KHOSLA: Thank you for joining us for talking sleep. A podcast of the American Academy of Sleep Medicine. I'm your host, Dr. Seema Khosla, medical director of the North Dakota Center for Sleep in Fargo.

As we record this episode, the 2022 Winter Olympics are underway in Beijing. These amazing athletes have been competing for years for a chance to stand atop the podium. For many, the training is physical and mental, and sleep plays a key role.

To help us understand the unique sleep needs of athletes is Dr. Jeff Durmer. Dr. Durmer is Chief Medical Officer of Nox Health and a sleep adviser to the U.S. Olympic weightlifting team. Welcome to Talking Sleep, Dr. Dermer.

DURMER: Thank you so much, Seema. Happy to be here.

KHOSLA: So tell me about your role with the U.S. Olympic weightlifting team. That's very cool.

DURMER: Yeah, it's not your average sort of run of the mill thing for a sleep neurologist, right? So my background is actually in sports, and I was an athlete myself and always interested in things like Olympic level or elite level athletics. And so, I was brought into the Olympic movement, as you say, with the understanding that I'd work with the U.S. Olympic weightlifting team as part of their performance program. So, every different team, every U.S. Olympic team has its own performance-based groups for nutrition and physical therapy, and the weightlifting team included sleep.

And so for the last five years, I've been working with the U.S. Olympic weightlifting team in the USAW, which is the United States of America Weightlifting team, to help them with performance. So that's what I do.
KHOSLA: Oh, that's very cool. So how does it work? I mean, are you traveling with the team like the orthopedic surgeon or how does that work?

DURMER: Yeah. Not a team doc like an orthopedic surgeon. Although I do, I do work with a lot of orthopedic surgeons and a lot of chiropractors and physical therapists.

My job is really to help organize the circadian timing of workouts and camps, as well as help to organize eating and a number of other circadian-based activities for individual athletes in the program. So people who live everywhere in the United States, including Hawaii, and so they are all in different time zones and when they have to go to a meet someplace like Romania, that really does incur a number of changes for each individual based on their circadian rhythm themselves, but also where they're headed. And then on top of that, there's all the other sleep-related issues that they contend with this major travel to these international destinations with a lot of sleep deprivation and just difficulty getting adjusted. So I work with each individual before they end up going to a competition. Now for the big competitions like the Olympics and for national level or international level world competitions I will tend to go with the team to those destinations or close to the destination so that I can help with last minute adjustments, coordination questions. So I end up kind of playing a bit of a conductor role.

KHOSLA: So how much of what you do then is kind of more classical sleep medicine, identifying and treating sleep disorders versus kind of sleep coaching and circadian rhythm regulation?

DURMER: Yeah. So most of what I do starts off with, like every quad we'll say, it's every four years. They call them quads in the Olympic world. So we're in not really a quad for Paris. It's more of a triad because of COVID, but during the quad it's it starts off with basic education, about sleep, about circadian rhythms, getting people knowledge and education. So I do webinars with the team and webinars that at different meets and meet with different coaches to help answer questions. Because a lot of the basics around sleep and circadian rhythms are just not well understood. And oftentimes they have information from the web and that information is not accurate, oftentimes, and they're kind of going with the wrong information. So my job is to level set and start off with that, and it's really kind of a fun way to start because the questions that you get and I'm sure you have as many, all of us in sleep medicine have gone to cocktail
parties and all of a sudden everybody's asking you about their sleep. It sort of has that effect. So giving everybody a chance to understand level set and then ask questions that kind of leads to the next level. And in their quad, which is individuals themselves giving me information about their own natural circadian rhythms.

So I tend to use like the morningness-eveningness questionnaire or versions of that to get a sense of every athlete's proclivity for their chronotype. And that helps me adjust their schedules and their timing and their workouts and even talk to them about their eating schedules in a way that's more personalized. And on top of that, I also use another set of tools from clinical science and clinical research that just give me a sense of their behavior.

So I use the athletic behavioral sleep questionnaire and a couple of other pretty standard questionnaires about sleep and behavior so that they can see just how bad these young, healthy athletes are at avoiding things like the traps everyone with computers and iPhones and mobile devices, which tends to be the biggest problem we have.

**KHOSLA:** So is that kind of the same approach you have with every team? I mean, it sounds like you kind of have this stepwise plan.

**DURMER:** Yeah, I've systematized this. I've kind of cut my teeth in this world working with professional athletes. So my first real foray into a big population of high-level athletes as sort of their sleep performance director was with the Atlanta Falcons, and that was almost a decade ago and started working with the team doctor while I was at Emory, Dr. Karas, really wonderful orthopedic surgeon. And he saw the value and understood the value of sleep personally as a surgeon, but also, from the medical perspective, very open minded, intelligent guy. And he brought it up with the folks at the Atlanta Falcons and they said, wow, we didn't even think about this. So it was a meeting, a discussion and then meeting with Marty Lauzon and their team of physical therapists and the therapy folks. And we just started a program and I came up with the idea of, you know, sort of getting basic understandings, basic population metrics about the team.

So everybody answered some basic questionnaires about sleep, sort of like doing a clinical research trial and approached the hundred or so people that are on that team, including
coaches, with these standardized questionnaires. And it gave me some really great insights into folks that are having issues, potentially with not just their performance, but their sleep.

But then we find that, oh yeah, they're having performance issues or recovery issues, and then I could use that information to have individual discussions and almost like a consultation with an individual to get to the root of their personal issues with sleep, which can vary very much as I saw by position even. So you have a quarterbacks and position players who are very, very serious and almost like insomnia-driven performance people. And then on the other side, folks that are in different positions like especially our defensive backs that were, you know, cutting records in the middle of the night and doing rap music. You know, so you got your delayed sleep phase in the backfield, you got your advanced sleep phase at quarterback, you know, so you got to kind of deal with all these different, these different types.

And it was really fun because they were this was one of the first years that when I started doing this with the Falcons, they moved the schedule to go to London to play a game against the Detroit Lions in London. And so there was all of this discussion were going to the East. It's and how many days ahead of time should we go? And so I started giving them all of the basics I had to ground, you know, an hour per time zone and how that might be a general rule, but we need this kind of tailor this for the individuals and when they get there and where they’re living and how they adjust to the time zone change before they get there, using things like sleep banking to help improve their performance despite some of the sleep deprivation they might have on the travel. So it was really interesting trying to take out of the science, the basic concepts that seem to be effective and then use them in a real-world situation, which to me was the way we kind of started the whole idea of structuring approaches to sleep and performance with teams.

**KHOSLA:** So tell me more about sleep banking.

**DURMER:** Sleep banking, yeah., so one of my favorites. Sleep banking itself is something that the military has used, and there’s been a number of articles published on this, but also in different professional sports teams as well and other arenas where sleep deprivation is notable. Before the sleep deprivation period, before you go into the venue, where you know your sleep is not going to be normal, if you come into that situation with having slept maybe 30 to 60 minutes more on an average night for a week or so before that engagement, you tend to actually perform
better. So in some ways, the homeostatic drivers associated with sleep deprivation doesn’t create such a significant performance deficit, either cognitive or physical, with a little additional sleep in the tank, so to say. Now the understanding of exactly how that works from the basic neurophysiology is not quite clear because there’s a lot of different theories around why that may be a benefit. Some consistent with the ideas that we all have a certain amount of individual variability in our response to sleep deprivation and by increasing sleep time, at least if your sleep quality and duration are normalized, you may be actually creating a buffer in some people who are more vulnerable to sleep loss, whereas in others it’s not necessarily that helpful. But overall, in the population that’s going to go through sleep deprivation, it could be of benefit to those individuals that that do find that they get more impacted by sleep deprivation.

**KHOSLA:** So is that so...you know, when I was doing my research, I came across this term and I’ll admit I’ve never heard of this. But is that the same then as sleep doping?

**DURMER:** Yeah. Sleep doping. No, I think I may have coined that phrase, you know, inadvertently when I was interviewed by the New York Times about the Olympics. And yeah, that term actually came out of sort of my...the way I approach different populations is to try to relate to the population. So, you know, as a neurologist or neuroscientist or sleep doctor, you work in a you work in a different language, you’re in a different country all day. So when you enter the world of weightlifting or you enter the world of Olympic sports, you have to understand you’re a newcomer. They have words and ways of communicating that are very different than ours in our specialties. And so I listened to what they were saying, and there was a big concern within the Olympic weightlifting movement around doping and around cheating. Absolutely. From other countries. And it was such a big deal that they were even thinking that the Olympic weightlifting movement may be excluded from the Olympics. Oh yeah, it was very significant. So lots of conversations around this, from the CEO of weightlifting to the head coaches of weightlifting, all about this and the athletes were very tuned into this. So, you know, the idea that they were going up against athletes potentially that had unfair advantages or illegal advantages was really on the mind. So while I was talking to in this interview with the head coach, we were both talking to the New York Times. I made the point to say, you know, what we’re doing here with the Olympic Movement is providing sleep in a strategic and proactive way to improve performance. In a way it’s sort of like we’re using sleep as a way to create an
advantage for our team. And I use the term sleep doping, which is a legal form of actually performance enhancement. Let me be clear, nothing else is happening. There are no drugs involved. There is no exchange of plasma. This is this is all about using basic neuroscientific principles associated with sleep duration, timing and quality.

And it actually struck a chord with the athletes, too. I think they saw that as like a meaningful concept that, you know, we can combat this illegal use of doping with a real good version, a natural version of doping, which is to use sleep to our advantage. And it just kind of took off from there. So I’m sorry if I started a word or a term that is somewhat derogatory to sleep.

KHOSLA: Well, no, it’s very humbling when I...well, it's very humbling, right? I came across this word and I was like, OK, I've been practicing sleep medicine for, like, I don’t know, ten, 15 years. and I've never I've never heard of this before. So it was very humbling when I’m like, OK, hang on, I've got to ask them, what is this?

DURMER: So look, I as a neuroanatomist, I started off life as a neuroanatomist in a neuroscience lab.

And there are probably three or three to six different terms for things like diencephalon and thalamus, and I don't want to create a yet another term for people to have to remember. So I'm sorry if that created a new term.

KHOSLA: Oh, bless you for not creating a new term. All that neuroanatomy is like the bane of my existence when I have to recert.

DUMER: Sorry, it like happens to be my favorite part of life. But OK.

KHOSLA: So it sounds like you kind of got into this field in a very organic way, but I imagine that there must have been some intention on your part, too.

DURMER: Well, I mean, I stepped into neuroscience...I’m much more of a neuroscientist than a neurologist per se in terms of how I think. When I was at Penn as an undergrad or as a grad student in my PhD program, I was finding that a lot of the information that was available in the neuroscience world related to sleep, and I wasn’t in a sleep lab, I wasn’t doing research in the sleep program. It was actually more of a preconsciousness laboratory looking at the subcortical
visual systems associated with preconscious vision. And it was really apparent to me that there
was a lot of information in the science world around sleep that had not been brought into the
clinical world and a lot of application. And as an MD/PhD the application of sort of bench work
to bedside is the understanding. It's what we do and what we want to do. So to me, it was sort of
a natural evolution to go right from the basic science of sleep and try to apply the findings in real
world populations so that we could actually get folks the benefit of sleep that they're not really
getting on a day-to-day basis. So for me, it was very organic in that sense because the basic
science and the bench-to-bedside approach lent itself to the application of basic science and
sleep and circadian rhythm neurobiology directly into populations that had no idea that this
information was available.

And since then, I've spent most of my life in academics, at Emory and at Penn. But I stepped out
to do things in a way where we could start to bring that information directly into populations.
And so I got interested in population sleep health and really into what...if I were going to do it all
over again. I'd probably get an MPH and do public health. I mean, I think everybody in sleep
medicine really is in a version of public health. What we're doing is for the public's health. And
it's not...even our basic neuroscientists that are working in laboratories with rats and mice and
genetics, that's all in service to the understanding that sleep is incredibly important. And we're
just trying to get people to understand that they have to use sleep in a way that is different than
our current culture is misusing it. So I think that's really why we're all, everybody in the world of
sleep medicine, circadian or biology and research, as well as clinical work, you're in public
health to a certain degree, getting people to understand that this is a big part in the missing
factor in their regular lives.

**KHOSLA:** So then when you talk about performance, then is that what kind of led you then to
work with sports teams?

**DURMER:** Yeah. I mean, part of it is, I said earlier, I was an athlete growing up and I was a
rower and rowed in some somewhat of the elite level at one point in the 80s with the US teams
and I found that performance was just part of my life. And I always looked at athletic and
physical, as well as cognitive performance and studying things like Buddhist thought and
meditation and the impact that that has on your mind and the way you think. These are all
relatable. So when I started doing this consciousness-based or preconsciousness work with
animals at Penn, it really kind of lent itself to understanding how we how our nervous system actually is a part of our development and our ability to perform.

And that led me to sort of put the two and two together before there was something like sports neurology, because back in the day when I was a fellow, there were no sports neurologists that I knew. But now there is. And I think that that led itself to for sort of a natural extension that sleep as an element of performance of the nervous system is something that could be used by high-performing individuals that makes it easier for everybody else to see that sleep is important.

So working with the Atlanta Falcons or working with national swim teams now with the weightlifters, with other groups like CrossFit athletes and high-level powerlifters, that lent itself to really more of the public health approach, using people as an example, sort of like in honor if you seen the video of Shaquille O’Neal at the Harvard program.

KHOSLA: I love that video!

DURMER: Yeah, so Shaq, just because of his celebrity and his position in sports really changed the discussion to hey, this is, you should normalize this, this is actually about your health. And, you know, basketball players now take, you know, they sleep for 12 hours. LeBron James talks about how much he sleeps because that’s now considered normalized within that population. So I looked at the same way, if I’m going to work with professional athletes, this is an opportunity to utilize their platform to help others understand how important this is and get them to sort of play the Shaq kind of card that, hey, this is important, let’s get out there and tell each other about this. So I think there’s been a number of studies with NFL players and talking about apnea, especially in the big-bodied athletes, but there’s also a significant problem with insomnia within some of the populations and circadian rhythm problems associated with, as I mentioned earlier, the late night rappers. That’s a difficulty for an athlete, even a young athlete, to manage at that high level. And if we can do little things like just make these little changes like adding a little extra sleep or finding a sleep disorder, potentially and treating it and seeing the effect, it’s something that can be broadcast to the rest of us that are not the elite level athletes, but who want to have a good life and quality of life is important. And that’s what sleep is all about.
KHOSLA: So let's take a quick break. We'll have more with Dr. Durmer when we come back. You're listening to Talking Sleep from the American Academy of Sleep Medicine.

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DR. KHOSLA: Welcome back to Talking Sleep. We're talking to Dr. Jeff Durmer, sleep adviser to the U.S. Olympic weightlifting team, about sleep in athletes.

So when I was reading about you, I think the best quote I found was when you said that you took this concept of overtraining syndrome and you said it wasn't about overtraining, it's about under recovery. So I'm wondering, is this when you have these little bits of information, like you said the cocktail, little bits of information, does that create the lightbulb moment for people?

DURMER: Yeah, it's actually a point that I try to get across to even my fellows and other docs I work with, which is we have to communicate our science and communicate our clinical knowledge in ways that people can readily access it and use it on a day-to-day basis. And it's sort of like the idea of walking into the Olympic movement and expecting everybody to understand what the pedunculopontine nucleus is. They have no idea what you're talking about. And that's the approach with the way we use words. So when I speak to a group about overtraining, they understand training, they understand how hard it is to train. And when they say overtraining, it's almost a badge of courage, or a badge of honor because they've trained so hard. But it's sort of the same problem you see with corporate America. People, you know, working 24/7 or working into the night, doing late nights and not getting sleep. That's sort of a badge of honor. This changes the discussion.

So within the population of elite athletes, overtraining is an issue, but they don't really recognize what the actual problem is. It's not your training, it's your recovery. So if you haven't allowed your body to recover properly, you will end up overtrained and basically over-activating your sympathetic nervous system and you have an imbalance in that autonomic system. You're not actually be able to bring up parasympathetic and maintain a balance that you can control. So, you know, that's something I suffered with as an athlete growing up. But also, I know a lot of these athletes have that issue, but explaining it to them in those words makes much more sense.
It's sort of the same thing, like when I work with corporate executives or truck drivers or airline pilots, I talk about sleep not as the end of today. Don't think of it as like the thing that you did at the end of your day. Think of it as the beginning of tomorrow. If you think about it is the beginning and just frame shift, think about cognitively frame shifting a little bit. What I'm doing right now is for tomorrow. Oh, that makes sense. Now I have to actually plan it. I have to prioritize it, and I have to max it, optimize it just like I optimize everything else. So if you think about it that way, it's just a small switch of thought, but it does create a little bit more priority around sleep.

**KHOSLA:** I love that. So I grew up in Calgary and we had the 88 Winter Olympics, and this might just be, you know, me misremembering, but it felt like there were athletes in the Olympic Village for like weeks before the Olympics.

**DURMER:** Yes, they were. And it changed.

**KHOSLA:** Right. So with COVID now, how do you help your athletes then acclimate to the new time zone? I mean, this is a decent time zone change.

**DURMER:** Yeah, yeah. So when we had to plan for the Tokyo Olympics just last summer that presented a huge challenge. The big challenge was they couldn't be in the country, you know, at the village for more than three or four days or a week before their event and then actually right after their events over within two days, they had to be out. So there was a very limited amount of time they were allowed to be in the village. Now that doesn't mean that they couldn't be in country, so some teams would fly their whole group to another part of Japan, where then they would have a scheduled workout and acclimate within country. The problem is, all of the regulations this time made it very difficult even to do those kinds of camps.

So what we did for this group was actually had a camp in Honolulu, Hawaii, and we basically brought every individual from the Olympic weightlifting team that was going to the Olympics, put them on a schedule that would slowly but surely adjust them towards the West and Tokyo so that they were a couple of hours to three hours delayed compared to their natural time in the United States, wherever they were. And then when they flew to Hawaii, they came about two weeks or so before their anticipated event, two to three weeks, and they'd spend two to three weeks in Hawaii at the Hawaii camp, doing their workouts, getting their food, in a slowly
delayed, further delayed Western schedule. So that went and there at the same time, where we're delaying them slightly on a day-to-day, week-to-week basis we are also increasing sleep time on an average of 15 minutes every week or so. So we were using the concept, the chronobiological concepts of getting closer to the time zone, but also in using shifting using darkness as a major shifting active activity, but using light in the daytime as much as possible to activate later. But we are also using the banking concept of adding slight amounts, slightly more sleep and in that controlled environment, which is really much a bubble in Hawaii, we were able to get athletes pretty much adjusted to within three or so hours of Tokyo. So when they were flying, instead of it being a seven-hour difference from Honolulu or six and a half hour difference from Honolulu, it actually was only a two to three hour difference because they’ve been working out as late as 10:00 at night. And they'd be getting up as late as 10:00 in the morning, so their whole schedule was thrown off towards the West and that allowed us to get them comfortable. So when they landed in country it, it was as if they were there or they flew two time zones.

And it led to a big difference. I think within the team can't say for sure what the impact of anything, one thing is it’s not an experiment, but I do think we had a good outcome this time around, and we're going to follow that same pattern now when we go to France next summer and 2024, two summers from now. And that’s going to be a very different circadian challenge because we’re not delaying, we're going to be advancing. So that’s going to be tougher on most of the crew getting there. And so we'll figure out a concept to get folks in-country early and then increase their sleep duration.

**KHOSLA:** So do you use any consumer sleep technology?

**DURMER:** I’m hesitant to just use one because they're all consumer-based right, and none of these are clinical grade or medically indicated or FDA approved. And so it's kind of hard to rely on these things.

What I do use and I’m happy to can I talk to anybody about this if they want to talk more about devices, that’s sort of what I do in my day job. But the use of the device that we did put in place, which was the Oura ring, is something that I wanted to engage the athletes in and sort of understand it, using it as an educational resource more than anything else and also as a
behavioral change. It’s something to help people with behavioral change. Because it’s I often talk about sleep from the perspective that there’s duration of sleep, timing of sleep and quality of sleep, and all three of those interact with circadian rhythm. So those three concepts I can actually break down for the athletes in a way that’s meaningful so that they understand duration and timing are things you can really control with behavior. Quality can be affected by behavior, but it’s certainly, if you have quality problems, we may be talking about a medical issue that we can help to diagnose, and we certainly did sleep testing on a number of the athletes to find things like sleep apnea.

But the idea of the consumer devices is really engaging the athletes in their behaviors of sleep. And, you know, we certainly didn’t want to stimulate orthosomnia or the inappropriate use of devices. But you know, that’s another thing we talk about because oftentimes they’re already using devices like their phones in the middle of the night, and it’s creating a problem in the bedtime period because these are folks that are a little bit famous in their area of the world and people are they have social media and lots of people following them. So, the nighttime tends to be the time when they have time to do that stuff, and so I had to kind of switch their thought process around and get them to wear these rings at night, and then they started seeing the impact and that actually created some awareness. So it didn’t use the rings in some clinical sense. There was no data downloads, and I’m looking at heart rate variability and tuning them right. You know, nothing like that. It was much more to engage them. And also, I think that’s likely that the best use of these devices, even in our patient populations, is just engaging them in the concept of sleep and then finding those with orthosomnia and helping to redirect them a little bit.

But you know, that’s I think, the opportunity to bring things like consumer electronics into even your patient care same way I used it with the athletes, it’s really about engaging people in the conversation about their behavior and if they’re taking it seriously or not. You know, data can help to support good, good behavior change.

KHOSLA: Did you have any advice for our colleagues that would like to do something like you're doing, maybe at their local level or different levels?
DURMER: Well, I think, you know, everybody has to follow their own interests. This is something I’ve been doing since I was a kid, being an athlete. My kids are athletes. They swam in national teams and things. So it’s a kind of part of, you know, how I my vibration. I live in Denver, Colorado, for a reason as I like to be outside and I like to climb mountains and things so it’s really about your interests. So if you’re a, you know, an athlete or you felt very, you know, you followed sports your whole life, it’s something you’re really interested in. It’s worth, you know, finding that orthopedic surgeon friend that works with the medical...that works as the team doctor even in the, you know, your kid's sports programs. I look at it this way. I worked with the Dynamo Swim Team in Georgia, in Atlanta when I worked there, when I lived there and worked at Emory, and my kids were all Dynamo swimmers and I worked with the head coach for the entire team of 600 swimmers to make sure that we were helping their school start times because Georgia didn’t have advance, didn’t have delayed school start times. So they’d have these 5:00 in the morning swims for high school students and just completely inappropriate for their chronobiology. So I educated them and educated the team, and we started to experiment with different routines and changing those routines.

And if you have an open-minded coach of a major program, even your kids program, it’s a good way to get started in sort of bringing the public health message of sleep to the individual teams. Because, you know, the first thing I saw was I have one of my kids was really suffering with these early morning practices, and she was in eighth grade and swimming at a national level. And I basically, you know, she was dealing with ADHD at the time, too, and it was just throwing off everything. And I went to the head coach and said, hey, I don’t think this is going to work for her. Why don’t we stop the morning practice for her and let’s see how she does? And lo and behold, after she stopped those early morning practices as an eighth grader and she was doing afternoons only, her behavior got better, her schooling was she was a great student to begin with, but she was finding it to be much easier and her swimming improved. So Coach was impressed and we started to reduce the number of those morning practices. Instead of four or five a week it went down to two and that still allowed the team to get enough practice time. And so they were highly competitive on the national stage.

KHOSLA: So is this the same daughter that presented something at APSS a few years ago?
DURMER: Well, actually, I have two daughters, the oldest is the one I was just mentioning. Both of them were high level swimmers. My middle daughter went finished up at Emory University. Oldest was at University of Virginia, so they were both D1 swimmers. Julia, my middle one who went from Virginia to Emory to finish her degree. She's interested in getting an MPH, she did a bit of sleep research in her summer internship at the CDC with a fellow person in the epidemiology department.

And she did a study that I think it was pretty well covered back in the 2016-17 period at the Baltimore meeting, where she presented on how the application of the Framingham study, constructed of sleep of heart age and using all the different risk factors that go associated with the age of your heart, like cholesterol level, diabetes, hypertension, obesity. And it was really used as a public health concept to see, you know, can we get people to look at their heart risk factors as a part of the age of their heart and change them?

Well, Julia took the idea because we, you know, she lives in a sleep research household that, hey, maybe I could use the sleep duration because that’s always something she’d seen in all the papers I’ve shown her, and she's really interested in that area, that duration actually predicts a lot of these potentially poor outcomes if you sleep too late or too few or too little. And she applied that using CDC data to the Framingham study and found that actually when you use duration of sleep and put that in as a construct, those people sleeping less than six and a half hours on a regular basis had significantly increased heart age. And it was something that kind of hit the scene, and a lot of folks heard about that study. So she got a little bit of fame as a junior in college.

KHOSLA: Good for her!

DURMER: Yeah, and I'm very I'm very proud of her. She's finishing her MPH at George Washington this year and she's doing communications, so she's going to go back to the CDC and help them with communications, I think. That’s the ultimate goal is to get the communications right and health care.

KHOSLA: That's so critically important, as we've seen during this pandemic, right? So, final thoughts?
**DURMER:** Final thoughts. Well, I like the idea of us all in sleep understanding we have a public health role to play. And, you know, like my friend here in Denver, Lisa Meltzer, who is a clinical psychologist and research a friend of mine. We go back for many years has done. She took her research to the level of the school board and showed them that school start times have a major impact on development, on all different outcomes associated with kids and in middle school and high school. And now in next year, 2023, Denver Public School System is going to start children know no earlier than 8:20 in the morning in the middle school and high school ages. So that's the kind of thing that we have the opportunity to do as a specialty.

And everybody listening to this has this opportunity to really think about yourself as an agent of change because our culture is backwards and we're getting an average of sleep...you know, you look at the average sleep times of working adults and something like 6.2 hours a night. That's just not adequate. And we look back 60 years ago, it was eight hours. So what happened? It's up to us to actually integrate where we can and speak the language of the people that you're talking to.

It's one thing I learned working with all these different groups and truck drivers, to pilots, to, you know, military folks and professional athletes, speak their language, learn their language and try not to use words like pedunculopontine nucleus, try to try to speak like they do and then get into their thought process because that's how we're going to get change. As much as policies and laws and governmental change is part of it. It's also cultural. It's just about how we regard sleep. Is it is it important enough to take seriously and prioritize?

**KHOSLA:** Well, thanks for taking the time to talk with us about this really interesting and timely topic. You know, Olympians work with so many trainers and really, there's probably no reason that a sleep trainer shouldn't be included.

**DURMER:** I think that's a great way to do it, and you can start just going to your local CrossFit gym or your local gym and go there and tell them, you know, if sometimes they have these little competitions within the workout groups and they say, OK, let's see for the next month how many points you get for eating good foods. Well, guess what? Throw in sleep. Get at least seven and a half hours of sleep, and everybody gets seven or more hours of sleep. Each night gets a point at the end of the month. See how, how, how good people feel. And actually, I've done this
once and it was amazing. Everybody was just blown away by how well they performed, how good they felt, and it was done right there at the local level. So, so be creative. Have fun.

**KHOSLA:** Thanks for listening to Talking Sleep brought to you by the American Academy of Sleep Medicine. For more podcast episodes, please visit our website at aasm.org. You can also subscribe through your favorite podcast service. And if you enjoyed this episode, please take a moment to leave a rating or review. For more feedback or suggestions, email us at podcast@aasm.org. I hope you'll join us again for more Talking Sleep. Until next time, this is Seema Khosla encouraging you to sleep well so you can live well.