Sleep as the Foundation of Brain Health

Sleep is so important. That's when the brain does the work that no supplement, no exercise routine, no diet can replace. And at night, our brain needs to get into a deep, uninterrupted sleep in order to reset, to repair, to consolidate our short-term memories into long-term memories.

Even people who are doing everything correctly, they're taking supplements, they're eating cleanly, they're exercising daily. If they're not getting that deep, restorative sleep, then everything else is going to kind of fall apart.

Welcome to this episode of the Think Well, Age Well podcast. I am your host, Dr. Heather Sandison. And today's guest sits at the fascinating crossroads of oral health, airway science, sleep medicine, and, of course, the brain health that comes with that.

Dr. Irelia Katz-Rappaport began her journey in New York. She earned her biology degree at SUNY Binghamton and went on to complete her dental training at the University of Pennsylvania.

From there, she's built a career marked by curiosity and innovation. She's contributed to research on everything from chemical approaches to decay, removal, and to helping the Department of Veterans Affairs create a national dental implant registry.

She now practices here in San Diego and she is a diplomat of the American Board of Dental Sleep Medicine. And she's a leading clinician exploring how airway function, inflammation, and the oral microbiome shape long-term cognitive resilience.

How Dentistry Reveals Airway and Sleep Problems

Her book Breathe Easy, Sleep Deep brings the science to the public in a way that empowers people to reclaim restorative sleep and protect their brain.

When she's not busy transforming lives one airway and one mouth at a time, you'll find her gardening, traveling, or being a champion of organizations that uplift women.

Dr. Rapoport is here to help us understand something that many people miss. I see this all the time in my practice. People are doing all the right things, the diet and the exercise and taking supplements.

But the way they breathe at night can be one of the most crucial, unrecognized, but most powerful drivers of cognitive health. So, Dr. Rappaport, welcome to the show.

Thank you for having me, Heather. You and I obviously agree on this. You've said that sleep is the missing link in brain health. What do you mean by that?

What do you see people overlooking or not being diligent about when it comes to their sleep hygiene or their sleep health? Well, sleep is so important.

That's when the brain does the work that no supplement, no exercise routine, no diet can replace. During the day, our brains are under constant demand.

We're thinking, we're responding to questions, we're managing emotions, we're processing information. And at night, our brain needs to get into a deep uninterrupted sleep in order to reset.

to repair, to consolidate our short-term memories into long-term memories. Even people who are doing everything

correctly, they're taking supplements, they're eating cleanly, they're exercising daily.

If they're not getting that deep, restorative sleep, then everything else is going to kind of fall apart. If you think about sleep as kind of the foundation of your house, you can paint the walls, you can decorate the rooms, but if the foundation is not solid, if it's cracked, then everything else, the structure will completely, eventually fail.

So without good restorative sleep, your brain is staying in a low-level stress state. instead of resting and rejuvenating. So over time, that low-level stress state is going to erode your resilience and could increase your risk of cognitive decline.

So sleep is essential. It's a foundation for everything. Without a doubt, I could not agree more. But now you're a dentist, and it started with sleep.

But what is the connection between sleep and dentistry, your profession? Well, I've been practicing dentistry for years, and as a dentist, we concentrate on the teeth, the gums, the oral structures of the mouth.

But just, just beyond the teeth is the opening to the airway. And the airway is basically that's what's going to help determine your quality of sleep.

And we can see problems having to do with sleep apnea in the mouth. So for example, people with sleep apnea will be grinding their teeth. So we can notice flattened teeth or cracking teeth.

A lot of times people with sleep apnea will come in and they're grinding. Besides the grinding, seeing the teeth that are flattened, we can see that the muscles on the cheek, the masseters, are very big and tight.

That's a sign that people are grinding their teeth. You might wonder, well, what does grinding teeth have to do with sleep apnea? So what happens is your tongue, which is attached to your lower jaw, when you fall asleep and everything relaxes, your tongue can fall back and block your airway.

And when you're not getting oxygen, your brain is going to go into your fight or flight It's going to tell your mouth, find a way to open up my airway.

So the mouth is going to start grinding the teeth.

Women, Underdiagnosis, and Sleep Apnea Symptoms

You're going to be tense because you're in this fight or flight mode. And so we see these issues in the mouth. One of the other things that is very common, we see people with sleep apnea is their tongue is basically too big for their mouth.

What do you do about that? Well, there's not a whole lot you can do about that, but there is a sign, because we can see the indentations on the tongue.

So if the tongue is too big, it will press against the teeth and create these indentations in the tongue, creating like a scalloped edge on the tongue.

Sometimes we'll especially notice that in people who have had braces in the past. Because the way orthodontics used to work is if there wasn't enough room for all the teeth, a lot of teeth were taken out, especially premolars or bicuspids.

And that shrinks the jaw, really. And so now we have this box for the tongue that is intentionally made too small. Now, these days, orthodontics tend to not do that.

What they'll do is expand the palate and make the whole tongue box or the mouth bigger so we have less falling back of the tongue blocking the airway.

So, you know, every dentist, every hygienist can see this happening in people's mouths. And in my office, as soon as we see this, we start asking questions to the patients.

What's your sleep like? Are you snoring? Is anyone telling you that you stop breathing while you're asleep? Do you feel rested in the morning? Do you need to nap during the day?

So these are, you know, once we see these signs, we start asking questions. So for everybody who just stuck their tongue out to see if they have a valid edges, I'm curious, for you, for the hygienist, when you look in someone's mouth, are there other clues that tell you that the airway might be an issue?

You mentioned a couple symptoms that people might have or some signs, but is there a comprehensive list of what you're looking for in the mouth of signs and symptoms that can help us catch this kind of thing, apnea or disordered breathing, at night before cognitive symptoms show up?

For sure. You're right. Everyone stick their tongue out. The edges of your tongue. I have cellophane on my tongue. I know it. Yeah. So we also take a look at the palate because usually, like I said earlier, with orthodontics, what they do now is they make a broad palate.

But in the past, that didn't always happen. Or some people just didn't have braces. So we look at the palette, what is the shape? Is it broad and flat or is it vaulted?

Is there like a… you know, like a teepee shape to it? Or is it just, even if it's narrow, is the lower jaw narrow? The lower jaw fits within the upper jaw.

So if that upper jaw is narrow, then the lower jaw is also narrow. Some people will have a receding chin. That's also something that can lead to sleep apnea.

We'll see, you know, just also just looking at someone's face, You can kind of see, are they not sleeping well? Do they have a lot of dark circles under their eyes?

Do they just not seem very energetic? And there's also something called a stop-bang score. Stop-bang is an abbreviation for eight different things that we look at.

This is for snoring. T is are you tired? O is has anyone observed you stop breathing during your sleep? P is do you have high blood pressure? B is for your BMI.

That's basically your weight. Your age is the A. It's much more common in people over 50 and in post-menopausal women. N is for the neck size. People with large necks tend to have sepapnia, and G is for gender.

It's more common in men until women hit menopause than we basically even out with men. And women are famously underdiagnosed with sepapnia. I have seen this firsthand.

I have very thin women who, you know, they don't have that enlarged neck. No one tells them they snore either because their partner about passed away or maybe their partner takes their hearing aids out at night.

So they're not aware that they snore or maybe they don't snore at all. And no one's ever ordered a sleep study for them. I've literally had patients go in for a sleep study and be told, I can tell by looking at you, you don't have apnea.

And 48 hours later, we've got a report back saying they have severe obstructive sleep apnea. Once we treat it, we see a really big impact on cognitive function.

So I'm just curious from your perspective as a dentist, but a dentist highly focused on understanding the airway. What is behind this underdiagnosis for women?

What do you think that that means for women's brain health as they age? It's so true. I see it every day. Sleep apnea has been traditionally defined by male symptoms, loud snoring and daytime sleepiness.

But in women, sleep apnea often presents very, very differently. Women struggle more with insomnia.

Mouth Taping, Sleep Testing, and Wearables

Either initiation insomnia, which is having a hard time falling asleep. It could take 30 minutes, an hour, even longer. It really should not take that long.

Or what we call maintenance insomnia, which is waking up in the middle of the night, sometimes several times, and sometimes having a hard time going back to sleep.

Now, just to take a step back, people do take certain medications that do increase urination. They do have to get up middle night, especially medications for blood pressure or prostate issues.

But insomnia is very, very common in women. Anxiety and depression is a sign of sleep apnea in women. Fatigue, brain fog, I'm sure you hear that term all the time, or weight resistance, you know, women having a hard time trying to lose weight.

You know, a man can just think about losing weight and they do, and a woman can diet and exercise and be lucky to lose a couple pounds. So it just, apnea just presents itself very, very differently in women.

Women are often told, oh, it's stress or it's hormones, but a lot of times it's sleep apnea. Sleep apnea just affects every system in the body. affects your stress level, your mood.

It takes a toll on your blood pressure and your heart, your brain health, obviously. So for a woman to be told, it's normal for women. It's just stress or just your hormones is really doing a big disservice to women.

Now, as women move into perimenopause and menopause with hormonal changes, that also makes the airway less stable. And it's almost like you have a tent and you're losing some of your support poles for your tent.

So things can collapse much more easily. And when these breathing problems go undiagnosed for years, the brain is exposed to chronic, poor sleep, low oxygen, and inflammation, and all these things can increase their risk of cognitive decline.

I'm curious what you think of mouth tape. One of my New Year's resolutions was to wear it every night. I noticed that I have less anxiety, that I feel clearer, I sleep better when I use mouth tape.

My understanding of the literature is that it can be helpful for mild sleep apnea and for people that don't have apnea to encourage nose breathing at night, but not for moderate or severe apnea.

it's not going to be helpful. What is your perspective on that? And as a clinician, what do you tell patients? Well, I definitely have some patients that I recommend mouth taping for them.

The main reason is first you have to make sure that you can breathe through your nose. Yeah, some people, you know, they just have blockages, big turbinates or deviated septums.

But for people who can breathe through their nose, mouth taping will encourage that nasal breathing, which is much It's really how we're meant to breathe.

I mean, we can breathe through our mouth, but we're meant to breathe through our nose. Our nose will filter the air. It warms the air. It prepares the air to be readily accepted by our lungs and to extract the most amount of oxygen.

So I do encourage mouth taping, but not to help with sleep apnea, just to encourage that nasal breathing instead of

mouth breathing. Also, mouth breathing, if you're breathing through your mouth or your mouth is open all night, you wake up with a very dry mouth, which is not good for your teeth and your gums.

You want that saliva constantly bathing your teeth and the structures of your mouth. because saliva naturally cleanses your teeth, although I hope people go on to sleep with a clean mouth.

But it also, saliva will neutralize acids in the mouth, so you don't want to have a dry mouth. And we do want that, like I said, that nasal breathing to get the most out of each breath that we take.

Most people actually, the snoring sound that you get is usually actually from the back of the throat. So taping also can help prevent some of the snoring.

But I wouldn't use mouth tape just to treat even mild sleep apnea. Okay, good point. Yeah. Yeah, that has to, we need to open up the airway somehow, even with mild sleep apnea.

In fact, I don't even like using that term because it makes it sound like it's not significant, but even mild sleep apnea is very significant because the range Sleep apnea is divided into mild, moderate, and severe.

And the ranges are basically just kind of a certain amount of times per hour that you stop breathing. The mild range is 15 to 14 times an hour, and moderate is 15 to 30, or 29, and severe is over 30. So if you stop breathing 14 times an hour, which is a lot, that's still mild sleep apnea.

But if you stop breathing 15 times an hour, that's moderate sleep apnea. So I would say any type of sleep apnea needs to be treated somehow. Yeah, this inappropriate use of the word mild, right?

This comes up with mild cognitive impairment. There's nothing mild about it, right? This is life-changing. This really has an outsized impact on the trajectory of your health as you age.

And so even if I get frustrated because I see some reports come back from sleep medicine that say mild sleep apnea, you know, if clinically relevant treat.

And they're sort of giving people this option, like, oh, it's probably not that big of a deal. You don't have to get a CPAP. You don't have to do anything about this.

And I am thinking the opposite, right? Like, let's get this under control immediately. I want to ask you about your perspective on glymphatic detox. For listeners who have never heard of that or don't fully understand it or appreciate it, how does sleep-disordered breathing interfere with the brain's kind of cleanup crew at night?

Sure. The glymphatic system is something that was actually discovered fairly recently, and it's what's called the dishwasher of the brain. So at night when you go to sleep, basically the dishwasher gets turned on and fluid comes in and it cleans out the gunk in the brain, including things that cause dementia like tau proteins and amyloid plaque.

If you stop breathing with sleep apnea, basically you're turning off that dishwasher mid-cycle.

Sleep Myths, Childhood Development, and Treatment Options

And if you're doing that night after night, you know, your dishes are not getting clean and your brain is not getting rid of these toxins and proteins that can, we know that have been implicated in Alzheimer's and dementia.

So that glymphatic system is very important and it's not going to work properly if we're not getting into those deep levels of sleep, which sleep apnea does prevent.

Amazing, that's super helpful and I think it's inspiring, right? We all know that we need good sleep and I think sometimes I hear from people. I get it, I hear you, but I can't sleep.

And you mentioned women struggle more with insomnia, both initiation and maintenance of sleep. I know in your book, Breathe Easy, Sleep Deep, you blend some practical guidance with certainly with the science.

Is there one habit or insight from the book that either consistently surprises people or consistently helps them get better sleep? I have many, many suggestions.

The first one is, you know, some people think I sleep enough. I sleep seven to eight hours, but they're working up and they're exhausted all day. So if you have If you suspect that you have sleep apnea or your bed partner or somebody in your household is telling you that you sleep, you have sleep apnea, they see you stop breathing or that you're snoring, get tested.

These days, it's very easy to get tested. What do you think of the at-home sleep studies? There's lots of different kinds. I have several types in my office.

There's one type that I particularly like because I just feel I trust the data. There's in-labs sleep studies where you go into a sleep center, they connect you to a whole bunch of electrodes.

And we get great data from that, but it is expensive and not everyone is really needs to have all that information. But a home sleep test, it's fairly easy.

The one that I use has a strap or a belt that fits on your torso. There's an oximeter that fits on your finger. There's a little cannula that goes in your nose.

I've done it myself several times. I'm not a great sleeper, and I was able to sleep with the sleep test on. So it's not that difficult. There's other ones now that are even simpler, that are based on algorithms, which, you know, they keep getting better and better, but I still like to get the real data from some of these home sleep tests.

So it's easy to get. I have them. You can get a prescription from your doctor. There's even companies that will, once they get the prescription from your doctor, can send it right to your house.

Or even you can go online with these companies and get a sleep test sent to you. They'll ask you questions. see if you're a candidate for it. In terms of testing, what do you think of some of the wearables, the Oura Ring, the Whoop Strap, the Fitbits, the Apple Watches?

Do you have thoughts about those? You know, I've had patients come in and say, well, my sleep scores are great, so I can't have apnea. Or can I do that instead of a sleep study?

And what are your thoughts about those wearables? The wearables are a great addition, but they're just the trigger. They're really not going to tell you if you really have sleep apnea.

It's really impossible for them to tell you that. But if it's telling you that your oxygen is dropping or you're moving around all night and you're not getting into those deep levels of sleep where essentially you are paralyzed and not moving, then at least it's a warning sign to have a proper sleep test done.

So I love that people can wear these things and can be aware that they might be in danger, but it's not the final test. It's just the signal that you need to have further testing.

Are there any sleep myths out there that you've come across on social media or anywhere else? And are there any that make you cringe that you want to just like put a stop to right here right now today?

Yeah, for sure. First, early I touched upon that I sleep enough, even when you're waking up exhausted. You might think that you're getting enough hours of sleep, but you're not getting good quality sleep.

You're not going into those deeper levels of REM sleep and that deep level of non-REM sleep. So that's one thing. Just because you get eight hours of sleep and you're still having brain fog and not feeling like yourself, then that's

one myth.

Another one is believing that poor sleep is just part of aging. It's not. It's not. I mean, it doesn't matter what your age. Look, we'd all love to sleep like we did maybe when we were five, but poor sleep is not just inevitable as we get older.

Another thing that I see a lot still is that people think that sleep apnea only affects overweight men. And that's part of why a lot of women get misdiagnosed or people who just appear healthy.

They're thin. They exercise. But anatomically, they still have certain features of their airway that creates that sleep apnea effect. Especially with hypermobile women, right?

Yes, very much so. I'm curious if someone is in this category of feeling like they sleep enough hours, but recognizing themselves and what you're describing, waking up foggy, unrefreshed, still tired, what's the first thing they should do?

And how do they advocate for proper testing? Should they just come see you or how do they find the right provider to solve this? Yeah, it's getting easier than it was.

I used to get a lot of backlash from physicians when I would tell my patients, I suspect that you have sleep apnea, you need to get tested, see if your physician will test you.

Like I said, unless they are an overweight male, over 50, sometimes they wouldn't get tested. So I decided, okay, this can't go on. So I have purchased several tests for my office, but I'm seeing less pushback now from physicians.

I see that they're really kind of more readily testing people more frequently. Sometimes I still will get pushback from, oh, it's just mild sleep apnea.

You don't need any treatment for that. But it is getting easier to get tested. Yeah, so like we were saying, if you suspect or somebody in your family suspects, your bed partner suspects, it's an easy test.

And if you have sleep apnea and you get treated properly, it is life-changing quality and quantity of life. That is not an overstatement. It has been one of the most profoundly impactful things, interventions that we can make is to treat sleep apnea for our patients.

At this stage, anyone at risk for or struggling with cognitive impairment, I order a sleep study on because I cannot miss it, right? As a provider focused on your brain health, if I miss sleep apnea, and I think I don't think you can see it in someone all the time, We're just, we've been historically missing too much of it and it has too big of an impact on cognitive function.

Yeah. Yeah. We're looking at study. I mean, we're looking at might be half the population could be affected by sleep apnea. I'm curious, you know, in that book Breath, which was James Nestor's book, which is a great read, a great audible listen, if anybody hasn't been exposed to it.

But he talks about the palate and when what we chew on, especially as children and how we don't, we tend to chew on softer foods. We're given baby food when our palate is developing, our teeth are developing, our jaws are developing.

Instead of chewing on twigs and bones and things like that, like our ancestors did, how much of that do you buy into? Is there sort of this shift and this increase in sleep apnea and in mouth breathing versus nose breathing that is because of our diet?

Absolutely. When we were hunter-gatherers and we were eating raw food, our jaws were very strong, our tongues were in the correct position because they weren't crowded out by our too narrow jaws.

But as we evolved and we're eating more processed foods, softer foods, it is affecting the way our jaws are being formed. As babies, babies who are nursed tend to have better palate and jaw development than babies who are bottle fed.

It's just the difficulty extracting the milk and the shape of nipple and all that really affects the proper growth of the palate and jaws and the tongue.

The tongue is kind of what guides everything. So when we are at rest, our tongue should, our lips should be together, our teeth are apart, and our tongue is resting gently behind our front teeth on our palate.

And kids who are mouth breathers, the tongue is resting low, it's not resting high on the palate. Palate does not form properly. We have a lot of allergens in the air, toxins in the air that can also affect our nasal passages and how everything develops.

That way you have to think about the top of our mouth, our palate, is the floor of our nasal passages. So they're separate, but they work together. So our modern society has kind of changed the way we grow.

So yeah, it's true, you know, chewing on harder things that require more force and movement of our tongue can help our jaws and tongues develop in a more proper way.

What are examples of this, like raw carrots? What comes up for you? What do you think of? Yeah, I mean, real food, real food, you know, you're right. And, you know, just not the package that you just rip open and put in the microwave.

Yeah, the pasta and all the stuff. Yeah, right. The nuts and seeds and, you know, salads and… Things that require mastication. Correct. Even a tougher piece of meat, things that require chewing.

Not gum, but real food.

Metabolic Effects, GLP-1s, and Oral-Systemic Health

One of the myths I see come up in treating sleep apnea is that the CPAP is the only option. So I have people say, why would I even bother with a sleep study?

Because I know I'm not going to wear a CPAP. What do you say to someone who suggests that in your office? I see that all the time, all the time. Basically, CPAP is a blower.

It's a machine that will blow air into your airway. You'll wear a mask, it's strapped onto your head, it's attached to a hose, to a machine by a hose.

And that machine just blows air. through your nose and opens up the blockage in your airway and keeps that airway open. And it works beautifully. The problem is, like you said, people don't use it.

They have a feeling of claustrophobia. They don't like something on their face. They don't want the straps on their head. They don't like being tethered to a machine.

Sometimes the mask doesn't fit well and they'll get breaches in the mask and air will be blowing out. They'll get bloated. There's lots and lots of reasons why people don't like using a CPAP.

It works great for people who use it. I don't want to discourage anyone. If they're happy with it, please keep using it. But a lot of people just can't tolerate it or sometimes don't even want to try.

So there are some alternatives and a lot of times that's where a dentist comes in. we can make an appliance that will help with sleep apnea. Now, earlier I said that the tongue is connected to the lower jaw.

If we bring this lower jaw forward a little bit with a dental appliance, the tongue will come with it and that will open up the airway. So that's a very practical, easy way to open up the airway.

We have other things that sometimes we use in connection with that oral appliance or even with CPAP, and that's myofunctional therapy. Think of myofunctional therapy as physical therapy for the mouth.

It's therapy that will strengthen the tongues, lips, all the muscles of the mouth that can strengthen everything that's leading up to the airway. And there are things that can be done instead of a CPAP.

If you're diagnosed with severe sleep apnea, you really should try a CPAP first. And there are lots of different masks on the market, and there's different kinds of CPAPs which can make it a little more comfortable to use.

But people with mild to moderate sleep apnea, generally we can treat it with a sleep appliance, a mouth appliance, rather than a CPAP. Wonderful. One other thing is if someone is overweight, losing weight can reduce.

It may not go away completely, but it can reduce sleep apnea. I feel like this is sort of a chicken and egg thing, right? It's like sleep apnea can contribute to weight gain.

Weight gain contributes to sleep apnea. Impaired breathing can contribute to insulin resistance. It can contribute to cardiovascular risk. Of course, the brain health risk that we are discussing.

I'm curious how this whole metabolic storm, when you see someone who kind of does pick that classic picture of overweight, maybe obese, large neck, I think of them as very red, like red in the face, tired, irritable, probably looking to caffeine and sugar to get through the day, right?

They're under a lot of stress because they're never fully rested, and so they're looking for those pick-me-ups. Where do you start with sort of unraveling this metabolic storm that's feeding cognitive impairment?

Yeah, yeah, it's very true. Sleep pain plays a major role in regulating sugar. When your sleep is disrupted, your body becomes less sensitive to insulin.

So even if your diet is good, when your blood sugar levels and your insulin levels stay elevated, that's going to stress the brain. Sleep apnea also messes with your appetite hormones.

So it's harder for you to eat properly because you're getting these mixed messages that you're hungry even though you're really not hungry. These high insulin levels also interfere with your brain's ability to clear those harmful proteins that we talked about earlier and those proteins that are associated with Alzheimer's.

So, you know, the poor sleep doesn't just cause the fatigue, it's causing this whole, like you said, metabolic storm that increases heart risk, heart attack risks, and stroke risks, and Alzheimer's risks.

So if we can get the sleep apnea under control, it's a lot easier to lose weight. We decrease the risk of heart disease and stroke, besides just feeling a lot better and clearer, less fatigue, less brain fog.

And when you feel good, you're more inclined to want to exercise and do the things that you know you should be doing for your health. What do you think the role of GLP-1, so the Ozempic semiglutides that bound, or Monjaro's, Terzapatide, these injectable weight loss medications, do you think that they have a role to play here?

ZipBound, which is one of them, has actually been FDA approved for treatment of sleep apnea. And the way it treats sleep apnea is by reducing weight. So when you gain weight, you're going to gain weight in your neck.

You're also going to gain fat in your tongue. Yeah. And so, you know, the last thing we need is a bigger tongue blocking an airway. So, you know, things like the GLP ones, they have a place to help reduce the obesity and can help with sleep apnea.

Plus, If we have somebody who has severe sleep apnea and is struggling with a CPAP, if they could lose weight and bring their sleep apnea down from severe into mild to moderate, we'll have a greater success with something like a sleep appliance, which is much more comfortable and easier to use than a CPAP.

So there is a place for it. So we've spent 40 minutes talking to a dentist about sleep, which I think it's what I want to emphasize. And so I'm so grateful that you do as well.

I think our listeners, I want the takeaway to be that sleep is one of the most crucially important things to optimize if you want healthy brain age as you get older.

So that's why we've really spent the time to dig into this. And you're a dentist. I want to talk about gum disease and oral pathogens and amalgams and how this interacts with the microbiome and all of the other good stuff that's really also really, really crucially important to discuss with your doctor when you're looking to optimize cognitive function as you age.

So let's dive into it. How does gum disease, oral pathogens that can accumulate either in the gums or in the teeth even with decay, how does that impacts or affects brain health?

I'm glad you asked that question. People think that, oh, a little bit of bleeding of the gums when I'm brushing my teeth or flossing is normal. It's not normal.

It's a sign of gum inflammation. And when you have this type of inflammation in your gums, it can get into your bloodstream. The inflammatory components from the gum disease can get into your bloodstream and can affect your brain.

The bacteria that's in your mouth that is overgrown and causing that inflammation can get into your bloodstream and can affect your heart muscle and your brain tissue.

Studies have shown that there's actually DNA from oral pathogens. especially something called P. gingivalis, has been found in the brains of patients with dementia.

So there is a direct link between the mouth and your brain health and your heart health. I mean, if your heart is not healthy, your brain is not healthy.

And what about brushing and flossing? So how important is this to brain health? Do you have any tips or tricks for people who maybe floss occasionally but not usually and are pretty good about brushing?

I would say that's the majority of my patients because I ask everyone, do you have bleeding with brushing or flossing? And do you brush and floss every day?

What if someone says no to that question? What do you tell them? Well, I'm glad that everyone is mainly brushing and you really should brush at least twice a day.

Bacteria, you always have bacteria in your mouth. The issue is how much bacteria and how much of that bad bacteria do you have? If you imagine bacteria as colonies.

They build on top of each other. If you're not disrupting those colonies of bacteria every day by brushing and flossing, you're going to be building a big colony.

So let's say we want colonies the size of houses. We don't want apartment building size colonies of bacteria. So brushing is important, very important.

But flossing, brushing is not going to get under the gum tissue, and that's where the big culprits are. That's where the really bad bacteria is under the gum line.

And floss, if you're flossing properly, hugging the tooth, getting it under the gum line gently, and just breaking up those colonies of bacteria, you won't have as much of those bad bacterias that can get into your bloodstream.

So I know people think, oh, it just takes so long and it's difficult. Once you start doing it every day, you get good at it and you get quick at it. At this point, I mean, I didn't know anything about flossing until I got to dental school.

I don't think I've missed a night since then. At this point, I don't need to watch what I'm doing. I will sit there. I'm reading or I'm watching TV and I'm flossing.

So it takes no time out of my night to floss. It really makes a huge difference. Brushing, obviously, very important. And a lot of people actually don't know the proper way to brush their teeth.

They're thinking, OK, you've got to point the bristles at your tooth. You actually want to point the bristles at the gum line. So if you imagine that you want to go at a 45 degree angle, so up at a 45 degree angle for your upper teeth and down at a 45 degree angle for your bottom teeth, you want to actually brush where the tooth and the gums meet.

Because like I said earlier, that's where the plaque and bacteria is hiding, underneath the gums and in between the teeth. So I recommend a Sonicare toothbrush.

It's an electric toothbrush. I think it cleans better than any other toothbrush out there. The thing that you need to understand with Sonicare is it's brushing for you.

It is vibrating very, very quickly. You can't even see how quickly it's vibrating with the naked eye. and it's cleaning the teeth for you. But because it's doing that, you don't want to scrub while you're cleaning with a sonic hair because you could actually be doing damage.

You could be scrubbing so hard in addition to the toothbrush scrubbing that you can actually cause some gum recession and wear of your enamel. So basically, it's just holding the sonic hair, pointing it at the gum line, and moving it around your mouth.

The other thing I like about the Sonicare is it will stay on for two minutes and it will pause after 30 seconds. So if you imagine, you can divide your mouth into four sections.

So you clean one section. the toothbrush will pause for 30 seconds, it's a signal, move on to the next section. So two minutes is really how long it takes to clean all your teeth, front, back, chewing surfaces, inside, out of all your teeth.

And the Sonicare also has, some of them, has a pressure sensor built into it. So if you are pressing too hard or scrubbing too hard, it will let you know that you've got to back off.

You're pressing too hard. Also, the toothbrushes itself, the heads, have an indicator that lets you know that it's time to change your toothbrush. Some people will see that because the bristles of their toothbrush are splayed.

So, you know, they've been scrubbing too hard. It's time to change that toothbrush. But even if it's not, the edges of the bristles will get dull over time.

Gum Disease, Oral Hygiene, and Dental Materials

So it's about every three months it's time to change your toothbrush, whether it's a manual or a head of an electric toothbrush. Do you have a recommendation for a type of toothpaste?

I've been turned on to the remineralizing kind of Japanese style of toothpaste. Is that a good thing, bad thing? What do you think we should use in terms of toothpaste?

Any kind of toothpaste that you feel comfortable using. I do like fluoride toothpaste because fluoride can help prevent cavities. I don't like the toothpastes that are abrasive, ones that claim that they're whitening.

The way they can claim that they're whitening is they're abrasive so they can help take off some of the surface stain of the teeth, but they're not really whitening your teeth from the inside out, which is what professional whitening will do in a dental office.

Also, toothpastes that contain baking soda are very abrasive also. So, those are the two things that I avoid. I haven't seen great studies about the remineralization.

Yeah, thank you. Remineralizing toothpaste. So I'm not saying that they don't work. I just have not seen great studies saying that they do what they are claiming to do.

That's helpful. What about root canals? Where do you fall in your opinion on that? I feel like some people are Like, what's the big deal? Everybody's got root canal.

It's not an issue. And then other people are on the entire other side of the spectrum saying no one should ever have a root canal. You should have all of them removed.

Where do you fall? I have seen thousands of root canal teeth over the years. If the root canal is done properly with the proper filling material, got a percha, it can last for years and years and years without issue.

You don't want to ignore a tooth that's infected that needs a root canal or that needs an extraction. That's really the dangerous thing is that infection that is present in your body.

You know, if you have an infection in your jaw, this is not that far from here. The geography of the head and neck. Right. I mean, we try to save teeth as much as possible because even though we have really great ways to replace teeth with implants, there's nothing like your own natural tooth.

So as long as the root canal is done properly, I'm fine with it. I would never recommend that a tooth be taken out just because it needs a root canal.

I'd rather you keep your own natural tooth with the proper root canal treatment and a crown if needed. Implants are great, but Some people don't keep them as clean as they need to, and we have seen something called implant periodontitis, basically.

It's inflammation around the implant, which is inflammation. Doesn't matter if it's around a tooth or an implant, that's not going to be good for your health.

So, you know, we're lucky we live in a time where we have implants that can pretty easily replace missing teeth, but there's nothing like your own natural teeth.

Yeah, a properly done root canal is, in my opinion, is a good way to keep your teeth and stay healthy. What do you think about amalgams? So these are mercury-containing fillings that I don't think happen anymore, right?

That's kind of been phased out of dental practice, but many people have them from 20, 30 years ago. What do you say to someone who comes in with some of those and is exploring the option of getting them out?

Well, if it's a healthy person and the amalgam restoration is small and isn't deteriorating, I will generally just leave it. But if it's a large amalgam restoration, certainly if it's starting to break down, I will always recommend to replace it.

We don't want that toxin. We don't want that mercury in our system. If someone like you who tells me, OK, this patient has had a toxin panel taken and they have high mercury levels, then I'll say, let's You'll be watching their diet in terms of what kind of fish they're eating and things, but I will want to take all the mercury out of their mouth.

Yeah, we don't want that leaking into your system. Yeah, but thankfully, I don't remember the last time I did an amalgam. Oh, nice. Yeah, good. I'm glad those are a thing of the past.

You have worked across research and clinical care and systems level innovation. I'm curious, like, what do you see the future of dentistry, especially whole health dentistry, right?

This understanding of that some dentists are looking in the mouth and they're just looking at the teeth and really just interested in that. You're really focused on how that impacts the entire system.

Do you have hope about the future of that? Do you see that being more widely adopted? What do you see in 10, 20 years in your profession? Yeah, I think that it's not going to be something that's unusual to find a dentist who will be talking to their patients about their diet and their sleep and what their cognitive level is.

The mouth is the gateway to the body. It's where everything that comes in comes in through the mouth generally. So I think that this newer generation of Dentists and physicians are seeing that we need to work together and not in our separate silos, you know, dentistry with teeth and gums and medicine with all their specialties.

I think we will be working more in tandem. For example, myself as a practicing sleep dental medicine, The airway is really a connection between dentistry and medicine.

And I have a lot of interactions with different types of doctors, people like you, functional medicine, with sleep medicine, with cardiologists and pulmonologists.

And I think people are realizing that we're not in our separate silos. We're just, we're there to help the patient in all their various issues. You know, it's not this and nothing else.

It's all intertwined. So I think that that's the way it's going to be seen in the future. And I think it's getting there already. That's very hopeful.

I ask everyone, what brings you joy at this stage of your life? Let's see, this might sound like a cliche, but when I mean I've been treating patients in dentistry for many years and of course I get the patient who feels better looks better and they're happy about that but the joy that I get from somebody telling me that they are finally sleeping through their night or that they're husband is not snoring any longer and they're able to sleep through the night and you know just it's so life-changing to people and the fact that I can help them either by discovering that that was an issue or they found out that was an issue and being able to treat that issue in a way that someone will stick with the way that we're doing it with a sleep appliance or a CPAP or however.

And it's just the joy that someone gets from helping another person, the joy is more for yourself even than the person that you're helping. It's just such an amazing feeling to help somebody who was kind of lost before they met you.

Whole-Health Dentistry and Closing Remarks

It's a selfish selflessness, right? Yeah, exactly. That's a perfect way of putting it. Well, Dr. Rapoport, thank you so much for shedding light on this part of health that so often I think hides in plain sight, right?

That so many people I think even know that this is an issue for them, but they don't know who to see or where to go. And I think you've given us a new appreciation for the way that breathing and sleep and inflammation and the microbiome and the mouth, of course, all weave together to shape long-term cognitive resilience.

And they're really crucial. We cannot miss this piece. It's incredible how, I mean, I'm just blown away all the time, how fundamental, something as fundamental as airflow at night can influence and impact everything during the day, right, throughout our lives.

And so for everyone listening, if this conversation sparked a little curiosity about your own sleep or your loved ones,

pass it on to them, pass this episode on to them.

But consider this an invitation. Today is the day to call and make that appointment to take a closer look to maybe put on your CPAP tonight if you've already got one or to get that sleep study done to schedule with the dentist.

Better sleep, better oral health. This isn't just about feeling rested tomorrow or about having pretty teeth. It's about really like aging. It is about thinking well and aging well.

It is about clarity and vitality and connection for the decades ahead of us. So Dr. Rappaport, again, thank you for sharing your expertise for this in-depth conversation.

And for your mission, I feel so delighted to be collaborating with you in the care of patients. And thank you to all of our listeners for tuning in. Dr.

Rappaport, where can people find your book? You can find Breathe Easy, Sleep Deep on Amazon. It comes in paperback and Kindle and hopefully soon the audiobook.

Fantastic, congratulations. Yeah, it answers a lot of questions. It's a great book for somebody who might be worried that they have sleep apnea or somebody they know or they were just diagnosed.

It answers a lot of questions about sleep apnea. The name and website of your dental practice? My dental practice is Complete Health Dentistry of SoCal.

I also have a sleep practice, Complete Health Sleep of SoCal. And we're in San Diego. Fantastic. And we'll put all that in the show notes. Thank you to all of you for tuning in and for being part of our Think Well, Age Well community.

Until next time, I wish you good sleep, deep breaths, and taking slow, steady steps towards a healthier brain and a healthier life. Thank you. Be well.

Thank you so much for listening to the Think Well, Age Well podcast. If you enjoyed today's conversation, please take a moment to subscribe, leave a review, and share this episode with someone you care about.

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Until next time, keep thinking well and aging on purpose.