Discover Sleep's Role In Heart Health Transcript

(Transcripts are generated by AI and may contain errors)

Introduction to Sleep and Heart Disease

Well hello everybody, and welcome back to Reversing Heart Disease Naturally Summit This is your host, Joel Kahn, medical doctor. We'll have Joel Fuhrman doing lots of, interviews you'll enjoy.

But this is really exciting because we could not find the right person last year because I didn't know Doctor Audrey Wells, last year we needed to talk about sleep last year, and we simply knew we had to find quality, quality and okay, it was worth the wait.

Tonight. Today we're going to be talking with Audrey Wells, medical doctor. We share University of Michigan Medical school training, although I did it 20 years before she did.

She's a young baby, doc, but boy does she has credentials. Washington University School of Medicine in Pediatrics and pediatric pulmonary medicine, went on to train in a sleep medicine fellowship, became chief medical officer of a chain of medical centers, moved to Saint Paul, Minnesota, her current location, and has subsequently, really expanded online sleep apnea support for adults and children, with a website, Super Sleep M. D., as well as ability to work with her as a coach.

RJ Wells, M. D. so I'm delighted that we have filled this gap with the right person. And thank you for taking the time. I know people may notice you're sipping away in a little, warm libation.

Not even doctors with young children are allowed to get scratchy throats. But we'll make this work. Fine. Okay, that sounds great, Joel. I'm really happy to be here.

Thank you. And absolutely no intubations. We're going to get you breathe in time for this little bit. So we're going to go 15, 18 minutes, something concentrated on why would we invite such a renowned sleep doctor and a reversing heart disease naturally.

Submitted. Just give us some nuggets. Not so much about sleep, but about this connection between sleep abnormalities. And why do I, as a cardiologist, care?

Why do your practice and my practice actually have so much overlap? Just some of your observations, some of the connections. You know, I think this is really come up into the awareness of cardiology and other medical specialties in the past few years, because the research has borne out that people who have short sleep and people who have long sleep have increased risk for cardiovascular disease.

In fact, the American Heart Association this year just added sleep to its life healthy. Eight. So it used to be, or it's essential. Eight I think there used to be seven things.

Now there's an essential eight. The eight was sleep. And the fact is, sleep is a fundamental biological need. You simply can't escape it.

Sleep Apnea Risk and Diagnosis

And I routinely get referrals from cardiologists who are clued in to the idea that short sleepers, people who have insomnia, people who have shift work or other, sort of atypical sleep schedules, and those with obstructive sleep apnea all have risk for things like high blood pressure, heart attack, stroke, atrial fibrillation, heart failure, and on and on.

So I think it's really, exciting that this new information is coming up into our vocabulary so that we can help more people not only live better and feel better with healthy sleep, but also look on the horizon and mitigate their long

term risk factors for cardiovascular disease.

All right. So really in about two minutes you just hit so many pearls. The American heart Association license essentially now includes is the eighth point sleep quality as a focus to prevent heart disease.

And we are all about prevention. We'd like to reverse the disease you have. We'd rather prevent it in the first place. So figuring out how to sleep in a good and healthy manner is important.

And you mentioned some big diseases heart failure, high blood pressure, coronary disease, atrial fibrillation and others. So this is absolutely critical.

I'll just tell a quick since we share University of Michigan Medical School anecdote, the only thing I can remember and I just passed my 40th reunion a medical school way more knew was something called the Pickwick Inn Syndrome.

I remember sitting in a classroom and somebody mentioning that, and actually went ahead and bought Charles Dickens book, The Pickwick Papers, because it stimulated my curiosity.

I don't remember much about reading the book, but do you even recall? I mean, that was the only kernel of sleep pathology I remember from med school. And that's just like basically drowning in your own hyper obesity.

Something to that degree. Yeah. So that describes obesity, hyperventilation syndrome, which is a form of sleep disordered breathing, where a person has the complication of having obesity and carbon dioxide retention during sleep.

So when they wake up in the morning, they may feel sluggish, confused and have a headache. And it's really separate from obstructive sleep apnea. But, it's more common in those who have elevated BMI.

Usually BMI is greater than 40kg/m², and people who tend to carry most of their weight in their belly. So that belly is going to push up on the lungs, reduce the amount of breathing that a person can do.

And one of the results can be, carbon dioxide retention. Right. And for any of you wondering why I brought up an English literary reference, it's because there was a character in The Pickwick Papers who was morbidly obese and had, in the way Dickens described it's sleep pathology.

But, let's bring him back. So we brought up, you know, you just mentioned, BMI over 40, which would be, you know, really morbid obesity. But we do know those statistics at 75% of American adults are either overweight or obese.

You know, if we just took a sample of 100 of them and gave them a home sleep study or an office sleep study, do you have any estimate how many would show sleep pathology?

I mean, everybody listening here needs to know this number. Is this a rare, finding or a common finding? So it depends on how severe you do a cut off for obstructive sleep apnea.

And, you know, one estimate is that currently there are 50 million U. S. adults between the ages of 30 and 70 plus who have obstructive sleep apnea, and 80% of those are undiagnosed.

So there's this enormous disease burden weighing on us out there. And, in a minute, I'll tell you a little bit how that relates to studies around total sleep time.

But to really kind of bring this point home, you mentioned, BMI of 40 and above. So there's been studies, prospective studies looking at groups of people with morbid obesity or class three obesity 40 and above.

And the numbers vary a bit. But I can tell you that if your BMI is 40 or above, your chances of having moderate to

severe obstructive sleep apnea are at least 50%.

And in some studies, as high as 98% was demonstrated. Because a lot of people listening to this interview, which is a great interview, I'm learning, you know, have atrial fibrillation, have hypertension, have coronary disease, have congestive heart failure, have a family history, and they don't want to get those.

They want to do primary prevention and stay away. So you know, 50 million adult Americans may have obstructive sleep apnea and 40 million of them have not been tested and don't have a diagnosis.

I mean, amazing. So let's go down that path for a minute. We're going to stick to kind of short bullet points here at the beginning of this interview.

You know, somebody listening tonight and says, can I just buy a watch? Can I wear a ring? Can I wear an oximeter? Do I need to see, super specialists like Doctor Audrey Wells?

How somebody's going to go from. I'm a bit concerned that my sleep is interrupted, and I might have, membership in one of these 50 million American adult club.

How do they go about progressing to a more firm diagnosis? The first point I really want to underscore is one that you made about prevention. So any time a person's sleep is compromised, that awareness is almost not available to that individual because they are the person sleeping.

And it's a state of unconsciousness. So things like daytime tiredness or maybe a little bit forgetful or moody here and there, those tend to get explained away.

And the truth is that we don't actually understand very well at what point sleep apnea starts, and then how long it takes to progress until a person is symptomatic.

So what I'd like to see in the future is anticipatory testing. Like you would get a colonoscopy to see where you're at with your sleep. Now, currently, and especially with this huge disease burden, if somebody is concerned that they have obstructive sleep apnea, the very best thing to do is to establish care with a sleep clinic, to have a test, either a home sleep apnea test or an in lab sleep study.

And if clinical suspicion for obstructive sleep apnea is high, then the home sleep apnea test is a very good place to start. So having a ring, having a, oximeter won't diagnose obstructive sleep apnea.

Might give a clue, or it might give a clue. It might give a clue if it's measuring drops and blood oxygen level. And that's typically a more common profile for men.

Women don't tend to drop their blood oxygen very much. What women do is they sacrifice their sleep quality in order to breathe. So women oftentimes will present with insomnia symptoms.

I can't get to sleep. I can't stay asleep. I'm a light sleeper. I get agitated when I'm sleeping. So these wearable devices, these consumer grade monitors, are not sensitive or specific enough.

But if you've got some red flags, that can certainly helped prompt somebody to get treated or get evaluated and then treated okay. And I don't know how many vendors there are for a home sleep apnea testing.

You might have a better clue than me. As far as I know, you still got to work with a doctor to get one. Yeah, I don't know of any online place. You just pay and have one shipped to you.

There may be, I don't know. Do you have any sense about that? It's. Do you have any preference? You want to name three? Four? You know, vendors that you think are somewhat useful and reliable as that initial test?

Yeah. I and this is a really insightful question because there's a little bit of controversy with the home sleep apnea

test right now. So a home sleep apnea test can be done by non sleep physicians.

Sleep Apnea Treatments and Procedures

Sometimes dentists have access to them. Sometimes primary care physicians have access to them. Sometimes cardiologist cardiologists have access. And you know some common types are Knox brands and Knox.

There's the watch pad. There are sleep image. There's whisper. All of these, brands are sort of something that you pick and choose depending on what you like and how much it costs.

The reason I recommend that somebody get tested in a sleep center is because that the interpretation of a home sleep apnea test comes with a little bit of nuance, and the best way I can explain it is if you have a home sleep apnea test and it comes back negative, it's not actually negative.

It's really inconclusive because the test may not be sensitive enough to pick up some milder forms of sleep apnea. And believe it or not, the home sleep apnea test does not measure sleep, it doesn't measure sleep.

And because of that, women are especially prone to having a false negative test or an inconclusive test. And the next best thing to do is either repeat the home sleep apnea test or move to an in lab sleep study.

All right. Very, very good. And you do bring up an excellent point that the dental world has I don't know if they have actually board certification, but there certainly are in my community.

I'm sure there's dentists that dedicate their entire practice to sleep apnea and testing and development of oral devices. So, I've had experience and I think is high quality with some of these dentists.

But most of them are smart enough. I think that when there's really severe obstructive sleep apnea, they're having a medical doctor like you call manage or just, initiate the management and bounce and back, if for some reason it's not going well and they need dental work, so or, there are ear, nose and throat doctors, of course, that specialize in obstructive sleep apnea.

And you went through the more common pulmonary and you're also I left it out. You're board certified an obesity medicine. So again you're really have some amazing unique credentials.

For those that are, you know, tuned in here and saying, you know, I've got the disease and I don't want our disease, and I'll just run this through as we kind of shut down this initial discussion with you.

What are some of the treatment options, that, you know, can be let's say it's obviously apnea and somebody who's got a BMI of 34 and a typical American, and they're struggling with some hypertension and they got some palpitations, maybe it's a full blown atrial fibrillation diagnosis.

But what are you going to advise that person when that report comes back and says severe obstructive sleep apnea. So by far the the most, effective treatment for obstructive sleep apnea is continuous positive airway pressure treatment or CPAp treatment.

It's 95% effective. But there is a major caveat to CPAp, which is it's only effective if the person is able to use it. And so currently, the usage rates for CPAp, prescribed out of the gate order around 40 to 50%, meaning about half of the people who are using CPAp are using it at least four hours a night and are able to do that for the long term.

In my case, I really like to give people choices. And some some of it does have to do with the severity of sleep apnea that I'm reading on the sleep study, which is something that makes it nice, when you're getting care from a sleep center, because the sleep doc is going to have such an in-depth knowledge of what else is available besides CPAp.

So in addition to CPAp, I would suggest two major treatments. There's oral appliance therapy, which you

mentioned, sometimes abbreviated OJT. Or also another way to say it is mandibular advancement device or Mad.

And all of this appliance does is it brings the jaw forward, maybe a quarter of an inch or so, and that opens up the airway caliber over time. We've gotten really a lot of experience with eight devices, and we now know that some people, even if they have moderate or severe obstructive sleep apnea, may still respond to this device.

But it's always important to get retested after you've acclimated to this device to confirm that your sleep apnea is treated because it doesn't work for everybody.

And then I would say the third option is, surgery for sleep apnea. And currently, the most popular technique is called the inspire implant. And, they originated here in Minnesota.

I can tell you that their marketing game is strong, but they there's many criteria that go into selecting appropriate patients for this surgical device.

And what it involves is an an incision in the upper right chest. They save the left chest for a pacemaker if needed. There is a device that's inserted just under the skin and two electrodes, one that goes in between ribs to measure breathing.

The other one is snaked up into the neck and attached to the nerve that innervates the tongue. So the way that it works is that it synchronizes with your breathing, and it makes your tongue scrunch forward, and the hope is that it moves out of the airway when you're sleeping.

These devices are not good for people who have insomnia. They tend to aggravate that. There's also caps on how big your BMI number is. There's caps on what type of sleep apnea you have and how severe it is.

So insurance payments are definitely restricted to those who meet criteria for inspire. But I would say CPAp, oral appliance therapy and inspire are kind of the the three treatments that I spend most of my time talking about.

Okay, old fashioned ear, nose and throat surgery on the tonsils, the uvula, the palate has faded in selection. The ear, nose and throat doctor or EMT will do the inspire device.

And sometimes to your point, there needs to be a layered approach to surgery. So sometimes, opening up the nose can help. Sometimes trimming the soft palate or changing the orientation of the muscles that elevate the soft palate can be useful.

In the past, there was, procedure that was commonly done called the, the uvula, palatal, pharyngeal, plasti or up3. Nowadays, there's really, that's fallen out of favor because it was an extraordinarily painful procedure.

They would cut out the uvula, trim the back of the soft palate. And I've seen so many people, unfortunately, whose scar tissue has caused a contraction of the soft palate.

So they're left with an airway that's not only smaller than what they started out with, but it's also less pliable. And so they need bigger CPAp pressures to hold it open.

So now there's more, developed techniques to do sort of a modified up3. All right. And everybody listening again, the reason this topic is unknown reversing heart disease.

Naturally, summit is there are so many patients I see struggling with high blood pressure, struggling with intermittent atrial fibrillation, struggling with, congestive heart failure and a root cause of these, you know, very, very serious conditions is undiagnosed obstructive sleep apnea.

So that is the message, because we're all looking for those root causes that we can work on to modify or prevent, you know, the advanced heart disease progression that's going to happen.

So ask your doctor if you qualify to get a home or an office in lab sleep study. As Doctor Wells has been telling us, just, in the last two questions on this general session, I have had a few patients have seen various doctors.

Izzie Dennison have had some kind of laser therapy on their palate, and 1 or 2 of them had pretty bad sleep apnea and testing and one for repeat testing.

It's improved. Kind of non-surgical. Do you have any experience with that? It sounds too good to be true to me, I do. I would say that is more of an uncommon, report of success.

I think what you're talking about is the laser assisted, uvula plasti. And it's, it's like a colorization or a sclerosing procedure, and that one typically doesn't work.

But, hopefully for the patient that you're describing, they had a very, their case was very, specific in their anatomy or the way the palate was moving, you know, as you were talking, I was just thinking, going back to the fundamental issues behind obstructive sleep apnea, I want to kind of connect this to heart disease in a real way.

When a person has obstructive sleep apnea, there's two main things that happen. One is that they stop breathing so their oxygen levels go down so that drop in oxygen level and re oxygenation is happening many, many times an hour and hundreds of times at night.

If you have moderate or severe sleep apnea, you can imagine what that does to your heart and your vasculature. It increases inflammation and stress in your body.

We can demonstrate increases in, inflammatory cytokines, of all types.

Sleep Mechanisms and Central Sleep Apnea

And the other thing that happens. So drops in blood oxygen level and sleep disruption. So your brain has to record, scratch, get out of sleep in order to engage the muscles and open up the airway.

So not only are you having these drops in blood oxygen level, you're also disrupting your sleep and all of that leads to a sympathetic nervous system response the fight or flight response.

And that's how it's connected to heart and blood vessel disease. Thank you so much. It was great. And final question here, mouth taping. So many people come to me.

Would you recommend mouth taping for moderate or severe sleep apnea or would you advise strongly against it in any, you know, just one minute comments on it?

Yeah. There are situations where mouth taping makes sense. It's not going to do any good for as mono treatment for moderate or severe sleep apnea. If someone's interested in mouth taping, I say okay, fine, try it during the day, make sure you can tolerate it because your nose is nice and open.

Use medical tape meant for human skin, not electrical tape, not duct tape. And the last tip I have is fold down a corner of the tape when you put it over your lips, so that if you have to remove it urgently, whether you're asleep or awake, you've got that corner to grab on to and peel it off.

All right. Probably learn that from some sort of, movie or TV show. A good way to deal with a hostage crisis. Well, I'm. I'm definitely a DIY kind of person, so I have tried the mouth taping, and so have I.

And, I use a very gentle little ax. I don't have obstructive sleep apnea. I've, as you said, I was preventive and did a study myself just to be certain.

But go ahead now, reports. I mean, the last comment I'll make is that so many of my patients, I mean, there's a common in the, media, sleep, divorce, you know, they're married, or partners of whatever kind or in different

bedrooms because of noisiness at night.

So if that's not a clue that you need to go see a board certified sleep specialist, that you moved out of the bedroom and you're down the hall. By all means, please look up somebody talented like doctor I do.

Well, so we're going to shut down this general conversation for those of you that are in the general audience. Thank you for tuning in, Doctor Wells, and correct me if I'm wrong, Audrey Wells, MD, dot com, a Wells, MD doctor and my one on one coaching.

But, for problems with obstructive sleep apnea, super sleep, md.com is the best place to go. Yeah. And I've been on these websites are fantastic websites.

All right. Great. We're going to keep on talking for a couple of minutes. I want to say goodbye to the general audience. And thank you very much for tuning in to reversing heart disease.

Naturally. Summit All right, welcome back. We're going to just spend a few more minutes talking to, our superstar tonight, Doctor Wells. And, everybody is learning so much from her.

Maybe share a little bit about this. Gets a little more technical central sleep apnea and obstructive sleep apnea. And just go a little bit into, you know, some of the actual root reasons people develop sleep pathology.

Yeah. So with obstructive sleep apnea, there's basically three things that increase your risk right out of the gate. Weight is the number one risk factor, but not everybody who is overweight or has obesity has obstructive sleep apnea.

Normal weight people get obstructive sleep apnea two second is age. So once you past the age of mid 40s, 50s your risk goes up, goes up for post-menopausal women.

Third is, sex. So not the bedroom kind, but the male female kind. So if you're male or your postmenopausal female, your risk for obstructive sleep apnea goes up.

Now, central sleep apnea is a little bit of a different, beast. So compared to obstructive sleep apnea it's uncommon. So about 1% of sleep apnea is central.

The rest is obstructive sleep apnea. And central sleep apnea represents an interruption in the brain's signal to breathe. So the brain tells your nerves, tells your breathing muscles and your diaphragm to go up and go down and keep the pace with breathing, with central sleep apnea that's interrupted.

And it could be due to different things.

Weight Loss, GLP-1s, and Closing Remarks

Brain injury, including forms of dementia, could be due to opiate medications, could be due to kidney failure or heart failure. So all of these, put a person at risk for having central sleep apnea.

All right. And a in lab sleep study will distinguish the two. Or it takes more than that. Definitely. An in lab sleep study is a really great tool for determining, does somebody have central sleep apnea or obstructive.

And sometimes there's kind of a combination of both okay. And it's exciting to have an expert like you that has both, you know, advanced training, education and experience in both sleep apnea and in obesity management.

I mean, how successful and what pass do you go down somebody you know is doing okay. But says Doc Wells, I want to get off CPAp. I'd like to, you know, I didn't used to have obstructive sleep apnea in the last five, ten years.

I have symptoms. How do I get back to the old days? And they're carrying a lot of weight. I mean, what are what

are you going to advise them in terms of, trying to, you know, and is it successful that they may no longer need treatment?

This is a really common question, so I'm glad to be able to speak to it. When a person is carrying extra weight, and especially if they're carrying more weight in their belly, in their neck, under their chin, then weight loss has a greater chance of reducing and in some cases, resolving, obstructive sleep apnea.

It's a little bit like the flip of a coin. So in other words, if you're sleep apnea is significant, if it's moderate or severe and you reduce your weight significantly, meaning down into the overweight or even the normal BMI range, then your sleep apnea, has a 50% chance of going away.

What I like to tell people is that if you are undertaking the endeavor of losing weight, that all by itself is going to improve your health. So don't put all your eggs in the sleep apnea basket.

But in addition to that, even if you pull your sleep apnea down to a lighter severity range, you have more treatment options opening up to you. And I think that is a great, piece of news for anybody who's tired of their CPAp machine. Yeah.

What's your experience or opinion on using the new GLP one agonist? Obviously the hard drugs, or Govi moon gyro, although only with Govi, is FDA approved solely for weight loss.

But, your opinion on them in that patient struggling, they just not tolerating CPAp. Their BMI is 38. They have hypertension and maybe some other cardiovascular manifestations.

Do you think it's reasonable to go down that path to, help them? I do, I definitely do. And in a few weeks, I'm giving a webinar to, health insurance payers to make a case for coverage.

Right now, there's a shortage of this medication. And unfortunately, that means that some people's treatment plans have been interrupted. And this is worth knowing, because when you look at obesity as a disease, which it absolutely is, what I can tell you is that it will require long term management of that disease.

So just like obstructive sleep apnea, obesity is a chronic disease. So when you start taking these medications they cause significant weight loss. And it should always be supported by lifestyle changes.

So you can't keep eating licorice all the time and expect to be healthy. You really need to support that with good nutrition, physical exercise, and the exercise is especially important in the weight maintenance phase.

These medications are very expensive. There's a new one that's going to come out. We don't know the name of it yet. Just the the generic form. But they're effective and when handled appropriately, can be a great new way for somebody to finally lose the weight that they've been struggling to lose all these years.

So for anybody who's listening. Obesity is not a disease of laziness or lack of willpower. It is a brain disease and it needs real treatment to get real results.

So I'm excited about these medications coming out because they are opening up a new door of effective treatment. Well, that's, extremely optimistic and wonderfully upbeat, you know, moment.

Of course, they're being nice. If we had some way to do it without, prescription drugs, expensive prescription drugs, a few risks and side effects clearly need to be discussed with patients.

But as you say, if we can get somebody feeling better and healthier and avoiding heart failure, hypertension, atrial fibrillation and corner disease, as we already have evidence with these drugs.

Then, I'm all for it too. So I'm glad we're on the same path. I'm going to let you get back to your busy day, your busy life, and and ministering to your own health and, that of your family.

Thank you so much. And just as the crowd, is going to leave us in this, wonderful summit, tell us one more time awellsmd.com, that's for my one on one coaching approach to coaching.

Great coaching. And then supersleepmd.com. Exactly right. Yes. Okay. And you are willing to accept some new people listening tonight if they're searching for somebody good to work with, right.

Definitely. On supersleepmd.com, I've got a number of courses for people who have trouble sleeping and for people who have sleep apnea, looking at treatments with CPAp and alternatives.

And I think that, in the future, we are opening up lots of group coaching opportunities where I can connect with the people who are consuming my courses, and I'm certainly happy to do that.

Well, that is fantastic. What a great resource and one that I'll start referring to. Promise. Okay, great. Thank you.