



## Conscious Life presents

### Rhythms of Rest

**Guest: Dr Audrey Wells**

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#### **[00:00:08] Dr Anu Arasu**

Hi, everybody. I'm Dr Anu, co-host of the Hormone super conference. And today I'm joined by Audrey Wells. Audrey is a sleep and obesity medicine physician. She's also a professional mindset coach, and she's the founder of Super Sleep MD, a platform with self directed learning courses and coaching. Welcome, Audrey.

#### **Dr Audrey Wells**

Thank you so much. I'm really happy to be here and talk to you today.

#### **Dr Anu Arasu**

It's great to have you on. I guess one of the burning questions that we all have is, what is the link between hormones and sleep? What do we need to know?

#### **Dr Audrey Wells**

A lot of people aren't familiar with the way that hormones and sleep interact, but there are probably three that are really tightly connected with sleep, although sleep and wakefulness is actually influencing, and connected to, all of the different hormones, because as biological systems, we do have to sleep in order to be healthy.

The three that I'd like to highlight are melatonin, which is secreted by our body and also available as a supplement. Those are two different things. Cortisol, which is typically thought of as a stress hormone. And people oftentimes want to reduce their cortisol, but it's very appropriately timed for alertness. And then the third one is orexin, also known as hypocretin, which helps to stabilize the sleep/wake cycle and even different sleep stages, such as REM sleep.

#### **Dr Anu Arasu**

Wow. Okay. You mentioned the main one that we all know about, which is melatonin. Can you tell us a bit more about melatonin and in your opinion, whether that can be useful as a supplement?

**[00:02:01] Dr Audrey Wells**

Melatonin is a very interesting hormone because it's a way for people to get more control over their experience of sleep. I always like promoting that as a reason why people should know about it. Melatonin is normally secreted in the evening in response to dim light. Now, way back in the dark ages, there's a little pun there, we didn't have electricity. When the sun would go down, that would be a signal for human beings to kind of hunker down in their shelter and get to sleep. And so melatonin rises in response to dim light, and then it's quite stable over the overnight period, and then it reduces in the morning, and it's a sleep signal that we can manipulate.

One very easy way to manipulate it is with your electronic handheld devices. What this does is it actually suppresses your internal melatonin production. So for anyone who's considering melatonin as a supplement, I like to start there because it may not be necessary to supplement with melatonin if you manage your light exposure in the evening more appropriately.

**Dr Anu Arasu**

So what should people be doing? I guess we know some of it, some of the basics. What are the common mistakes that you see people making?

**Dr Audrey Wells**

A lot of people tell the story of how their phone helps them to sleep, scrolling on the phone and doing that as a way to relax. But I look at it more as a numbing or buffering activity. You want to space out in order to relax, but it's counterproductive. It really does cause brief awakenings or arousal from sleep. So ideally you would want to put away your electronic handheld devices 3 hours prior to sleep. Some people can get away with 2 hours, some people one.

But I think if you're going to experiment and see how it works for you, make it a really clean experiment by putting them away 3 hours before sleep. And something to keep in mind is that even the overhead lights in our home can have an impact on how alert we feel in the evening. So all light exposure should come down in the evening for ideal sleep. And I mean both getting to sleep and staying asleep during the night.

**Dr Anu Arasu**

Do you feel that some people, if they're going through a time of change, could they benefit from melatonin supplementation?

**Dr Audrey Wells**

If it's done in a careful way, yes. And by careful I mean... Supplement companies, at least here in the United States, are completely unregulated. What is actually in the supplement bottle doesn't necessarily match what's on the label. And even recently, there were some really upsetting studies showing contaminants in melatonin preparations such as serotonin, such as CBD and other things.

**[00:05:21]**

So you really want to make sure that you're getting your melatonin from a reputable place that has third-party testing for quality and purity. I think that's really a challenge for some people. So that's one thing to keep in mind, another thing to recognize is that where melatonin is concerned, more is not necessarily better.

Sometimes I see like 10 milligrams, 30 milligrams of melatonin. You're just going to excrete that. So better to save money and go between 0.5 milligrams to 3 milligrams, sometimes 5 milligrams is okay, but that dosage is important as well. I don't really recommend melatonin for kids. We just don't know enough about it, how it affects their brains, and their brains aren't fully developed until about the mid 20s. So I don't like recommending melatonin for kids, especially with the information on contaminants.

However, older adults, older adults such as 60s, 70s, 80s and beyond, tend to secrete less melatonin sometimes. So a little bit of supplementation can help in that circumstance.

**Dr Anu Arasu**

And are there any people that don't get on with melatonin or that you would steer clear?

**Dr Audrey Wells**

It doesn't work for everybody, and some estimates suggest that it doesn't work for about 30-40% of the population. I think it's really important to check that medications that you're already on are compatible with melatonin. That's something to keep in mind. But for the most part, taking a little bit of melatonin for a determined period of time to see if it's effective for you is a measure that you might use to employ better sleep practices or to make it past a troubling time or a period of change.

**Dr Anu Arasu**

Super helpful. And you mentioned the sleep/wake cycle before. Can you tell us a bit about what that is?

**Dr Audrey Wells**

It turns out that over the entire night, we have maybe four or five sleep cycles in a seven or eight hour period. And what I mean by that is the cycling between wake, light sleep, deep sleep, also known as slow-wave sleep and REM sleep or rapid eye movement sleep. This is the stage where people dream, and oftentimes after a completion of that cycle, there's another brief awakening.

Awakenings during the night are not necessarily problematic. A lot of people have the expectation that they need to sleep throughout the whole night, but that's not necessarily the case. And it's certainly more true that you have uncontrolled awakenings as you age. So those brief awakenings are not necessarily problematic. So that's one sleep cycle. And as I said, during the night we might have four or five total.

**[00:08:41] Dr Anu Arasu**

A lot of people tell me that there's a certain time of the night where they actually start to feel tired. And it could be ridiculously early. I mean, it could be 9 PM and they don't feel it's sociable with their husband or with their partner or their wife. So in a sense, they might miss that gap to sleep. And then they say that if they miss that gap, they have problems falling asleep. What would you say to that? How does the sleep/wake cycle play into symptoms of insomnia and problems with sleeping?

**Dr Audrey Wells**

This is a really insightful question because there's new research that is starting to show that these 90-minute sleep cycles, so that's an average, tend to overlap with the daytime and give us some waxing and waning of our daytime alertness. We know that the circadian rhythm is a signal for alertness, and this is superimposed over the homeostatic sleep rhythm. This is what tells our brain that it's time to be awake or it's time to be asleep.

Typically, people experience two peak levels of alertness during the day. One is in the late morning time period, assuming you have an overnight sleep schedule, and the other one is in the evening. For most people who sleep between maybe 10 PM - 6 AM or 11 PM - 7 AM, That's going to be around 8 PM, or so. So those are two levels of alertness. However, there's also something called chronotypes. Is that something that you've heard of before?

**Dr Anu Arasu**

Yes, it absolutely is. I know that there are some resources that people can do online to understand what type they are, but tell us a bit more about the types.

**Dr Audrey Wells**

I happen to be an early bird, so I get up very early in the morning. I find that this comes naturally to me, I'm very productive. And as the day goes on, I start to fade out, and there is that window of alertness that I experience. But it would be a challenge for me to stay up past maybe 10 PM at this point because I have a very regular sleep pattern.

In the example that you gave, when someone is kind of missing that window of sleep, you can get a second wind effect, because what's happening is your melatonin rises, your body temperature falls, and the slope at which those two changes occur is a signal for sleepiness. But if you override it, then you've lost that signal. That's one way that you can get the second wind at night.

Night owls are a different chronotype. So these are people that tend to want to wake up later and stay up into the night much later than other people do. They tend to self-select into jobs with overnight work. They're better at that, and they're less productive in the morning, which can be a challenge from a social standpoint, from an educational standpoint, or even if they're trying to fit into the standard hours of a job. So night owls tend to just be up later and enjoy time later in the day.

**[00:12:11]**

And then the third bird is everybody in the middle, and that makes up about 65% of the population. So most people are third birds.

**Dr Anu Arasu**

If someone is one type, is there anything that they can do to modify that? Can they change the time that they're eating, for example, or is that just how it is?

**Dr Audrey Wells**

To a certain extent, you can modify your chronotype, but it's always going to take extra attention. Ideally, we'd all function at the times when it was genetically best for us because that's where the chronotype comes from, from your genetics. If you happen to be on one of the extremes, more than likely you can identify a parent, or a sibling, or even a child that has a similar tendency.

You can use light exposure to modify your wake and sleep times. You can use physical activity or exercise. That's a powerful signal for awake, meal times, socializing. All of these things tell your brain it's time to be awake, and then the opposite would be true for sleep. So we turn inward, we lower our physical activity, and we stop eating, hopefully, at 3 hours before bedtime. All of these things are signals for sleep and they're modifiable. So if you have a night owl trying to fit into daytime hours, that's one way they could make it work.

**Dr Anu Arasu**

And we've all got the one friend, or the one person we know who says that they can function on very little sleep. Maybe they only need 4-5 hours a night. What would you say to that?

**Dr Audrey Wells**

The first thing I do when I hear about this is ask them what it means to function, because a lot of people can function on little sleep like that. But functioning and functioning well are probably different. I saw a great quote a number of years ago from a very well known researcher, Dr David Dinges. He said that "The percent of the population that can do well on six or less hours of sleep, when rounded to the nearest integer and expressed as a percent is zero." So this is such a rare quality that I really don't think that functioning means functioning well, for the most part.

**Dr Anu Arasu**

Yeah, that is certainly my experience. A lot of people, when they are not sleeping enough, there are the same kinds of things that they notice. It can affect their memory, it can affect their appetite in quite a significant way. What's the link there?

**Dr Audrey Wells**

Totally. I want to thank you for bringing this up, because appetite and weight loss aren't on people's minds, especially with some of these highly effective weight loss medications coming out. This is something that your sleep can be used as a tool or it can be used as an adversary. What is

known is that people who get enough sleep tend to make better choices. They tend to feel more calm in their bodies, and they tend to be more focused on long-term goals.

**[00:15:47]**

They also have normal secretion and regulation of hormones involved with appetite. And I'm talking about ghrelin, secreted from the stomach, which increases your appetite, makes you feel hungry, and leptin, which is secreted from fat cells, makes you feel full. And people who have no sleep, or less sleep than they really need, have higher levels of ghrelin and lower levels of leptin. So it's a double whammy and it causes negative effects. If weight loss or weight maintenance is one of your health goals.

**Dr Anu Arasu**

Is there, conversely, a risk the other way with hypersomnia, oversleeping? Do you tend to see that a lot? And what kind of things would you say about that?

**Dr Audrey Wells**

This brings up the recommended amount of sleep for people, adults particularly. It used to be that 7-9 hours was kind of the range where we thought that people had sufficient sleep. I think the movement toward 7-8 hours as the marker for sufficient sleep speaks to the fact that a lot of sleep disorders are undiscovered. They're undiagnosed, and people tend to try to compensate for an untreated sleep disorder by extending their sleep time.

So that's one way to mask an untreated sleep disorder. If you have something like untreated sleep apnea, restless leg syndrome, or periodic limb movement disorder, or just insomnia, associated with compensating with a longer sleep time, then you do tend to see problems with eating, problems with mood, problems with weight gain, and ultimately risk for cardiovascular disease, diabetes, et cetera.

**Dr Anu Arasu**

Do you mean that we should, or perhaps the amount that it's thought that we need is more like 7-8 hours.

**Dr Audrey Wells**

That's right.

**Dr Anu Arasu**

How long can someone be awake at night and that still be considered within the parameters of normal?

**Dr Audrey Wells**

I'm going to describe what's called sleep efficiency as a measure to answer your question. There's the total time in bed, which is necessarily greater than your sleep time. So let's pretend you get

into bed intending to sleep, lights out, and it takes you 15 minutes to fall asleep. That's normal. And let's say you wake up twice in the middle of the night, both times for 15 minutes. That can also be normal, especially as one ages. And then once you wake up in the morning, you get out of bed right away to start your day. So the time in bed is going to be longer by 45 minutes compared to the sleep time, because you had 15 minutes to fall asleep and two 15-minute awakenings.

**[00:18:57]**

Generally, for someone who's getting 7-8 hours of sleep, that 45 minutes is going to mean a sleep efficiency between 85-90%, and that is normal. So the time that you're awake has a bigger say about your sleep quality compared to how many awakenings you have. We're looking for sleep efficiency between 85-90%.

**Dr Anu Arasu**

I think a lot of people are not meeting that, are they? Could you tell us some of the common causes as to why someone may have poor sleep efficiency?

**Dr Audrey Wells**

One reason that people can have poor sleep efficiency is that their sleep habits are not in tune. Getting up at the same time every day, having a relaxing bedtime routine, going to sleep at about the same time at night, these are things that really give your brain the signal that it's time to be awake or it's time to be asleep.

Managing those pivots at the end of the day and in the morning goes a long way toward helping your sleep quality be where you want it to be, but also helping your wake quality be what you want it to be. That's what most people enjoy, a good wake quality.

Other causes of problems with sleeping are medical. Some people with diabetes have trouble sleeping. People who have the condition of obesity tend to have more awakenings during the night. And sometimes medicines associated with particular conditions can interrupt sleep. For example, ADHD stimulants cause sleep disruption. Diuretics, for some heart conditions, cause you to go to the bathroom, wake up more in order to answer the call of nature. So those are conditions where people are oftentimes managing night-time awakenings.

And I also want to point out that there is no psychiatric illness in which sleep is not affected. So problems with depression, anxiety, bipolar disease, on and on. Those are typically associated with sleep problems as well.

**Dr Anu Arasu**

That's a huge one. What about hormones? How do women's hormones across their lifetime, how does that affect sleep?

**[00:21:26] Dr Audrey Wells**

This is one of my favorite topics, because I'm a card carrying member of the women's group, and I happen to be in a stage of life where my hormones are shifting. And so I'm paying more attention now to how that affects my sleep quality.

So I'll start with perimenopause and menopause. Now, sleep problems are super common in this phase, and anyone who's gone through it probably can attest to the fact that their sleep went through a change. And unfortunately, the majority of women also experience some hot flashes which disrupt sleep. This is because estrogen is falling, progesterone is falling, and so the brain is reacting to those drops and establishing a new equilibrium going forward. Hot flashes are really problematic because not only can they disrupt your sleep and cause an awakening, but it's really hard sometimes to get back to sleep. And that cycle of night-time awakenings tends to go on for quite some time.

In pregnancy, hormones shift, and sometimes in the first trimester, that ramp up in estrogen and progesterone actually causes women to sleep better and feel more tired. So it's a little bit unusual with that. As the fetus, or the baby grows, there's sometimes sleep disruption related to breathing or discomfort just from the increased volume. There's also accumulation of water and swelling in the airways that can cause some snoring and even sleep apnea in the third trimester.

Anybody who's been a mom or is a new mom now, I don't have to talk about the ways that having a brand new baby interferes with sleep. You're answering the baby's calls, you're trying to get your sleep regulated again, and that's very difficult.

And then for girls and women who have gotten their periods, sleep tends to shift and change over a month-long cycle. Tends to be better in the first part of the month as estrogen and progesterone are increasing, and then it declines in the second part of the month and especially over the menstruation time. So those are some ways that women have their sleep affected. I mean, it really is a factor in all changes of life for this population.

**Dr Anu Arasu**

Yes. And what about the male type hormones? How do they get affected by, or how do they impact sleep?

**Dr Audrey Wells**

Men excrete more testosterone than women, and testosterone appears to be a bit of a respiratory depressant. It is the case that for men, they're always having a risk for obstructive sleep apnea greater than women until women hit menopause. This is attributed partially to testosterone. And then, ironically, having untreated obstructive sleep apnea is associated with drops in testosterone levels. So men experience low libido and other conditions associated with low testosterone.

In fact, that's how I present the situation to some men who are resistant to treating their sleep apnea, because I think, in general, men are quite invested in keeping their testosterone levels elevated. So that can be something that can get better if sleep apnea is treated.



**[00:25:23] Dr Anu Arasu**

One of the big ones is of course, stress and the impact that that has on sleep. I've suddenly had people tell me that they have problems falling asleep or they wake up in the early hours of the morning. Sometimes they're even hungry, they're hypoglycemic, and they want to eat. What would you say about stress and sleep?

**Dr Audrey Wells**

Oh, man. The first thing I would say is, I've been there. I've been there with stress interfering with my ability to get to sleep, stress interfering with my ability to get back to sleep. And truly, people who have sleep problems as a result of stress necessarily have to spend time actively managing their stress, and this can be in a number of self care practices. But truly, when you have stress, there's more than likely emotions coming from that stress that are competing with your sleep.

I like to put these in three buckets. If you're having trouble sleeping, you might have feelings that are 'not enough', 'not safe', or 'not congruent'. These emotions are not compatible with getting to sleep peacefully. And so for my coaching practice, what I do for people who have trouble sleeping is to get their brain on board with producing the thoughts and feelings necessary to feel like they're enough, feel like they're safe, and feel like their life is in alignment. And all of those things are stress reducers.

**Dr Anu Arasu**

I guess that explains a lot about also your work and the link between the mindset, coaching, and your expertise in sleep. Can you tell us a bit more about some of those patterns that you see and any tips out there for people listening?

**Dr Audrey Wells**

This is something that I became passionate about as I learned more and more about sleep. After practicing for about 15 years, I saw these really clear patterns of people who were having difficulty lying in bed with themselves. That's when your self-relationship is available. As you're there in a dark and quiet room with nothing to distract you, it really reveals the quality of your relationship with yourself.

My coaching practice focuses on bolstering that in order to help you be more in alignment with your own values, with your life goals, and with your relationships. And this is something that people find incredibly soothing. So typically, people will seek me out because they identify they have a problem with sleep and they don't want to rely on medications.

When they seek me out, it's like, "I have a problem with sleep, I don't want to use medicines. Can you help me?" And the answer is yes. But interestingly, what I end up coaching on the most are, again, those things that compete with sleep. The stressors, being in service to others more than you are to yourself. The things that are not right with your job or your relationship, all of those things compete with sleep, and I find it very effective to address those directly.

**[00:28:49] Dr Anu Arasu**

How long do you think it can take for somebody to get back on track? We talked about the occasions, of course, when there might be an underlying medical problem that needs to be fixed, but for the other aspects where there's so much to do with rhythms and habits and as you say, the mindset, what's the journey, typically for someone in that state?

**Dr Audrey Wells**

The more complex the situation, the longer it takes to unravel things and get it sorted. I can think of a woman that I saw on three occasions because she was just having trouble sleeping as she was grappling with a job change. After the second session with me, she decided to change her job and put in her notice and magically her sleep problem evaporated. I can tell you that that was a very simple situation because other things in her life were going well. So once that was identified as the reason that she couldn't sleep, she made a decision and never looked back.

But typically, people are working with me a bit longer. Usually around the 10-12 week mark is when people feel like everything is better, but improvements I tend to notice around the 3-4 week mark.

**Dr Anu Arasu**

Thank you. Audrey, where can people find out more about your work?

**Dr Audrey Wells**

I'll direct people to [www.SuperSleepMD.com](http://www.SuperSleepMD.com) and on that platform you can see the education that I'm offering. I do group coaching sessions and I host a private [Facebook group](#) for people having trouble with sleep and sleep apnea. I can also be found at [www.AWellsMD.com](http://www.AWellsMD.com) for individual coaching, and I do an intake to figure out if it's a good match and then customize a program for the person who is struggling.

**Dr Anu Arasu**

Thank you so much. It's been really enlightening.

**Dr Audrey Wells**

Glad to see you. Take care.