Somnology Part 2 with Dr. W. Chris Winter Ologies Podcast October 15, 2018

Oh heeey. It's still your little stepbrother who tries to trade you their calcified, banana flavored Now & Laters for your Mini Reese's Peanut Butter Cups, and you're like, "Dude. Little dude. Step all the way off. How dare you? That's not how life works," Alie Ward, back for the second half of Somnology. Did you listen to Part 1 yet? Deep sleep, versus REM, versus R.E.M., versus light sleep. Which is the Ugg? Which is the glittery dress loafer? Do you regularly disco with the Night Hag? How lucid is your *Property Brothers* experience? Does C-3PO give you PTSD? If you have no idea what I'm talking about, I have exposed you as having skipped Part 1. So go listen to Part 1! Part 2 will be here for you when you're done. It will make way more sense. [through bullhorn] Go on, get!

Okay, Part 2-ers, it's just us now. We get it. We have the basics on how sleep works, what happens when we don't have enough of it, and what our brain waves do, and why insomnia is a product of fear and anxiety. But this episode answers Patreon questions to help you get better sleep, and includes, yes, the secret insomnia buster from your pod dad's mom, your pod nana, Fancy Nancy Ward. I'm earnestly so excited to share it because I swear it works so well for me.

Before we get to the episode, a few things we always do and you know it: Really quick, Los Angelinos, if you happen to be in LA November 3rd [2018], there is a comedy benefit for multiple myeloma research. If you listened to the Hematology episode with Dr. Brian Durie, which is all about blood and multiple myeloma which is a cancer that my dad has, this is a great way to support. It's a comedy benefit, so it's a whole comedy show. It's hosted by Kevin Nealon, and Natasha Leggero, Cristela Alonzo, Jim Jeffries, Gabriel Iglesias, Sasheer Zamata, and Chaunté Wayans are all performing. I'll be there just hosting the red carpet live stream. Tickets start at 50 bucks, and they are available at Comedy.Myeloma.org. You can also go to my Instagram and I have a link to their Instagram there.

Thank you to everyone who supports on Patreon.com/Ologies. Even as little as 25 cents an episode gets you into that club. You get to hear what episodes I'm working on. You can submit questions; I may read your name on the show. This is my favorite job. You all pay my salary and you make this free to everyone, so thank you for that. Thanks to everyone who gets pins, and shirts, and hats, and totes at OlogiesMerch.com. You can support for no coin just by tweeting and 'gramming, tell your mechanic, spread the word, and also by star rating on iTunes or other platforms, or leaving reviews, which I read and cherish like notes from the feedback fairy. To prove it, here's a fresh one I just plucked. Great Dad Jokes wrote in,

If Bill Nye the Science Guy and Dirty Jobs had a love child, it would be this podcast. It takes a deep dive into a variety of specialties but explains things in a way that makes you super excited about things you never thought you would get excited about, like bugs, anatomy, and primate butts.

Great Dad Jokes, you get it. Thank you. Okay, Somnology, Part 2. Let's get to your questions with Virginia-based neurologist, sleep whisperer, author of *The Sleep Solution: Why Your Sleep Is Broken and How to Fix It*, and of course, Somnologist, Dr. W. Chris Winter.

Alie Ward: Can we do a rapid-fire round?

Dr W. Chris Winter: Oh yeah, absolutely.

Alie: Okay, I asked for questions on Patreon, as I do. I say, "Patrons, hit me with your questions," and typically I get 50 to 80 questions, maybe.

Dr. W: Wow!

Alie: I got 255 questions.

Dr. W: Wow!! All right!

Alie: Twenty-five pages worth of questions. Clearly, we're not going to hit them all.

- Dr. W: Here we go!
 - **Alie:** I'm just going to run through. Megan Younce wants to know: Why do some people have different circadian rhythms?
- **Dr. W:** Megan, that is a genetic trait you probably inherited from your mother and father as either being a night owl, or what we call 'delayed sleep phase', or a morning person, a morning lark. Probably the simple question is you acquired it from a parent. It is modifiable, so there may be aspects in your life that allowed you to change it, but to me I think it's a trait like eye color that we can work to overcome, but it's kind of always there.

And I'm a believer, just an aside, that our sleep need (how much sleep do we need?) and our timing as Megan's describing, (when do we like it, late or early?) tends to push us into certain careers. Teacher likes to wake up early in the morning, maybe needs a little more sleep, more consistency in their life. Night owls tend to travel better, deal with jet lag better, and by some studies, are smarter. Isn't that interesting?

- **Alie:** Reeeally? I didn't know that. This is kind of the follow-up question to that. Paul Hoch and a few other people asked: I was a lifelong night owl and I just woke up one morning a morning person. How does that happen?
- **Dr. W:** Well, Paul, that's interesting. I don't know. For me, a lot of times things that I'm involved in my life can push me one way or the other. One is exercise first thing in the morning. I was training for a triathlon a long time ago and meeting a group of people to do it really early, and I hated it. I dreaded it, but after a few weeks, I was waking up at 4:55 in the morning, five minutes before my alarm clock went off, and felt really good and was falling asleep at 10:00 at night. So, it can be certain things in your life, or as our bodies mature, we tend to become less night oriented, in general, and more morning oriented.

The typical high school student stays up until three o'clock in the morning watching YouTube videos, wants to sleep until two o'clock in the afternoon, is really upset with mom when she comes in and opens up the blinds before lunchtime. Then you look at Grandma and Grandpa living down in Sarasota. They get the NutriBullet out at three o'clock in the morning making Kale smoothies and you're like, "Grandma, oh my god. What are you doing? It's three o'clock in the morning." "I know. This is when I wake up. Isn't it great?!" We have a tendency to move towards that as we get older, so maybe Paul's just moved there very quickly.

Aside: Like Paul, I too have recently come to enjoy waking up early (when I do it). I thought this meant, like, I have finally gotten my shit together; it's happened. But Paul, it looks like it just means we're old and marching ever closer to death. We win some, we lose some, buddy.

I don't know what to tell you. Now the steely blue gloaming and the morning mist belongs to the olds, so come join our wise wrinkle party. Let's whittle spoons at 7am over our third cup of percolated Folgers.

- Alie: Tyler Q wants to know: Is it possible to tell the exact point someone starts being asleep, or is it just a gradual blurring of lines into unconsciousness?
- **Dr. W:** You can see it on a sleep study, and there is a sense of gradual. When you look at the brain activity, what you start to see is a slowing of the brain activity, the eye movements that characterize wakefulness become slow and rolling. So, the answer is generally over about a 30-second period. That's how we score sleep. We look at 30 seconds of sleep at a time and when you start to see a predominance of that intermixing of sleep with the light wakefulness, that's when we say sleep happens. So it's a gradient, but it's a very short gradient for most people.
 - Alie: Oh! 30 seconds is pretty short.
- **Dr. W:** Yes, and you can see it very clearly. It's not hard to find.
 - **Alie:** Skype a Scientist wants to know: Why do some people make weird noises as they're falling asleep? What can we do to stop them from doing it, or what can they do to stop doing it?
- **Dr. W:** That's a tough one. One of my favorite weird noises at night is a phenomenon called catathrenia, which is a prolonged expiratory moan.

Aside: [*clip from YouTube: prolonged, strained, stop-start exhaling moan*] Thanks, JLeideker, for creeping on your vulnerable, sleeping boyfriend and putting it on YouTube so 36,000 strangers (and counting!) could enjoy what sounds like a constipated puppy, or a very frustrated porcupine struggling to understand tax paperwork.

Dr. W: For a lot of people, when they go to bed (this is super fun when you find out the person you've committed your life to does this), they will actually kind of take a breath in and all through the night go "[*sharp inhale, humming exhale*]" like a foghorn all night long. There's also 'somniloquy' which is sleep talking, which can be sort of gibberish or it can actually be fully formed sentences that people have no idea what they're talking about.

These things can be treated. Often there's underlying sleep problems that are causing them, so if you can figure out the underlying sleep problem, like with a sleep study, you can sometimes get rid of the sound that the patient's making. But they can be kind of difficult to get rid of sometimes.

- Alie: What can the underlying problems be?
- **Dr. W:** For instance, sleep talking, a lot of times what happens is an individual is sleeping along, they'll have a little breathing disturbance and as they [*clipped exhalation*] wake up, they're conscious enough to have a conversation. One time my wife woke up in the middle of the night and said...

We had been watching the *X-Files*, this show a long time ago. [*clip from The X-Files: Mulder*, "*Much as you try to bury it, the truth is out there.*" followed by airhorns playing the *X-Files theme*] She woke up and said, "Hey, could you just go out there and get all those dead bodies off the lawn real quick?" I was like, "What are you talking about?" And then she would get real upset with you if you tried to rationalize what she was talking about. I figured out very quickly the best thing would be like, "Oh yeah. I'll be right back; I'll take care of that." She'd fall asleep and not remember anything about it the next day.

A lot of times you would hear like a little breathing hiccup [*pinched inhale*] that would kind of wake her up. It can be a little acid reflux. It can be a little, random leg movement, a coughing fit. There's lots of things that can do it, that would wake people up to do it. Even seizures. There's a great video one time of a young woman who was very, sort of, proper and "raised right," as my parents would call it. She would wake up in the night and just say awful things, curse, make these very vile, sexual references.

Aside: I tried to find a clip of this video, but googling "woman obscenities in sleep" only turned up a ton of gross tutorials about how to sleep with women. And scrolling through this deluge of pick-up artist DIY videos made me too sad to keep looking. So, sorry.

- **Dr. W:** Had no recollection of doing it the next day. It turns out she was having seizures, just at night, and that was the manifestation of the seizure.
 - Alie: Oh my god, people just thought she was a rude girl!
- **Dr. W:** Rude girl! That's right.
 - Alie: Oh god. I hope she got that treated but I also hope it let her be herself more. She's like, "You know what I've learned from this?"
- Dr. W: Let your freak flag fly, sister! That's right.
 - **Alie:** Bob Carleton asked, and we kind of touched on this a little bit earlier: I've heard that it used to be common for folks to wake in the middle of the night, do some reading, and then go back to sleep for the rest of the night, basically bisecting nightly sleep. Is this something that really happened, and we should bring it back?
- **Dr. W:** It did happen, and it's a bit of a denser read, but it is absolutely fascinating. A guy named Roger Ekirch wrote this book, it's "At Day's End" or "At Night's End" or something like that. It's a journey into the history of sleep or something like that. I always butcher the title. I really apologize because it's such a good book. I shouldn't do that.

Aside: Okay, so the real title is *At Day's Close: Night in Time's Past*, by A. Roger Ekirch. I'm going to admit that does not roll off the tongue, so I get why Dr. Winter could not figure that out. It's all about what happened during nighttime in pre-industrialized eras, from masquerade balls, to crime, to inns and taverns and brothels, yarn-spinning circles. I feel like now I need an episode on nocturnology, maybe, to *shine some light* on the topic. Dr. Winter explains:

Dr. W: He writes about sleep throughout antiquity. There was sort of this 'first sleep' and 'second sleep'. We would go to bed when the sun went down, we would sleep, we'd wake up, we'd walk around at night and greet neighbors and fall in holes that we didn't see. [Homer Simpson "D'oh!"] These passages that he's found are incredible. I think it took him years to write this book, and you read a page and you almost have to close the book and just think about, "Oh my god. It's so cool that people used to do that."

Should we bring it back? I don't know that we should voluntarily bring it back, but I do think it does provide a little bit of this idea of: Hey, look, if you want to have a siesta during the day and break your wakefulness period up with a little spot of sleep, I think that's okay, and some would argue, natural. I think it's okay if your night period is broken up by little period of wakefulness. That's not a big deal.

What is insomnia? It's not a person who can't sleep. It's a person who can't sleep when they *want* to. That's part A. Part B is you have to have an emotional response to it, so if waking up

in the night is kind of a fun thing for you and you don't mind it, then I think it's perfectly fine and a great way to sort of view an awakening during the night. It's not the end of the world, it's just... you're awake. Go with it.

- Alie: And it doesn't do the kind of damage that C-3PO alarm clock under your bed would do. [sharp, high-pitched whistle] Very different.
- **Dr. W:** Terrifying screaming, [*imitating C-3PO*] "We're doomed!" going off over and over. It made the craziest sounds. Oh my god, I can't believe we did that to people. It was C-3PO. I always thought was funny, like, if we'd had R2-D2 it probably would've been better, but this random robot screaming at you at three in the morning was often just what people needed to wake themselves from a deep sleep immediately.

Aside: Again, if you missed Part 1, the midnight terror of a mechanical C-3PO does await you. [*C-3PO, "Don't forget to wind the clock, so we can wake you again tomorrow!"*]

Alie: I bet you got a lot of people ended up not liking *Star Wars* after that, to be honest with you.

- **Dr. W:** It's kind of visceral response to the new movies.
 - Alie: Levi like the jeans and Ron Smith both asked about shift work, that it's awful for your health. What can you do to negate the negative effects of that?
- **Dr. W:** Levi and Ron are absolutely right. The thing that terrifies me the most about sleep and sleep science is not insomnia. It's not the person who went 18 months without sleeping. It's the person who is the shift worker who thinks that they're doing okay with the fact that they work a day job and also have a night job to make ends meet.

These are the conversations we have at our clinic: "I really think you shouldn't be doing this." "Great. Are you going to pay my mortgage, Dr. Winter?" "No, I can't do that." "Okay, then shut up." So we do often get into a position of... They almost feel like they don't have a choice. And the World Health Organization classifies shift work as a Class 2A carcinogen now. I think it's incredibly devastating to our health.

Aside: What is shift work exactly? I wanted a clear definition, so I asked the internet. Now, according to the National Sleep Foundation, shift work is work that takes place on a schedule outside the traditional 9–5 every day. It can involve evening or night shifts, maybe early morning shifts, rotating shifts, and yes, the World Health Organization *does* classify shift work as a carcinogen.

If you heard the Surgical Oncology episode about breast cancer and its concern, the stats say that women whose work involves night shifts have a 48% increased risk of developing breast cancer. Prostate cancer risk is also elevated, along with a host of other cancers, medical ailments. According to my good friend, Wikipedia, this may be due to alterations in circadian rhythm. Melatonin is a known tumor suppressor, and it's generally produced at night, so late shifts may disrupt the production of it.

One study I read reported that the "underlying pathophysiological mechanism" (which just means: why does this happen, though?) is that exposure to light and darkness at weird times leads to disruption of normal sleep-wake rhythms. It's called chronodisruption. It means, "I'm sleeping at the wrong times; my brain is confused." It's like, who's afraid of the dark? Who's afraid of falling asleep with the lights on? That seems more dangerous now. What can shift work, like Dr. Winter himself experienced during his medical residency, do to a human?

Dr. W: When you look at individuals who are engaged in shift work, we know that they have much more difficulty with their weight, much more difficulty with their blood pressure, more heart attacks, more strokes, more missed work, more GI issues, more psychological issues. It's just a very difficult thing to sustain.

I remember when I was in residency, when we were talking about that a while back, that I felt that I was clearly at my most unhealthy point in my life, and if this were my job, if this is what I'll do for the next 30 years, I felt like I would've lost ten years of my life. When I look back... Even my kids, when we look back at pictures of myself during that time, (thank god we didn't have a lot of digital cameras around at that time) the pictures that we do have, my kids were like, "Oh god, Dad looks terrible. Pasty white. Just looks really unhealthy," and I think it's because I was.

So, if you're a shift worker, talk to a sleep specialist. There are medications that can help alleviate that. I would say the other thing too, is to talk to your employer about ways you can make the shift work more humane. I mean, hopefully you're working for somebody who says, "Look, I don't care how you do it, we just need to cover these shifts." There's ways you can construct your work environment. There's ways you can construct the way that shifts move from day to day that are a lot easier on the body than others, and a lot of times it's just a matter of doing a little bit of research or talking to somebody about ways to make that better.

The other thing too is, try to work towards not being a shift worker. I mean it sounds really flip, but I'm being very genuine in that. Even if you like it, and there's a lot of things to like about shift work. Working at night, for some people, there's not a lot of administration around. You just show up and do your work. It's kind of quiet and some people feel good at that time, but just understand, just because you're good at doing it and you like it doesn't necessarily mean it's probably a really good thing for your body.

Alie: Got it. Same for jobs that involve a lot of jet lag? Asking for a friend. [giggles]

- **Dr. W:** Yes, absolutely. Again, there are things you can do to treat jet lag. There's some really cool goggles that you can wear that shine green light into your eyes, that kind of trick your brain's circadian rhythm, and a lot of them have these little, jet-lag calculators associated with them. So if you're getting ready to go to Stockholm for three days and then over to Brussels and the back home to New York, you can use these lights at certain times of the day to help you acclimate more quickly to that.
 - Alie: Oh! I got a lot of questions, Corrie Navis, Sophia Garbos, G.X. Barnett, Paul Hoch, Kadie Spino, Maria Kumro, Abigail Campbell, and more, all asked: How can some people sleep for five or six hours and feel fine and other people need eight or ten? Why do some people seem to need less?
- **Dr. W:** So that, once again, kind of goes back to the earlier question about how come some people are night oriented and some people are day oriented. When you think about your sleep, everybody who's listening to this has a certain amount of sleep that they need, that's individual to them. Not only that, but it's also individual to you at that time. If you're a 20-year-old, that time might change when you're a 70-year-old. So, not only do we have a time that we need or a duration we need, but we also have a timing. Those are the two variables I want you to think about.

The answer to the question is: there are some people out there who need eight hours of sleep, and we talk a lot about that in the media being an average. I think the average is

probably closer to seven, seven and a half, but we can agree to disagree. Whatever that average is, it *is* an average. So, when you're planning your picnic, there might be a statistic out there that says the average picnic attendant will eat two hot dogs and hamburger. That is awesome information to have as you are buying your supplies because now you've got a little bit of an algorithm for figuring out how to feed people.

Now, that does not mean that every person who comes your picnic is going to eat two hot dogs and hamburger. We need to get outside of this idea that eight hours of sleep is somehow magical. It is if that's what you need, but if you're somebody who needs six and a half hours sleep, seeking eight is going to create an hour and a half of dead time that's going to be very unpleasant to you and might even be interpreted as being insomnia. "Well, I'm trying to get my eight hours, Dr. Winter. I go to bed at 10:00 and it takes me like an hour to hour-and-a-half to fall asleep every night. It's driving me crazy."

My first question I always ask people like that is, "Why have you chosen 10:00 as your bedtime?" And they look at you like, "I really never thought about that." It's sort of like saying, "My lunchtime is at 10:30AM." "Wow! Tell me about your lunch." "Well, at 10:30 I leave my office, I go to the restaurant, sit down. The waitress comes, she says, "What would you like?" I say, "I'm not that hungry," and she keeps coming back and coming back and coming back. Finally, around 12:30 I say, "I'll take a chicken sandwich please." Like, that's crazy. Nobody does that.

The waitress at some point will say, "Honey, leave. Why do you keep coming at 10:30 and just sitting there taking up my booth? Like, go shop or go do some work and come back when you are hungry!" So, for the person who asked the question about sleep duration: We're all different. If you're getting six-and-a-half hours of sleep and you feel great and you don't feel like falling asleep in movies or in meetings or things of that nature, then you're probably doing exactly what your body needs to be healthy.

- Alie: Okay! That's good to know. Travis Gary, Julie Noble, and others asked: Back, side, or stomach? Which is best, and why?
- **Dr. W:** It depends on how you define best. Most people would describe sleeping on your left side as being best because, number one, our body's blood return comes mainly through the right side of our body if we're engineered correctly. There's a thought that if you sleep predominantly on your right side, you kind of compress that passive return of blood to your body, which can be especially important for pregnant women. So, left side sort of alleviates that.

Our airways want to collapse more when we sleep on our back, so sleeping on your side puts our airway in a little bit more of a favorable position. Although for kids who have big tonsils, sometimes it doesn't. But for an adult, that works out well. The problem with sleeping on your side is, orthopedically, a lot of people find that it hurts their shoulders, it hurts their hips or knees to sleep on their sides. Orthopedically, the best position to sleep is on your back. So the answer to the question is, if you're saying from a sleep perspective, I would say left side, or on your back with your head somewhat elevated to keep your airway more open.

There's all kinds of studies about sleeping positions. If you're worried about wrinkles or you're a woman with larger breasts and you're worried about them sagging, then you really shouldn't be sleeping on your side or your stomach. It should be back all the way. It keeps our skin looking healthier, keeps our bodies looking more tone. So, it really depends on what you mean by 'which is best'. I would say, in my world, left side of your body is probably the best, on some sort of mattress that maybe eliminates that kind of pressure feeling from your joints.

Alie: Okay! What about on your face?

Dr. W: Sleeping on your face is tough. I mean, a lot of people sleep on their stomach. It's fairly rare to find somebody who's a stomach sleeper who likes their face *into* the pillow. It's a little dangerous, but they do make pillows, almost like the little massage... When you have a massage and you're face down, you have your little face in the little donut hole or whatever. They do make pillows that facilitate that. I would say that if you're going to sleep on your face, try to make sure you're not limiting the amount of air that you're getting or whatnot, or just gently turn your head to one side or the other.

Alie: Okay, good to know. I was asking for a "friend."

Aside: I'm pretty sure I sleep on my face. Okay, quick aside also on sleep apnea. There are a few different types with different causes, but how do you know if you might have it? Okay, do any of these sound like you: daytime sleepiness or fatigue, unrefreshing sleep, insomnia, perhaps morning headaches?

Okay, here's what you do. You throw a lavish slumber party, and then over cereal the next morning, you just hand out questionnaires to your friends asking if they heard any loud or frequent snoring, silent pauses in breathing, or choking or gasping sounds. Or you could just request a sleep study. If the doc's like, "Yup, you gots it," they might work out some treatment that involves lifestyle changes like ditching booze or cigarettes, maybe losing weight, side sleeping, or mouth pieces.

Some folks have to get surgery for sleep apnea, or use a breathing device like a CPAP, which stands for 'continuous positive airway pressure', because it forces air past any floppy throat obstructions [*cartoon boing*] you might have. Now I was doing some digging, and it may not be a cure-all for everyone, but tons of folks who have finally treated their sleep apnea with a CPAP say it's life changing.

Also, if I were not busy making this podcast, I would go into the side business of aftermarket medical equipment and sell CPAP upgrades that look like glistening face huggers from *Alien* or maybe Bane masks. [*clip from The Dark Knight Rises: Bane, "Ohhh, you think darkness is your ally."*]

- Alie: Shannon has three questions, but I'm going to ask... Well, they're all good. Can you die from sleep deprivation? Yes or no?
- Dr. W: Yes, but it's not something that you would be able to do yourself. Meaning you'd have to employ friends with, you know, stun guns and cattle prods. And the reason I'm saying that is because there are people out there who have insomnia who feel like they're not sleeping. The fear of the situation creates the situation. I would say to this person, "You are in no danger of not sleeping."

In fact, even people who come to our clinic and I say, "Well, you have to have a sleep study." "Well, I can't sleep in my own bed, how can I sleep in a sleep study?" I always tell them, "Why don't you go to the sleep center? They're going to hook all these wires up to you, and I want you to lie in bed. I do not want you to sleep. Just lie there awake like you normally do for seven or eight hours and we'll see what happens." Nobody ever does it. In fact, they usually sleep more than they do at home. They'll come back and say, "I told you I didn't sleep." "Well, here you slept for six hours and 13 minutes."

One time I showed a judge her video, and she said, "Oh my god, I really thought that I was awake all night long. In fact, I'm looking at this thinking maybe you superimposed my face on another..." She was kidding, but no, you are not in any danger of sleep deprivation. I always tell people insomnia is the worst condition in the world that has almost absolutely no medical consequence.

Alie: Really? It doesn't? It doesn't lead to plaques in the brain and ...?

Dr. W: Sleep deprivation does, but not insomnia. Insomnia and sleep deprivation are two very different things. So yes, if you are working your 9-5 job, you come home, sleep for two hours and at 7 o'clock you go off to clean office buildings all through the night and go right back to work the next day, yes, you are putting yourself in a position of having trouble.

However, is that person going to completely sleep deprive themselves? No, they're going to do that job for a period of time and what's going to happen is they're actually going to fall asleep on the job. They're going to fall asleep in their office the next morning. It's very difficult to sleep deprive yourself because, like I said, sleep always wins. You're going to sleep. And unlike hunger which is a primary drive, and thirst which is a primary drive, sleep: your brain can actually control yourself doing that.

Aside: So think of sleep as being a vital resource that you don't even have to hunt, or search for, or gather. You can just make it yourself if you just chill out and let it happen. Imagine if you're like, "Man, I could really go for a lobster roll. Well, I'll just sit really still and breathe and it'll appear." Not sleeping enough is like being hungry all the time when we could just conjure lobster rolls.

Now, why are we saying no to sleep but yes to scrolling for so many hours before bed? I'm asking myself this. PS, if you hate lobster rolls and this analogy doesn't work for you, I don't care because that was for me. I was talking to me. This aside was a private moment between my heart and my brain and my mouth. Anyway. Sleep *happens*.

Dr. W: At some point it just takes the decision out of your hands and you fall asleep.

Alie: Shannon also wanted to know: Does lack of sleep make you fat?

Dr. W: It does. Poor sleep in a lot of ways makes you fat. It makes you too tired to want to go to the gym. You're sitting around more which creates a problem. We actually burn less calories when we're sleeping poorly, but the biggest thing is we start to create this biochemical cascade. Chemicals that make us feel full go away; chemicals that make us crave really bad foods are in abundance.

I always tell people that when I was in residency and really struggling and sleep deprived, I would go to this little convenience store in the hospital and there were these little packages of Chips Ahoy! cookies, and then they had, like, the 33% more, family-size bag. I would *lie* to Phyllis, this little woman who worked there, and be like, "Oh yeah, some of the doctors are wanting some cookies. I want one or two but no more than three, but I need the family-size bag." By the time I got out of the convenience store, I'd eaten the entire sleeve. When look back on those days I think, "Oh god. It was so driven by something." I didn't want that many cookies. It makes me kind of sick to think about right now, but oh man, I could put a hurting on those cookies at the time.

Aside: Then, of course, these cookies put a hurting right back on you. So why does this happen? Let's blame a trio of hormones, shall we? There's leptin, which tells your brain's hypothalamus, "Nah, I'm good, man. I'm not really hungry." This appetite-controlling hormone, leptin, is supposed to peak while you're asleep, but if you've been snoozing weird, it goes a little wonky. There's also ghrelin, which is the flipside of the leptin coin, and it signals to your brain that it's chow time. Too little sleep means a veritable monsoon of this hormone.

Insulin, the third one, stores fat, and yes, our insulin gets disrupted when our sleep sucks. I am no medical person, but I can confirm this research because once I was very tired on a flight and I asked a stranger if I could have some of his Sour Patch Kids, and he gave me the rest of the bag! I think out of pity, and also fear. So, there's your anecdotal evidence. Also, they were really good.

- Alie: Julie Noble wants to know: I've heard that women are typically lighter sleepers than men. Is there a science behind this?
- **Dr. W:** I think there are actually some studies that show that, and also some studies that kind of relate it to childbirth: male of species going out to find food, female species protecting cubs and whatnot. There are some studies that sort of look at that. I think that's not an unreasonable thing to think, for sure.
 - Alie: What do you tell new parents who are like, "I can't sleep. This baby's crying, but I cannot just ignore the baby." What do you tell them?
- **Dr. W:** Yeah, I always tell parents, "Look, for the first few months of the child's existence, it's guerrilla sleep, [*gorilla snorting and huffing and puffing*] and not 'gorilla' like the animal, 'guerilla' like the freedom fighter [*machine gun fire and shouting*] in the jungle somewhere. Meaning, you just get it when you can.

I think it's very important for parents, from the get-go, maybe even before the child is born, to start thinking about scheduling, not only in terms of the child but your own schedule. If a mother who's pregnant is exercising at the same time every day, is on a good schedule herself, baby pops out often having sort of picked up on that, too. The body's shaking and the baby's in there moving around during the Zumba class but not when Mom is sitting still.

Child rearing, this is my next book. I'm writing a book about kids and sleep which I think is a lot of fun, but you've got to be very careful because you're kind of straddling this line of sleep expert doctor and "let me tell you how to raise your kids" kind of thing. I have to be very careful not to step on a parent's toes, but one of the fundamental questions you have to answer with a kid is: are you going to schedule their life, or do you let the kid kind of decide what's going on? Are you going to tell them this is when they nap, this is when the nurse, or are you just going to basically pull it out and they can suck on it anytime they want to? Which a lot of people do and that's perfectly your choice, but when you don't build in some sort of structure or a schedule to a little baby, it doesn't develop a schedule.

So again, is there a baby out there that's not sleeping? No, there's not. Is there a baby out there who's sleeping so inconsistently and so unpredictably, it's driving Mom and Dad crazy? Absolutely. If you can predict your kid's sleep or quiet times, you, as a parent, can get anything done. So, to me that's really the goal of this first few months of life is really being careful about the messages you're sending. Nap time is from 10 to 11. What happens if the baby goes down and screams his head off until 10:45? What do you do at 11 o'clock? Are you going to wake the baby up because that's the end of the nap time, or do you just go

ahead and let him sleep for the hour because, well, they didn't sleep? I would say you wake them up at 11 o'clock and you do it with a smile, and you have fun with them.

Now the baby's trying to fall asleep in the car seat going to the store, and you don't let them. I always kept these little wet washcloths in my car and when my kids started falling asleep in the car, I would take their shoes off and mess around with their feet which made them cry. They hated that.

And when that didn't work and they were still falling asleep as I messed with their feet, I would just take a wet washcloth and throw it in their lap, and they would get all upset about it. "Oh god, now I've got this cold, wet thing on my lap!" Or they'd play with it or suck on it. I didn't care as long as they weren't sleeping because this is not the time we've determined to sleep. You had your time about an hour ago and you screamed and rocked your cage... Your cage? No, we did not do that. Your crib the entire time. To me, get your kids on a schedule. That's step one.

Aside: Dr. Winter is not alone in seeing this visual correlation. I found an article titled "Why Cribs Kind of Look Like Cages" on Fatherly.com, and it said that cribs have evolved from the 1700s. There was an Italian practice of popping a slatted half shell of an old whiskey barrel over your wee one, kind of like a protective cage so you wouldn't roll over it and kill it in bed. Oh, simpler times. 18th-century, state-of-the-art, baby technology was just a liquor-soaked, splinter cage for parents who care enough to provide the best.

- Alie: Mike Melchior, Ashlin, and Todd McLaren all kind of asked: Why can you sometimes sleep for a really long time and feel super lethargic and sluggish? Can you not catch up on lost sleep? Is it not like a bank account?
- **Dr. W:** Those are two different things. You can. And there's some really interesting new research that says individuals who might struggle to get the perfect amount of sleep from time to time, as long as relatively quickly they to try to make it up with a nap, that's a good thing. So, you're going to catch a flight, it's delayed, and you don't get home until 3 o'clock in the morning. You thought you were going get home at 10 and you've got to go to work the next day. I think it's perfectly fine to make up for that lost sleep with a nap or some sort of supplemental sleep period or sleeping in.

When we sleep at unusual times... I always like to look at people's schedules, and college students are the worst. "Monday, Wednesday, Friday I've got my organic chemistry class that starts at eight. I couldn't get anything other than an eight o'clock class. It really was the pits. Then Tuesday and Thursday I don't have a class until noon, and then on Friday night, Saturday and Sunday night I don't even go out until two in the morning, let alone, you know, Waffle House, whatever the next morning."

When people have these schedules that are kind of all over the place, the brain adopts this position of, "What do you expect of me at 9am? On these days, we're sound asleep, on these days, we're already an hour into an organic chemistry lecture, and on these other days, we've just gone out a couple hours ago." I always say – this is my term, makes no sense to a lot of people – but your brain just kind of goes gray. There's no black, there's no white. It just kind of adopts this... It's how people feel who live in Portland or Great Britain. It's gray all the time, there's no sunlight, so you're just kind of like, "I'm not terribly depressed, but I'm also not super happy either." [*clip from Morrissey song: "Every day is silent and grey.*"]

Aside: Unpredictable sleep patterns can give you a real case of the Morrisseys.

Dr. W: You're just kind of this melancholy all the time. I think people feel that way. So to me, the answer to that is probably, number one, there is this entity of sleep inertia. We try to sometimes make up our sleep and we have these massive sleep blocks, so our brain doesn't exactly know how to feel when we wake up. A lot of people will feel worse after a night of sleep or even a nap, if it sort of surprises the brain.

The best way to sleep, the best way to nap, is to try to have your sleep period end at the same time every time. It's a very difficult thing to get somebody to say, "Look, even if you have the opportunity to sleep till noon, it'd still be better if you woke up at eight, had a little something to eat, went outside where there's sunlight, walked the dog, got a little bit a physical activity, and then if you wanted to supplement your sleep, take a nap at a designated time so that way we don't interrupt what your brain is sort of expecting.

We don't get hungry generally because we need food. We often get hungry because our brain is saying, "Oh, it's noon. This is when we usually have the chicken sandwich. So here we go, let's get ready for it." It's not, "Oh, we're calorically needing food," a lot of times. We're just trying to create a good rhythm for our brain, so if our meals are in rhythm, our exercise is in rhythm, often our sleep will follow suit.

Alie: [whispers] Oh, that's good to know.

- **Dr. W:** So you can make up for lack of sleep. If you stayed up all last night doing some great project for work, as long as you can make it up pretty quickly, you'll scientifically live just as long as the person who always gets the right amount of sleep.
 - Alie: Okay! Booyah to them.
- Dr. W: Booyah.
 - Alie: Corrie Navis, Michael Satumbaga, Emily Mankus, Marisa Brewer, Jenella Lindauer, John Worster all asked about sleep supplements, about melatonin, about Ambien, about taking something to sleep. Is that good or bad? What are we dealing with?
- **Dr. W:** My disclaimer will be: I'm not a big fan of sleeping pills. I think that they certainly have their place and I guess I would think of a sleeping pill like an appetite stimulant. You probably don't know that many people who take appetite stimulants. They do exist. They're out there, but when we all go out to lunch and we're sitting around, everybody's ordering food and you don't feel hungry, what do you do? My guess is you don't say, "Oh gosh. Hey guys, does anybody here have an appetite stimulant? Because I'm really not hungry for lunch right now and I know if I don't eat, I'll starve to death, and I've seen these videos on the internet of people starving to death. It looks terrible. I don't want to do that. So please look around, find something for me to take."

We don't think that way when it comes to our food. We think, "Huh? It's unfortunate because this food looks really good. I'd like to eat, but I'm really not that hungry. But, oh well, I'm sure I'll get hungry at some point in the future." I think for a lot of people, sleeping pills become a crutch that is completely unnecessary and kind of this weird lie that you need something to fall asleep that other people don't.

Now, the flip side of that is a shift worker. You work 7am to 7pm for four days. You have two days off and you get back working 7pm to 7am, so you're constantly moving backwards and forwards. You're a traveler; you fly to Shanghai every two weeks to do business and you struggle to adapt. I think those are perfectly appropriate reasons to take medications.

Melatonin, in particular, because it's such a good drug at helping us adjust our circadian rhythm.

Aside: Melatonin is that hormone. It's produced by a tiny, pea-sized, midbrain li'l nugget called your pineal gland. It makes you sleepy, it helps you dream, and for a long time we thought only animals made melatonin, but it turns out, it's in a bunch of plants, you guys. So now we have melatonin supplements in gummy vitamins and over-the-counter access to it, but some experts warn against using the supplements long term because it can cause next-day grogginess or grumpiness.

What is a big melatonin cockblocker, you ask? Good question. It's blue light. So, to boost your natural melatonin in your brain... This is why people say, "Lay off the screens after dusk." Newfangled light sources like screens and phones blast daytime rays into your brain at the wrong times. It's very confusing. Firelight and incandescent bulbs have these warmer wavelengths that don't mess with you, by the by, just in case you want to be, like, next-level hipster and bring back those really long, creepy night caps, and maybe carry a candle around from room to room.

I'm kind of feeling that. In between that aesthetic and whittling spoons at dawn, I'm kind of smelling a real Alie Ward Instagram rebranding over here. Just coming over the sunrise horizon, my friends. Who's into it? No one? Fine. Okay, so why else might someone take a sleeping pill or a supplement?

Dr. W: Death of a loved one. You lost your job. Some emotional upset. Do I have a big problem with a sleeping pill? I don't, but the plan should be, "Hey, here's a sleeping pill. I'm really sorry this thing happened to you. This will help you get through this immediate burn of the situation, but then we're going to do things to move us away from it." It's amazing how many people I talk to, "Why do you take Ambien?" "Well, I can't sleep without it." "When did that start?" "It's because of the divorce." "Oh, I'm sorry to hear that. Has that been hard?" "Well, it was 17 years ago." Number one, she's not coming back, you know, stop carrying that torch. Number two, the reason why you're taking the Ambien has nothing to do with a divorce. It's because now the divorce precipitated a problem that something is perpetuating, so let's get down to the bottom of what that is.

If you're taking melatonin every night, be careful with that. It can actually make you feel like you're constantly traveling east because most people take the melatonin right when they go to bed. If you're giving your kids melatonin because it helps them sleep, I've got a big problem with that as well too. Pills and sleep, I think that they don't really belong with each other.

Ask your doctor the next time, "What is the evidence that this medication works?" It's surprising some of the answers that you'll get, or if there's even an indication for this drug. A lot of people take the drug Seroquel, which is a heavy-duty antipsychotic to help them with their sleep. And not only is it not indicated for sleep; it's actually recommended people *not* take that drug for sleep. Just be careful about the medications you're getting. Doctors, their heart's in the right place, they want to do something. And for you to say, "I'm not sleeping," they feel very compelled to do something and often that comes in form of a pill.

Aside: So remember, blue light from our phones and TVs and laptops is just not something we've evolved to see at night. Our brains process blue light as like, "Okay! Daytime! Awakeness!" Now, if blue light is the cockblocker of melatonin, then it might be helpful to block that cockblock with cool, blue blocker glasses, and by cool, I mean warm toned.

Which brand of glasses should you buy? There are a million. Research them first. I found an article on *Consumer Reports* that tested three different brands, and they ranged in price from \$8 to \$55, and the ones that cut the most blue light, they found, were the cheap ones. One brand called Uvex Skyper rated the highest. The most expensive ones cut about half the blue light as the cheap ones in this particular study, so look it up first. PS, if you are researching these glasses on your phone in bed right now, just... Just let it wait until tomorrow.

- **Alie:** Couple more questions and then I'll let you go. Hereiskarl and Hales Parcells asked about blue lights on cell phones. Should we be turning our phones to yellow? Should we be taking our phones and throwing them into a landfill? What should we be doing?
- Dr. W: I don't think we need to throw our phones into a landfill, although if you'd like to come to my house and throw my kids' phones into a landfill, I would not fight you on that one. I would act all disappointed, but secretly I'd be like, "Oh, thank god. Miles came over and threw the phones in the landfill." To me, I think it's just about managing our phones.

Phones are great. They really help us kind of keep connected. They keep us safe. There's all kinds of fun apps and whatnot and audio books, etc. To me, the biggest thing is, as we start moving from dinner to our bedtime, that period, we really want to start looking at lighting in our house, our routines, and finding a way to move away from computers and cell phones at that time. "Okay, it's 11 o'clock. If somebody needs me, they can get ahold of me, but I'm going to plug my phone up in a kitchen. I'm not going to take it into the bedroom with me as something I can do, I can look at when I'm having trouble sleeping."

So, I think good hygiene with our cell phones is really important. If you're somebody who... You're a nurse and you may get called in the night so you can't really separate yourself from your phone at night, installing things like dimmers on our phones, or employing the little night settings, or even getting little blue blocker glasses – Uvex makes some, Swanwick makes some – that you can keep on your bedside table so when you're looking at your phone, you put the little blue blocker glasses on so those harmful wavelengths of light are not keeping you up at night.

Alie: Bree DeVries wants to know: What's the difference between hypersomnia and narcolepsy?

Dr. W: That's a great question, Bree. Hypersomnia you can think of as being sort of the umbrella term. Of the hypersomnias, narcolepsy would be a specific one. She may be asking that question because of this term, 'idiopathic hypersomnia', which gets thrown about in sleep, which is essentially: You're sleepy, you don't seem to fit all the criteria of narcolepsy, and the doctor has no idea what to do with you so they call you idiopathic hypersomnia, which kind of drives me crazy.

Lots of things can make us hypersomnic. Narcolepsy is a situation where you're not making chemicals in your brain that stabilize wakefulness. A typical narcolepsy patient will sleep eight hours, wakes up, feels pretty good, goes to his favorite art history class, sits down the front row because he thinks, "If I sit in the front row, I won't fall asleep," and immediately nods off and doesn't even feel sleepy to begin with.

Aside: This literally happened to me in an art history class. In an auditorium of 600 people, I sat in the front row to stay awake, and I fell asleep. So either every person on Earth has done this specifically in an art history class about double-barrel vaulted ceiling architecture in Kinneil villages, or I'm just more and more convinced that Dr. Winter guessed this

because there is a glitch in the simulation. We're all living in an alternative universe. Anyway, some people get tired.

Dr. W: These are individuals who are largely outside of control of their own sleepiness.

Alie: How do you know which you are?

Dr. W: That would be something that would probably require visiting a sleep specialist, but we've talked about some things already that indicate it. Number one, you're hypersomnic; you're excessively sleepy, which is different from being fatigued. You're saying, "No, no, no. Beyond fatigued. I can't read without falling asleep. I fall asleep watching shows. I don't go out on dates because I always nod off; it makes me feel uncomfortable." So, you're expressing a lot of drive to sleep despite adequate sleep.

Sleep paralysis can sometimes go along with it. An entity called cataplexy can go along with it. When somebody is wide awake, often feels some sort of emotional upset or elation, they're happy and all of a sudden feel paralyzed like their knees want to buckle, or they can't hold their head up, or their hands become very limp.

People have very vivid hallucinations as they're falling asleep or waking up. I had a young woman with narcolepsy who had a hallucination that her husband was rummaging around her underwear drawer. She confronted him the next morning and said, "What were you looking for? Why were you in my underwear drawer?" He was like, "I was not in your underwear drawer." And she's like, "I'm certain that you were." He's like, "Honey, I would tell you if I were. I wasn't," and she came to understand over time that she was having these very vivid hallucinations as she was waking up that really weren't real.

A lot of people with narcolepsy struggle to discern reality and something that's not. Meaning, "I thought I did a podcast with Alie, but I ran into her and she's like, 'No, we haven't done it yet. It's coming up next week." So you start to doubt. "Did I pay the bill? Did I have the conversation with my neighbor about borrowing the lawn mower? Did the podcast ever happen?" They sort of live in this weird place in between reality and dreaming and have difficulty understanding which is real.

Alie: Oof! Are there any movies about sleep that you love or hate?

Dr. W: I remember a movie called *Insomnia*. I think it was with Al Pacino and Robin Williams that I always thought was really interesting because it was mainly filmed in Alaska when it was always dark. I always thought that was kind of interesting. [*clips from Insomnia: Ellie Burr, "Are you doing okay? I mean you haven't been sleeping much, Detective Dormer." [urgent beeping*] Walter Finch, "Another a night up like this, and you're really going to lose it." [phone rings] Walter Finch through phone to Dormer, "Don't worry Will. You can sleep when you're dead."]

Aside: This movie seems kind of scary, but very Al Pacino-ey. That's my official scholarly review. Also, his character's name is Detective Dormer and it's about sleep. Dormer literally means 'sleep' in French! I only watched the trailer, but if there's not a scene in this movie where two cops are eating apple fritters in a squad car, being like, "It's so weird that this movie is about sleep, and your name literally means sleep," then I refuse to see the film.

Dr. W: Generally, Hollywood tends to treat things like narcolepsy as almost comical. It's a funny character that every time something happens, he falls over. Maybe the one that I would like the most is *Inception* [*ominous tuba-slam from Inception*] because it touches on this idea of

lucid dreaming, which I thought was really cool and really took it to a neat place. I think lucid dreaming is a fascinating topic, so maybe that's the one that I would choose.

- Alie: Is lucid dreaming something you can choose to do?
- **Dr. W:** It's a skill. Some people just do it. Lucid dreaming is simply being aware that you're dreaming when you're dreaming.

Aside: As long as I'm so horny for etymology in this episode, 'lucid' comes from the root word for light or clear, and it was coined by Dutch psychiatrist Frederik van Eeden in an 1813 paper called "A Study of Dreams". Exploring free will in different states of consciousness was pretty progressive for an olden-timey dude. But he also thought that demons cause nightmares, so, you know.

Dr. W: Dream control is sort of the next step of, "Oh wow, I'm dreaming that I'm doing this thing. I'm standing on top of a building." Dream control would mean you could actually just control yourself, jump off the building, and then fly. So, you can do it.

The way to do it is to really start becoming aware of your own reality. What I would do when I was going through this phase of trying it out and writing about it for this outlet, during the day I would take my wedding ring off, I would turn it around and look at it and look at my hands and say, "This is a real thing I'm doing. I'm not dreaming," and then I would put it back on. I could actually do that in my mind as I drove or as I was talking to patients. Then what you start to do is you start to question reality in your dreams.

What happened was I would have these dreams. I had one dream that I was going to a circus [*old timey piano music plays in background*] and all of a sudden I was like, "Wait a minute," and I would look at my hands and they were all distorted. I was like, "This is a dream! I'm doing it!" And then I would wake up [*record scratch*] because I was so excited.

Eventually you get to this place where you just kind of make it a habit to question your reality throughout the day and you bring that behavior into your dreams, and then as you start to realize, "Oh wait, this is a dream," you can do a lot of really cool things. One is look at your hands. Our brains do a very poor job of rendering our hands in our dreams, so you'll have 12 fingers or, like, two massive, monster fingers or something.

Aside: I looked this up, and there's this whole Wiki-site and forum on lucid dreaming wherein people share their weird finger experiences. Here are two of my favorites: One is, [*old recording style*] "I remembered to do a reality check, so I looked at my hands and realized that they're actually claws." Another person said, [*old recording style*] "My fingers appeared jumbled, as if I had no bones." Okay, so ol' Ward is no Edwardian-era mental health professional, but I'm fairly certain that these people are just afflicted by demons.

- **Dr. W:** The other thing you can do is pull your skin or push your finger into the palm of your hand. A lot of times it'll pass through, or your skin's very flexible. If you look down at your feet, your feet often don't touch the ground, which is probably where the "not to touch the earth…" Your feet don't touch the ground. Our brain has trouble rendering our body in three-dimensional space. It's really cool to look up at the ceiling of your house, which often looks like the sky. Everything when we look up, typically looks dark during a lucid dream. My favorite thing is: try to find a mirror in your dream and look at your face. That is absolutely a total freak show.
 - Alie: Oh my god. It's cheaper than drugs too!

Dr. W: I would imagine so, yes. And you can get better at it. I had a swim coach... One of my son's swim coaches told me one time he was such a good lucid dreamer that he could use the time in his dreams constructively, like he would think, "Okay, well, we're going to swim this team next week. I'm going to construct my relays this way. I'm going to actually sacrifice this relay because I don't think we would beat them anyway, and we'll put them in these events," so he'd have it all worked out by the time he woke up. It was really interesting.

Alie: Yeah, that's billable hours. [cha-ching!] That's good.

Dr. W: That's exactly right. [laughs] Billable hours.

Alie: Any flimflam you'd like to debunk? Any myths that you want to dispel?

Dr. W: Alcohol is terrible for your sleep. Have as much as you want, just have it with breakfast. ["*Do you want a mimosa?*" "*Ya.*"] In general, I always tell people, "Look, sedation and sleep are two different things." Michael Jackson, Heath Ledger, a lot of people figured these things out the hard way, and it's always upsetting to me that I know people like that and people out there going to people for help, and it just seems to be this arms race of how much sedation can we give somebody. So be very careful with that.

Aside: Speaking of alcohol specifically, it can help sedate you into light sleep, but do you remember how REM sleep happens in the second part of the night? It's the one that's restorative for your memory, it's good for your mood and concentration. Alcohol disrupts that. It's kind of like that friend who leads you to a party and then ditches you there and the party sucks. Do not trust it. Alcohol can be kind of a dick that way.

Dr. W: I think the idea that in your dreams, if you're falling and you hit the ground, you die. I don't think that's really the case at all; that's not true. Umm... I don't know! There's so many great questions, I feel like we've covered everything.

Alie: What about things like counting sheep or the method where you breathe seven in, four out?

Dr. W: Absolutely.

Aside: This breathing exercise was developed by Dr. Andrew Weil, who kind of cribbed it off of pranayama which is an ancient technique. So the gist is, you do this: you exhale completely through your mouth, and you make a *whoosh* kind of sound, and then you close your lips, inhale through your nose as you count to four in your head. So, [*inhales*] four count, hold the breath in for seven seconds, and then over the next eight count in your head, [*exhales*] make a whooshing exhale from your mouth. You practice this pattern for four full breaths. You inhale for four, hold for seven, exhale over eight.

It's supposed to distract you from anxiety and calm your nervous system. You're breathing, you're getting oxygen, you're doing math, you're not thinking about whether or not the thing you bought for the office gift exchange was too cheap. But what's my mom's big insomnia trick? Here it is. I feel like it deserves a soft drumroll. [*soft drumroll*] Okay, good. We're going to call it the Sleepy Fancy Nancy Technique.

Alie: My mom does this thing she taught me that works like a charm where you think of a category like fruits, or boys' names, or electronics, and then you go, "What's something that starts with A? Okay, apple. B? Blackberries. C?" And then you go down, and I never make it past, like, L – I'm out. Do you have anything else like that?

Dr. W: I think that's awesome.

Aside: Some sample categories you can use for this alphabet game: types of fruit, boys' names, girls' names, gender neutral names, cities, snacks, vacation activities, clothing brands, cereals, items you would keep in a purse, animals, really anything. I've done so many of these. Let me know what some of your Sleepy Fancy Nancy categories are. I'm here for them. I will probably use them next time I'm jet lagged and awake on the wrong coast, which will literally be tomorrow.

Dr. W: So to me, what you're hitting on is something very important, and without getting too crazy into it, as you go back to the idea of what insomnia is, it's really not the inability to sleep, but when people who have insomnia really start to struggle, they really start to try to sleep. "If I'm sitting up watching television, I'm finishing up watching *Bachelor in Paradise*, I can never make it to the rose finale because I always fall asleep." [*clip from The Bachelor: Jesse, "Katie, I accidentally called out the wrong name, but I would like to extend to you the option of staying." Katie, "I'll stay and see how things go, sure. Thank you."*] "But then I wake up, I get into bed, and I can't fall asleep. Why is that Dr. Winter?"

It's because when you're watching *The Bachelor*, what are you trying to do? You're trying to figure out if Astrid is going to stick with this guy, or is she going to dump him because he is such a dog or whatever. That's what you're trying to do. You're not trying to sleep. When you go to bed and you turn the lights off, a lot of people suddenly really start to try to sleep, so you've struck upon something that's very important: give yourself a task that's not trying to sleep. You're giving yourself a complicated task. You're trying to visualize the letter of the alphabet. "Okay, B. What's a fruit? Blueberry. Okay, great. C. That's, oh, cherry I guess," and so now you've decided you're not going to try to sleep. You're just going to relax and name fruit or name boyfriends.

We tell our professional athletes all the time, "Look, when you go to bed, Professional Pitcher, I want you to throw 30 perfect pitches before you fall asleep. Visualize the stadium around you, [*crowd cheering*] your favorite catcher, you're on the mound, everything your pitching coach shows you – your arm slot, your movement of the ball, let go. Visualize the ball in real time flying through the air and landing in your catcher's mitt. Look around, scratch yourself, catch the ball when he throws it back to you, and do it again. I want you do it 30 times, then you're allowed to fall asleep."

What's so funny is they'll come back and say, "Man, Doc, you know, I'm trying to do that thing you asked me to do and shoot those free throws before I go to bed, or throw those pitches before I go to bed, and I can only throw about four or five pitches and next thing I know my alarm clock's going off." Right. Then I'll tell them, "Well there, that's the point! I'm trying to get you away from this idea of, "Let me think about trying to sleep, but oh no, I'm not asleep yet. What am I going to do?" Try to find something else.

The other cool thing is that when you pick an activity... If you're somebody who is a pitcher, or a basketball player, or you like to run, or you do some sort of special skill, if you visualize yourself doing that at night, your brain doesn't differentiate practicing something and actually visualizing it that well, so if you're somebody who likes to play basketball, visualizing yourself shooting those free throws will make you a better ball player. I love the idea that either way, even if you make it through your 30 free throws and want to do 30 more, it's not wasted time.

There's a really cool device called Muse, which is a little headband, or it's a pair of sunglasses that measures your brain activity and feeds it back to you through your earbuds as the form of, like, the sound of the rainforest. When you sit there at lunch time, you've

finished up your lunch, you put the little Muse thing on, you do your little meditation session, you can practice the ability of quieting your mind down. You can learn what it takes to make the sound of the ocean get really quiet [*small, calm ocean waves*] and then when you think about your mother-in-law, it gets really loud [*big, powerful rushing waves*] again. So now when you go to bed at night, you've gotten very good at this ability to quiet your mind, which'll either help you fall asleep, or allows you to assume this sort of meditative state, which by some studies is just as good as sleep.

Alie: Wow!

Dr. W: The cool thing too is... I love this story you gave because you've got this little mechanism that gives you confidence. You know what to do: "I'm going to get in bed, I'm going to fall asleep, usually, no problem. But if I can't, I'll just do what you described." and what's funny is... I was talking to a magazine editor one time. I was describing to her the benefits of resting and how sleep's great but resting is very good too. She goes, "I just don't believe that, even though you're telling me all this research," and I said, "Yeah, if you just rested all through the night, you'd be okay the next day. You wouldn't be perfect, but... you know, the F word in my clinic is function. You wouldn't be dysfunctional. And she said, "Gosh, you know, why don't you do that? Like, prove it? Like, why don't you just rest all night and write an article about it?" I was like, "Sure, I'll do that."

I've been trying to write this for two years for exactly what you said. I get in bed. I'm like, "Okay, I'm going to start off with state capitals. I'll start with Maine. I think it's Augusta, Maine, I think. Is that right?" [*ding ding*] And then by the time I get to Virginia, I'm out cold and the alarm clock goes off. I'm trying really hard to be in a dark room with my eyes closed but not sleep, and it's amazing how quickly sleep comes when you try *not* to do it.

Alie: That's very good parting words.

Aside: Let's repeat that. [Dr. Winter, [lightly echoing] "It's amazing how quickly sleep comes when you try not to do it."]

Alie: Now, what's your least favorite thing about your job? What suuucks the most?

Dr. W: What sucks the most about my job is... This is a great question. I'll step on my soapbox. I love treating patients. I love helping people sleep better. But in our current medical climate, it is very difficult – and I'm not trying to paint a sob story here – but it is very difficult for doctors to spend time with patients and get enough money from insurances to keep the lights on in their clinic.

I read an article in *Forbes* about how many doctors are literally living paycheck to paycheck, which was funny because one time my wife and I were watching *The Bachelor*, (speaking of *The Bachelor*) and the host comes out and says, "Oh, and ladies, he's a doctor!" And like all the ladies like, [*high-pitched*] "Oh, that's so great!" And my wife literally, audibly groaned. She's like, "Oh, it's not the cash cow you think it is."

The issue really is, the biggest thing I struggle with that sucks is that I don't feel like I have the time to devote to my patients sometimes because I've got to see a certain number of people to pay my office staff. Being able to lecture, being able to write a book and talk to people like you, work with sports teams, takes a tremendous pressure off my clinic that a lot of practitioners, really good practitioners, don't have. Hopefully, we'll be able to kind of work around this and make healthcare affordable, but also allow doctors to practice their craft in a way that they can help patients and not feel like they got to see 30 patients in a day. Alie: Right, I don't think patients like it either.

Dr. W: They don't. I talk pretty freely about it with my patients, like if I'm late or running behind or whatnot, I always try to make sure that every patient can say what they want to say, even if it means I'm going to be a little bit late. And for most people, they're pretty patient.

Aside: They're pretty *patient*, so thanks for your patience, patients! Oh fuck, do I have to do another etymology for this one? I do. I do. I can't not. I just looked this up, and the root for both patience and patients is the Latin for suffering. So the next time someone thanks you for your patience, they're saying, literally, "Thank you for suffering for me," which is kind of endearingly emo. I like that. Patience and being able to suffer, evidently is a virtue.

- Alie: And what's your favorite thing about your job?
- **Dr. W:** My favorite thing about my job is the idea that everybody likes to talk about sleep. It's one of those things. If I go to a party and introduce myself as a neurologist, "I got a grandmother who's got Parkinson's" or whatever, but if you talk about sleep, everybody's got a story to tell. It's sort of this universal thing. And I love to tease other doctors about, "I missed that article on *Time* magazine that said, "Mysteries of the spleen." This poor guy's devoted his life to understanding the spleen.

National Geographic, we subscribe to, just recently there were back-to-back issues on athletic performance, which is near and dear to what I do, and the next issue was sleep. I mean, people love it. It's fascinating. It's cool to talk about. The brain's awesome. So, if you're like the toe doctor or the spleen doctor, it's not fair. I'm telling you; I get it. It is not fair that media does not pay as much attention to you and all the awesome things that you're doing. To me it's just the diversity of different things you can do with sleep are so much fun. I get to talk to people like you and hang out and talk to a baseball pitcher. Every day's different. It's so much fun.

Alie: Well, I'm so excited you did this. Thank you so, so much.

Dr. W: It's my pleasure. Anytime.

So, what have we learned? Ask smart people stupid questions, because it just might change your whole life and your dreams. Once again, Dr. W. Chris Winter is @SportSleepDoc on <u>Twitter</u>, @WChrisWinter on <u>Instagram</u>. He runs the Charlottesville Neurology and Sleep Medicine Clinic in Charlottesville, Virginia, and his book is called *The Sleep Solution: Why Your Sleep Is Broken and How to Fix It*. If you like his voice, he also reads his own audiobook. I have a copy of his book. I bought it legit style before even booking him. It's really funny, shockingly funny, and down to earth, and a really great read, but it's packed with tons of neuroscience and tips. It's really good.

Ologies is @Ologies on <u>Instagram</u> and <u>Twitter</u>. I'm <u>Alie Ward</u> on <u>both</u>. I'm also on *Did I Mention Invention* every Saturday morning on the CW, in case you want science content that's a little more polished, kid-friendly, has zero F-words or talk about butts. You can find *Ologies* merch at <u>OlogiesMerch.com</u>. Sales help support the making of the show, and also helps you find other Ologites in the wild, perhaps you'll spot someone in a shirt. Thank you, Shannon Feltus and Boni Dutch, who reached out to me after episode one to offer to help make that a reality.

Also thank you to the mystery person who sent me an envelope of cash in the mail to help support the show, and signed it, "Ken. Dammit, I mean Steve." I'm buying rechargeable batteries for the zoom recorder, like a sensible uncle would. The *Ologies* Facebook group is popping off, full of kind, curious, funny people. Thank you to my dear friends Hannah Lipow and Erin Talbert for helping run that. I love you both. Thank you to Nick Thorburn for writing and performing the theme song, and of course to sleep deprivation poster child, Steven Ray Morris, for editing these episodes all together. He also makes the podcasts, *The Purrcast*, about cats, and *See Jurassic Right* about dinosaurs. So seek him out, for sure.

As long as we're on the topic of other podcasts, this week I'm a guest on one called *Wine and Crime*. Now, these are hilarious ladies, Lucy, Kenyon, and Amanda, they are Ologites. They reached out. It was an honor to be on. I can't even see fake blood on TV without psychologically barfing and they were kind enough to let me talk about science frauds instead of any stabbings, so if you want some heavy-duty gossip about medical bamboozlery, some hardcore myth busting on the shadiest gastroenterologist the world has ever known, do take a listen to this week's episode; They are great. If somehow you're like, "What is this podcast?" Here's a primer:

[clip from podcast Wine and Crime]

Amanda: Hey true crime fans! Have you listened to Wine and Crime yet?

Lucy: We're a true crime comedy podcast hosted by three childhood friends who chug wine, chat true crime, and unleash our worst [exaggerated accent] Minnesotan accents.

Amanda: Each week us gals pick a true crime topic and pair it with a delicious wine before delving into the background and psychology behind the crime.

Kenyon: Then we share and speculate wildly about a couple of bonkers cases related to the topic.

Lucy: Past episodes include necrophilia, cults, crimes of passion, cruise ship disappearances, exorcisms gone wrong. All this over a bottle of wine, or – let's be real – three.

Kenyon: Listen anywhere you get your podcasts. You can also follow us on Facebook, Twitter, and Instagram @WineandCrimePod, and check out our website and blog at wineandcrimepodcast.com.

All: [clinking glasses] Cheers!

Okay, at the end of the show, on *Ologies*, I tell you a secret, and this week's secret is that this morning, I found three eye masks, aka pinned socks, behind my bed. And my other secret is: I had this epiphany the other day that when it comes to doing things we've never done or are too scared to do, being scared of doing them and not doing them is way more painful than doing them. Even if you get it a little bit wrong and it's not perfect, you can always do it again.

I started a page in my notebook. I made myself write down all the things that I'm afraid to do. I let them all just kind of pour out of a pen unjudged. I was surprised that among them were: say no; go to sleep (for real, I actually wrote that, so please see Part 1 on sleep procrastination); and then another item was do more live science and comedy events.

I will let you know how I do with tackling those, particularly the last one. If you have a few minutes and a piece of paper and a writing utensil, just make yourself write down what you're a little afraid to do because it might surprise you what you write down, and maybe just give you a gentle kick in the tush to do them. Because it's so much worse to hold back than it is to do, to try, and fail again, so we might as well just do things as long as we're alive. Right? Okay. So that's my secret for you this week. I'll let you know how I'm doing on those. And meanwhile, get some sleep! [*elongated voice*] Get a little snooze in!

Okay, berbye.

Transcribed by Aska Djikia, your fungus-obsessed friend residing in beautiful, fungus-filled, and perpetually rainy Vancouver, BC.

Some links which may be of use to you:

How We Used to Sleep (hint: not much better)

<u>CPAP 101</u>

<u>Apneaaaaaah</u>

What IS shift work exactly?

<u>At Day's Close — perfect bedtime read</u>

Shift Work: no joke, fam

Leptin and Gherkin fight it out in your tired noggin

Junk sleep = junk food

Baby cages, I mean if we're being honest

Every Day is Like Sunday when you're tired

Blocking the melatonin cockblockers with blue blockers

Cheapie blue blockers

Dont stay up late watching Insomnia

<u>Olde timey lucid dreaming</u>

Put your hands together for...Lucid Dreaming!

Booze and sleep

For comments and inquiries on this or other transcripts, please contact OlogiteEmily@gmail.com