

## 330 – Pulmonary Rehab with Kamaljit Saggu

Steven Bruce

Good afternoon. Welcome to the academy. Welcome back if you're one of our regulars, you know I love about this job. I just love the fact that there's so much variety that comes through this studio. And we were talking last week about hereditary multiple exostoses. We're talking about our role in domestic abuse. Next month, we've had cord recliner, we've had it, we've had the deputy director of the World Health Organisation on the show, huge variety. And today, we're gonna be talking about pulmonary rehab, we're gonna be talking about breathing techniques. We've done this before, of course, we did it during the COVID epidemic when we were all locked down. And we had a number of people talking very knowledgeably about how you can use Breathing Techniques To Overcome not just the problem of the virus itself, but the stresses that arose as a result of the virus. And today I have cam Sanko in the studio, who is an expert in pulmonary pulmonary rehabilitation, her degrees in exercise science, and she's worked in the NHS for many years and has huge amounts of experience in this. And I'm looking forward to seeing what she can bring to the table for his camp. Good afternoon. Great to have you with us. lovely to be here. Yeah, well, you've heard we have looked at various sorts of breathing techniques and so on in the past. Today, we're talking specifically about pulmonary rehab. So what's pulmonary rehab?

Kamaljit Saggu

So pulmonary rehab? I find for me rehab has been the underdog for a little while. Cardiac rehab has always been the forefront and work in both, though, haven't you? I have pulmonary rehab kind of been. It's been around since the mid 80s. if not earlier than then. But for a long time, it was sort of brushed under thinking, you know, working with people with lung conditions and exercising them didn't seem to be enough evidence or people didn't seem to think it was the most forward way of going forward in terms of exercise. But recently, in the last 10 years or so you will see pulmonary rehabilitation popping up all around the country. There's more more of those clinics now than ever at the moment. So I would encourage everybody to look at what their local pulmonary rehab Community Services offer.

Steven Bruce

So what's what's prompted the change, just out of curiosity,

Kamaljit Saggu

I would like to say research, I would like to, we know that's a touchy subject, but I think this was pretty COVID as well. There's a there are a lot of one in five people do have lung conditions and actually do then passed away from these lung conditions. And this is based on the British Thoracic Society, those 2001 This statistic came out and it was it actually surpassed This people are having ischemic heart disease. So it was the rise was coming and people have to get up and listen. And

Steven Bruce

that will come as a big surprise to most people who believe that cardiovascular disease is the I think the number one killer in the country.

Kamaljit Saggu

It pulled me rehab, homemade conditions are not far behind. They tend to go on par with being sedentary and being sedentary, not moving. And then you know, bad habits like smoking and not eating well. And all of that it's just all coming together where it's now ended up in point. Well, I

Steven Bruce

guess we tend to think that way. When we're talking about pulmonary respiratory conditions, we tend to think about asthma being there's one you can't do anything about and then those with emphysema who perhaps could have done something about it if they hadn't smoked for 20 years. Oh,

Kamaljit Saggu

wow. It's interesting. Yes, emphysema is definitely linked with smoking. That is that's a given. The asthma, on the other hand, tend to be more sort of allergy related. It could be trigger points, it could be food that triggers

Steven Bruce

the cold, really annoying. It could,

Kamaljit Saggu

I might argue that point but within a reason, within reason, because exercise will make their life easier, it will help them demystify that fear on that breathlessness they get because to be fair, if they if you catch asthma early enough, it can be reversed. But if you keep getting asthma attacks and having quite sort of severe asthma attacks, then you end up having quite severe scarring. Which then leads on to what your chronic bronchitis and emphysema kind of symptoms

Steven Bruce

are What do you mean by early enough? How early do you have to catch up so

Kamaljit Saggu

from if, if some people are when they're in childhood, they could have some sort of psoriasis and it tends to link with asthma. As you get older, you may naturally grow out of it. But if there's some things that are triggering it, you learn how to manage it, you will stay away from your triggers, you start exercising regularly, you could actually minimise it to such an extent you might not even need your inhaler on a regular basis. So you could reduce it right down to the point where you almost feel like you don't have it. But if you don't, then it carries on and it gets worse and worse. And the minute becomes classified as chronic asthma fits with you. And it's with you for life. That's the thing.

Steven Bruce

Well, I'm not I'm not hope I'm not daft enough to think that breathing is just as simple as well suck it into the nose and breathe out through the mouth. No, but obviously pulmonary rehab is a science right. So what is so skilled at least

Kamaljit Saggu

it's a skill. So the programme is designed that it's a 12 week programme 12 week programme they come in twice a week, offered by the NHS offered by the NHS, it tends to be referred by the GP and either it's in a hospital or it can be in a leisure centre or it could be in a community centre. So where it is is different, but the procedure of referral tends to come through the GP

Steven Bruce

and the Sorry, I keep interrupting I do apologise because I always do this what I'm really interested in what people are talking about, sorry, which is most Well fair enough. So who's it gonna be done by obviously yourself, but you're not a physiotherapist, but physiotherapist,

Kamaljit Saggu

physiotherapist do them. I've got a very good friend, who's a colleague of mine is a physiotherapist who had led it one by the NHS. But I could equally do it as well because of that qualification. So it very much varies on who's available, quite frankly. But it does need to be someone who's had the training. What actually happens in those sessions to you, me and you, it may look like fitness sessions where they're going around in a circuit. They're doing upper body, lower body, they're doing various sort of exercises, picking up the weights, lowering the weight, and then there's an element of cost Audio where they'll walk. And depending on the location, they either walk in a circle, or they could walk a certain distance. And the idea is, by the end of the 12 week, they're built up. So they monitor it every week. There's a chart, they monitor what Wait, they did, what distance they covered. And actually, if we am able to go on to the slide,

Steven Bruce

that's the one that will come up.

Kamaljit Saggu

So

Steven Bruce

controller will start to work in a minute, I guarantee.

Kamaljit Saggu

Okay, what's the one before you, that's the one. So this is a Borg scale that they will have. And obviously, they need to challenge themselves in exercise to the point where probably pushing it to the five and six, or the severe breathlessness or just before. And that's what caused, that's what pulmonary rehab was sort of pushed you to not into the red zone, that that's not very simple.

Steven Bruce

In fact, first of all, who goes on this course, because it would seem for what you said that anybody who has any problem at all to do with their lungs would go on this course

Kamaljit Saggu

they would, I've heard of people who need to go into surgery, believe it or not, the the prerequisite is that the GP says, For you to be able to go into X, Y and Zed surgery, you need to get your fitness up. And it tends to be with lung issues. It could be someone to learn how to manage this. So they're very new new diagnosis, don't understand anything about it. So in a way, it becomes an educational part. And they do at the end of every exercise session, they do, I think, a 20 minute to half an hour talk as well. And they'll bring in sort of specialists to sort of talk about nutrition talk about breathing in itself. So it's

Steven Bruce  
a pretty holistic, but

Kamaljit Saggu  
I have my I have my sort of hesitancy towards it, because they people are made to go to it. But there's the assumption that people complete the 12 weeks, there's no obligation to complete those 12 weeks, and quite often, they drop out quite early on. For whatever reasons, they might find it too hard. They're going in with the wrong reasons in the first place. Their goal is not to improve themselves, their goal is because they've been told to do it. So therefore they don't see the value in it. So the at the moment, the sort of the rate of people completing it is not great. And even when I spoke to my friend who's the physiotherapist said, she finds it quite disheartening when they put all that work into it, and they don't necessarily complete it.

Steven Bruce  
Or we could go through some I will I will ask a question in a second. But on this board dyspnea scale, no breathlessness at all that I can live with five severe breathlessness obviously, that's a judgement call nine very, very severe breathlessness and then 10 maximal without vomiting into the ditch by the

Kamaljit Saggu  
danger zone it's talking about, I would say sort of round about the eight nine mark, you probably could still manage it with what inhalers they have with by 10 You're talking probably medical intervention?

Steven Bruce  
Well, that's the one. That's the one

Kamaljit Saggu  
you want to be worried about. No, absolutely not. If they're getting to a 10, the idea of this Borg scale, and there was a reference list of sort of email, which we'll send out, which we'll send out and there's, there's studies to say how, because it's very subjective, what people's breathlessness is like, and what I find is, in my experience, if someone's that they like you and me, they potentially so I want to go on to the next one. Now they are Nope. Next one along the rate of perceived exertion. That's what the RPE scale stands for. So this is how they breathless they think they feel or how hard they think they've worked. Does that make sense? So how does that differ from the Borg scale? So the Borg is while exercising, this could be not while exercising, so there could be like that here, you and me, maybe they've come to your clinic and they've walked up the stairs. And to me a new they may look absolutely out of breath, really huffing and puffing, but on the on the scale of it, they actually might find that a number three that might be quite easy for them. Depending on what lung condition they've got, others can come in and they can be sitting quite quietly, but they could be

feeling like their breathlessness is at seven. Yes. Does that make sense? So it's, it's very subjective. So it's good to know these scales. And everyone who's been through pulmonary rehab, or at least through the GP in order to get the diagnosis and gone through that whole procedure should have access to these and more, I

Steven Bruce

suppose also, one of the things you'd be looking for is not necessarily what number they are, but what the changes afterwards because their perception will be important, important, and we'll make that change.

Kamaljit Saggu

And this is where exercise comes in. The idea of exercise is if it's become a chronic condition, you're not going to reverse it, but what you can do is make their quality of life easier. So you in theory could be walking five minutes before you get completely out of breath. By the end of that 12 week programme, you could be walking 1015 minutes. And that 1015 minutes gives you a whole, you can do a whole lot of tasks in those 10 minutes that you couldn't do before. So it's improved proving your quality of life.

Steven Bruce

So we're back to the course a 12 week course. You might not have scientific evidence for this, but you'll probably have a strong personal opinions on why it happens. Why is there such a large dropout rate? Is it just that most people who are who have these sort of conditions don't like the idea of being somewhat breathless?

Kamaljit Saggu

Yes, the fear is quite large. And if I'm being honest, if they've got to this stage, in the first place, the chances are they were not exercising in the first place. So they dislike exercise. And the kind of people I train as well. This is where it differs from what I do to what pulmonary rehab, does pulmonary rehab is here's an option, take it. And it tends to be free of charge or nominal price in that sense. So just

Steven Bruce

introducing, do you mind moving your hair off your microphone, I'm being told that we're getting sort of noise only.

Kamaljit Saggu

So yes, so there is that I find that in my years of experience that if someone has to pay for something, they're more likely to stick to it. But if this free will, or a nominal charge were to reduce

Steven Bruce

the person chiropractors who don't exactly.

Kamaljit Saggu

They don't value it, and therefore they won't attend or there'll be so sporadic, it doesn't really achieve you're not used to for 12 weeks, whereas

Steven Bruce

How long would they have to spend on their 12 week programme before you'd expect them to see some progress? Because that will be one of the key indicators.

Kamaljit Saggu

It can actually be quite quite quite early on sort of in the first four weeks, definitely. But it has to be consistent. That's the thing. For me, what I teach, I tend to get move away from the 12 week side of things, because I think sometimes it's longer than 12 weeks. And some people need that maintenance. They need that encouragement, they need someone watching them at all times, almost like an appointment if you're not there to make sure they're gonna turn up or they won't turn up, quite frankly. So

Steven Bruce

we got some questions for you already. First of all, Luke, who possibly Luke knows you because he says, Hey, Cam, good to see you. I love a flute a few clients with breathing issues that would benefit from a 12 week programme like the one you've mentioned, how does he get them a referral?

Kamaljit Saggu

How's he get them a referral, I would ask them to go back to the GP, their GP and ask for pulmonary rehabilitation, depending on where the area is. I'm based in Milton Keynes. Some of it can be self referral, but the initial referral will have to be via GP and there needs to be a justified medical, because the doctors need to fill out their medical history where

Steven Bruce

they must be aware of it should be should be different

Kamaljit Saggu

they should be. Because the way I was taught in this course that I did not so long ago is you will get a form from the GP with the basic information on there. And then practitioners like myself, then have to take it forward.

Steven Bruce

With the poor Oh, GP, he's got about 4 million other things he Yes,

Kamaljit Saggu

yes. But it doesn't need to be a medical professional.

Steven Bruce

So would it be a good approach, then, if if one of our audience today has a patient that they think will be suitable, they get them to look up pulmonary rehab courses on the website, they find out all the details of the course. They say this course is suitable for me and go to the GP with all that information. And this is what I think I need. Do you agree? Yes up? So I've been told what to do?

Kamaljit Saggu

No, they don't. They don't. But sometimes they have to be told. Sometimes they're actually not aware of what's going on locally in our community. So normally, if you get in touch with pulmonary rehab directly, they will also tell you themselves, what's the best way to access them as well. So every there's no, I find that every area seems to work slightly differently. And, and the quality of it changes as well. You brought

Steven Bruce

up a really useful point there, which is that you can talk to the Pulmonary Rehab Centre themselves before you go to the GPU. So you're armed with the information that the GP might need. The computer I think has called someone dramatic mind, but they're asking whether these courses are suitable for children say, eight or above

Kamaljit Saggu

know, everything from a pulmonary rehabilitation tends to be 18 and above. As adults. We're

Steven Bruce

considering how early the onset for asthma is are we working on the numbers that often result

Kamaljit Saggu

that I've predominantly always worked with adults? So if there is a slightly different programme for children? I am I'm not aware of that. But there may well be but I tend to work and my experience has always been people from 18 and above, with adults going forward in that sense, but when it comes to paediatrics, I think they must have their own journey. Knees again, that is where I recommend going back to the medical professionals, even the specialist not necessarily the GP, but if there's a specialist involved, they should know how to best guide them in that.

Steven Bruce

Suzy says my husband, who's had a had a pulmonary embolism two years ago, has just been offered this course. Although his specialist more or less said he's lucky to be alive. breathlessness will be with him for life. Have you dealt with us before?

Kamaljit Saggu

Yes, yes, he is lucky to be alive. And exercise is absolute key at this point. Yes, the breathlessness may not go away. But like as as we know, with exercise, if we decondition ourselves, if we sit down, let it take over our life, then it will get worse. If you try and do something about it. And this is the scary part, when you're really out of breath, and you've not experienced that before becomes your regular norm. It is actually quite scary to then actually take the next step one exercise when you're forcing yourself to get more breathless. But it's again, the scales are what makes it manageable, but it's also pulmonary rehab, and any form of exercise will give you that control back that you can control your breathlessness and manage it. And ultimately, when your whole body is functioning well with stronger muscles, you're a bit more efficient. You're walking around, you're getting that movement in your body overall is efficiently working more whether the breathlessness reduces or not, but he will be able to do more than what he was doing before. And that's sometimes maybe encouraging thing is well, from his one of one of the stories that always will sit with me is the goal that one of my clients had was, I want to be actually able to walk with my wife, when we go out about not plan it, so I have to sit in one corner while she walks about. So it's little things like that. And exercise will give you the tools in order to be able to actually go and walk on a day out with your wife as opposed to having to find a place to sit down.

Steven Bruce

Keith has said that he's seen quick and amazing results following the Wim Hof freediving exercises, which are readily available on YouTube. What's the difference between this course and that? And

why is it 12 weeks? Because that seems a long time. Or you might not know the details of the Wim Hof courses. But

Kamaljit Saggu  
no, no, I don't.

Steven Bruce  
We know that Wim Hof likes free likes ice things.

Kamaljit Saggu  
I see things. I think, from a pulmonary rehab point of view, I think it's along the lines of education, it's getting people to understand and habit is actually changing them in from not exercising at all to going into within 12 weeks. If you stick to it, it's likely to become habit that you're gonna continue, but they're on so statistically, that shows that the ones that complete the 12 week programme also actually made a lifestyle change and therefore carry on improving their life. So it's not, yes, it is about exercise, but it's about education. It's giving them back control. It's giving them the autonomy to lead their lives in a successful way. Rather than laying the Pomi condition they've got override everything they've got. Yeah.

Steven Bruce  
Yeah, it will be interesting to know whether there is similar advantage in those Wim Hof exercises or not. Whether the people that Keith is aware of, or simply people who have benefited from them, whether they had asthma or emphysema or anything else. We don't know. You told me before we came on air that there are some myths about pulmonary rehab. What are those?

Kamaljit Saggu  
Well, tell me rehab and breathing there is that myth that say, for example, someone's walked in front of you, they've sat down and they are out of breath. The classic thing most people say is slow your breath down or take some deep breath. That's that's gonna solve the problem. Am I correct is that the first thing you would think of as the total wrong thing to say? And unless, because, because they're already panicked, they're already sort of quite in a state themselves. And from a physiological point of view, taking in more oxygen is not actually going to solve the problem because the problem with their breathlessness people assume it's they need more oxygen, they need bigger breaths, what they actually are struggling with is the co2 is not leaving their body. So it's not the oxygen that they need more of that there's that's probably quite abundance of it. But if the oxygen and the co2 is not leaving the body, so you know when gas exchange happens at the alveoli, so I'll show you

Steven Bruce  
just to bring up the alveoli in a second, so you might need to click back to them. Here we go.

Kamaljit Saggu  
So that's the idea of like the gas exchanges. So this is a healthy gas exchange is happening. They're now in for example, in emphysema, the And alveoli, which is those stacks there, they will expand on inspiration. But there may be no may not recoil, whereas in me a new expand and then it recoiled. And when it recoils and expands, that's when oxygen goes in co2 comes out when it's not functioning well, and it expands but doesn't come back or worst case, real bad sort of cases of emphysema as they be avoided, they stick together. And when they stick together, well, then there's



nothing's going to happen, then that's when the lung cells start to die, unfortunately. So if the co2 the gas exchange is not efficient, the co2 is not coming out, giving them more oxygen is not going to solve the problem. So those are two myths where they have to sort of slow their breathing down and deeper breaths is not sort of the right answer a from a panic point of view, and B from a physiological point of view, what I would recommend is actually getting them to ask them to study their breath, normalise their breath. Some of my clients actually find closing their eyes actually more useful. So when it comes to breathing, it is taking it in through the nose. And it's actually having pursed lips. So rather than having their mouth wide open, if they can keep their mouth closed with a slight slit, it's actually more efficient in getting what they need out where you

Steven Bruce

are. Preaching along the lines of a very, very, very famous now deceased osteopath, Leon chaeto, who talked about pursed lips breathing Yes. And for the techniques he was talking about, he talked in terms of breathing volume, as though you were blowing out a candle

Kamaljit Saggu

gently, very, very gently. So if

Steven Bruce

anybody wants it, that video is on the website, it will be in the recording soon when we get all the recordings transferred to the new site.

Kamaljit Saggu

Wonderful, there you go. You've got some reference there. But that's what you're encouraged

Steven Bruce

to accompany Leon Cheeto and Tim sagu. Boasting

Kamaljit Saggu

wonderful, privileged, but the wording is something so as as the person who may be stood in front of them, I myself need to stay calm and not get into a panic state, I also need to ask them to pace their breath. So in other words, just steady their breath, bring it back down to where it normally is. Some people find it useful to count. So one breath going in to breath going out. The other thing is positioning as well. I don't know if anyone's ever seen anyone who's really struggling for breath. When they're in that panic mode, their shoulders are hunched up, they may be gripping quite hard. And they're in that panic mode. What I would strongly recommend at that point is to try and get them to relax their shoulders, which is I agree, it's not going to be an easy feat. Let go. And I know osteopaths and chiropractors, I've worked with them for many years, we work alongside them really, really well, I've got a lot of time for them. In that sense. I'm sure you will teach people to elongate, you know, that string on the top of your head and your elongate, rather than just pushing your chest down causing sort of hyper lordosis on your back is actually to elevate themselves because you've got to think about the lungs and how much they're expanding. And if this that forwards crushing their lungs are not going to expand as well.

Steven Bruce

This of course, is the first aid remedy for someone suffering an acute asthmatic attack is to sit down lean and forwards on a table,

Kamaljit Saggu

that is a position that is one of the positions I was gonna go through. So first two is either standing or seated, elevating themselves, if they're struggling for breath, shoulder against a wall. So even though they're really long gated, they're they're resting the going forward. But it's interesting, you say that you can either do that against a wall, or you can do that on a chair. But what if someone's got a very large tummy or an upper body, and if they open their legs, it actually ends up crashing their lungs, rather than so you've got to go on the assumption that they're actually have reasonable weight and there's nothing here that's actually going to cause blockage. So when I'm exercising somebody, you've got to be very careful about leaning them forward. I know first aid will dictate this but are also be very careful of how much they're carrying on their top half. Because it could end up crashing their lungs a little bit as well. So that one I'm

Steven Bruce

struggling with that one because if you if you lean forward and you've got a big gut, that gut falls away from your lungs, how is it crashing the lungs, isn't it?

Kamaljit Saggu

If it can, that's the thing, if it can, if it is quite large, then it sometimes doesn't. Okay, so it's that physical. You can't get it past your legs right kind of movement. So yeah, sorry, that's that's what I meant by that is it's it's that large that you can't actually physically get it away. But yes, the diaphragm anything that's gonna encourage the diaphragm to work efficiently. That is Those are the positions I would strongly recommend. There is a little tip as well is I know, osteopaths and chiropractors, you have your lovely beds, and majority of the treatment could be lying down, front or back when anyone who's got severe breathlessness or even if on that day, they've got some form of breathlessness it's, I wouldn't recommend them lying down flat or even on their front for that matter.

Steven Bruce

We we do run first aid training here. And we've always said if someone who's an asthmatic or if they're choking anyone who sort of they won't lie down, you can't make them lie down. No, it just feels too vulnerable. No, but I think if they were at that stage of breathlessness we would not be trying to treat treat them and or at least we'd be trying to deal with the breathlessness rather than deal with whatever the other problems might be that they come in with. Can I ask you another question or two from the audience? mailbox has been overwhelmed by a letter from Mrs. trellis of North Wales. Okay. You won't know anything about that because you're probably not old enough to know the radio full programme that that comes from but it's actually Matthew misses trellis. Coincidentally, there was a broadcast on breathing in the just one thing series by Michael Mosley. Last week on radio four. They were interesting research findings from a Swedish researcher regarding the role of endogenous nitric oxide, and the influences on gas turnover in air sinuses. Simple but a good signpost to further reading. And I mentioned to you earlier on a broadcast we did with Kerry Sherrod, and she talked a lot about breathing through the nose generating nitric oxide, which is also very good for pain relief, which I presume is why mother's in the last stages of pregnancy at all breathe into the nose and generate as much natural pain relief as you possibly can. So your view on

Kamaljit Saggu

I have to admit, that's not what is being said. Right, in what I've experienced so far. However, if it works, I think it's a brilliant way forward.

Steven Bruce

Are we talking about what you said here? The SMS is? Yeah, so he didn't give us a roll of word in pulmonary rehab. You just said,

Kamaljit Saggu

I haven't come across that in that I have to admit it's not. It's not part of their programme, I find their programme is still quite basic in that sense. So I can't comment on it from a pulmonary rehab point of view. All I know is that they're not currently using that kind some some of them may do, but the ones I've experienced, they are not going through that or

Steven Bruce

Lauren has asked an interesting question. And I say it's interesting because she says Would this be would the programme be beneficial for someone with bronchiectasis? Now, it's interesting for two reasons. We don't see many people with bronchiectasis. But I did have a patient who was actually also a patient of the late and gravely on Cheeto just mentioned. And I know he was treating her so maybe he was using the same techniques with her. I don't know. So would there be any difference in approach? Or is the programme just standard for us different respiratory conditions?

Kamaljit Saggu

As much as I'd like to say there's a different approach? I think it is more of a generic approach. And that's one of the dare I say, this is my opinion only. But that's one of the faults I did find is it is generic. And until I looked at the list of who was in there, I didn't know what anyone had no one was treated any differently in that sense. So in that sense, it should be different. But I think there's there's more of a generic here is this plan that you know, here is the booklet these are the exercises that need to be actually not necessarily a bad thing. It's standardised. It is a standardised programme here is the and I was given that booklet as well. These are the only exercises we will recommend in pulmonary rehab. So I don't think they deviate from that module. Me on the other hand, might do.

Steven Bruce

Okay, well, you did say that you don't always follow. No, I don't know why. We might ask you how you different when Matthew has Mrs. trellises also asked whether breathing resistance devices are of any help in respiratory rehab. And you and I talked about those before the show. And I think we agree that they're more likely to be abused when in sports where people believe that it will improve their gas exchange their lung power,

Kamaljit Saggu

you might find the odd one who's willing to try these kinds of devices. But generally speaking, the ones I've come across, I think they're just grateful if they can manage it on their own. And that's, that's enough resistance and exercise or any sort of exercise is giving them enough resistance. Some so so for example, the exercises there's several I would teach. And it's amazing how many people don't know this, but simple exercises, like if I'm teaching somebody seated, I'll ask them to engage their pelvic floor. I'll ask them to engage their tummy muscles a little bit of a glute clench. So bottom muscles are engaged and then expand their lungs and then bring them back down again. And I'll Keep doing it go over and over and over again until they've got it in their head how to do it. And believe it or not it that alone, one of my asthmatic clients that I feel like I'm breathing better. So for them, for the type of clients, I work with technique, and exercise seems to be the way forward. But having said that there might be the odd one that will do their own research and look for devices like

this and give it a go. But they need to be confident in themselves and reassured that they're not going to push it too far.

Steven Bruce

Gone, drag you back to something that you said you were talking about the exercise programme at the beginning, you talked about it looking like a circuit training session. And of course, what I had in mind is that there will be the programme will be teaching people how to breathe in properly, or breathe out through pursed lips, and so on. But there is seems to be that there's more to what are the exercises in this.

Kamaljit Saggu

So these are the most people are going to be more familiar with these it is it is the squat, it is the shoulder presses is taking the arms above the head coming back down again, it could be going up and down a step. It's actually if you've ever experienced cardiac rehab, it's is similar in that sense. The setup can be circuits, if they've got another room where they've got treadmills and crushed trainers and things like that, they will go on them as

Steven Bruce

well does that mean you could just say to anyone or just go to the gym, and you're

Kamaljit Saggu

confident enough to do so if they feel confident enough to do so. But they need to have that education of all those sort of markers, the bulk score on RPE form as well is if they feel confident enough to do so. But often these kinds of places, tends to be bit more on the generic exercise that you me and you would be familiar with. But it's that added on what their breathlessness is like, can they increase the weight? Do they lower it down? Do they make it higher? Do they stick in a chair? Do they do it standing? All those things are taken into consideration?

Steven Bruce

Would your average personal trainer not be sufficiently adept to do?

Kamaljit Saggu

So this is an interesting question up until so the weight exercise instructors level one and two are the ones that teaches classes. So no definite No, they won't know that. Level three is personal training. But if you've they've just done personal training on its own. No, they would need something at least minimum something called Exercise referral course under their belt. And that course will go over about 15 main conditions of which pulmonary conditions are part of them, but they're not in that much depth. But technically, at level three, they could. But if they come in breathless that day, or they've had to use that inhaler that day, then they need to deem it as an off day. For someone like me who's got the degree on all level for pulmonary rehabilitation qualification and above, then you can still work with them, even if they've used that inhaler, because you've got that more in depth understanding. So you have to be careful level three personal training on its own. No, they got to have the exercise referral course under their belt

Steven Bruce

wherever you can see where I was going with this. Because if the 12 week course is free and the value free, but they can pay a personal trainer to do something which is somewhere near as efficient, then they might be greater continuity agree. So they would

Kamaljit Saggu

be and this is kind of where I sit, because people who are coming to me are willing to put up money, for starters, so that there's already that commitment there. And the problem I have with having worked in the NHS, a lot of what the NHS does is that you're in for six weeks, you're in for 12 weeks, you're you're in for that period of time. And the interesting thing about pulmonary rehab once you've done the 12 weeks, you can't actually access it again for another year. So which is so unless Milton Keynes is one of those rare places where there's a follow up which is where you work whereas where I work, but they are overrun because there is that many people that need that continuation whereas me I find the 12 weeks or six weeks in some teams across where I've worked in the NHS I find it's not enough I find it's not enough and even if we get them to a certain level the chances of them to continue it is very very low. So this is where I sort of it's an open four week rolling contract essentially what they have with me and they can keep coming there

Steven Bruce

are those working the same way you do I take it I don't know he says on the show I got the impression the only way you could get any pulmonary rehab really was to search for the NHS but we courses

Kamaljit Saggu

Yes, I believe I'm one of the few that have a got the experience and be confident enough to do it on my own.

I haven't come across many people like me that are willing to do it may be I'm not saying there isn't but there's Not many that will go against the grain and do it their own way and put it this way the pulmonary rehab, up to date course I did refresher course I did last year, I was the only one in there independent, doing my own thing. The rest of them were all part of some form of pulmonary rehab at some stage. Whereas I was the only independent one in there. So I do like doing it my own way.

Steven Bruce

And you're kept busy. Oh, yes. Yeah, yes. Elspeth has said, What about oxygen enhanced exercise with turbo machines? Is that useful in pulmonary rehab?

Kamaljit Saggu

Ah, that's a good question. Again, I haven't come across it. If I'm really honest, I haven't come across it. It would be useful to start testing these things whether whether they are currently, I'm not sure. But what as of the last year, I have not seen people use these kinds of turbo enhancers to try and get their breathing a bit better.

Steven Bruce

Well, I confess I'm not sure what what's meant by that. But the fact that there is exercise involved in it sounds as though it is likely to do some good. Yeah, again, we are targeting here people who are probably quite worried about their breathlessness in the first place. So there'll be nervous about doing anything

Kamaljit Saggu

to more than that.

Steven Bruce

And but on the subject of oxygen, quite like this question. TKN says we need  $\text{CO}_2$  in the blood and cells breathing out more  $\text{CO}_2$  actually causes hyperventilation. And it's a problem with anxiety. Our body doesn't measure oxygen, it measures the buildup of  $\text{CO}_2$  in the body, which will then cause us to take a breath in. So I'm, my issue is I'd always thought that actually it's greater  $\text{CO}_2$  in the body causes you to breathe, because  $\text{CO}_2$  is the stimulus. So it's not breathing out more  $\text{CO}_2$ . That's the problem. Is Mainz is keeping the levels high in the body, isn't

Kamaljit Saggu

it? Yes, I can see that point as well. But from my understanding of it is the ones people I've seen someone use emphysema as an example, is when majority of their lungs I have seen people right up until only 12% of the longest are functioning. So it's, it's, it's getting that breath out is not easy. And actually, I think you're hit it on the head there, they've not got enough  $\text{CO}_2$  to push out in order for that gas exchange to happen. But also, the mechanics of their lungs are not functioning very well either. So with chronic asthma and chronic bronchitis as well, if there's a lot of mucus and a lot of narrowing again, it's going to make it a lot more limiting what comes in and what comes out. Yeah, so that's my take on it. That's my understanding of it as well.

Steven Bruce

Bit more on bronchiectasis. Christina says bronchiectasis is more to do with draining the phlegm. I used to have to beat my upturned dad on his back to help him cough it up. Thank you for that very colourful reference.

Kamaljit Saggu

slide onto it tends to be green and yellow as well. But that

Steven Bruce

doesn't mean that pulmonary rehab isn't also a good

Kamaljit Saggu

can still help. Yeah, because the physios I've worked with, particularly for the respiratory physio who are leading this, then they would encourage all of that phlegm to come up as well. And I know you can, you can be actually doing quite a bit to get that coming back up again. And it needs to be it needs to be moving. Because that rate of infection is a lot higher if it all just sits in there. But generally speaking as well is if they can X, try and clear it all and then still exercise that is always going to be more positive than being sedentary or not moving at all.

Steven Bruce

Andrew said, what effect does CPAP for sleep apnea have on lung function CPAP is constant. It's

Kamaljit Saggu

I've got a couple of clients like this. My understanding of CPAP tends to be for people with sleep apnea, but when they are unable to breathe like me and do we can do it quite involuntary without thinking about it. These people don't, they'll either wake themselves up from sleep, or God forbid, they'll actually end up not waking up at all. So that's when they so that's for me, my understanding of that is survival is to keep them or keep them alive overnight, and actually keep them functioning well in that sense. So they can have a good night rest, but prompting them to breathe at the same time. And they do exercise with me. And they do exercise and they do really well as well. So you've

got to argue the point that they're sleeping well at night, they're getting the rest, they're getting that recovery, they're going to exercise better the following day. But if they're having disrupted sleep because they keep waking themselves up because they haven't had I mean the oxygen the involuntary movements not there and they're having to voluntary breathe in and breathe out. I would always wake up that if they can sleep well. With the CPAP on an uncommon exercise we're doing doing a good job at works well together, actually.

Steven Bruce

And I hate to raise this I'm it's kind of related, I suppose, in a way. Are you seeing clients who have breathing problems, which you can attribute to COVID? I'm very cautious about why I asked that question, because too many things are attributable to COVID.

Kamaljit Saggu

I am gonna say this with caution, but not only COVID. And I say this is my opinion, only the vaccines as well. I think it's triggered off a lot of lung issues. I've had a lot of people come to me, post COVID, or post vaccine. And they're, that shortness of breath is there that wasn't there before. Yeah. And, and it's, and it's call it long, COVID is going on a lot longer. So it's not like they have a two week infection. And then it all settles and they're back to normal six months down the line, they could still be getting that shortness of breath, you've got to bear in mind, we're not looking at it isolated, they may have other comorbidities as well. And I actually did ask this question of a gentleman I follow who's a PhD level, he was asked to design a course, for exercise for people with COVID, pre post COVID. Believe it or not, whether you like his answer or not, he answered to me. He can't write a course he won't deliver a course because there's not enough sufficient evidence to suggest or show what COVID actually does to the lungs. So therefore, he won't actually. So this was this was just under a year ago, he said this to me. So maybe it's moved along since then. But I did ask him a COVID seems to be more prevalent than ever at the moment, it's still showing up in my clients, existing clients who then catch it, and it takes them a little while to recover. And believe it or not the vaccines, I've got to say this, some people have had some serious side effects, to those

Steven Bruce

indisputable, bigger questions whether the net net effect was beneficial, I suppose. And that's not a question for this programme.

Kamaljit Saggu

No, but I am seeing a rise in them to answer that question.

Steven Bruce

So I might not like the answer. I don't have an opinion about answers. I just want to know what what possible sides of a story are. And in this case, obviously, he doesn't have the evidence to go ahead with

Kamaljit Saggu

he doesn't have the evidence to go ahead and build such a programme. But in my own, but what he did say was treat the symptoms. So if they're coming to me, and they've got symptoms that you know, they're showing symptoms of breathlessness, then you go into what you know about breathlessness and start teaching them that way.

Steven Bruce

And we're out of time. Oh,

Kamaljit Saggu  
I didn't do my standing

Steven Bruce  
stuff. No, we didn't do the standing demonstrations. We didn't do the exercise. I'm disappointed. But we're gonna send out some resources to people after this. But we've had 370 people watching us and questions coming. meds are always a popular topic. Thank you very much for coming into the studio. Who knows, we might get back in and do some more with some proper standing Exercises Next.

Kamaljit Saggu  
Oh, I was all ready to do. Thank you very much.

Steven Bruce  
Thank you for joining us as well.

DRAFT TRANSCRIPT