

# **Transcript**

# 332 – Sleep Apnoea with Dr Neil Stanley

#### Steven Bruce

Good afternoon, and welcome to another of our lunchtime learning sessions at the academy. Today, we are talking about sleep apnea. And I've got a five star guest in the studio with me, an expert on sleep or someone who has lectured internationally someone whose credits in the media, the television or print radio, extended massively. It's Dr. Neil Stanley. Neil, welcome to the show. Welcome to the academy once again, longtime no seat.

#### Dr. Neil Stanley

Seems to me yeah, I'm very glad to be here. Thank you. Yeah.

#### Steven Bruce

And I'm glad to have you back. Because I don't know whether something makes me feel that this end of the year, just after the clocks go back is probably a bad time for people sleeping patterns. I don't know why I should do that. But is that true or not?

#### Dr. Neil Stanley

Yeah, it does take some people a while to get over the clock change. It's only an hour. And he's let's be honest, the clock change is no different from moving from Paris to London. So it doesn't have a huge issue. But, you know, I naturally wake up at between 630 In seven o'clock. And of course now I'm waking up at roughly six o'clock in the morning, according to my clock, which good takes a bit of getting used to having an extra hour awake during the day is not as much fun as I

#### Steven Bruce

wonder if a bigger problem isn't actually the fact that it's just darker this time of year because that's, that probably upsets people as well isn't

# Dr. Neil Stanley

on mining is not great.

# Steven Bruce

You've been on the show a couple of times before obviously you are as I said, You're a sleep expert, and you've got massive credits to your name. And we've had some entertaining discussions in the

past about other people who purport to be sleep experts which who make the popular press sleep apnea though. So that's a reasonably serious medical problem, isn't it? What's the extent of the problem?

#### Dr. Neil Stanley

Sleep apnea is a problem. The thing is we, we have pretty good figures for men, which is about sort of six to 10%. What we don't have is good figures for the prevalence in females, because it's one of those things that like snoring is not thought to be done by ladies. And so who's perhaps underreported? And again, it might be underreported across the board, because people are actually unwilling to actually seek medical attention. So, you know, it's common that certainly men be nagged for, you know, 10 years or so before they finally go into the GP and see if they can get the problem sorted out. So it may be something that people are sort of suffering in silence or just putting up with and that that is a problem because it is a serious medical condition. And, more importantly, it is eminently treatable, which is great news, because there's almost certainly a treatment for a person's obstructive sleep apnea.

#### Steven Bruce

So, you said that people might have symptoms for 10 years, but I imagine that the vast majority of the public certainly and probably many medical practitioners wouldn't have the faintest idea what those symptoms are.

#### Dr. Neil Stanley

Absolutely, the the defining thing about obstructive sleep apnea is that you have these pauses in breathing during the night. So the typical pattern is five or six loud snores and then a pause in your breathing, that lasts anywhere from 10 to 180 seconds to three minutes. And then you have a roaring snort as you overcome the obstruction, and then five or six more loud snores and then another pause, and people can have hundreds of these pauses during the night. So unless you have a bed partner to tell you that you aren't doing this, you may actually be completely unaware of it. But the consequences of this one sort of physically, it massively increases your blood pressure and therefore increases your risk of heart disease and stroke. But too, it also causes you to feel incredibly sleepy during the day. So you will find that your performance is impaired, your memory is impaired, your reaction time and things like that you just don't feel on top of your game. And the issue is that for many people, they confuse the symptoms of sleep apnea with just getting old. So it's, you know, what can I expect? I'm old and knackered. I'm falling to bits. And therefore, you know, what can I you know, this is just a natural consequence of ageing. And that's the issue people are willing to put up with it because they don't see it has a problem and and you say your bed partner may say, Well, you're you're snoring or pausing breathing or disturbing my sleep. But the app NAIC person might just say, Well, you know, I don't, I don't notice I'm asleep. Of course it doesn't, it doesn't matter to me. And then it's once you get that connection, that the breathing problem during the night and the daytime symptoms aren't directly connected. That's when you will probably go and see your clinician. The problem with clinicians is that they have been drummed into them that sleep apnea occurs in mid fat middle aged men, collar size over 17 and a half or 18 inches is their sort of defining criteria. But the worst case so serious. Yes, absolutely. The collar size over 17 and a half or 18 is, is their defining criteria. So they'll look at you and it's a bit of a bit of a fat around the neck, you might be a nightmare. The worst patient I ever saw was thin 16 and female. So if you're almost certainly if you're female, the doctor is hardly likely to suspect that. And certainly if you're a woman of a certain age, and you go into the doctor and say, You know I'm not feeling my best, I'm not sleeping, as well as I used to I don't feel great during the day. He's almost certainly going to you know, talk about your hormones and menopause long before he would ever perhaps suspect sleep apnea. So, there is a there is a an issue in the recognition of apnea between the between the sexes.

#### Steven Bruce

I guess you get on one of the key problems with virtually everything we discuss on this show there that there are so many things that we have discussed with other guests about that cause fatigue during the day whether it's B 12, deficiency or hormonal problems and so on. working out what the root causes must be quite tricky. But you said that obstructive sleep sleep apnea, which presumably means that there is another form of sleep apnea sleep apnea,

#### Dr. Neil Stanley

there is a much rarer form of sleep apnea called central sleep apnea. So with obstructive sleep apnea, it's a mechanical problem, the airway closes, you're breathing against that blockage, and then you overcome that blockage. And that's where you get the roaring snot, you overcome the blockage, you then go back to sleep and again, but there is a much rarer variant called central sleep apnea, which is essentially the brain forget to breathe. it, put it very, very simply. And it only it takes the changes in the in the pressure and in the chemistry of the blood, to sort of kickstart the brain to remember to breathe again. And it's also a variant where you have this mixed you have both Central and obstructive, but Central is a vanishingly rare. Whereas obstructive as I say, is, it probably after insomnia is probably the most common sleep disorder, medical sleep disorder. So it needs to be the presentation looks the same, except for with obstructive sleep apnea, the chest and diaphragm and moving because you're trying, you're breathing against the blockage, there's just no airflow. Whereas with central sleep apnea, you're not breathing, the chest and the diaphragm aren't moving. So that's the defining differentiation between the two.

#### Steven Bruce

You also said earlier that the problem is often put down to ageing, does that mean it does worsen as you get older?

# Dr. Neil Stanley

It does both because of anatomical changes. You putting weight on around the neck, but also, it just it's commonly in women mentioning about the menopause, it's common in women and menopausal women, it is just it's just one of those things that changes, it's not to say that it doesn't exist in the younger population. And again, it may be that it is possible in children, certainly, to have sleep apnea, it increases in pregnancy increases as a menopause. But as they as we get older, we just get a bit larger, and our necks become a better bit thicker, and that that can cause a cause the issue.

#### Steven Bruce

So what is the actual blockage I had in mind that perhaps it was simply the tongue falling backwards, if you're in the wrong position in bed,

# Dr. Neil Stanley

it's the soft palate and falling back as well as the jaw. So with sleep apnea, there are the treatments most people may have heard of is CPAP, continuous positive airway pressure. And the idea of CPAP is that it is a mask that either covers the nose or the nose and mouth, and it blows air through the system and therefore keeps the airway open. Now CPAP has been around commercially for probably 40 years or so. And it is highly effective. It's just that you have to wear it and it's a device beside the bed is basically a compressor and it's a blows air through a pipe into the mask. People find that

uncomfortable it dries out the the mouth and the nose. And so people find it difficult to wear, there are advances on CPAP. There's a version that works more like a scuba divers regulator. So it only works when you breathe in, it puts the pressure in but when you breathe out, you're not breathing out against the pressure. And there's auto CPAP which basically adjusts the pressure according to your breathing across the night. So that's that's, again, a very mechanical way of keeping an airway open but the device there's another device called a mandibular positioning device or mandibular advancement device, which is essentially like a boxers gum shield is fitted by a dentist and you wear it and because you may have a recessed jaw, it stops the jaw from falling back and closing the airway. And this has gained sort of popularity recently because it's less disruptive than wearing CPAP but it's a both CPAP and a well fitted mandibular positioning device can significantly reduce the number of obstructions and therefore improve both sleep and daytime functioning. You can buy mini mandibular positioning devices on the internet, there's basically their boil in the bag of oil and bite you, you get a plastic mould, you bite into it and it hardens. And but they're, they're very, very cheap. But they're also not particularly effective.

#### Steven Bruce

Right. So those mandibular positioning devices, are they as effective as CPAP

#### Dr. Neil Stanley

is if anatomically it's right for you. So if you have a slightly recessed jaw, they are very, very effective. But again, that's not everybody. And of course, like anything, you know, some people snore through their mouth, some people smile through their nose. And of course, if you're wearing a CPAP device that isn't well fitted, you'll get leaks from the mask. And if you just have a nasal mask, and you open your mouth, of course, the airway is all connected into it and will leak. So it's it's you need to get the right mask fitted well, and you need to wear the device, and then it will work. But let's say for a lot of people, you'll hear oh, I only wear for the first four hours of the night, then I get you know annoyed with it or bored with it. So it is it is one of those things that requires perseverance. And you'll see on you know, social media, you know, people saying how horrible it is how unsexy it is, and things like that. It's sort of rather demonised unnecessarily. So, but yeah, there's a it's an effective treatment, it just the first step is you have to go to the doctor, it's not going to it's not going to cure itself, you have to go to your GP. And you have to have your your severity of your of your sleep apnea, judged and then and then treated.

# Steven Bruce

Let me let me come back to that in just a second. But a curiosity of mine here is you've talked about it being some of them being a bit like a scuba regulator, and obviously wouldn't want to sleep with a regulator in my mouth are very uncomfortable. But is there is there a separate air reservoir air tank or is it simply taking room air and

#### Dr. Neil Stanley

it's just taking them out? I mean, the CPAP 's were invented by Colin Sullivan in Australia, late 40s. And essentially, he reversed engineered Hoover put it to blow. And in the in the 80s when they first came out, they were you know the size of a shoebox, they sounded like a Hoover and they were a pretty blunt instrument. They they just blew air and this could be at quite a high pressure. And you'd say you'd be breathing against that pressure. And that would be difficult, but I'd say that they have come on leaps and bounds. So I won't say they're silent, but they're sort of whisper quiet now they're much smaller. And they say the masks have become more comfortable and more well fitted. But yes, they are. They aren't sucking in room air but they some of them have have humidifiers on

them. Some of them do humidify the air. And other I mean people sell creams and lotions for moisturising the nose. And so there's a there's a whole industry around sleep apnea. And as I say it is just designed to get the best device the best mask for you as an individual if if you ever walking through an airport, certainly in America, you will see sort of middle aged and elderly men carrying a more sort of shoebox shaped bag on their shoulder rather than a sort of a briefcase. And then that will be their CPAP machine. Because you know, as I say if you wear it, and it's instantaneous you wear you wear a CPAP device and you will feel much much better, more live and more vital than next day. And there are very few things in medicine that are as successful and as quick and being successful. As C black. People shouldn't be afraid of going down that route.

# Steven Bruce

Yeah, that's interesting, because we always assume that as you get older, you're going to get more tired, which doesn't make sense. But if this is a problem which increases with age, then potentially that could improve the quality of life for a lot of people. If you started to get tired in the end during the day,

#### Dr. Neil Stanley

you Indeed, and this is what this is one of the things that as I said earlier about just accepting things, there are natural changes in our sleep. As we age, we lose our deep restorative sleep. So sleep becomes less refreshing, less recuperative, so we are liable to wake up not feeling refreshed the way that we did when we were 20. So there's these natural changes, but we have to be aware that there are changes as we get older, that can be fixed. So sleep apnea being one of them. The other one is getting up to pee. If you pee more than twice a night, that is a problem that you should be looking to being sorted out, then and there are good medications that can help it. So just thinking, as I say, oh, woe is me, what can I expect, that's the wrong way of looking at it, make sure you don't accept Poor sleep is a part of ageing nor feeling sleepy during the day, that is not necessarily a natural part of ageing. So, you know, the elderly may nap in the afternoon. But that's to do probably with the fact that they can, not because they need to, but they have the opportunity. If you work nine to five, the idea of having a nap is zero. So to

#### Steven Bruce

drag you back a little bit, sorry to interrupt you, then you said to me, it's a problem, you should go to your GP. Two parts of that, of course, are recognising it's a problem. And we ought to talk about that a little bit more. But also, what's the GP going to do if you go and say I'm tired during the day

# Dr. Neil Stanley

are they this is this is the issue, you you have to be very much more of an advocate for your your health than just expecting your GP to know what they're doing. Certainly, as I say, and unless you're a large, middle aged man, the likelihood that the GP will instantly suspect Sleep apnea is the issue. So the first thing is is a report from your bed partner, if your bed partner, the bed partner can tell you what you're doing during the night in a way that you won't ever know you could be severe sleep at night and not actually know what is occurring in life. So your bed partner will provide the useful information. And you know, that's information you need to give to your GP, I stopped breathing during the night repeatedly, that's all they'll need to know to suspect sleep apnea, just saying I'm sleepy or I'm tired during the day isn't going to point them in that direction at all. So it's about them, the noise that you make during the night is important in telling your doctor and then you need to advocate for yourself to be sent to the NHS in the UK is is quite good. Actually patent it's not very good for my father asleep. But it's quite good for sleep apnea. And certainly, in Europe and America

Sleep apnea is is you know, well recognised and the UK were pretty good. And so there should be a respiratory sleep centre close by to most people in the UK and you would get a referral to that sleep centre to one measure how severe the sleep apnea is, and therefore whether need be treated. There are now centres in the UK who are using little at home devices. Something like the Anqi pebble and that sort of thing which you get sent in the post you wear it and it picks up whether you have sleep apnea or not. So that can be used as a first pass sort of triage before you get into the sleep lab because there might be a waiting list. So that there are some centres are using these more frequently now. And then as I say the key thing, which is a law that was passed by the EU, just before the UK left, and so it is on our statute books is that if you are a professional driver, and it is suspected that you have sleep apnea, you are required to surrender your licence in till such time as you receive treatment for the sleep apnea. So that's the law. That's what DVL will say. That's not what happens in practice, unfortunately or forthcoming depending on which way you look at it, but that is how seriously patenting is taken because it approach your daytime performance. It will significantly increase your risk of car accidents and other experts specifically. So I'd say as a commercial driver, you should you should be have a very heightened awareness as to whether you are sleep apnea patient, and seek treatment as soon as you can. So you don't have to surrender your licence and therefore sort of lose your your ability to make a living.

#### Steven Bruce

That makes it sound as though you are busily driving your commercial vehicle and he will suddenly drop off because you're an APNIC. I suspect, realistically, you will feel drowsy, and you'll pull over and go to sleep and you

# Dr. Neil Stanley

know, that you won't, that's the problem. The problem is that the more sleepy you are, the less able you are to judge that you are sleepy. And that's the issue. You know, we have the signs in the UK on the side of the motorway that says tiredness kills take a break. By the time you recognise that that's you and you should be taking a break, you are a danger. And so yes, Sleep Apnea will cause you to have these micro sleeps and therefore massively increase your risk of car accidents. If you're driving along at 60 miles an hour, and you fall asleep at the wheel, it will take you four seconds for your car to come off the road. That's not a long time at all. And so yes, but sleep apnea significantly increases your risk of car accidents is literally because of that, because of falling asleep and well. And of course commercial drivers are people who perhaps don't get as much exercise and eat healthy food. And so they are more prone to sleep apnea, the sort of the exact population of people who are liable to develop sleep apnea. So it's something that the haulage industries, professional drivers should really be very, very aware of.

# Steven Bruce

Just a minute ago, you mentioned a device that you might get sent to where to to assess your sleep apnea, we're setting like is that like a Fitbit? Or is it a bit more complicated,

# Dr. Neil Stanley

it's just a little, there's a number of them, their level devices are quite really quite small. And you you stick it on your on your throat, and it picks up the sound of the apnea. And it's kind of a medical adhesive that keeps on there during the night. And then you literally send it back in the post after a couple of days. And so there's a number of these that have been been sort of done, and then they're incredibly easy to use. There's no setup, there's no, you know, literally, you just you just put it on and it records and because it's a it's picking up a sound signal is quite clear that you have you know,

very loud sound, and then this this pause, in breathing, and so the pattern is very easy to pick up, it's just that we now have the ability to miniaturise these things into into a neat little device. So I just say that there are a number of the major respiratory lavapies who use it. Because of course, it means that if you have very severe sleep apnea, it will pick it up and they can fast track you rather than having maybe one or two events in the night which is you know, technically sleep apnea, but it's not medically relevant. And so, you know, there are a number of services that are using these

#### Steven Bruce

pepsin to in her own situation here. She says I have a deviated septum, and my left nostril is permanently congested despite three failed en t ops to try and help. She's convinced it plays a part in her obstructive sleep apnea. And then she's now on a waiting list to be put on a CPAP machine but it's a 15 week wait, hold your first drink.

# Dr. Neil Stanley

Exactly and that's that's the problem as I say the NHS is good, but it's not great at this and there are long waiting lists. Yes, a deviated septum can be a significant part of certainly the genesis of snoring and maybe for sleep apnea because of course essentially anything that causes air to be turbulent will cause a noise and a deviated septum do that. There is a there is the problem that there are long waiting lists as long waiting lists to go into a sleep lab and then there are long waiting lists to get a device and then the NHS is not as shall we say proactive in making sure that you know follow up visits and all that sort of thing. In the continental Europe, you know the in some way like Belgium, you would be Seeing probably by the end of the week and literally go home with a CPAP machine after the diagnosis that morning in the morning after that sort of thing. And Denmark, Norway, places I know personally, for this sort of treatment are similar. So as I say, it is an issue. And in many countries, there are private services where you can, you know, get one of these things from the manufacturer yourself. And manufacturer has a team of technicians and nurses to do the follow up that again, is not something that is big in the UK because of course, we have the the mindset of the NHS. You know, we don't, we don't pay for things the NHS gives them to us for free sort of thing. But it is it is very much a problem.

#### Steven Bruce

So Well, before we go on. pips also said that she's really scared about wearing a CPAP machine because she thinks it'll be uncomfortable. She's asked if you've got any tips on how you get used to wearing one of these things.

#### Dr. Neil Stanley

I did again, that's about the masks. I mean, if you know again, when when I came, when CPAP first came out, the mask looked like something that wouldn't look out of place in Top Gun, you know, sort of a huge rubber nose and mouth mask, the you know, going to sleep conference, now, you'll see probably 300 types of different masks. So with silicone sealed, very lightweight. So they, they, they should be one out there that is comfortable and worth wearing. And the read how you get used to it is by convincing yourself that it is medically necessary, you need to do it, you wear it, you will feel great. And it concentrating on the feeling great rather than feeling uncomfortable. It's just say, you get used, you can get used to anything as long as you persist and say there are so many benefits of getting your theme or your sleep apnea treated. And it's worth coming on.

# Steven Bruce

Well, I guess also, as you said a moment ago that the benefits are immediate. So people experience that straightaway. Almost certainly, if apnea is a problem.

#### Dr. Neil Stanley

Absolutely. If the MOSFETs there's no leaks, and she wears it then the next day she she literally she should wake up a new person. And I say there's very, very few things in medicine you can ever, ever say that about. So I mean, that's the that's the positive.

#### Steven Bruce

What's the what's the, what's the further root front, you know, under the NHS, Charlotte said that she had her tonsils and adenoids removed about four years ago, and it cured her obstructive sleep apnea, she does say that the recovery from the opera surrenders though

# Dr. Neil Stanley

they can be they can be surgery surgery is is can be in implicated in certain people that to basically cut away some of the the fleshy bits of the soft palate. There are a number of ways of doing this one is a surgeon with a scalpel slashing away relatively randomly. The other one is using lasers or using heat. So you just hit the soft palate and short smoothing shorten it or reduce it in size that way. It's known as a you Triple P and please don't ask me to pronounce what that stands for. But essentially what an end surgeon could do, the issue is it is it is a pretty imprecise operation. And it makes things better in a good number of people. It has no effect in probably a large number of people and can even make the situation worse in maybe 20% of the people. So just being offered an operation is not necessarily the end of all your problems. And knowing the reputation of your surgeon and his success rate of your surgeon is very, very key to this and again this is not something that is done in the in the UK we don't get the table of surgeons. You know I have a personal friend in real practice both in Denmark and in Norway. As an EMT surgeon and if I ever had a problem I would definitely go and see this man because I know he And I know his reputation, I've seen the success of his work. But you know, that's a privileged position for me to know that you're you're loving it Professor Simon Berg, who works predominantly at the lovies and Berg Hospital in Oslo. And he's got a number of colleagues there, I mean, one of the leading centres, where it's a leading centre in Scandinavia. So, so yes, you know, these things. But I say, within the NHS, you know, it can just be a hit and miss affair. And but there are other there are other things that can help. I mean, you're talking earlier about having a large neck. You know, losing weight can help. Some people only experienced this if they're sleeping on their back. Because, of course, you know, that everything drops back. So sewing a tennis ball in the back of your pyjamas, so you can't lie on your back, you know, some of these things may reduce sleep apnea won't make the sleep apnea go away. But then, you know, it may drop it from being a bit of a problem to so what, you know, it's not going to do anything for severe sleep apnea, but they're saying there are lifestyle changes. You know, some people may only do it when when they weren't knowing they've drunk alcohol. So, so let's say that at both ends is the extreme end of surgery, but there is some lifestyle changes. But to say that the first thing is to acknowledge that you have sleep apnea, and that it is an issue that you wish to have to resolve to have fixed. If you don't do that, nothing's gonna help.

# Steven Bruce

Just going back to the sleep labs that you mentioned, assuming that you get through your, however long the waiting list is, how long would somebody have to spend going to a sleep lab for them to sort out the problem diagnose it,

#### Dr. Neil Stanley

they can be done in one night, there's something called a split night study, which is essentially where you where you don't wear the device for half the night, and then they put the device on for the second half the night, it would depend on how accurately they can get the pressure, how much they need to set the the air pressure on a device that, you know, that can be as a single night. Other labs may do two nights just to make sure that they've got the right thing, but to say with an automatic device, there would be no need to have the titration Nilton, the automatic device would do that on its own. But again, these things are more likely to be done in private practice. Because they cost more than a standard CPAP. And therefore on the NHS, you're probably going to get, you know, at least last year's model, rather than the latest tech. There is no say you can purchase these devices yourself. If you have the money and then you know, by buying a car, you can get something with all the bells and whistles on but it's going to cost you more money than the time. So

#### Steven Bruce

what will it cost? What sort of figures we're talking about?

#### Dr. Neil Stanley

Anything from a few 100 to a few 1000 pounds? Depending on on, as I say on you know, the how quiet is how small is how light is whether it's automatic or buying level or whatever these things can can cost a lot of money but yeah, it's it's a all as they you wait for the you wait for the NHS, two wheels to grind slowly on the NHS.

#### Steven Bruce

But we're on the subject of devices, someone who is called potato viewer on my list and I really ought to know who potato viewer is by now. But they've asked willingly smartwatches or other devices that monitor sleep flag up any problems like sleep apnea?

#### Dr. Neil Stanley

Not necessarily because they're not that accurate in measuring the stages of sleep. If they have a variable called Sleep fragmentation, or something related to the fragmented nature of sleep, this might give you an indication of a lower quality of sleep. And that may indicate potentially sleep apnea. But not I'm not aware of any smart watch that he specifically made. is sound in this regard? And so it would merely be a possible x, you know, it would make you think, is there something wrong? And maybe sleep apnea could be the thing that's wrong. But I'd say, a million times more accurate than that. Is your, your wife or your girlfriend punching you in the ribs telling you? You know, for God's sakes, God, Why'd you stop breathing in the night? You know that? That's 100%. But yeah.

# Steven Bruce

The million cases because she's holding the pillow over my head generally what?

# Dr. Neil Stanley

Exactly, exactly, so that that would give you that indication? So no, say that you either got these the devices we talked about earlier, which some of these respiratory services are using, or your bed partner report? Those are the two most likely ways you are to find out.

# Steven Bruce

Let me let me rush through a few questions because we're coming to the end of the programme. Christina says central sleep apnea linked with sudden adults Death Syndrome.

#### Dr. Neil Stanley

Not that not that anybody because it's so rare, it's not really known. I mean, the likelihood that you'd get a die, you'd have central sleep apnea, you'd get a diagnosis of sleep apnea, and then that get tied up with sudden death syndrome is very, very rare that there may be a link. But the literature suggests that nobody's ever died of sleep apnea, you the body usually decides to start breathing again.

# Steven Bruce

Okay. Show me is also if there's a treatment for central sleep apnea.

# Dr. Neil Stanley

Unfortunately, not we have, you know, it is a brain issue that we really don't know what the genesis of it is why the brain would do such a seemingly silly thing. It doesn't sort of make sense

#### Steven Bruce

to say, you said right at the outset that people could stop breathing for three minutes, that is a very long time not to breathe.

#### Dr. Neil Stanley

You can't consciously do it. But of course, when you're asleep, you're not conscious. So the so what you're relying on is the say the pressure receptors and the chemo receptors in the body to say, Hang on the blood becoming a bit acidic. We need to stop that and therefore breathe wherever there's a, if you're trying to do it voluntarily, you're, you're checking our choice. Before you go that far, of course, you know, we know that there were these people who freedive who can hold their breath for extended periods of time. But yeah, it's because you're not conscious of what's happening that you don't consciously think, oh, you know, I really need to breathe now.

#### Steven Bruce

So I'm exhausted, asthmatics are more likely to suffer.

# Dr. Neil Stanley

Not, again, not necessarily, because it's a it is a physical blockage that you're wheezing against in the upper airway. Asthma is much deeper down in the lungs. So again, you know, they can exacerbate each other, but it's not as though one causes the other.

# Steven Bruce

Yeah. Okay. Ha, so if you've got any experience of particular breathing techniques, and whether they can help.

#### Dr. Neil Stanley

There is there is evidence from the practitioners who claim that it helps. And there is less scientific evidence that there is any, any benefit for it.

# Steven Bruce

Is that as is so often the case, because nobody's paying for the research. I don't know if there's a if there's a big pharma interest in selling CPAP machines or whatever.

# Dr. Neil Stanley

There isn't an interest. I mean, the thing is partaking method has, you know, has a very unscientific reputation. There's almost nothing in the scientific literature about it. But of course, if you have a problem, you know, it's a breathing problem that occurs during the night if you optimise your breathing. It may be pop on and we know for for things like snoring, which is not necessarily linked with sleep apnea. We know that playing the didgeridoo and opera singing have both been shown to strengthen the muscles in the neck and therefore reduce snoring, whether they are sufficient to reduce sleep apnea. We don't know but we do know that breathing exercises. But as I say, the Swiss group showed playing the didgeridoo helps, but there hasn't been the same sort of research shown for Potato. I don't know why, but it just has a bad rap. Not a bad but it has a non scientific reputation.

#### Steven Bruce

And I'm guessing that the didgeridoo is not yet available on the NHS. Julian, Julian's asked about mouth taping. Any advantage in that, I think you and I have discussed this before actually on a previous show.

#### Dr. Neil Stanley

Your mouth taping is something that is very, very popular now because of tick tock, and various sportsmen etc. Advocating mouth taping, the problem is that humans were designed with a nose and with a mouth, and they are both necessary to breathe. And if you tape your mouth up, and if you cough or choke during the night, it can be significantly dangerous to your health to do so. So there are tapes that you can use that don't actually close the mouth up, they just pull the chin up. But their effectiveness again hasn't been shown. Whereas there are potential downsides for them.

#### Steven Bruce

I'm not entirely sure how I would see Sleep, sleep apnea being beneficially affected by taping because if it's a blockage problem, simply taping the mouth wouldn't seem to me to overcome that. If anything, it would compound.

# Dr. Neil Stanley

Yeah, it doesn't have help in that direct sense, but it does help. Or it is thought by the people who claim that it helps it is thought to keep force your breathing through the nose. And therefore, if it's a recessed jaw issue, then forcing it through the noes may sort of overcome some of that. But it's again, it's not a mechanistic thing for the back of the throat. And so that's what I'm saying. So we're claiming but it could reduce the snoring, which people see as potentially part of the disturbance that is caused by Sleep apnea is not the pauses. It's the loud snoring that disturbs your bed partner.

# Steven Bruce

Last question from the audience. Vicki says there's an app called sleep cycle which monitors your breathing and movements on your phone. Quick answer, what do you think about apps like that?

#### Dr. Neil Stanley

They can provide some information that can be beneficial, but they are not hugely accurate. And they should not be taken as a go no go situation. Just because your your app tells you that you're

fine doesn't necessarily mean you're fine. You need to listen to your body and not rely on technology to tell you how you feel you should know how you feel very simply. And these things are supplementing your or making you think that you're feeling better or worse depending on which way it goes. And then you actually are. So listen to your body. And if your smartwatch or your app confirms how you feel, then fine. If it goes against how you feel. Trust yourself, not the not the technology.

# Steven Bruce

Thanks, Neil. The last very last question. Yeah, probably about a two word answer on this at most. Given that one of the symptoms of sleep apnea is tiredness. Is it possible it could be mistaken or misdiagnosed as chronic fatigue?

# Dr. Neil Stanley

Absolutely, again, if your GP doesn't know about either, and both of them are slightly Cinderella subjects. You know? Yes, of course it can be.

# Steven Bruce

Neil, thank you. And sorry to rush you on that last question. But we are out of time, we've had 442 people watching. So it's clearly a topic which interests a large number of practitioners like myself. Thanks for sharing your expertise. And now we won't be quite so long before we get you on the show again, because yeah, it's always entertaining talking to you. But I thank you very much for giving up your time today. Have a good afternoon. See you soon. Bye bye