hopefully we'll see what happens as well through the action of my hands. So breathing in, and now breathing out, with this full breath. So you're not doing anything to your tummy other than breathing, are you?

And so what we're feeling here is the TA's drawing in, all these low abdominal muscles are lifting up. If you can have awareness of your pelvic floor, you might even feel the pelvic floor activating. And especially those lowest abdominals from the navel... I'm going to take my hands off. Thank you. From the navel down to the pubic bone, real sense of lift. So actually, somebody can't do sit ups, teach them this sort of breathing instead. If you breathe like that for two minutes, you will feel it.

And this is actually a Pilates breath. So Pilates have a variation of this breath too. So again, all these breaths are out there and all these techniques are out there. They're just used by different people in different ways. So, see what you can find to help. So all of these techniques really, really useful. And really simple for people to understand. And for patients to understand, but you do need to teach them.

SB: And the clinical evidence is that they're effective.

AG: Yeah, absolutely.

SB: Which is important when we start to incorporate in the back as well.

AG: Yeah.

SB: You talked-

AG: Okay.

SB: Yes.

AG: Do you want to grab a seat?

SB: Are you done with Ollie?

AG: Yeah.

SB: Should we go and sit down again?

AG: Yeah, sure. Thank you.

SB: Thank you Ollie.

OE: Thank you.

AG: Are you coming to sit with us?

OE: After you.

AG: Thanks.

SB: Now you talked about the Nijmegen questionnaire, briefly I think. Would you like to just run through how you use that in clinic? If you do use it?

AG: So I use it, I put a... I use it sometimes. The evidence for this is actually really good. It's been out and about there for decades. But there, it's a really, it's very subjective. It's a subjective questionnaire and it gives you an idea of how the patient feels. But if we look at the symptom checklist there, a lot of these feelings are feelings of anxiety as well. So there's a real... when this questionnaire's been validated and re-validated and looked at, there's a real crossover between the anxiety symptoms and the breathing symptoms. So if somebody has an anxiety based disorder, they're going to get a really high score on this. So that's why I would just treat it with-

SB: Okay well we're-

AG: I do use it, but I treat it with that caution that we know-

SB: So we've put up a link to this before from our broadcast when it came up. We'll put up another one with this evening's as well.

AG: Okay.

SB: A couple of questions for you that have come in. You talked about pelvic floor and Sue has asked how you go about assessing the pelvic floor.

AG: I do a lot of questioning of the patient and what they feel, what can they feel. I don't assess it with my hands on. I wasn't trained as a women's health therapist, from a hands on point of view.

I work with them using yoga techniques, and maybe this is our subject for the next broadcast if you have me back, because I also teach yoga for women's health actually. And there are lots of yoga based techniques for getting the individual student to effectively assess the tone of their own pelvic floor, if that makes sense. So I would work with the patient to see what they can feel, what they can do, what they can't do.

SB: Okay. I suspect Sue would like to know what it is you're asking if they can feel, and what can they do, and what they can't do. What are the specific?

AG: So I would ask them the symptomatic questions. So, do they have any signs of stress or urge incontinence? Do they have any prolapses if we're talking about the... if we're looking at the three openings in a female pelvic floor, I guess that's what we're talking about. But also from a male point of view. Are there any hemorrhoids or any issues with constipation?

So all of these things give us an idea of the tone of the pelvic floor. Whether it's tight, or loose, or you what the history has been. So from a history point of view, I would ask those questions about childbirth, et cetera. Ask about the trampoline test. Can you go on a trampoline? Most, lots of women can't. I don't know if you all use that question.

SB: I've never asked that question.

AG: To ask people.

SB: But I can see the sense in it. Certainly. Yeah.

AG: And then from a yoga point of view, we would look at... well we would work on in different postures, so the different ways of sitting or lying, how the patient or student can isolate those different sphincters and whether it's possible. Because it is possible. Just takes awareness and practice.

SB: Yeah. Okay.

AG: And on that subject, on that word, I would say none of these techniques are quick fixes. Yeah. Because you have to practice.

SB: Yeah.

AG: It's called a yoga practice.

SB: And I think that's why somebody was quite surprised when you said four sessions, and you've actually retrained somebody's breathing. Would you say it was a particularly eager keen and-

AG: I haven't re-trained, didn't retrain her breathing. I got her to notice the cues that were starting her symptoms, and be able to pick up on them, and start to change them.

SB: Okay.

AG: Yeah.

SB: I've got a couple of questions here from Robin. One is about when we saw Ollie lying down, he had his knees bent. A lot of people would have to engage their adductors in order to keep their knees in that position. He wants to know whether you'd ever say, "Well, let's just stick a band or a strap around them just to save them having to do that."

AG: I would sometimes tie a scarf or something loosely around the knees just to hold the legs in a parallel, the femurs in a parallel position. So if someone was doing a lot of breathing work, in my clinic I've got all sorts of yoga bolsters and props and things like that. So I would have their legs balanced, resting on something,

SB: But there's nothing to stop you doing this and at least it stops the patient having to put any extra effort to hold that position?

AG: Yeah, absolutely. Or put their legs over two cushions or two pillows, just as we would do in a normal clinic.

SB: And Robin's also asked, and this I think, is a really pertinent question in for modern life. If you've got any abdominal breathing advice for people who are inhibited by perhaps their occupation? And he's thinking about, most commonly people driving cars, or sitting at desks for long periods of time.

AG: Take your belt off.

SB: Right.

AG: Take, don't wear clothes that are too tight or too restrictive. Walk around and breathe. Do some Ha breathing. Stand up, do some Ha breathing and spend some time standing up and doing some breathing practice.

SB: Right.

AG: Just breathe into your belly.

SB: Okay.

AG: Breathe into your belly before you go to bed. Breathe into your belly when you wake up. Maybe when you're brushing... not brushing your teeth. I don't know, just find these ways of... my teenagers would say, "The life hacks." Find ways of putting breathing into your life rather than making it another chore that you have to do.

SB: Yeah. Suzanne Wood have sent in an observation about Leon's MET for psoas. It says that she uses it all the time and it's fantastic.

AG: Oh great.

SB: So doubly important that we find that clip and put it up on the-

AG: Is that about one hour, 20 minutes or something?

SB: Is it?

AG: Yeah.

SB: We've done three broadcasts. We'd have to find which one it was in, but I'm sure we can.

AG: Yeah. It looked great.

SB: It's always fun if you can break through. And Mike Bourne again, on the subject of women's health. He's taught ladies Sitali breath to cool and calm when experiencing menopausal symptoms.

AG: Right.

SB: And of course, I have no idea what he's talking about. What does that mean?

AG: Sitali breath. Oh, do you want, have we got time for you to practice?

SB: Yes.

AG: So can you roll your tongue?

SB: No.

AG: Oh. Ollie, can you roll your tongue?

OE: Yes.

AG: Can we get Ollie here to-

SB: Yup. Ollie, back up, hop up on the table again. Quickly. Oh dear. Poor old Kara's going to have to fiddle with the lights again.

AG: Oh wait, he could come and do it here.

SB: Yeah. Come and have a seat right over here Ollie.

AG: So as I said, the yogis came up with these hundreds of breathing techniques. So there are breathing techniques to make you hotter if you're cold, and the Sitali is to make you cooler when you're hot. So it works best... well, it doesn't really work for everyone. I can't roll my tongue. So, if you can roll your tongue into a U shape, yep. And you basically, as you breathe in, you breathe in over that cool tongue, you can keep it in your mouth.

And we can do it by just having the pursed lips. And imagine you're breathing in through a straw. So the breath travels in over your tongue and then you breathe out normally. So you're essentially breathing in cooler air breathing out hot air. And that's with all these things. Mike might be using a slightly different variation of the technique. There's some where you breathe in and out through your mouth. But if you just... do that, it's like having a cold drink. Can you feel a bit cooler?

SB: And Mike says it's useful for addressing menopausal symptoms, which-

AG: Well, if people are feeling hot, it's something that cools you down. That's certainly one of the uses.

SB: Okay.

AG: Thank you.

OE: Thank you.

SB: So you'll have to listen if your symptoms subside, Ollie.

OE: Yeah. Okay.

SB: Stay there Ollie. What about you? How did you feel from all of that? Is that something you think you will incorporate into practice?

OE: A lot of the breathing techniques, yes.

SB: Or do you already? I should have asked you too.

OE: Some, yes I do. Especially with, more along the lines of assessment, looking at different sections of breathing and things like that. Not so much with giving patients practice or exercises in terms of breathing exercises and things for them to do at home, but definitely something that I'll incorporate into more treatments and-

SB: Excuse me. And this is not intended to put you on the spot, but why don't you give breathing exercises to do at home? And I'll be honest here, it had never occurred to me to do it until today. So.

OE: Yeah. It's not something that I think... I don't know an awful lot of different types of breathing, and I suppose also the benefits of them. I think it's like we said, it's obvious to breathe and you... I think you think that, especially with most of your patients, that they do have that common knowledge just to breathe. And whether there should be an issue with that, it shouldn't be an issue. I think that's what I've got to say on that really.

AG: The truth is that everyone does breathe.

SB: Yes.

AG: Right? You know? All our patients are breathing but if you can-

SB: But as you say, you can make life a lot more miserable if you're breathing with your shoulders around your ears, can't you?

AG: Yeah, absolutely. So it's all about creative effects of making your breathing really help you.

SB: Last question for you. Have you come across foundation training? It uses a decompression, uses decompression breathing as a key elements in all its postures and is based on strong anatomical principles like the ones you've described regarding the action of the diaphragm on the spine. Worth a look, if not.

AG: Yeah. Definitely.

SB: Whoever is offering this advice doesn't give himself a name.

AG: Definitely going to look it up. If the person can say who it's by or a link or something, that would be great.

SB: Yeah. If you can send us a link to something then we can also put it up on the website for everyone here to watch as well.

AG: Yeah. Absolutely.

SB: So yeah. What about you? Any final observations that you want to make before we have to sign off? Because once again, the time has flashed by and-

AG: Breathing is really important. Don't take it for granted. Read that colloquy again, at some point. The breath is the most important thing.

SB: Yeah. We'll see if I can get Justin to flash it up at the end as part of the outro sequence as well. So we-

AG: And learn these things yourself because once you feel it in your own body, then it's so much easier to share it with others.

SB: Yeah, brilliant. Anji, always a treat talking to you. Thank you so much for coming in.

AG: Thank you. Thanks for having me.

SB: Ollie, thank you for being such a willing volunteer.

AG: Thanks Ollie.

OE: Thank you.

SB: Doing your pursed tongue in front of a camera, which-

OE: You're welcome.

SB: Never a look one wants to share with the world in general.

OE: Not something I have been practicing.

SB: But you did it very, very well. Thank you.