Sleep: Sleep Disorders

Transcript

Hello and welcome to our sleep disorders presentation. I'm excited to share this information about all the different things that can go wrong with sleep. We think about all our patients and our clients and how important our sleep is and hopefully you have a really good understanding with why sleep is so important, then we're going to look at, well what goes wrong? There's insomnia. There's narcolepsy. There are so many different things. What can go wrong, what causes them, then we'll have a whole section on what to do about it.

Again, before I begin, I want to make sure that you're away that every thing I'm sharing with you is not medical advice, it's just information from my decades of experience and my research to you and the same when you share this information with your clients, just make sure that they are aware that it's all education and it's in the spirit of helping them to become more balanced and that if they're working with a doctor, they need to make sure that anything that you share, they run by their doctor. The same thing goes for you, anything I share, run it by your doctor to make sure.

We've talked about deep sleep. We've talked about the importance of sleep. We've talked about the hormones in the sleep. We've talked about the impact of poor sleep on hormone balance as well as brain balance, et cetera. What are some of the things that impact getting a good night's sleep? One is shift work. Studies that have been done on shift work showed an associated shorter life expectancy when people are on shift work.

They've done nurses studies, a bunch of different nurse studies, if you want to look any of this stuff up, there's lot's of research. It's hard to get enough of the deep sleep when they're in that state of fluctuation, especially shift workers who then on the weekend go back to the regular person's schedule, and then they go back to it. Their body never really deals with it. Most people who are doing shift work rarely get more than four to six hours of good solid sleep per night.

What else impacts it? Well, we've talked about this before, eating late at night. It interferes with the quality of the sleep. It interferes with the growth and the repair and the detoxification that happens during the night and you may find people complaining that when they eat late at night, they feel groggy in the morning. When they follow your advice to not eat so late at night, then they feel much more alert in the morning. TV and computer right before bed, we've talked about that. That bright light going in through the retina will cause an interference with the melatonin. Less melatonin to be produced.

Worry. Okay. If somebody's in this state of worry, they just can't get into the deeper stages of sleep as quickly as you need to get a really good quality of sleep. When people are laying there and the mind is racing and thinking about all of the things they need to do the next day and all the things they didn't get done today, and all this stuff, it's like, ugh. It's just not conducive. I know this happens every now and then, this happens to me where I've just got so much on my mind and I get in bed and I just can't get it shut off. Typically, what I'll do is I'll get up, I'll take out a paper, I'll write every thing that's running through my mind on the piece of paper, I lay back down, I do some heart math, and if that doesn't do the trick, then I take some passion flower. We'll talk about a lot of the things that you can do to support people when these things happen.

Then of course, alcohol, caffeine, sugar and certain medications can interfere with the quality of sleep. We've talked about the impact of food and sugar and insulin and all that. Some of the medications that might get in the way are antihistamines, Ritalin, cold medication, steroids, headache medication with caffeine and energy drinks. You want to really look when you're doing a thorough history to see is your client taking any of these things. That might be related to why they're having so much trouble sleeping. Let's take a look at what some of those things, the common sleep disorders, and we'll go into these in a little bit more detail. There are 84 classifications of sleeping disorders.

We're not going to go into all 84 classifications of sleep disorders, if that's something that you're wanting to do, you're welcome to do it on your own, if you want to become the sleep expert, that's fine. I'm going to go into the main ones that you might see in your clinical practice. Insomnia, right? The inability to fall asleep or the inability to stay asleep once you wake up in the middle of the night or waking up frequently. Narcolepsy, which is the falling asleep during the day. Sleep apnea, which is when difficulty breathing during the night which keeps waking you up. You wake up because you can't get the breath.

Restless leg syndrome, it's not actually a sleep disorder, per se, but it interferes with sleep. Night terrors. We see that more in children than in adults, but some adults have night terrors where it's more than just a bad dream, it's like this waking up in this completely anxious state and just unable to control it. If you've ever seen a kid in night terrors, I think one of my kids had a night terror once and it was just like, you can't calm them down, they're just like, convulsing with fear and anxiety and it's really difficult to realize that they're no longer in the dream, even when they're sitting there awake.

Then sleep walking, that can be a dangerous one. I remember somebody telling me, "I was doing really great with the diet, I had been losing weight, I lost like 40 pounds, and all of a sudden I plateaued, then I started going into the kitchen in the morning and seeing, like food remnants on the counter. I wondered, can I be sleepwalking and eating in my sleep?" We never did figure it out whether it was her or her partner, but it certainly is a possibility.

Let's look at the prevalence of sleep disorders. Over 2 million children suffer from sleep disorders. That's huge. Why are our children suffering from sleep disorders? Well a lot of the reasons are the reasons that we teach people to overcome to restore balance, right? Their nutrient deficiencies, excesses of anti nutrients, lots of stress, lots of TV, lots of video games and not a lot of relax time being pushed. 30 to 40 percent of the children actually don't sleep enough. That's a huge percentage, 30 to 40 percent.

I know when my kids were little, when they were very little, they needed 12 to 13 hours a night of sleep, but even all through elementary school, I found that they needed that 11 to 12 hours of sleep. If the kids are being pushed and out late and they have homework, as they get older and have to do their homework, they started to get sleep deprived as they were going into middle school and high school. Because even though they still needed all that sleep, the schedule of being at school for 8 hours a day and then coming home and maybe doing some sport and then having to do 3, 4 hours of homework was really stressful, so our kids are stressed to the max and they're not sleeping properly.

This difficulty that women … It's interesting, I mean, women are twice as likely as men to have hard time falling and staying asleep. Maybe because women tend to be the worriers. Maybe they tend to because they tend to be the protectors of their family, but that's statistically shown.

Pregnancy can worsen sleep patterns, and you know some of this is because it's hard to get comfortable, you've got this big watermelon out of your belly, your kid is kicking, causing pressure against the stomach. There's a lot of reasons that could do that. Menopause and hormone changes cause changes in sleep. We talked about the effects of the estrogen and progesterone and testosterone and how important they are to have good levels in order to get good sleep.

It's actually estimated that over half of people over the age of 65 experience disturbed sleep, so you're going to see a lot of these people coming though your door and they may not be associating the problems they're having to their lack of sleep. They're just coming in and telling you, "I'm exhausted. I've got these joint pains. My doctor said I'm pre diabetic and I want to change that," but they're not really getting there, so you have to ask the right questions to get to the right point of knowing there's a sleep issue.

So many times people are looking for that needle in the haystack, right? Somebody's exhausted, well is it their thyroid, is it their adrenals, is it some inflammatory thing, and you're looking for all these reasons they're exhausted and you really have to stop and say, "how much sleep are they getting?" Most people are not getting enough sleep, they're just not. When you can help them to get more sleep, it's going to completely profoundly change their health.

Let's look at some of these disorders. Insomnia. The mayo clinic reports that insomnia is one of the most commonly reported medical complaints that doctors receive. I will attest to that. I see so many people that may not be complaining about insomnia as their main thing, but a lot of them are, but there are so many of them that have it and they don't even relate it to some of their other issues.

More than a third of adults are estimated to have suffered from or will suffer from during their lifetimes, some form of insomnia, some state of insomnia or period of insomnia. How do you know whether somebody's an insomniac? Well, they have difficulty staying asleep, falling asleep, or they have a non restorative sleep, so that's sleep that's kind of they're restless, they're tossing, they're turning, that's insomnia as well, even though they're perceived as being asleep.

The difficulty presents despite adequate opportunity and circumstance to sleep. This is a critical one, because a lot of people aren't giving themselves the opportunity to sleep. What does that mean? They're not actually getting into bed. You have to go to bed. If someone has enough time, they're not on a schedule where they're critical and they only get six hours that they could possibly sleep, it's the decrease in sleep and the difficulty falling asleep and staying asleep, when they actually have that opportunity. That's big, it's huge.

The sleep impairment is associated with daytime impairment or distress so that exhaustion, that falling asleep on the job, that not being able to focus, brain fog, all of those can be coming from insomnia so it's really, really important. It's defined as occurring at least three times a week and has been a problem for at least a month. If somebody has this temporary thing, they have a week of extra work and extra stress and things are happening and can't fall asleep and it's happening for a week, even if it's every night, but then they go back to normal, or it happens for a couple of weeks, then that's not considered insomnia, that's temporary insomnia, but the diagnostic criteria, like if they were going to go to the doctor and pick out the code, the diagnostic code, they would not be able to use that if it doesn't meet that criteria.

It's that chronic state, that over and over it's at least three nights a week or more and they just can't fall asleep and it's been going on for over a month, then you can classify them as having insomnia and there's a good study on that. What causes insomnia? A lot of the things we've already talked about. Stress. You just can't fall asleep. The cortisol is raging, there's a lot of stuff going on, you're spending so much time in this sympathetic dominant nervous system, and you can't sleep when you're in sympathetic dominance. You have to transition to para sympathetic in order to be able to fall asleep. People are in a stage one of adrenal dysfunction, they just can't do it.

People who have adrenal fatigue, or a better word may be adrenal dysfunction where they have peaks and valleys, and they have high spikes of cortisol and super low spikes of cortisol. They have possibly causing insomnia. Hypothyroidism. People who have low thyroid function oftentimes have difficulty falling asleep, which is kind of paradoxical because they're exhausted because of the hypothyroid and other features, but they just can't fall asleep. The paradox is also the people who are hyperthyroid, who are over excited, they get exhausted at bed time because they've used so much energy and they can have problems falling asleep but they're not as likely to have insomnia, statistically speaking, as people who are hypothyroid.

Hypoglycemia. I would go even further, any other kind of blood sugar dysregulation. Super important. Whenever there are insulin spikes, high levels of insulin make it difficult to fall asleep because it interferes with the growth hormone which helps somebody fall asleep.

Parasites. A lot of people lay awake at night because parasites typically lay their eggs at night and so folks that have parasites tend to stay up at night because these parasites are laying eggs and being active and keeping them awake. Maybe they have itching in their anal area or whatever, but that can be a problem.

Over stimulation. That's like most people. Over stimulation. Watching TV, watching the news, getting agitated about all the bad things happening in the world, having all that light coming into your eyes, watching TV, all of that.

Pregnancy, we talked about that before, there's a lot of reasons for that, and then nicotine, caffeine and alcohol can contribute to insomnia. It's really goes back to doing a really thorough history to figure out what are the underlying causes for your particular person.

Let's look at narcolepsy. Narcolepsy is excessive daytime sleepiness, and it's not just, “Oh, I want to fall asleep in the middle of the day.” It's falling asleep. Falling asleep sitting at a chair, falling asleep sitting at the dinner table, falling asleep at work, falling asleep watching TV, I don't know that that's necessarily narcolepsy, because people are usually exhausted and they should be in bed by the time they sit in front of the TV.

My father in law and my husband ... My father in law used to do that, my husband still does. He just sits down on the couch and the next thing you know, he's asleep. It's mainly because it's late and he should be in bed. That's not narcolepsy. Narcolepsy is that, this person you walk in the office, and they're sitting there sleeping or they're driving, that's really a problematic, right?

Kind of a thing that goes along with narcolepsy is cataplexy. That's the sudden loss of muscle function that comes on by strong emotions or laughter. It's almost like you think they're asleep, you think they're going into a coma or are having a seizure. Well not seizure, because that's extra, but they just lose it. Sudden loss of muscle function because they start to laugh. That's an issue.

Sleep paralysis. A normal amount of sleep paralysis is normal during certain phases of it, like during the deep rapid eye movement sleep, there's paralysis of all the muscles and that's why a lot of times you feel like you're in a dream and you want to fight but you just can't move and you can't get out of the dream because you can't move your body. That's normal. But sleep paralysis where the person falls asleep during the day and they just can't move.

Sudden sleep attacks, like I said, at different points in time. Dreamlike hallucinations. Maybe you're sitting and it's beyond daydreaming which is like, "oh, I want to go to the beach, let me pretend I'm at the beach, oh I'm loving it." It's more like a hallucination in the middle of the day and they're suddenly starting to see things happening. That's all the definitions of narcolepsy.

What are some of the things that can cause narcolepsy? Well, there's brain chemical called hypocretin, also called orexin. When we don't have enough of that, the immune system gets involved. Let me take it back. When people don't have enough of it, it's kind of because the immune system just mistakenly attacks the part of the brain that produces it. It's an auto immune condition, which attacks that.

That's one thing. In 2012, scientists in Switzerland discovered that some people with narcolepsy also produce antibodies against a protein called Trib 2. Trib 2 is produced in an area that also produces the hypocretin and it's that lack of hypocretin that causes the brain to be less able to regulate the cycles so not being able to ... The melatonin may not be as effective because melatonin is low during the day usually, but it's, the person's sleeping, so it's less able to regulate the normal cycles of wake and sleep when there's not enough hypocretin or orexin is also the name of it.

Who's at risk? Well, gene variants. A gene variant called DQB1*0602. These people are found to have more of a narcolepsy tendency. You can see our fellow in the picture, he's fallen asleep, he's sitting there in his suit w his head in his cereal bowl. You can't control it, it's not like you go, "oh, I'm starting to go to sleep." Nope, it's just like, boom, you're asleep.

Hormonal changes, including those that happen at puberty and menopause. Kids going into puberty and women going into menopause have a more likely to have a risk for narcolepsy given that they have that gene variant as well. Psychological stress, like really traumatic psychological stress.

Sudden changes in sleep patterns, that has been shown to contribute. Not like everybody is suddenly they are in a different country and they have to do it, although if they have a tendency towards it and the other things are right, we can get a perfect storm that can create it. Certain infections. Swine flu and strep infections have been associated with it, but also the flu vaccine. There's a particular one called Pandemrix I found that is actually associated with it, but vaccines and specific flu infections can increase the risks for narcolepsy.

Let's look quickly at narcolepsy statistics so we know how often are we going to see this? It affects as many as 200,000 Americans, which is significant. Fewer than 50,000 are diagnosed, so that's a quarter. Maybe know that, yeah a quarter of them. Fewer than 25 percent are actually diagnosed with this. You can see our guy falling asleep at the thing. A lot of people ignore it. They don't even know notice that it's a problem. 8 to 12 percent have a close relative with the disease, which goes back to the SNP and the genetic pre-tendency, men more likely than women, and 20 to 25 percent of people with narcolepsy actually have all four of these symptoms: excessive daytime sleepiness, sudden loss of muscle function, sleep paralysis and hallucinations, right?

If you've got some one who has all of those criteria, they're pretty clear that there's some narcolepsy going on. It's not like you're going to be in a situation where you're going to diagnose cases of narcolepsy, but you do want to be able to look at when somebody's exhausted, start to just ask them about situations like this.

Sleep apnea, yeah, we have sleep apnea and how many people do you know that you talk to who are on a CPAP machine, it's huge. It's almost like an epidemic of sleep apnea. Sleep apnea, there's some loud snoring, and that's usually an obstructive sleep apnea, so there's central sleep apnea and obstructive sleep apnea. It's basically the breathing stops during sleep and it's usually witnessed by another person and it can be scary and the person can stop breathing and all of a sudden, they startle up, but it can be very dangerous as well.

Usually it's seen a partner is saying, "you just stopped breathing," and they're like, shaking them because they're freaked out. It can be abrupt awakenings, like I just said, accompanied by shortness of breath, so they've stopped breathing during sleep, and suddenly it's like, “Gasp!” Because they get awake because their body is signaling them "you need oxygen, wake up."

Dry mouth or sore throat, so people that may not know that they have sleep apnea, but you wake up all the time with that dry mouth or a sore throat, so if you're talking to some one and they say, "yeah, I wake up with such a dry mouth and a sore throat and I don't understand it," they may have sleep apnea. Morning headache, because of lack of oxygenation to the brain. They may just notice it's hard to stay asleep.

Some people with difficulty staying asleep is actually because of sleep apnea. Sometimes it's just in addition they're going to say their excessive sleepiness during the day, well of course they're going to be more tired during the day because they haven't gotten the sleep at night and some of them have attention issues and irritability.

These are all of the symptoms that can be presenting and of course some of these symptoms are totally not related to sleep apnea, but it's up to you, and just being clear with looking at what's going on with people like, are there attention problems related to neuro transmitters, to gut dysbiosis, to eating the wrong foods, to deficiencies of various nutrients to insulin resistance or sleep apnea. It's just one of the things to consider when folks present with some of these common symptoms.

These are just pictures that show the obstruction so there's two different types like I said. Obstructive sleep apnea, and central sleep apnea. Obstructive is when the muscles in the back of the throat can relax more than normal, and so there's a pressure against the breathing and the air does not go down into the lungs. It can happen with excessive weight or obesity that there's more pressure against that and the closure of the breathing tube.

It could be from an enlarged tonsils or adenoids, that's pretty easy to spot. You may not look in people's throats, but if you do, it's really easy to spot enlarged tonsils or adenoids. Some folks have a large over bite are more prone to obstructive sleep apnea and people with down syndrome are more prone to that. Whenever somebody's having difficulty with the obstructive sleep apnea there's usually something that's obstructing, obviously, the breathing. With central sleep apnea, it's not an obstruction on a local level, it's actually that the brain doesn't transmit signals to the muscles for breathing. That's a central thing and that's treated much differently. They may both need a breathing machine in order to deal with it, but the underlying causes are much different.

This is just said, aging limits brain signals to the throat muscles to keep stiff during sleep and so the airway collapses or narrows. A lot of things are blamed on aging, and we know that normal aging is very different than aging as a result of living the standard American diet lifestyle. Nutrient deficiencies, et cetera, lots of stress. I'm not an expert in sleep apnea, of course, I would have you go and check things out, but there are a number of things we'll talk about in our what do you do to help people get better sleep.

There's actually a technique called the Buteyko, B-U-T-E-Y-K-O, Breathing method and they teach people how to actually close the mouth during sleep. They actually tape it closed, and use the nose and then do some breathing exercises during the day and I've known people to do this, and it can be really, really dramatic. That's one of your resources to help people with sleep. Statistics? Well over 18 million Americans suffer from it. That's huge and over an estimated 10 million remain undiagnosed. You get diagnosed with sleep apnea, and you get put on a sleep machine, a CPAP machine, it's not real fun. It's just not real fun. It's noisy, it's not great for the partner, so a lot of people want to avoid that.

Over 50 percent are diagnosed in people over age 40. Most people. Still, there's a significant number of people under the age of 40 that are having this issue and it's really a matter of looking at underlying causes. Now, we don't do this for that approaches, right? We look at what are all the underlying things? You're looking at their weight, you're looking at their alcohol consumption, you're looking at the position, you're looking at their breathing, you're looking at their parasympathetic versus sympathetic dominance. Those are all really important things. There's a really good article there on the sleep apnea statistics.

4 to 9 percent of middle aged men suffer from it. That's a huge number. That's a huge number of people and middle aged in their words are considered anybody over age 40. I consider middle age anybody older than me. I don't like to label you're middle aged or old or young, it's just really age groups, so over 40 crowd, is 4 to 9 percent of men and 2 to 4 percent of women. That's a huge amount of people. This sleep apnea thing with these CPAP machines, it's a huge business, so we want to be able to look at what you can do naturally to help people restore balance.

Restless legs can affect as many as 10 percent of people.

This is not a situation where you just have some cramping occasionally during the night or you have a charley horse, or whatever, this is actually where the legs are shaking. They're in uncontrolled spasm. It can begin early and worsen with age.

Pregnancy and hormonal changes can temporary worsen. The good news is there are some nutrients and some natural approaches to it. There are drugs that they use to treat them, and they target dopamine receptors in the brain which are linked to risk and reward. It's kind of interesting. The problem with taking these drugs is that they can aggravate gambling or compulsive sex addictions in some people so lovely, my legs don't twitch, but I'm going out looking for sex partners or gambling away my life savings, lovely. I don't know. Not a good choice.

Then what else? Your symptoms, right? You've got the sensations of itching, tingling, crawling, pulling, cramping. It's like, it's involuntary movement. They're not obvious twitching the way they are in the previous picture, that was a cartoon, but they're just not able to get up and move around. They can't control the movements. The urge begins or gets worse during periods of rest of inactivity, so obviously it's going to get worse during sleep, but people with restless legs may be just sitting at work doing nothing and the legs start to twitch. Or, resting or getting a massage or other things like that. That's why it's worse in the day and night.

Some of the causes. Abnormal dopamine signaling. We know as we go through and learn more about neurotransmitters and balance and all that, that there are ways to optimize dopamine, and optimizing dopamine involves optimizing gut health because a lot of dopamine is produced there. Optimizing amino acid nutrition, optimizing the co-factors like vitamin B6 and magnesium and B12 and folate. All of those things can be important in optimizing the dopamine. In addition, there are other nutrient deficiencies that have found to be related, so iron, folate, magnesium, B12.

There's a gene variant that doubles a person's risk for developing restless leg, and it was discovered just a couple of years ago in 2011. It's called the BTBD9 and there's multiple SNPs of that that are associated with restless leg. With similar certainty as APO E 4 is associated with Alzheimer's and APO E 4 is very highly associated with Alzheimer's so almost most of the people with Alzheimer's have some of the four variant on the APO E 4. The BT is very, very much strong association. These other genes are not as strongly associated, but still associated. MEI51, MAP2K5, RS3923809, that one doesn't have a ... I haven't found a little shortcut associated with it.

You can always look these up. I'm not sure if these show on the 23nME or in the raw data or in the MTHFR support report, but these are definitely associated so if you're thinking you or somebody you're working with has that tendency, that you can look into whether there's a genetic component.

Again, genes are genes, and epigenetics is king, right? Queen. Epigenetics controls most things, so you can control it and you want to be looking at what's going on in the person's body. A lot of times, when we're working with people with these obscure disorders, we just go and yeah, if we can give them band aids, we give them band aids when we can, while we're working on the underlying causes, but a lot of times these things clear up when you just get to the root and just start restoring balance.

We don't have to know exactly how to deal with restless leg sometimes. We can give them some temporary relief and then go to restoring balance in the body. In our next presentation, we're going to talk a lot more about, how do you deal with sleep disorders? How do you help people to get better sleep?