

# **THE MODEL HEALTH SHOW**

**EPISODE 580**

**The Biggest Mistakes People  
Make When Trying To Get A  
Good Night's Sleep**

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**SHAWN STEVENSON:** Welcome to the Model Health Show. This is fitness and nutrition expert Shawn Stevenson, and I'm so grateful for you tuning in with me today. There is a huge difference between getting high-quality sleep and simply being unconscious. Alright, high-quality sleep is really defined by the ability to go through our sleep cycles efficiently, so that we're waking up feeling rejuvenated, empowered, energized, and of course, our bodies and our brains are having the ability to heal. Now, I'm saying this specifically in relationship to our brain function, because during sleep is when our brains are actually cleaning house. There are specific cells called glymphatic cells, part of this glymphatic system that are active primarily when we're sleeping. It's really helping to clean out metabolic waste, and to recycle brain cells while we're sleeping. And this glymphatic system is 10 times more active when we're sleeping than when we're awake. So, a big part of this is understanding that our brains are incredibly active during sleep. It's kind of like we're switching to sleep mode, it's not that our brains are turning off.

That never happens. If our brains are off, we're dead. We're not here any longer. So, it's important for us to understand that we want to support the ability of our brain to be able to enact these processes, because one of the things that we're seeing now, is that Alzheimer's is very largely tied to an inability of the brain to clean itself, and diminishing aspects, diminishing capacities of this glymphatic system. Also, it's during sleep that large aspects of our metabolism are being optimized. So, whether it's helping to regulate the production of our testosterone, HGH, regulating our insulin sensitivity, these are all deeply controlled by our sleep quality, or lack thereof. Now again, there's a big difference between simply being unconscious, just being exhausted, passing out, being unconscious and getting high quality sleep. And it's so crazy that we have to have this conversation today, where sleep is such a struggle. In fact, according to the CDC, insufficient sleep is a "public health epidemic". The CDC's research recently approximated that 115 million Americans are regularly sleep-deprived. Alright, to say that this is an epidemic is an understatement, 115 million Americans are regularly sleep-deprived. And so, what are some of the aspects?

What are some of the outcomes of this? We know that sleep deprivation is one of the direct culprits in diabetes, in heart disease, in obesity, and of course, brain dysfunction as well. Cognitive dysfunction, of course, degradation of the brain itself that we see in conditions like Alzheimer's and dementia. And of course, again, all these things are tied together and deeply connected with sleep deprivation. And again, we have to have this conversation today because this is something that's baked into our DNA. The ability to sleep and to get great sleep and to have efficient sleep cycles is baked into our genetic make-up, it's something that the human body and brain just knows how to do. But today it's as if we've sabotaged our sleep, and we've

created this epidemic where we have to find all these different strategies on how to sleep well again. So that's what this is really about. Today we're going to dive in and look at what are some of the biggest mistakes? What are some of the big culprits that are destroying our sleep quality today, and what are some of the things that we can do about it? And again, to reiterate this point, it's really about having efficient sleep cycles.

So, what does that mean? Well, just to take a very rudimentary look at that, we're talking about the change in our brain wave frequencies. How we know that we're actually sleeping, is that we can see the changes that take place within the brain. And right now, we're in a normal waking state, which is going to be primarily, we're going to be pumping out beta waves. Alright? So that's kind of the normal day-to-day waking state, coherent, comprehension, all the things that we associate with being awake. But from there, we start to dip into some of the preliminary stages of sleep that we can also achieve when we're awake, by the way. These are alpha brain waves. So, we're going from beta into alpha, it's a transition state, but during alpha is when we're kind of in a flow. We have a waking relaxation as well, if we're experiencing alpha while we're awake, and this is when we know that we're just kind of just in a good rhythm and a good flow. That flow state is often seen as alpha waves in the brain. From there, we're transitioning into...

Everything is kind of slowing down, the waves are slowing down a little bit and we're moving into theta, so we're in the theta state. Theta is often associated with a state of hypnosis. Alright? Now, little fun fact, when we're children, primarily below the age of about seven, we spend more waking time than we do as an adult, we spend more waking time in theta. And this speaks to how impressionable children really are with information. Again, it's kind of noted to be a state of hypnosis where information can get into our systems at a much deeper level. So, be aware of that. This is why children are so impressionable. And when you're a child, this is much easier for you to believe in the Easter Bunny, which is just such a weird phenomenon. I was just thinking about this the other day, this past Easter. Where did the bunny come from? And why is the bunny sh\*tting out eggs filled with candy? Whoever... Bunnies don't even have eggs. They don't lay eggs, they're mammals. Where did this come from?

But anyways, so having this understanding that when we're a child, we spend a little bit more time in theta, but we do experience theta as an adult as well. We can reach theta through meditation, if you're a very acclimated and experienced meditator, you can tap into that state. And also, this is a transitional state, when we are transitioning in and out of sleep as well. So, this is a great time, when you are falling awake, in a sense, when you're falling into sleep, to think about your intention and your goals, and to visualize things, it's going to reach deeper into your subconscious, so it's pretty cool. But from there, we're going into deep delta wave sleep, so we got delta and really deep sleep. So, this is associated with deep non-REM sleep is when we're dipping into delta. This is the most anabolic stage that a human being can be in, it

is the state of anabolism. Just being awake, period, is primarily... It's just really catabolic, just being awake. But dipping into that anabolism. So, what does catabolism mean? Being in a catabolic state means breaking down of, which we need that, we need to be broken down in order to build back better.

That's really how things work. So, it's not that being in a catabolic state is bad, but the anabolic stage is critically important as well, because this is where we're building back better, and this is not to be associated with the political agenda, by the way, this is talking about a state of reality. So having both of these things, this is what is balance, the yin and yang in this whole situation, we need the catabolic and we need the anabolic, and deep non-REM sleep is where the biggest anabolic processes are happening, the biggest recovery, so the biggest production of human growth hormone, for example, also noted to be "the youth hormone" it's one of the nicknames for it. And this is another thing that kids have a lot of, where they tend to just have so much more energy and the parents are sitting back like, "I wish I had all that energy." You can, you can get more energy, but it's primarily being produced when you're sleeping. Are we getting adequate sleep? And according to the data, again, 115 million Americans are regularly sleep-derived. Having poor quality sleep is a cultural norm at this point, and so this is something we have to learn or relearn to do as a species because everything has become so chaotic and so abnormal. But the good news is that we now have a lot of really sound data to affirm what great sleep, what constitutes great sleep and being able to transition efficiently in and out of our sleep cycles.

Alright so, we're talking about changes in our brain waves, different stages of sleep, and our sleep cycles on average, are going to be somewhere around 90 minutes on average when we're cycling through all these different stages, and you're going to go through about four to six of these, on average, cycles, complete cycles, when you're getting a high-quality night of sleep. This is where it really comes in, is that sleep... Your sleep requirements, your sleep efficiency... I said average of 90 minutes, this could be 70 minutes for some people, this could be 120 minutes for others. It's unique to you because you are unique, you have a unique sleep fingerprint. And also, this is going to be determined not just by your genetics, but also by your lifestyle. Chances are you're going to require a little bit more sleep if you're training harder, if maybe you're going through a lot of stress and you were maybe working toward a project that you've been working on, or whatever the case might be. It's a lot of mental and emotional labor, your body's requirement for sleep is going to adjust depending on you and your lifestyle. And so, I don't want to ever create an atmosphere to where we think it has to be this cookie-cutter thing, because it's never that.

This is about stacking conditions in our favor so that we can optimize our body and our brains to do the things, to be the miraculous entities that they already are. And so, this is about sleeping smarter, not necessarily just sleeping more, which again, for many people, the lack of

hours is there, it's a cultural phenomenon for sure, but it doesn't matter much if you get eight really crummy hours of sleep versus six wonderful, efficient hours of sleep where you're going through your sleep cycles efficiently. These two things can match up, we can get into a debate about which one is going to be ideal, but what we're really looking at is... So, for example, to say, what does that crummy sleep look like? And this might be the first time that I ever said crummy in my life. I felt very much like I just transported back into the 1950s, Leave It to Bieber vibes, alright? But... Did I? Leave It to Beaver, not Bieber. For the young ones, Leave It to Beaver.

So, here's the thing, when we're talking about low-quality sleep, it's akin to nutrition today, where not all calories are created equal. So, the calories that are coming through in a bag of flaming hot Cheetos are going to affect your metabolism very differently than the calories that are coming through in an avocado. It's going to affect your hormones, your neurotransmitters, your mitochondria very differently because of the very construct of what those calories are made of. And this is something that we've talked about many times on this show, so we're not going to spend a lot of time here, but just understanding that this very superficial term of calories, it's just one expression of what's coming through and what fuels the human body, it's a very simplistic view of things because all calories are not the same, the metabolic impact, the cognitive impact is going to be very different.

The same happens with our sleep, not all sleep minutes are the same. There can be high quality, efficient minutes of sleep that we're getting, so this will be akin to the Avocado sleep, and then there can be really crappy, low quality, inefficient sleep minutes that we're getting, that would be akin to the Cheeto sleep, the Flaming Hot Cheetos vibes of sleep. And so, we want to optimize our sleep, and that's what this episode is really all about. And we're going to start things off in dissecting how this is going to work, and also, I'm going to go through five specifics, I'm talking about the five biggest mistakes that people are making on a consistent basis that's literally putting a strangle hold and hampering their sleep quality, so we're going to go through that. But it starts with understanding what is controlling the system overall, what's controlling our sleep cycles overall.

And also, our day and night cycles, even our waking cycles, because we also have rhythms that are taking place when we're producing certain hormones and neurotransmitters during the day. Digestion capacity, cognitive function, all of these things are going to be influenced by what time of day it is. And the master regulator, and what's also noted to be our circadian pacemaker that's helping us to keep time in our bodies with all of the solar system, really, and also just with all the processes that are taking place. So, our circadian pacemaker is the suprachiasmatic nucleus that's located in your hypothalamus.

Alright, suprachiasmatic nucleus, also known as the SCN, is located within the master gland of the human body. So, the hypothalamus, and this is part of what you might have recognized

just thinking back to school, the HPA axis, the hypothalamic-pituitary-adrenal axis. But the hypothalamus is really functioning as kind of like the godfather of the scenario, it's the big boss looking over and managing everything. And within the hypothalamus, we have the suprachiasmatic nucleus, AKA our circadian pacemaker. And this circadian pacemaker's entrained to the 24-hour solar day via a pathway from the retina that synchronizes our internal biological rhythms. So, our input, the data that's coming in through our eyes and other means we'll talk about in a moment, is literally setting off and regulating the timing of all the things happening in our bodies. It's incredibly powerful. This is well established to be... The SCN, the suprachiasmatic nucleus, is well established to be the most important time synchronizer.

Reaching the suprachiasmatic nucleus is the light from our environment. And in addition to merely allowing us to see and to pick up light, this photic information that the retina's picking up, it's traveling via the retinohypothalamic tract, going directly to the SCN in our hypothalamus. So, there's this retinohypothalamic tract. So, it's kind of like the superhighway for visual light information to constantly try to get your brain and your body synced up with what time of day it is, in association with the solar system. Now, I really want you to get this because we have our lives, and we, being individuals who are living in this body and in this brain, we tend to be very limiting in our perspective, because truly we're seeing through our eyes, we're seeing through our point of view, and it can be very limiting. We don't really understand the bigger scheme of things, and our lives can become the entire solar system to us, just our little life. Even though we matter immensely, there's such a grander scheme that's taking place.

And so, our bodies and brains have evolved being synced up with the rotation of the earth around the sun and the moon around the Earth and the whole thing, the universal scheme of things. And today, we've really thrown a monkey wrench, a metaphoric monkey wrench into this relationship with our bodies and space and how we're associating with our environment. And so, this is leading to so many poor health outcomes. Now the suprachiasmatic nucleus also receives non-light information from within the body.

Now, this is information that's going to be coming from certain hormones and neurotransmitters like serotonin, like melatonin, like cortisol, informing our circadian pacemaker on what time of day it is because of this endocrine and nervous system feedback. So, it's not just about the light, it's also about how our bodies are associating with the environment in other ways too. So, the suprachiasmatic nucleus uses information from the retina about light in the environment and it makes adjustments to the circadian clock. Our SCN picks up information also, again from our endocrine system and our nervous system, about the environment, and it makes adjustments to our circadian clock that is also, again, controlling our sleep.

Now, this information is what's leading us into number one of these five biggest mistakes that the average individual is making today that's destroying our sleep quality. And number one is using technology, using light-emitting devices close to bedtime. Research from the Brigham and Women's Hospital, in association with Harvard University, suggests that the use of light-emitting electronic devices, tablets, some e-readers, smartphones, laptops, our television, in the hours before bedtime can negatively impact overall health, alertness, and the circadian clock, again, which synchronizes the daily rhythm of sleep to external environmental cues. So, it's helping to sync things up or dysregulate them.

During this two-week in-patient study, 12 participants read e-books on a light-emitting iPad for four hours before bedtime each night, for five consecutive nights. And they followed the same regimen with printed books, you know, those old relics, printed books. The researchers found that participants reading an iPad took longer to fall asleep and spent less time in REM sleep, rapid eye movement sleep, which we'll talk about in a moment. And they also had reduced secretion of melatonin because of their iPad use, which as I noted, this is the hormone that normally rises in the evening and plays a critical role in inducing sleepiness and regulating our sleep cycle. They also had a delay in their circadian rhythm overall by more than an hour.

So, it just threw off the system, it didn't really know what time it was, and so the test participants found themselves to be less sleepy at bedtime and were sleepier and less alert to start the day the following morning. Now, they specifically noted that REM sleep was thrown off, they spent less time in REM sleep, this is where a lot of memory processing takes place, so this is where you're consolidating your information that you're taking right now into your short-term memory. Some things are just heard in the moment, gone in the moment. Like you hear something, forget it. But getting implanted or filed away into that short-term memory is a big step, and that takes place largely during our REM sleep, and so when we're diminishing or damaging our REM sleep, this is going to inherently damage our memory.

And so, one of the researchers noted that, "We found the body's natural circadian rhythms were interrupted by the short wavelength enriched light, otherwise known as blue light from these electronic devices. Participants reading a light-emitting e-book took longer to fall asleep and had reduced evening sleepiness, reduced melatonin secretion, later timing of the circadian clock, and reduced next morning alertness." So, all of these detrimental impacts from being on electronic device close to bedtime. Now, just to be clear, this is more of... This isn't necessarily extreme today, so let me not say that either. But for somebody being on for four hours right before bed, that's a lot, but it's not that it's uncommon either. And so, if you happen to be on your device and watching a show, whatever the case might be, we don't want to go into a place where we're neurotic and it's just terrorizing our sleep, it's not like that. The human body is also very resilient in finding a way to optimize and evolve and adapt. However, this is a new

experience, this is a new environmental input that we have not had time to completely adapt to, so we can have these situational adaptations for sure.

But if we're consistently doing this thing that we don't really understand the impact that it's having on our minds and bodies, and we know that, again, this is a new intervention that we've never seen before, we want to be more cautious about it, but we also don't want to live in a state of neurosis to where we can't enjoy some of the advances that we've made, so where do we find a happy medium? That's what we're going to talk about as well, but also, I've mentioned this study back in the day, and as you probably know, that I wrote the first sleep wellness book, that became an international best seller, it was called Sleep Smarter, very, very grateful and proud of that, but so much has changed even in the field.

More data has been coming forward, that's just solidifying and reaffirming the things that were brought forward with Sleep Smarter, and now we've got a little bit of new data here, and this one was challenging, the fact that it's the blue light, that's especially bad and becoming this melatonin suppressant, and these researchers found that melanopsin, which is this is the pigment that helps our eye cells assess light brightness is particularly sensitive to shorter cooler wave links like blue light, which some research says that blue light may affect the body more dramatically than others, but these researchers were challenging that because they put together some animal studies specifically utilizing mice, and they showed that blue light may not be the big culprit that it's been framed to be, and so what they did was expose these little critters to a variety of different color light in the evening, and so this ranged from yellow to blue, and they found that yellow light actually disrupted their sleep cycles more than the blue light, which is...

Okay, just like What is going on here. Now, animal studies, we need to take note of this, have to be taken with a grain of salt, especially in regard to sleep behaviors, because mice, for example, this might not translate directly over into human sleep quality because mice are nocturnal, definitely much more nocturnal in their activity than humans are. So even having that association with this new research just being like, "Well, actually it's not blue light, it's yellow light." We don't want to just act like blue light is not the issue primarily for humans, so we got to take this with a grain of salt, but also I want to make sure that this point is made as well in this study, they kept the light levels dim as well for the rodents in the study, regardless of the color, which may not reflect the brightness of the electronics that we're utilizing as people today as well.

So, there's a couple of things here, a couple of holes in the study that might not translate to say, "You know what, it's not Blue that's the issue." What it really is for me is bring it to bear, it's not just blue light, just having bright light of any type that we're staring into in the evening when our brains and these receptors are trying to figure out what time of day it is, that's how



we evolved, we evolved with natural light, and so our bodies would always be synced up with the solar system, right? With the entire solar system and all of life, but today, we can throw off that connection, we can throw off that information by consuming, because our retina and our cells, even our skin has photoreceptors that pick-up light, it's informing our super cosmetic nucleus that, "Hey, I think it's this time." It was just like, it can't quite figure out what time of day it is, should we be going into sleep mode, sleep efficiency, all those things can get thrown off.

So again, new research has come out that it's not just the color of the light, it's the intensity of the light and that's the big thing to take away from this. And so knowing this bit of data, this is where we can actually start to implement some things, but we got to know what's creating the problem and what inspired this episode is actually a friend of mine who's been dealing with some sleep issues, and they were like, of course, they have supported Sleep Smarter for many years, been a big supporter of my book, but they are like, "Shawn, I have been sleeping dumb as f\*ck recently. Alright, I'm not sleeping smarter, I'm sleeping dumb AF."

And we'll talk about what that implementor or that kind of curveball that they're dealing with coming up in a moment, but one of the big ones that's causing us to sleep dumb AF as a society, is our exposure to artificial light in the evenings. And so, what I'm really articulating for us today, it is like, "Okay, we know about sleeping smarter, but what are some of the things that we can do to sleep dumb AF." What are some of those environmental cues and feedbacks and implements that can cause us to sleep dumber, and one of those, let's actually go through in association with light, is keeping the television on while you are sleeping. What are you doing?

Alright, that is a sure-fire way to have some crazy dreams, for sure. I just saw this clip with Mike Tyson doing the lip sync, and he was doing, "I push it. Salt and pepper." He had the tights on, everything. It was like watching a fever dream that I had one time. It was just like, "Oh..." It just didn't feel right. But falling asleep with the television on, sure fire way to have some weird ass dreams, but also this a sure-fire way to disrupt your sleep quality dramatically. Now, for some people, it's just there... This is true. It's still happening. And shout out, I love you still. I know some folks listening right now like, "Yeah, that's me, I do that." And this is love. Alright, it's love. I just want you to know, it's not just our eyes that... And by the way, that auditory data is getting in, that's how these weird dreams tend to take place as well. But also, again, our skin has photoreceptors that are picking up that artificial light and sending data to our suprachiasmatic nucleus, and really every cell in our bodies to inform, trying to figure out what time is it, because this is so weird.

We're just trying to sort this out. Alright, so researchers at Cornell University did a really fascinating study where they took a test subject and put them into an otherwise dark room, but they took a light just the size of about a quarter and placed it behind the test subjects'

knee, and that artificial light was enough to cause disruption to their normal sleep cycle. Their skin was picking up data, because again, we think our body is just this whole solid thing, but we're just a compilation of atoms and vibrating cells, and these cells are then coming together to create these communities. But this is the big point right here, each and every one of our cells, including our bacteria cells, have their own circadian clocks. So, these can be in the form of proteins or genes, literally clock genes. If we're talking about what is this circadian clock? What does that actually mean? We've now discovered there are clock genes that are responsible for these circadian clocks and also proteins, and these clock genes and proteins are responsible for creating or influencing your other genes and proteins. So, it's a master regulator of our biological expression. It's a pretty cool stuff, but again, we can just take a hammer to it and start banging away and breaking these clocks.

And so, if you want to sleep dumb AF, sleep with the TV on. Of course, it can happen, we might fall asleep with the TV on occasionally. Okay, cool. But if this is a habit, you might want to, especially if we're not experiencing the health that we want, you might want to look at addressing that behavior. So, sleeping with the television on, but also sleeping with the lights on, period. Now, there are wonderful shifts that we can make because some folks, they do deal with some fear associated with darkness, even though again, we come from darkness. This is where we are developed, and so this is something that our DNA will be a lot more comfortable with. But today, we've created and manufactured so many different traumatic things, traumatic experiences that have made humans afraid of the dark, something that we once had a beautiful kinship with.

And so, there are folks who are struggling with that, and so having some form of a night light or something of the like is understandable, but for the average person, we want to make sure that our room is dark and cozy as possible, so that we can allow our bodies to sort out the fact that, "Hey, it's nighttime." The suprachiasmatic nucleus can sync up our sleep sequence in the right way, and we can have rejuvenative sleep as a result, and so what can we shift to? Well, we know that humans evolve. If we did have some light in the evening, it was soft, reddish, orange-ish hue of fire, so we can look into maybe having a Himalayan salt lamp and having it on a dimmer where we just got a little bit of soft ambient light from that. And then there's also... NASA has even created some different lighting for... Because when you're in a space, you don't get the same inputs, but again, humans, we are not designed to be out there.

It's not how we evolved. We can do it, it's cool, we might need to figure that out. Of course, like the space travel Star Lord. All that, we might need to figure it out. But as of now, being in space tears people up. It just absolutely destroys their health. And so, some folks that are working with NASA actually sent me back in the day... They heard about Sleep Smarter. And so, they sent me some of the different lights that they use, and I got to tinker with them a little bit. And so, there is a nighttime light as well. And so having the TV on, sleeping with the lights on,

period, sleeping with your blinds open, if there's artificial lights outside, the streetlights and neighbor's porch lights and all that stuff, if you've got that, you need to get yourself some black out curtains. Make the room dark. Block that stuffs out. Now, I'm not talking about natural light coming from the moon, we evolved with that. It's good for you. The stars. I'm talking about your neighbor's aggressive porch light. Alright, that's what I'm talking about. If we have the capacity to get some black out curtains and/or... You could do this budget style. You get some aluminum foil. You get some aluminum foil, and you tape that bad boy up. I'm telling you this because I've done it, alright.

And so, there's many ways to go about this of creating a dark environment to improve our sleep quality. So those are just a couple of things that we do to sleep dumb AF, is an association with lighting, and of course, being on our devices late into the evening. So, what do we want to do? Give ourselves a little bit of a screen curfew, if at all possible, and I recommend just some minimum, start with 30 minutes of being off of your electronic devices before bed, ideally you want to be in that hour to 90-minute range, it's going to be top tier, but you need to fill that time with something of greater or equal value, it's very difficult, I know this. We're living at the golden age of television, there's always another episode, there's always another rabbit hole to dive into, and so it takes Herculean strength sometimes to be able to just not go into the next one, you know, there's cliffhangers, they're open loop specialists, and we can't just turn off the TV or get off of our smartphone, and then just sit there and twiddle our thumbs.

We're going to get jitters, we're going to just be like, "Let me just check one more post, or check my email, or check this, or check that, or I'll watch something short on YouTube instead of a whole episode." These are some of the conversations we have in our minds. And so, we have to fill that, replace that with something of greater or equal value, that's the key, that's the key for a habit change, and so maybe you plan on getting to bed at 11:00, so it's lights out for you with the technology, we'll just say it's 10 o'clock, so what do you fill that hour with? That hour can be filled with... You could listen to a podcast at this time, you don't have to stare into your phone to listen to a podcast or an audio book, or you could read a physical book, as was noted in the study, you could hang out with a friend or a family member you can get onto a call if you're not in the same space, and what could be more valuable than that, your significant other, hanging out with them and having conversations and talking about things.

Also, this might be a time to have a little humpty hump, have a little bit of roll in the hay, you could do that. And also, there's pretty remarkable data on how sex is a great implement as far as improving our sleep quality, and actually there's a chapter dedicated to this in Sleep Smarter, looking at how sex impacts our sleep quality and also how our sleep quality impacts our sex. And so, it just happened to be that the chapter is on page 69, I didn't know, I didn't lay the book out, this was major publish, I didn't know, somebody told me, little fun fact, I had no

idea. So, we have to, again, replace the electronics with something of greater or equal value, whatever that might be for us, maybe it's journaling, there's so many different things that we can use, but it's tapping into what makes us human instead of outsourcing our attention and needing to drive all these artificial pixels into our inner space. So really powerful stuff, really simple, this is not to vilify our technology because it can be used to great advantage and impact in connection in our lives, but also there is a dark side to it that takes away from the darkness that we really need, which is what's required for us to have high quality sleep. So that's number one of these five biggest mistakes that people are making today, the average person is making, that's destroying our sleep quality.

We're going to move on to number two, and this is a pivot directly from one of the ingredients in making our bedroom a sleep sanctuary, and I mentioned making that bedroom dark and cozy as possible. The second one here is the biggest mistakes that people are making, raising their body temperature too high at night, so this includes having it too warm in our bedrooms, a growing body of data has indicated that insomniacs for example, we'll start here, this is individuals that have documented chronic sleep issues tend to have significantly warmer core body temperatures in the evening compared to individuals that are considered to be "normal", so an insomniac versus a normal individual who's just trying to get some shut eye, the insomniac, their core body temperature tends to run hotter in the evening. To help combat this issue, researchers at the University of Pittsburgh School of Medicine conducted a study to find a way to cool insomniacs off and determine if that did in fact have an impact on our overall sleep quality. During the study, the test subjects were fitted with these "cooling caps" that were placed over the test subjects' heads and contained circulating water at a cool temperature.

What the researchers discovered was that by the end of the study, and this was shocking to them, when the participants wore the cooling caps, they fell asleep even faster than people who didn't have insomnia. I'll say that again, when insomniacs wore the cooling caps, they fell asleep even faster than people who did not have insomnia in the study. With the cooling caps the insomniacs took about 13 minutes to fall asleep compared to the 16 minutes for the healthy control group, what's also interesting is that the patients diagnosed with insomnia ended up sleeping for 89% of the time they were in bed, which was the exact amount of the time the healthy control group slept in bed.

Essentially, as a result of this one intervention, these folks no longer had the symptoms of insomnia, this study demonstrates that cooling the body temperature helped to "balance out" those chronic sleep struggles with, listen to this here's another one, 75% success rate. There are very few treatments on the market that even come remotely close to that, from the drugs to the devices, from the Posturepedic, orthopedic, Tempur-Pedic mattresses, doesn't even come close to the impact that cooling the body off did, again, 75% success rate for these

individuals. Another study, and this was published in the peer reviewed journal Brain, scientists had participants wear thermo suits. So now we're getting into the... Not just the head but the thermo suit, to lower their skin temperature, here's the key, less than one degree Celsius.

Without affecting their core body temperature, this was just a skin surface temperature, again, less than one degree Celsius, to measure its impact on sleep, the results show that the participants didn't wake up as much during the night by having these cooling Thermo suits and the amount of time spent in stages three and four, deep sleep had increased, they increased their amount of time in the most anabolic state of sleep as a result of this intervention. Now, this is remarkable obviously, but here's the thing, where is this internal thermostat that's regulating our body temperature? Where is it located? When you open the door, when you look inside this internal thermostat and you open the door and see where it's located, it's located within the hypothalamus, same as the suprachiasmatic nucleus that is regulating our overall circadian timing system. So, this really glorified circadian pacemaker is located in the same place that's regulating our body's temperature at all times. So, there's a very close association that I want to make sure that you realize, you understand, you embed, because our temperature in the evening does in fact, matter and it matters deeply.

And this is based on our evolution as a species, evolutionary biology, no matter where we're located, even if we're in a place that it's hot even in the evening. I've been in places where even in the evening, it might be, we'll just say 90 degrees, but during the day, it's hotter, it might be 20 degrees hotter during the day, but in the evening inherently, no matter where you are, the environment is going to cool off. So even if it's hot as hell in the evening still, it's still cooling off from what the daytime temperature, there's a natural ebb and flow with our body temperature. We have this very superficial understanding about our body temperature as well, 98.6 degrees is perfect, 98.6. No, the human body, the temperature fluctuates constantly throughout the day, and there's a natural drop in our core body temperature in the evening to help to facilitate sleep. It's kind of like the off program for daytime activities and the on program for the nighttime activities within the body, so it's signaling reparative enzymes and hormones to kick into gear and also to help to regulate our sleep quality, and again, one of those signifiers from the environment is the temperature.

Now, how do we utilize this to the greatest effects just as the average person living in this world? Do we need to get some thermo regulating spacesuit? No. We could simply... We have a great gift today; the average person can regulate their temperature in their environment. We have thermostats that we can turn up and down, have heat and air conditioning, those type of things, and in the evening, according to the data, it's optimal that the room temperature is between 62- and 68-degrees Fahrenheit at night. That's what the data indicates again and again and again. For a lot of folks, it's going to be like, "Yeah, that's cool, that's where... Literally, that's cool. That's where I like to vibe at. That is where I like to sleep at." And

for other folks it would be like, "Oh, that sounds frosty. That sounds like Frosty the Snowman vibes to me, but it sounds like it's cooler than a polar bear toenails." Alright. But I want to reassure you, this doesn't mean that you can't have your cozy blankie. This doesn't mean that, that you can't have some warm socks on. Alright, this just means that the environment again, because especially like your head as indicated in the data, just being a... That's why the other side of the pillow is cool as the other side of the pillow. Like that's a cultural thing. It just, that feels nice.

So, if you can, you can help to... When it's nighttime, this is what we do, this is what I do every evening. I allow the environment to kind of self-regulate a lot, to be honest, but in the evening, if it is above 70 degrees, I will put that thermostat down to 68, which is... That's the happy medium. I would personally put it cooler, but we tend to have these balancing acts with our significant other. One person in a relationship tends to run a little bit warmer, one person tends to roll a little bit cooler. That can vary, of course. It's not a blanket thing, that's always the case, but for my wife, she's from Kenya, she came up in circumstances where the environment was just warmer, and so being in an environment like when we met, we lived in St. Louis. And so, we get those winters, alright, we get that Winterfell vibes. We actually get really cold temperatures and just to see her battle through that unhappily, just mad, cold and mad, and even in LA, this is a true story at this very moment as I'm standing in my studio recording this right now, there is a 75% probability my wife is at home, it's LA, sunny LA. She's at home right now sitting by a space heater. I'm not kidding. 75% probability.

Now, with that said, is that a good idea? No, probably not, but she's perfect. Okay, so don't tell her that. Alright. She's perfect. She could sit by her space heater, be warm and cozy. But we found that her sleep quality is better when the environment is cooler. She's tested this out herself and also our bodies tend to rebel and bounce back, because the environment might be... For me, my body self-regulates a little bit easier to where if it is warmer in the environment, my body just kind of self-adjusts, whereas for her, she'll sweat more. She'll sweat more if it's warmer. Okay, again, she's perfect, perfect sweat droplets. Take that to the bank. Alright, make note of that. That is my... That is on record. But just understanding if we give our bodies opportunity just through the day even to self-adapt, which we tend to be these creatures of comfort, we're always looking for that perfect temperature, so but especially though, however, in the evening, if we can make a concerted effort to make sure that our environment is cool in the evening, it will in fact, improve our sleep quality.

Alright, so that's number one, we can regulate. We could change the thermostat. So that's one of the actionable steps here. Another one is to not wear too much to bed, alright? So, we might go to bed in this cooling environment, and we bundle up, we put on sweatpants and sweat shirts, or whatever the case might be, or whatever, flannel pajamas. Alright, flannel pajamas. You've got the wool. You might have that wool pajama as well. It just makes you a little bit too

warm. It's nice at first, keeps you nice and warm as you slip into the coolness, but then as the night goes on, you end up overheating. And so, I've woken up many a day and seen my wife's socks over on the floor or whatever, she kicks them off in the nighttime. It's just so strange, but I appreciate it 'cause her feet to be cold as hell, to be honest. Alright, she put them on me, it's the only time I say explicit. I say explicit directed at her when she put the cold dead body feet on me.

And so, with that happy medium is wear them socks, but again, during the night, the body gets warm, socks come off. Alright now, so don't wear too much to bed. Now, let me tell you this one. This is one of the things that, for me is one of my favorite things about going to bed. I know this is going to sound weird. I love going to bed because I'm slipping into these sheets that we have. Do you know what it's like to sleep inside of a love poem? Do you know what it's like to sleep inside of your favorite love song? That's what it's like slipping into the sheets that we have. We have these thermoregulating sheets and they're antimicrobial, they're self-deodorizing, they inhibit bacterial growth and create a healthy sleep environment. And they're also breathable, moisture wicking, and they're thermoregulating as mentioned, and they're made from organic bamboo lyocell. Now this sounds super fancy pants, which I would have never in a million years...

When I met my wife, I was sleeping on the sheets... I met my wife when I was 24, and I was sleeping on the sheets that my grandmother gave me when I moved away to college, when I was 17. I'm embarrassed. I'm embarrassed, alright? Same sheets, alright? So, I wouldn't have known that this even mattered. But this is also important, because the materials that we're making all of these kinds of conventional items out of, they're not good for the environment. The cotton industry, period. It's just like, it's nuts once you start to look into that, but these sheets are made from organic bamboo lyocell. They're 300 thread count, is as fine as 1000 count Egyptian cotton, and it only consumes about one third of the water. And this is the biggest key for me, and what it was like, "Okay, I'll try these out," no harmful chemicals utilized in making these sheets, which is not common for our mattresses, for our pillows, for our bedding.

The industries, the flame retardants, the chemicals, the toxins that are utilized to make these things are nuts. It's crazy, that whole industry is crazy, and now we have sound data and how this is affecting our health overall and of course, disrupting our sleep quality. And so, the sheets that we sleep on are from Ettitude, not attitude, Ettitude with an E. And it's [ettitude.com/model](http://ettitude.com/model). That's E-T-T-I-T-U-D-E.com/model. And I just talked with them, I was just like, "You know what... " Because we had just got some ourselves, they didn't send them to us, we bought some more because just like we... I don't want to sleep on anything else. Once you sleep in these sheets, it's just like, "Man, this is what it's all about." And so, I was just like, "Let me hit these guys up and see if I can get a special discount, an upgraded discount." They're

giving 15% off, alright? 15% off. Use the code "MODEL15", go to [ettitude.com/model](http://ettitude.com/model), that's E-T-T-I-T-U-D-E.com/model. Use the code "MODEL15", get 15% off your first purchase.

There's no limit on their bed sets that you can get, the sheet sets, the pajamas, oh no, come on, they got the bamboo lyocell. Oh, my goodness, I'm telling you right now, you heard it here first. Silk Sonic is going to change their name to Bamboo Lyocell Sonic. I'm telling you now. Once they find out and get these on their body, that's what's going to happen. But here's also the thing that really just took it to another level. They have a 30-day sleep trial. So, you could sleep on them, dream on them for 30 days. If you don't absolutely love them, send them back, refund. You have nothing to lose, everything to gain as far as your sleep sanctuary, and upgrading your sleep environment, and creating that wonderful place that you love to slip into those sheets and get some great sleep at night. So again, go to [ettitude.com/model](http://ettitude.com/model), use the code "MODEL15". And in addition to this, as we're looking to optimize and support this natural process of thermoregulation, thermoregulation is the body's ability to adapt to its environment, and also again, our temperature is changing based on what time of day it is.

Another thing that we want to do is to avoid proactively elevating our core body temperature at night by exercising too late. That's one of the things that is... Me running a clinical practice, and people coming in they're dealing with sleep challenges, one of the consistent things that I would see is, of course they're working 9:00 to 5:00, or 10:00 to 6:00, whatever the case might be, and they're trying to get to their Brazilian Jujitsu class, and it's only like at... They only got a 8:00 PM class, and they're trying to get to bed at 10 o'clock, and they leave the class at 9:00, and they're trying to eat and just like, "Woah, that's the problem. That's why your sleep quality is so bad, that's why you're struggling to fall asleep. Is that you just finished rolling with people in your class and your cortisol is high, and your body temperature is too high," right? And so, we'll also talk about that one, the cortisol, in our next point here, but just understand that if we want to optimize our sleep... This isn't to say that you can't work out after work, but you've got to have some cushion there for the pushing.

You've got to have some cushion to make sure that... Give yourself at least, I recommend two hours. You can even do some supportive things, again, that we already covered to help to cool off the environment, alright? So, this is another thing to avoid if we can, and it's one of those things, it's just like a smoking gun, just very captain obvious, but it might not be if we're in it, because... And I've seen it again and again and again. Folks take this one piece of advice, after they found another way, they're just like, "Well, you know what, I'll just go to this other class, I'm going to shift my schedule. I'm not going to act like this is the only time in life that I can do this thing." And they stop working out so close to bedtime and their sleep improves, dramatically. Just from that one thing. Alright, so moving on, this is going to transition us over into number three of these five biggest mistakes that people are making that are destroying our sleep quality today.



Number three is, raising their cortisol too high in the evening. This is coupled with this 24-hour fitness phenomenon. We've got 24-hour gyms, I guess, they're trying to compete with the 24-hour drive-throughs. I don't know. But why do we need 24-hour gym. Alright? We're encouraging very abnormal behaviors, because I'm telling you this from experience, because I would utilize that. Alright, when I was in college, I would even play... I played in the Midnight Basketball League, and I'm not exaggerating. Alright, midnight, we get there like 11:30, and then we hoop at midnight. Crazy pants. It was fun, it was fun. My sleep was trash, I was accelerating my aging process, the list goes on and on, fun though. It's because it was a thing. I've also worked out late at night as well because it was open, and so... But not to say that, of course, people are going to be operating on different schedules, we have people who are night shift workers who we need and who are offering a valuable service during those times, emergency services, the list goes on and on, who should have access to these things.

But with the right education, you could find a way to optimize things no matter what our schedule is, but we also... That comes with a caveat that humans are not nocturnal. We are day walkers. Alright, we're day walkers, I'm not talking about Blade, alright? Shout out to the Marvel universe, Blade is coming. We're day walkers, and we might say, we're a night owl, this whole thing. You're not a now an owl, you in fact are not an owl. I dare you to hoo right now, and I know some people just hooed, okay, I hear you. It sounds like a human hooing to me. Alright? You're not a night wolf. You know, I'm a lone wolf, I'm a night owl, all those things. Cool, sounds cool. But in reality, your genes expect you to be sleeping when it's dark and to be up when the sun is out, alright?

Now, this operates on a spectrum, by the way, because there are people who have genetic tendencies towards sleeping shorter amounts of time and also being up later, so that's not to negate our uniqueness. Okay? This is not some black and white thing, alright? Because throughout our evolution also, there were times, of course, where there are people who were watching out, who were keeping an eye out in the evening for the rest of the village. Who is at the watch tower, but a very, very small part of the population? A very, very small part of the population. So, what we tend to do though, is that we habituate the behaviors of being up late at night, all the way back from our childhood. Or we're picking that up from our parents and that environment, we don't even know that we're doing this, and then we find ourselves in adulthood and we're just like, "Yeah, I've always been a night owl." Really?

I mean, as my mother told me, really? There's always a lineage to where the behavior got picked up, because truth is, our circadian timing system, we're talking about solar system association. And I don't want to be that guy just like taking the owl away from you, alright? If you're just like a night owl, that's your thing. I'm not here to try and take that away from you, maybe that is your spirit animal. Alright? You can still stay true to that, maybe wear Drake's

clothes. You know, you got the Owl, the OVO, whatever, I get you. But I'm speaking to this huge issue going on in society, which is, we've created these abnormal conditions to where we're no longer allowing our bodies to be synced up with all of life, and it starts with having a good heart-to-heart and being honest about these scenarios and stacking conditions in our favorite. Not to say we can't stay up and kick it. Alright, because the aforementioned Silk Sonic, I was there, I was at the concert, and my wife took me to Vegas, very strange experience. Every time I've gone to Vegas, I was speaking at an event, so I never did Vegas stuff.

Alright, but she took me... She was like, "We're going. We're leaving LA, we're going to go to Vegas. LA is on some crazy... We're going to go to Vegas." Alright? So we went, Silk Sonic, everything started at 9:00 PM. Everything started in Vegas at 9:00 PM. No 7:00 PM, which I would have preferred, but everything is not... But I indulged, I did the thing. Of course, and there's the aftereffects. You know what I mean? And it was a wonderful experience, and these are things that we can engage in and take advantage of, but it's what are we doing consistently. So, raising our cortisol too high in the evening as a result of working out to late, but also stressing, stressing. Have you ever noticed a pattern of when you might have conflict with your significant other, a lot of folks have realized it, it tends to happen late at night before bed, what the...? Is going on there?

What happens is, there's a change taking place biologically, where we think we're... Again, we think we're so evolved, but we in many ways are just big adult babies. What happens when a kid is sleepy? Oh, they get cranky. The kid gets cranky. Not you. Not you adult. The kid gets cranky. No, we do too, okay? It's called being tangry. Tangry, tired and angry. You've heard of hangry, there's also tangry. Tired and angry or irritable. Alright? And this is... Again, it's one of those things that just as the day goes on, and these biological processes start to shift from even our serotonin production is shifting. Our serotonin is just kind of feel-good neurotransmitter, good vibes. We're getting melatonin. Serotonin is the precursor to making melatonin, which is just kind of glorified sleep relating hormone, but it's so much bigger than that, of course, as we know, because it's regulating our sleep cycle, and cycles happening during the day, melatonin is critical in that.

And so, with the diminishing serotonin, with changes with cortisol shifting, our insulin sensitivity's changing in the evening, these are all ingredients that can make us a little bit more irritable, where we find ourselves being a little bit picky or picking at somebody that we love, alright? So, maybe you've noticed it. So, we might manufacture our own stress in the evening, or of course, life stress just in general can elevate our cortisol in the evening, so stress is one of those things. This is another cultural phenomenon that we see people that are stressed, they don't have as high-quality sleep as they would like, as well, stress can create disruption with our sleep, because cortisol in many ways, is the antithesis of melatonin. They're kind of

like Batman and the Joker. But I don't want to villainize cortisol, by the way, cortisol is not a bad guy, so let me not even use that analogy.

It's just kind of like two sides of the same coin. They're both needed, they both work together in a strange way, but you can only have one side up at a time. So, if cortisol is getting driven up, it's definitely not going to allow melatonin to function in its optimal place. Alright? So, that's one of them. Also, television, of course, watching things that might excite your body, even of course, being on the Internet as well, Instagram, things that might agitate and excite your system. You might be sleepy, but if you're staring and watching what... I don't know, Fast and Furious 9. Apparently 10's coming. Alright? 10's coming. 9, not good, not good. I don't know if you saw it, but if you didn't see it yet, make sure to not see it, because you would just want to be like, "I can't get this time back." Alright, now I'm a fan, I'm a fan of the Fast and Furious franchise. Alright, there's a lot of F's there. I'm a fan. Alright? Super respect.

Love the franchise. 9, lost its way. It lost its way. Alright? They had a Fiero in space, alright? Spoiler alert. They had a really old, crappy car in outer space driving that bad boy. Driven by Ludacris and Tyrese. Yes, they strapped some massive rockets to a Pontiac Fiero, and they found themselves in outer space. Dude, how did they... From gritty street level to like... Let me stop. So, but watching that can still excite parts of your brain, even if you're tired. It's like firing, because also we have mirror neurons that are mirroring and watching, and even simulating us being the person that's doing that stupid behavior, which is driving... Somehow finding this Pontiac Fiero with these giant rockets in outer space, okay? And I'm in the car, okay? Very strange. That's probably why I was mad at myself for watching it, 'cause I was mad at myself for being in space with these guys. Which would probably be really cool, if it was a real thing, that'd be a pretty cool story, you know?

So, me and Luda, Tyrese were hanging out in outer space... Never mind. Alright, so television, so be mindful even what you're watching before bed. For some people, again, if stress is an issue for you and cortisol, you have abnormal cortisol rhythm. Alright, so another one that's often widely looked over, that I highlighted in Sleep Smarter, because specifically for me, this is one of the biggest eye-opening moments, when I was spending all that time in research and experimentation, and also of course, working with clients over that time. But this is from research presented by Deacon University in Australia, and this was looking at how eating a meal impacts your cortisol levels, alright? So, this is a really interesting phenomenon for us to all just kind of take in for a moment, that eating food is actually a physiological stressor to the body. Alright? Now, this does not mean that it's bad. That's the whole thing about this black and white stress is bad. It's not, stress is wonderful. And we need stress in order to grow and to live. Every single moment, every cell in our body is experiencing stress, and adapting to that stress. Every second. Just going from the outer space thing to gravity, here on earth.

Gravity is trying to crush us. It's trying to kill us. But we have persevered. Our cells, our bodies have adapted to this gravity. Right? So, every cell in our body is constantly placed under stress, and whether it's environmental inputs, inputs from our psychology, stressing ourselves, stress is always happening. It's not that stress is bad. But it's that ebb and flow, being able to have the stressor and the adaptation. And so, eating a meal is stressful, because it's such a big undertaking. You're taking stuff from the external world, and you're putting it into your body, and your body has to then turn that into human tissue. That's not an easy job. If you were given that job on... I just get you like, "Here, I'm going to give you this job to turn this..." I'll go back to the avocado example, turn this avocado into some elbow cells. Alright? Here you go. Figure it out. You can't. Like, that's impossible. That's just not how we're wired up.

There's a level of miraculous behavior that the body is undertaking, that we have no idea the magnitude of how incredible it is. We're turning food, external things, into human tissue. Wow. Really, really cool. But also turning it into energy and being able to then utilize that energy or store the energy, and all these other things that have to take place when we eat something. This is why research has indicated that our cortisol goes up when we eat a meal. And that's okay, but it's just a small amount. It's just a tiny amount. But there is a catch here, there's a catch, where it becomes a big amount, and this is where we get into the domain that this could be disrupting our sleep. Again, research presented by Deacon University in Australia showed that after consuming a meal, overweight individuals secreted radically higher levels of the stress hormone cortisol. People with a healthy weight showed about a 5% increase in cortisol levels after consuming a meal. Alright? That's in that range of norm.

While overweight and obese individuals, cortisol levels increased by a whopping 51%. There was a significantly higher amount of stress that was induced on the body when it's in a state of being overweight or obese and handling this food that's coming into the body, this entity coming into the body, that it then has to sort out and process. Now, why does this matter with that high cortisol response, translates to number one, higher blood sugar. This goes hand-in-hand, this is why it becomes a vicious circle and so difficult to reverse when we're doing the same behaviors and not addressing the underlying causes that... This stress from just eating a meal, but the quality of the meal matters, the state of wellness as far as sleep matters, of movement matters, of stress matters, all these things matter to help to fix this. But if we're just looking at in terms of like cut calories, try lose weight, lose weight, not understanding, when I'm eating a meal, I'm trying to lose weight, but it's dramatically increasing my cortisol levels, which is then dis-regulating my blood sugar. We're now getting to the heart of the matter.

Also, those high cortisol levels translate to lower insulin sensitivity, increased levels of inflammation, keeping the cycle of inflammation going. Because when we venture into a state of obesity, our fat cells are essentially chronically emitting a stress signal that is then inducing

the activity of our immune system, because it's just like a stressful event with the fat cell trying to hang on to so much energy that it was not really designed to have, and this has become a normalized phenomenon in our culture today, that is anything but, alright? The human body is incredibly resilient, we're adapting, we can adapt, we can adapt, but what that does is it just brings on all manner of chronic diseases come along with that state of obesity. That state of obesity and abnormal metabolic health, this is tied to nine of the 10 leading causes of death in our world. So, whether it's from heart disease, from diabetes, from liver disease, the list goes on and on, all of that morbidity skyrockets when we venture into obesity because of the impact blood sugar has. Blood sugar dysregulation/obesity, because it just really creates such a more difficult medium for the human body to operate in.

And so, I want to bring this one up here as one of the ways that we might be elevating our cortisol too high in the evening. And so, this gives a little bit of credence to the tenet of not eating too close to bedtime. This is where it actually has... This isn't about like, "You're not going to burn the calories," that kind of thing. The human body is still doing its thing when you're sleeping as far as calorie burn and that whole thing, and actually during sleep is... The end point for caloric energy leaving your body is through breathing, you lose quite a bit while you're just sleeping, but of course, we have to have the first dominos to be knocked over, but metabolism doesn't just stop because you're asleep, alright, but more so it's what it does to your hormones, and that's what we need to be mindful of. So, especially if we're venturing into a state where we're trying to... We want to lose some weight, we're overweight or obese, we want to be mindful to give ourselves ideally at least just two hours before bed, to give our body some time for that cortisol to retch it back down.

Alright now, my friend who I mentioned, who inspired this episode of instead of sleeping smarter, they're sleeping dumb AF, also another corporate here that could be elevating our cortisol in the evening. She just underwent a surgery where that required her to be on a certain medication and that might be a corporate behind some abnormalities taking place with our sleep quality. Medications are one of the most overlooked areas because again, it was just like, all this medication does is one thing, no its operating in a body that's hyper-connected, everything's connected.

There's no such thing as a side effect, there's a direct effect. And so, one of those consistent things that take place with a lot of even pain management medications, is creating disruption because it's going to inherently impact our liver function that's responsible for drug metabolism, our brain function. They're creating disruption to our endocrine system, the hormones that are communicating between the cells of our bodies about what's going on, our nervous system, it's communicating between the cells of our body as to what's going on here. It can throw a little bit of a curve ball in there, that can result in some abnormal sleep, so medications. So, we might want to venture, part of us healing our sleep quality and reducing

our cortisol in the evening, is putting a target on the board if we can, to get off of the medication along with our doctors and not have that to be that curve ball that we're constantly trying to hit.

Alright, so that's number three here on a list of these five biggest mistakes that folks are making when trying to get a good night sleep, and we're going to move on to number four. Number four, biggest mistake is not getting natural light in the morning, one of the biggest takeaways from sleep smarter is that a great night of sleep starts the moment you wake up in the morning. We tend to associate sleep with just all the night-time-related stuff, but truly, we're trying to sync up and set that circadian rhythm back on track again. And this starts with... Again, just looking at human evolution, getting access to natural light, to sun exposure. And here's why these matters, as the data indicates, getting exposure to sunlight in the morning prompts the release of notable wakefulness/daytime hormones and neurotransmitters.

So, it sets the pace starting to get that timing system back on track. Sunlight appears to cue special areas within the retina that cues the release of serotonin. And so, serotonin is this kind of glorified dual neurotransmitter/hormone as this feel-good neurotransmitter. And so, so many processes branch off from that associated with daytime, with sun exposure, but here's the key, serotonin is the precursor for making melatonin, it's kind of like the opening act. And then we got the main attraction, which happens in the evening. Shout out to Coachella, the main attraction, which is going to be melatonin, we need serotonin in order to build it.

Also, human skin itself, just getting sunlight on our skin, human skin has an inherent serotonergic system that appears to be capable of generating serotonin. Just getting that warm energy on our bodies promotes the production of serotonin. Now, where do we see this in the data? I want to call out and look at a population... This is why I talked about even insomniacs, people who are dealing with significant sleep struggles and the impact that we can have just optimizing temperature. But another group who is well noted to have sleep troubles is in the elderly, sleep quality tends to deteriorate in the elderly. But recent data indicates that this practice of getting natural light exposure in the morning can improve things for this age bracket as well. A study published in 2017 titled, "Effect of natural sunlight on sleep problems and sleep quality of the elderly staying in the nursing home", found that exposure to direct sunlight between the hours of 8:00 AM and 10:00 AM for five days was effective in increasing the study participants sleep quality scores. And so, this is one of the most popular quantified sleep quantifying sleep score systems that's taking in sleep latency, sleep time, sleep efficiency, all those things into factor, into a number. And they found that their sleep scores improved just by this one practice, just by getting some early morning sun exposure.

But the study also noted that this is not something that's common. Are elderly population finding their selves in these situations? They're not encouraged to get outside in the morning,

you're in this kind of habitual... In some instances, is like a prison state where you got to abide by certain standards and structures. But one of the things that's overlooked is just sleep qualities and just abnormal just because. It's because we've become so abnormal in our inputs. And so how can we utilize this for ourselves? Not just for ourselves but the people that we care about, for our children, for our grandparents, these are things that need to be re-encouraged because these are things we once did forever, forever, forever. But today, to become the exception and not the rule for many people. Now, one other really cool thing about this and why I want to specifically target this one and looking at just how much getting natural light in the morning can impact our sleep quality, research published in the journal Innovations and Clinical Neuroscience found an additional bonus here with getting early morning sunlight. Exposure to sunlight significantly decreased cortisol later in the day. So, getting sun exposure in the morning decrease cortisol later in the day compared to being exposed to dim light during the day.

So, getting that sun exposure in the morning versus getting dim light exposure in the morning, artificial dim light, decreased cortisol in the evening. We know that cortisol is an enemy in a sense, I use that word lightly, but it is a deterrent for high quality sleep. So, the research has indicated that by getting more exposure to sunlight, you set the tempo for a normal cortisol rhythm and a normal melatonin rhythm as well. And that's what it's really about, it's setting the pace, getting an optimal cortisol rhythm going. Because the way that our biology is wired up, cortisol should be elevating naturally in the morning. Again, it's not that cortisol is bad, it's a daytime vibe, it's a daytime related hormone. And it's really that get up and go, and cortisol has so many wonderful benefits as well, even like with our thyroid function. Cortisol is key in that. So again, with our metabolism, cortisol matters, and so we should have a natural rise, but then it should gradually decline as the day goes on and bottom in the evening in association with the rise in melatonin. So how can we help to reset that cortisol rhythm? Get some early morning sunlight.

How can we reset that cortisol rhythm? Get some exercise in the morning. That's when we need to get it. This doesn't mean we can't work out after work but get in a little bit of time in the morning to reset that cortisol rhythm. This is another tactic that I would use in my clinical practice, was getting folks to do just even five minutes of exercise in the morning to get that cortisol secretions. Because what we would call them clinically, and of course, being able to test and look at hormone panels, we call them tired and wired. Alright, so this means they were tired in the morning and wired up in the evening. So, they were trying to get some sleep. They just tend to be up, "I'm up, right, I'm up." And in the morning dragging to get out of bed because that cortisol rhythm was sometimes flipped, but often times just a little bit out of sync, and so helping to reset that cortisol rhythm, one of those tactics, getting early morning sun exposure, another one, getting some early morning exercise. Again, just even five minutes, so you can go for a power walking outside, do a little bit of power yoga, whatever the case is, jump on a

mini trampoline, do some Tabata, whatever, and even you can stack these habits, you can do both at the same time, you can get some early morning sunlight and do that little bit of exercise together that's going to help you to sleep better in the evening.

Alright, so some power tips here for this particular portion is that our body clock is the most responsive to sunlight in the morning, is between the hours of 6:00 AM and 8:30 AM. This is going to change depending... Because we invoke this day light savings time phenomena here in our country, 48 of the 50 states do this, and so this is going to teeter back and forth very wrongly, by the way, let's just be clear on that, we should not just be haphazardly changing our clocks as a society twice a year, it's bananas that this is even a thing. And we did an episode dedicated to this that we'll put into the show notes because now we have some new legislation, it's already passed the Senate, the Sunshine Protection Act. There's some big flaws in it, the intention is cool, but we got to talk about that because we could end up in a situation where... And the shortest day of the year as of now, in New York City, for example, where it's not a place where they're getting more sunlight than other places. If you live in Arizona or something like that, or Texas, you're going to get more sunlight during different parts of the year. But New York is higher up there, and the shortest day of the year is going to be December 21st. And on December 21st, currently, as things are now, where we have day light savings and we switch back to standard time, the sun is rising around 7:30 AM on the shortest day of the year.

If we stick to this legislation that's passed and it passes through the whole shebang and it becomes a societal norm, when we no longer change the clocks, which is a good thing, but we stay on daylight savings time, from now on, on the shortest day of the year in New York City, the sun isn't going to rise until 8:30 AM. What? That's bananas and pajamas. So again, people, we dive in because there are pros and cons to analyze, of course, 'cause we're going to have more light in the evening afterward that whole thing, but that's a social construct and not what our biology... What's best for our biology, we require, as we've covered, sun exposure in the morning, we require that and less light in the evening, so we have to take these pieces into consideration, definitely check out that episode for more on that, but bottom line here is our bodies and optimizing this cortisol rhythm, melatonin, it is most responsible to early morning sunlight. And so, if you can get some sunlight, some sun exposure during that first couple of hour window, we'll just say two-hour window of when the sun comes up, that's going to be ideal to set the pace for your system. And also, another power tip here is, helping to sync up this suprachiasmatic Nucleus is the sunlight coming in through our retina.

I'm not saying stare at the sun. Alright, that's not what I'm saying, just the ambient light in your environment, but you're not even going to pick that up if you rocking the sunglasses. Alright, we got to ease up on the sunglasses. And this is not to say you can't look cute, you can't do the sunglasses or that it could be too much sun, of course, but that tends to happen later in the day by the way, the sun tends to be a little bit more aggressive once we get to the afternoon



period, but during the early morning, you don't need to wake up and throw on sunglasses and go out the house, come on, you're throwing off and again, your body's association with the light in your environment is throwing off the opportunity to get things set in a nice rhythm, not a hit against using your sunglasses or having some nice sunglasses. I'm not trying to take that from you, but as Mike Posner said, "You think you're cooler than me." I'm just kidding, I'm just kidding, it's all good. We can utilize the sunglasses in appropriate times, but also have some time where you're not covering your eyes in darkness during the day, alright. Let some of that ambient light in to get things synced up.

And also finally here, just because we might have these cognitive arguments coming up, "Well, I can't get sunlight in the morning." Where there's a will, there's a thousand ways. Find a way to work it in. This might be maybe you go to work, and you get up and you immediately... Or at work, maybe 90 minutes into your shift or whatever, you get out and get some sunlight. Or 90 minutes into starting your day, when you get to work, maybe take a break early. Or whatever the case might be, maybe there's a place in your office building that you can go and you can get some ambient sunlight coming into the room. Now, this is getting into a conversation too about sunlight coming through the windows versus natural sunlight on your skin. That's a whole conversation in and of itself, and I do talk about that in Sleep Smarter, but bottom line is, number one, just getting some natural sunlight in the environment that you are is going to be super helpful. So, we just want to start there, and then we can look at perfection in another time, but make this a mandate, within the first two hours of the sun coming up, get at least just 15 minutes of sunlight, natural light, preferably on your skin, outside, but if not allowing some in, ambient light, opening up the windows, just let the sunlight do it's magical thing.

Alright, I'm going to move on. Now we're at number five here on the five biggest mistakes that people make when trying to get a good night sleep, and number five is eating and drinking things that screw up your sleep quality. In addition, not eating and drinking things that improve your sleep quality, that are required to make your sleep-related hormones and neurotransmitters. So first, eating and drinking things that screw up your sleep. Number one, this is nuts, a six-month study conducted by scientists at the University of Copenhagen, found that the consumption of added sugar and sugar sweetened beverages can lead to an objective loss of one hour worth of sleep each night. Sugar, sugar, sugar can just tear your sleep apart. An objective, this means that they're monitoring this using technology, they're seeing that people might even think, for example, they might think they got seven hours of sleep, but they actually got six... Objectively measuring they lost an hour because of the sugar consumption, the sugar being alive and well operating in their blood stream, alright. So specifically, I noted, added sugar is a major disruptor of our sleep quality. So please understand that sugar can literally steal some of the sweetness away from your sleep quality. So, we want to be mindful of that.

Also, a recent meta-analysis affirmed that drinking alcohol close to bedtime does in fact help some people fall asleep faster. Alright, facts, but there's a huge catch-22 here because data cited in the peer-reviewed journal, JMIR Mental Health, found that even one alcoholic beverage close to bedtime can significantly impair sleep quality. Moderate alcohol consumption was found to lower restorative sleep quality by 24% with high alcohol intake damaging sleep by nearly 40%. Now, a hangover isn't just from alcohol alone, it's also detrimental to your sleep cycles. That's what the real phenomenon when we talk about a hangover, we just think it's just the alcohol is just like, whatever, but it's because it's damaging our sleep, that's why we're experiencing the hangover, most notably are REM sleep, which is where a lot of our memory processing takes place, where things get converted to our short-term memory. Have you ever, or do you know somebody that's ever drank, and they don't remember what happened? It's because of their REM sleep being damaged, the architecture of their sleep is damaged, and so they just can't... It just didn't get filed away. And so, keeping this in mind, so it's called a REM rebound effect, by the way. So, what can we do here? We want to if we can. Avoid drinking too close to bedtime.

Give yourself an alcohol curfew. Give yourself a little bit of time for your body to process, 'cause your body actually processes alcohol... We all have a different alcohol metabolism, but relatively quickly, because it can't store it. So, energy shifts over, your body immediately takes priority to utilize that alcohol because it can't be stored. Alright? So, it'll switch over from using your stored body fat, by the way, and start using alcoholic that comes in. Alright, so give your body a little bit of time. Have a curfew with that. Now, for some people, their alcohol metabolism overall is such that they probably want to completely avoid drinking alcohol in the evening, and this is just to be mindful of yourself and your unique metabolism. If you've been struggling with sleep and you've been known to have a glass of wine in the evening and find that maybe your metabolism is changing, and you're having a more difficult time losing weight, or having energy in the morning, whatever it might be, cognitive stuff, just pay attention. Maybe this might be the thing to ease up on.

Alright. Just so you have that in your back pocket. Not to villainize it, but it's definitely, again, as Dr. Daniel Amen said, "Alcohol is not a health food." Alright? We could get into, "Oh, we got the Resveratrol, we got this and that." But in reality, this does damage our sleep architecture, and it does have some detrimental impacts on our brain, the list goes on and on. But again, it's socially acceptable. It's one of those things that is just like... So many people die as a result of alcohol, but it's just like, "Uh, not me." And so many people have had traumatic experiences, growing up, or with a family member, with themselves, and yet it's just one of those things that we just continue to turn a blind eye to. And we have to be far more, at least responsible in our intake of this very powerful psychoactive substance. So, utilize an alcohol curfew. In some instances, avoid it overall. And also, we can assist that process in the evening by simply

drinking more agua. Alright? Drinking a little bit more water, because, as the statement goes, "Nature's solution to pollution is dilution."

So, it can help to process it faster, dilute the alcohol, and flush it from your system a little bit faster. And also, dehydration is another primary cause of hangovers, and poor sleep quality as well. Alright. So that's another one of the things that we could be utilizing that's completely screwing up our sleep and we don't realize it. And another interesting phenomenon is drinking caffeine too close to bedtime as well. So common phenomenon that... A waiter will come around asking, "Would you like a cappuccino or coffee?" After dinner? What? Like, what? So even with this, there's a fascinating study that looked at the effects of caffeine on sleep quality. This was published in the Journal of Clinical Sleep Medicine, and the researchers had test subjects consume caffeine at various intervals of either six hours before bed, three hours before bed, or immediately before bed, and tested their objective and subjective sleep results. And they found that the individuals consuming caffeine even as much as six hours before bed, was enough to have measurable detrimental impact on their sleep qualities. As a matter of fact, subjectively, they might have thought that they got eight hours of sleep, but objectively, measuring their sleep, they got seven.

They lost, by having caffeine six hours before bed, lost an hour of their actual sleep. And so again, your metabolism for caffeine is going to be different from person to person. I recommend having a caffeine curfew. Let's not push it to say 2:00 PM in the afternoon, ideally before noon for a lot of folks. And some folks might have this strange phenomenon where their system switches. I've had people that I've worked with who part of their sleep ritual, crazy stuff, I've got so many crazy stories, but they're also pretty miraculous as well, and also some of the outcomes that we see later on, but they drank a Coke, a Coca-Cola, to help put them to sleep. Alright. They created so much mayhem with their metabolism and their nervous system that drinking it actually put them to sleep. And also diet Coke as well, and so seeing that really interesting thing where you're going to be a negative responder. But in general, that's again, that's an exception, not the rule. There are some wild stories about human metabolism out there. The bottom line is, for the average person, having caffeine close to bedtime is going to really create some havoc with your sleep quality.

And so, by the way, also in the study, they used a significant amount, like 400 milligrams, so it's like a lot, and also, this isn't utilizing a natural balanced caffeine source too. So, there's some caveats there, but the bottom line is we want to be cautious and conscientious about having caffeine too close to bedtime. Alright. Now, what about what we should be adding in as far as our nutrition that the average person is missing out on? And this is something that I've really been trying to beat the drum about. And where does this analogy come from? Again, I'm thinking of some Vangos or whatever, but it's just... It's a strange analogy, but I guess maybe a Vango with a song and a message. Okay, "Make sure you eat your tryptophan, sleep and beat

the man or the woman." Alright, I'm so sorry about that. So sorry. In Silk Sonic Vibe, they did it way better. Alright, that was a little freestyle on the Vangos. Alright? But I'm beating the drum about this message, which is, you can get the best mattress, you can have the optimized sleep sanctuary, you can get the early morning sun light. If you do not consume the raw materials that are needed to literally build your sleep-related hormones and neurotransmitters, you cannot do the process effectively. You can't.

You need the raw materials. This is why our nutrition matter so much. And this is one of the primary things that's not discussed. It's all these external things, but it's what's happening in our bodies. So, what does this look like? In my little Vango song, I had tryptophan. I mentioned tryptophan. It's one of the nine essential amino acids that we must obtain from our diet. This is why it's called essential. And it stands out as a key building block for sleep. This is kind of well noted in culture, but the way that we look at is kind of twisted in its view. We just think about Thanksgiving. But in our day-to-day lives, we need this essential amino acid. A tryptophan deficiency has been found to create disruptions in our REM sleep, while improving tryptophan levels has been shown to reduce wakefulness at night and increase mental alertness after waking up in the morning. This is according to research cited in the journal Nutrients. Now, here is something cool about tryptophan to add another notch to its belt. Is that we mentioned how serotonin is a building block for melatonin. Well, tryptophan is a key building block of serotonin.

Tryptophan is a building block for serotonin, and serotonin is a building block for melatonin. So, this is one of the kinds of cognitive associations we can easily see with tryptophan and good sleep. So where are we going to get this? Because our bodies utilize tryptophan in copious amounts. Some of the best food sources of tryptophan include chicken, turkey, lobster, eggs, cheese, tofu, chocolate, spinach, pumpkin seeds, peanuts, and one of my favorites, spirulina, these are all great sources, concentrated sources of tryptophan. Let's move on to another key essential, these are what I call good sleep nutrients, it's Vitamin C. Data cited in the journal Appetite and PLOS One demonstrated that insufficient intake of vitamin C increases the likelihood of sleep disturbances and shortens the duration of overall sleep time. Moreover, this is a 2009 study, showed that vitamin C is one of the key components, and they also looked at vitamin E combined, but vitamin C specifically taken by test subjects in the study, in addition, they were utilizing CPAPs, alright, so these are folks with noted sleep obstruction, so the vitamin C in addition to the CPAP, this was found to significantly reduce episodes of sleep apnea.

What are some solutions so we're not having the ap? Alright, nobody is talking about nutrition. Body weight is a big issue here, we see the apnea rates increase as our body weight goes up but also nutrient deficiencies can impact our sleep quality, and even our ability to breathe in the evening. And also, it was found that the vitamin C was able to improve sleep quality and

decrease daytime sleepiness. Now, vitamin C is well established to be an essential nutrient that we must obtain from our diet. You know, there's other animals that actually make their own vitamin C, bananas, right? We make other nutrients ourselves within our bodies, vitamin C isn't one of them, but I believe that that is because it's so abundant in food, in nutrition, but here's the rub, today, even our best organic produce, because of the way that we've damaged our soil over time, the amounts of key nutrients have declined. And another big issue here, another curve ball with vitamin C is that vitamin C is a stress regulator for the body.

We know that it's like the immune system, this aspect that's popularized but also management of stress is a key role that vitamin C is involved in, and what are we exposed to today? Massive amounts of abnormal stress, environmental stress, mental stress, relationship stress, diet stress, the list goes on and on about the stresses our bodies are facing that we've never faced before, and so vitamin C essentially is getting zapped from our system so quickly, we need copious amounts. And so, we can find Vitamin C of course in some of the conventional foods, citrus fruits, broccoli, green leafy vegetables, bell pepper, so some everyday foods, but this is one that you definitely is going to be ideal for you to get a super food vitamin C concentrate.

The top vitamin C superfoods are camu camu berry, amla berry, and acerola cherry, and I get all of those three. I used to, for years, prior to me knowing about this particular blend that I use today, I would get them from different companies over the years for years, probably 10 years, I would get the different things and it would be different times, but now I have my three favorite vitamin C superfoods in one source. And why this matter is that conventional vitamin C supplements that are using synthetic vitamin C, they simply, when tested clinically, they just don't measure up. There was a study published in the Journal of Cardiology that had 20 male smokers consume camu camu berry, the highest botanical source of vitamin C, daily over the course of a one-week study and found that it significantly led to lowered oxidative stress and reduced inflammatory biomarkers like C-reactive protein. While in the study, the individuals who were receiving the synthetic, the kind of vitamin C supplements you find at the grocery store, checkout counter, the synthetic stuff, there were no changes in those biomarkers and also, the researchers indicated that the combination of the other antioxidants that are in the camu camu berry, so these bio potentiators had more powerful antioxidant effect than standard vitamin C products alone.

So, I get my vitamin C from the Essential C formula from Paleovalley, go to [paleovalley.com/model](http://paleovalley.com/model) and you get an exclusive 15% off their Essential C formula, all organic, no binders, no fillers, just the most concentrated source of botanical vitamin C superfoods. And again, as mentioned, it's one of the key nutrients for regulating and improving our sleep quality. Go to [paleovalley.com/model](http://paleovalley.com/model), that's P-A-L-E-O-V-A-L-L-E-Y.com/model, 15% off. So, moving on, we'll hit one more of these critical good sleep nutrients, and this one is one of the most important, and it's magnesium.

A 2016 study reported that magnesium is able to reduce the activity of your sympathetic fight-or-flight nervous system, so we're looking at stress, the stress-driving aspect of our nervous system, and turn on the parasympathetic "rest and digest" aspect of our nervous system. Another study, and this one is a double-blind, placebo-controlled study, this was published in 2012, found that improving magnesium levels appears to improve sleep efficiency, improve melatonin function, reduce cortisol, reduce wake after sleep onset. So that means people wake up less often when their magnesium levels are optimized. Great dietary sources of magnesium include avocados, pumpkin seeds, dark chocolate, almonds, leafy greens, black beans, fatty fish, and again, spirulina is in the mix.

So, these are key good sleep nutrients, tryptophan, vitamin C, and magnesium. There are others but these are the top three as indicated by the data. Now obviously, this can be a lot to chew on literally, but it's just about let's target couple of these good sleep nutrients, just be more adamant and intentional about adding them in on a consistent basis, so we can provide our body again with the raw materials that it needs to build our sleep-related hormones and neurotransmitters. And again, this was the five biggest mistakes that people make when trying to get a good night's sleep, and it's such an important conversation as we kick the episode off, we noted that according to the CDC, we've got 115 million American citizens are regularly sleep deprived, this is an issue that we need to address, it's really about empowerment and education, so this is one to share out with your friends and family. You could take a screenshot and share it on social media, you can tag me, I'm @shawnmodel on Instagram, and also, I'm @shawnmodel on Twitter as well and @TheModelHealthShow on Facebook.

And listen, we are just getting warmed up, we're just scratching the surface on what we're here to accomplish. And by the way, it's becoming easier and easier to share and also to share your voice, so whatever podcast app you're listening on, please leave a review for the show and you can send this directly from the podcast app that you're listening on to somebody that you love. Rate the show, get more eyeballs on what the Model Health Show is up to and help to grow this community, help to grow this education, because we've got some work ahead of us, but I'm very, very encouraged and inspired and I really just feel like I'm just getting warmed up and I'm so grateful for you, because right now more than ever, we need this, we need this empowerment, we need this connectivity. We need this education, and it's just a click away today, it's just a play button away to get this education to get empowerment. And so, really beautiful, and I appreciate you so much for tuning in to the show today. We've got some epic shows coming up. I'm talking about world class phenomenal guests, and also some powerful master classes that you're not going to want to miss. I appreciate you for tuning in, take care, have an amazing day and I'll talk with you soon.

And for more after the show, make sure to head over to [themodelhealthshow.com](http://themodelhealthshow.com), that's where you can find all of the show notes, you could find transcriptions, videos for each episode, and if you've got a comment, you can leave me a comment there as well. And please make sure to head over to iTunes and leave us a rating to let everybody know that the show is awesome, and I appreciate that so much, and take care, I promise to keep giving you more powerful, empowering, great content to help you transform your life. Thanks for tuning in.