Sleep's Role In Disease Prevention Transcript

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Introduction and speaker background

Welcome back to the Sleep Deep Summit. I'm your host, Dr. Audrey Wells. And our next speaker is Michael Greger, M. D. He is a physician and internationally recognized speaker on nutrition, his science based nonprofit nutritionfacts.org offers a free online portal hosting more than 2000 videos and articles on many, many health topics.

Dr. Greger is also an acclaimed author with book titles such as How Not to Die, How Not To Diet, and most recently, How Not to Age. Welcome, Dr. Greger.

Thank you so much for having me on. Excited to be here. Yes, same. And you know, I want to start off with a question that I was kind of noticing as I was reviewing your book titles.

And that is there's this subtle suggestion that things like how not to die or how not to age. Are these things optional? Just as my, you know, book, How Not to Die was not about living forever.

How not to die and how not to age

It was not how to not die, but rather how not to die, as in prematurely in pain after a long, chronic, disabling illness. And so, you know, how not to age is a similar premise.

It's not about immortality, but rather how to age with grace and vitality. And instead of, you know, suffering from the ravages of infirmity and disease.

Yeah. You know, I think people look for that because, you know, death being kind of the final common denominator can be intimidating. But really, it's the years leading up to the death that people are trying to optimize when they think about their health, their vitality.

I wonder how you connect that to sleep. Well, yeah. So I have I have a chapter on sleep in the lifestyle section. You know, there's this perception, I think, that time spent sleeping is time wasted.

But inadequate sleep is associated with multiple acute and chronic conditions that may result in increased risk of death and disease. You know, forced people to go a week with just 6 hours of sleep a night, and you can change your expression of more than 700 genes.

The most dire affect appears to be endothelial dysfunction.

Sleep, disease risk, and longevity

The endothelium is the thin layer of kind of the internal surface of blood vessels, is responsible for allowing our arteries to properly relax and dilate open and randomize people to about a week of getting a five compared to 7 hours of sleep.

And just, you know, would just a two hour difference. And I really result in a significant improvement in artery function. Yes, indeed. The magnitude of impairment from a week of five hour nights is similar to that reported in people who smoke, who have diabetes, who have coronary artery disease.

Right. So no wonder why people who sleep less than 7 hours a night may experience up to a 12 to 35% increased risk of premature death compared to those who do sleep 7 hours a night.

Yet more than a quarter of our population routinely get 6 hours or less sufficiently long restful sleep each night.

While an indisputable cornerstone of good health, the link between sleep and mortality is caused.

In fact, it's actually really quite controversial. And I dove into that controversy. Yeah. You know, I think highlighting the point that even just these small daily choices of clipping your sleep short has an effect for the long term.

Is something that is maybe just now coming up into regular conversations, you know, the importance of healthy sleep, sufficient sleep and sleep that is consistently timed in a 24 hour period are all going to give you long term health benefits.

You mentioned genetics, which I think is interesting because some people have the idea that their genetic program sort of predetermined their aging and their lifespan or health span.

What do you think about that? You know, based on studies of identical twins who have identical DNA, only about 25% of the difference in lifespan between individuals is due to genetics.

So that brings up well, wait a second. What can we do over the majority of which we have some control? And so I talk about primarily diet, but other lifestyle factors such as sleep, exercise, weight control, stress reduction, etc., factor in as well.

Yeah.

Genetics versus lifestyle factors

And you know, I think that's a very empowering stance for people who feel like their cards were not dealt in their favor. Sleep and nutrition are intricately linked.

I like to sort of contextualize it as sleep gives you energy, good nutrition gives you energy. And so if you look at this idea from the standpoint of energy management, you know, your sleep and your nutrition goals are often aligned.

I'm wondering how you advise people who are looking to optimize their nutrition in order to prolong their life and delay aging? Yeah, no, absolutely. In fact, there's another way in which sleep and nutrition are combined is that when you randomize people to sleep deprivation and then expose them to a breakfast buffet, they not only eat more food, but they eat unhealthier food more kind of fatty, sugary foods concentrated in calories.

And so that may be one of the mediators between inadequate sleep and increased risk of diseases because people are eating unhealthier. I mean, that really is the primary determinant of one's life span.

So the goal burden of Disease Study is the largest study of risk factors for death and disability in history, funded by the Bill Melinda Gates Foundation, found that the number one cause of death in these United States is the American Diet.

Bumping tobacco smoking to number two. Cigarets Now they kill about a half million Americans every year.

Sleep deprivation and unhealthy eating

Whereas a diet kills many more. And they so they had a ranking of like, what's the worst things about America's diet? And interestingly, number one, in terms of contracting one's life expectancy is inadequate legume consumption.

So like beans for basic reason, lentils, we're not eating enough beans. Number two on list, none of whole grains. Number three, mound of nuts and seeds.

So like of all. So three out of the five are things are actually not eating enough of. And then number four, we're eating too much meat. And number five were drinking too much soda.

But so these are some simple dietary tweaks that can significantly improve our health and longevity. Yes. And when you're talking about the connection to sleep, it made me think back to my days in residency and fellowship where I was necessarily having 30 hour shifts.

And after my whole night was over, I remember for me the craving was biscuits and gravy in the air. And, you know, this is a this is a couple of decades ago now, but that is a very real phenomenon.

And the physiology has been worked out. You know, you have increases in the hormone ghrelin that comes from the stomach and signals, you know, a drive to eat or appetite and then reduction in leptin, which is a satiety or hormone or a hormone that signals fullness and sleep deprivation, makes ghrelin go high, leptin go low.

Diet as the main driver of health

And so it's a double whammy in addition to the food cravings that tend to be highly processed snack foods. Right. Yeah. So when you look at cause of death in America, Standard American diet is sad for sure.

But you've also got heart disease, cancer, diabetes, depression and dementia, factoring in our nutritional choices affecting one's path and risk for these diseases.

Absolutely. And that's why diet is the principal risk factor for death and disability is because it contributes to so many of our leading causes of death and disability.

So, for example, heart disease are number one killer of men and women is actually reversible with a healthy enough diet and lifestyle. This was proven by Dr.

Dean Ornish in 1990, and it's that famous lifestyle, heart trial where he randomized folks with heart disease to either a plant based diet and lifestyle program or to whatever advice their doctors were giving them as to what to eat.

And saw a significant opening of their of their clogged coronary arteries, opening a barters without drugs, without surgery, just this healthy diet and lifestyle program.

And look, that was 1990, published in the most prestigious medical journal in the world. Yet decades later, hundreds of thousands of men and women continue to die needlessly from this preventable arrestable reverse symbol condition.

I mean, it's just a matter of treating the underlying cause of diseases like heart disease and hypertension and type two diabetes, rather than just as physicians slowing down the rate at which our diabetics go blind and go on dialysis and lose their lower limbs.

We can actually, by treating the cause with lifestyle, which is what ended them up in the situation in the first place.

Reversing heart disease with lifestyle

We can actually reverse the course of illness and actually get them better, not just kind of slow the rate of decline. You know, I wonder if you experience something that I see quite a bit, which is people saying, I feel like it's too late for me.

I feel like I'm already in my sixties, let's say. And I've had this lifestyle that's not been entirely healthy. What do you say to people who sort of doubt that even changes in their sixties, seventies and later can affect their lifespan and health span?

Yeah, the good news is we have tremendous power over our health, destiny and longevity and there's a vast majority of premature death and disability is preventable with a healthy enough diet and lifestyle.

And it's never too late. It's never too late to start eating healthier, never too late to stop smoking, never too late to start moving. We really do have the power.

Yeah. And I would add to that, it's never too late to start prioritizing sleep as a way to underscore your health values. But also when a person is sleeping well and getting enough sleep, they make better choices in the day to day life.

They make better choices in the moment, even in the face of challenges. And so I would say that, you know, for people who are also concerned that it's too late for them to establish better sleeping habits, the truth is, even small changes in the short term can yield big results.

Yeah. No. And you see that across all the lifestyle dimensions, right? It does not take much. So even walking, for example, 15 minutes a day, moderate intensity exercise is associated with living significantly longer life.

Right. And so and so, you know, any amount of exercise is better than nothing.

It's never too late to change

So even if the science suggests that as much as 90 minutes a day may kind of maximize exercise benefits, you know, and there's a hesitancy of kind of the powers that be to even talk about that kind of data, because it makes people just kind of intimidate, be intimidated and throw their hands up in the air.

And really, the emphasis should be, look, any exercise is better than nothing, but let's not patronize people and let's tell them the truth. It's like, wow, yeah, 15 minutes, fantastic.

But 30 minutes is better. 45 minutes is better. And similarly, you know, with eating with, you know, restful sleep, it does not take much to make a big difference.

Yeah. And implementing changes on a consistent level day after day, I think can give somebody the sense that they're making progress. I wonder when you were writing each of your books, did you have a certain person or a certain type of person in mind that you really wanted to help?

Oh, well, yeah. I mean, how not to die really came from my grandma story. I was just a kid when my grandma got sent home, basically in a wheelchair to die.

She was diagnosed with end stage heart disease. You know, she had so many bypass surgery is basically run out of plumbing at some point. So confined a wheelchair crushing chest pain.

Her life was over at age 65. But then she heard about this guy, Nathan Pritikin, one of the early lifestyle medicine pioneers. And what happened next is actually detailed in predictions, biography talks about Frances Greger, my grandmother and children.

Dr. Greger's personal motivation

And she walked out, although she was given a medical death sentence at age 65, thanks to a healthy diet, was able to enjoy another 31 years on this plan till age 96 to continue to enjoy six grandkids, including me.

So that's why I went to medicine and that's why I practiced lifestyle medicine, why I started nutrition facts that or why I wrote the book, How Not to Die, why all the proceeds from all my books are all donated directly to charity.

I just want to do for everyone's family what Pritikin did for my family. You know, I think that's really inspiring. And the keyword is enjoy the rest of your life.

I think that's super relevant to people who are watching today, who are looking to up level their health and take control of things like sleep and movement and nutrition.

Dr. Greger, it's been a pleasure to see you today. Thank you so much for bringing your wisdom to our talk. So happy to be here. Keep up the great work.

Thank you.