



EPISODE 803

5 Weird Facts About Humans, Health, & Nature

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SHAWN STEVENSON: On this episode of The Model Health Show, you're going to discover five weird facts about humans, health, and nature that's going to blow your mind and add a little bit of extra joy to your life. So let's dive right in. To kick things off, our number one weird fact is a question and something that you've probably experienced throughout your life and you've seen other people experience. The question is why does yawning seem to be contagious? Every day millions of people yawn and reaction to other people yawning. This could be from someone around you watching someone yawn on television or even reading the word yawn in a book can trigger you to yawn the vast majority of vertebrate animals. So these are animals with the spine Yawn. But certain species, including humans, primates, and dogs in particular, are incredibly susceptible to others yawning around them. Now, a quick word on why humans yawn in the first place. There's a common theory that it provides a sudden increase of oxygen to our bodies.

That's where we're.. Doing the whole thing to grab up some extra oxygen. But that theory has been disproven. The majority of scientists studying yawning in humans affirm that in an adaptation that helps us to cool our brains, i. e. cool your internal hardware, much like your computer fan cools your laptop. Now it appears that yawning temporarily increases your heart rate, blood flow, and the use of muscles in your face that all support a reduction in brain temperature. Additionally, it's a way of deeply inhaling cooler air. that can support this temperature reduction as well. Now the question is, why would your brain be running hot in the first place?

Well, significant fatigue and sleep deprivation both coincide with higher brain temperatures. Your brain literally needs to go to sleep mode to better clean itself, eliminate metabolic waste products and even better regulate its internal thermostat. Now a fascinating study that was published in the journal Evolutionary Psychology had participants hold a warm pack that was about 115 degrees Fahrenheit or a warm pack that was at room temperature, to their forehead, while watching videotapes of people yawning and found that contagious yawning occurred 41 percent of the time. Now, when participants held a cold pack that was about 40 degrees Fahrenheit to their forehead, contagious yawning dropped to only 9 percent of the time. So this study is affirming that the brain is looking for a way to cool itself by invoking us to yawn. Now there's several other studies that are affirming this.

It's just a really interesting thing that a scientist is choosing. You know what? I'm going to make my life's purpose to study yawning, but yawning research is out here in the streets. But it's one of those things that we do all the time as human beings that we don't really think

SHAWN STEVENSON: about, like, what is my body having this reaction for? And also, why is my body involuntarily responding to other people yawning around me? Now, another part of that study, by the way, demonstrated that yawning is also influenced by how we're breathing. Breathing through your nose actually helps to cool the air as you're breathing in, versus breathing in all hot and heavy through your mouth.

And so our nose provides a filter but also provides a cooling mechanism to cool off that air as we're breathing in versus when we're breathing in through our mouth. Now when study participants were not instructed on how to breathe. They're just breathing all willy nilly or they were instructed to inhale and exhale through their mouth. The incidence of contagious yawning in response to seeing videotapes of people yawning was about 48 almost 50 percent of the time. But when instructed to intentionally inhale and exhale through their nose, contagious yawning from watching others on videotape was essentially eliminated. Very very interesting stuff.

Now the question is, why do we copy yawning in the first place? What is this really about? What is this strange happening? Well, this is called an echo phenomenon. All right, an echo phenomenon and an echo phenomenon is an automatic imitative action without explicit awareness, all right. So this includes copying certain movements, mimicking movements, mimicking certain speech patterns, certain tones, certain noises, etc. We can mimic a lot of these things unconsciously. All right. So this is again called an echo phenomenon. Now what's interesting about yawning in particular is that although the yawn of a stranger can trigger someone to yawn, you are far more likely to yawn when someone, you know, someone that's close to you, a friend or a family member, for example, when someone close to you yawns.

Now this Scientists believe is related to an empathy factor in contagious yawning. So it's one of those things where we are closer and associated closer to certain people and we have more empathy and sympathy and compassion for people that are closer to us, and so we tend to copy them a little bit more. Now, other factors that have been revealed in studies that influence how likely we are to mimic yawning are our genetic makeup and even our age. Younger people tend to be influenced more by contagious yawning, but this is interesting. Contagious yawning for little ones isn't very strong until they reach the age of about four, which coincidentally is when a higher degree of social development kicks in.

All right, so there's a imitative factor with yawning, there's an empathy factor with yawning, and this is Echophenomenon taking place where this is all still rooted in our brain's attempt to cool itself off in this little Strange happening that takes place for many of us pretty much on a daily basis. And so now we're pulling back the curtain. We're seeing what is this weird thing? this weird activity that I'm doing. I've probably been doing my whole life.

SHAWN STEVENSON: Yawning, and why does seeing other people yawn tended trigger many people to yawn as well. All right, so these are some of these. Strange things about humans, about nature, about our environment that we're going to be covering today. And the next one now, this one is super weird. The next one of these facts that we're looking at is why does the sun make some people sneeze? Now, I remember I was hanging out outside. I was about 14 years old and I was outside with my mom's friend, Mary. And I felt like I had to sneeze, you know, how you got that sneeze, just like right there on the tip, you know, just want it, but it won't come out. And I told her that I needed to sneeze, but it wouldn't come out. And she said, look at the sun. And of course, I was like, okay, that's weird. But I looked up and I sneezed so hard that it felt like my astral body ejected from my physical body. Like Dr. Strange, like I could, I sneezed so deeply that time froze.

All right. And I was not ready for it. I didn't know as soon as I look up at the sun, I was going to sneeze like that, that quickly. And I was like, what the, how did you seem like trickery? All right. It seemed like some strange wizardry. That I just experienced but what that phenomenon is and some scientists refer to it as autosomal dominant compelling helio ophthalmic outbursts syndrome or achoo for short. A better name than the tongue in cheek achoo acronym is what most scientists refer to it as, which is a photic sneeze reflex. Now an estimated 10 to upwards of possibly 35% of the human population has a photic sneeze reflex. And this reflex has actually been documented by humans for thousands of years. Even the writings of Aristotle, he asked the question, and this is directly from his writings. Why does the heat of the sun provoke sneezing and not the heat of fire?

Now to be fair, this is a translation and heat could be in the more accurate context of light because he goes on to give his theory of the sun sneeze based on the dissolving and disbursement of energy. Now, in a very simplistic way, how this reflex works is when a person is adapted to a certain level of brightness or lux, and then they're suddenly exposed to a notably higher amount of brightness, it can trigger sudden outbursts of one or multiple sneezes. Now, it doesn't have to necessarily be the sun, but that big flaming ball of light is quintessential in human development and our experience or an exposure of brightness through our evolution. But there are, of course, artificial bright lights that can bring about the same sneezing reflex. Now, we also have to consider, again, why humans sneeze in the first place.

Well, a sneeze is actually a preemptive strike. It's a reflex meant to protect the nasal passages and lungs from infectious agents or irritants. According to UCSF neurologist and human geneticist Louis Tachik, he said, "When we sneeze, there is a huge contraction of the diaphragm all at once. Dust or black pepper particles in the nose, for example, irritate the mucosa and leads to a sneeze reflex to prevent you from being harmed by a noxious environment".

SHAWN STEVENSON: But now the question is why did evolution decide for some of us to sneeze when accosted by bright light? Well, the most prevalent theory asserts that neurological signals are crossed between the trigeminal nerve which senses facial sensations like an itchy nose, for example and the optic nerve which constricts the eyes pupils when light penetrates the retina.

All right, so we got nose activity and eye activity getting crossed up a little bit. Now this has to do with the interaction between light and brain activity as well. For example, In 2010 a Swiss study found greater stimulation of the primary and secondary visual cortex. This is regions of the brain that process visual information of 10 photic sneezers when exposed to various wavelengths of light compared to those who did not have the reflex. So these researchers found greater brain activity in these visually stimulating regions of the brain. Now to put this all in a nutshell, again, a sneeze being a preemptive strike. And by the way, It can be enjoyable to have a good sneeze, and there's a legend out there about dad sneezes. All right, you know, dad sneezes are the absolute most. All right, we know that some people sneeze, they hold it in. All right, they hold in a sneeze, and there's, there's a whole range of sneezes. But holding in a sneeze is an interesting phenomenon of itself as well. So there's a whole range of sneezes that we can do as human beings. Could be cute little sneezes.

All right. A little ah choo, and then it can be, ah, ah, ah, you know, the big, quintessential dad sneeze or grandpa sneeze out there in the streets. But for some people they can be hypersensitive to things in the environment, right? So again, this is a pre-emptive strike. So it's intermingling with our immune system as well. But also this has a lot to do with the connections between our brain and our senses and all these different areas of the brain, and all these different nerves that run in and through our face and how data can be intermingled. Because that bright light exposure for example isn't necessarily a threat but it's just an adjusting of our vision of our lens in our eyes and the data that's crossed up with our sense of smell and what's happening as we're breathing in and getting a little tickling of what's happening in our nose, and it's just a strange intermingling of data. And again, this is a reflex and this preemptive sneeze could also be helping in a strange way.

This could be an adaptation that gives a little extra sneeze just to clear things out. There's different ways to look at this, but one of the things that we do know is that some people are in fact sensitive to bright light going from dark, you know, a darker level of light to bright light and triggering a sneeze as a result. And these people, myself included, have what is known as a photic sneeze reflex. And a special shout out to my fellow sun sneezer and journalist for PBS, Julia Griffin, who supplied some great data on this.

SHAWN STEVENSON: Now those photoreactive changes that the sun extends to all of life on our planet also includes the phytonutrients that get generated in response to sun exposure that helps to pack in phytonutrients in real foods, right? Traditional real foods and beverages that humans have been utilizing for thousands of years.

This is interaction with the sun that really creates some phenomenal things and some things are very unique. Some things are very rare. For example, there are certain antioxidants that are created when green tea reacts with the sun and they have some remarkable effects on human metabolism. A study published in the Journal of Health Science uncovered that antioxidants in green tea called catechins are able to increase the rate at which the human body burns fat for energy. While another study published in Physiology and Behavior sought to find out the results Green tea would have on obese volunteers. At the end of the 12 week study participants having green tea each day lost 7.3 more pounds on average and burned 183 more calories per day than those who didn't have green tea. These compounds in green tea altered their metabolism in a significant way.

Now there's green tea, there's green tea out there. But then there's matcha green tea that takes things to another level because it's higher in specific nutrients like L theanine that's been found to increase the frequency of alpha brainwaves, indicating reduced stress, enhanced focus, and even increasing creativity according to research cited in the journal Brain Topography. Now there's only one matcha green tea that I utilize, it's sitting on the shelf at my house right now. And that's the Sun Goddess Matcha Green Tea from Pique Teas. It's crafted by a Japanese tea master. There's only 15 Japanese tea masters in the entire world. And it's the first matcha that's quadruple toxin screened for purity.

There's no nonsense added, no preservatives. No artificial sweeteners, no sugar, nothing like that. Just the very best matcha green tea in the world. Head over to pikelife.com/model. And you're going to get up to 15 percent off their incredible sun goddess matcha tea. And also they've got some amazing bundles where you're going to get. Free sample packs of their different teas award winning teas, by the way, they've got a bunch of award winning teas. They've got cool things like hand frothers and all kinds of other stuff that they'll throw in as bonuses But just pop over there check them out. Check out the different deals go to pikelife.com/model. That's p i q u e L i f e dot com/model for up to 15 off plus some other goodies And And now moving on, on this list of five weird facts about humans, health, and nature.

Next up, the question is, why do people get stinky? Why do we get stinky? Do you remember the first time that you learned that you could be smelly? Do you remember when that is? I do. 7th grade, alright, I was a young kid in my class, I was 12 years old, alright.

SHAWN STEVENSON: 7th grade, school bus home after school. Had on a knit sweater, alright, so it's like really hardy fabric, no undershirt, alright. I'm out here bare chested in a very, very warm sweater, alright. Sweating all through the day I'm sure, and riding home on the school bus and there's whispers of kids saying, Oh, somebody musty. Oh, you smell that? Somebody stink. And I'm just like, yeah, somebody probably stink on those bus, alright? It was me! It was me! Alright? I didn't know at the time, but it was me. All right, after the investigation was going on and to this day, I don't think anybody realized that was me because we're all jam packed on the school bus.

But, you know, I, I saw people checking their armpits, like doing a smell test, which I never did before in my life. I didn't know that was a thing. You know, I was 12 years old, 11, 12, 11, 12. And I reached down, you know, took a whiff and I found some I never smelled before. All right. So. Now, this is an experience that a lot of people have, and we never really think about what causes us to be unpleasantly smelly. All right? We just kind of attribute it to, okay, puberty, you know, adults smell, and that's, it is what it is. But why? What is it? We can superficially think that we're just kicking out hormones and pheromones and all this stuff. Many of those things are actually odorless. There's something else going on and that's what we're going to discuss today.

A lot of people superficially associate body odor with sweat. Now this is indeed a part of the equation. Our bodies have millions of sweat glands and they come in two major types. Number one, we have eccrine glands that are found basically all over our skin and secrete primarily water and salts. And we have apocrine glands, which on the other hand, develop during puberty in your armpits, genital regions, and a couple of other places on your body. Now what these sweat glands secrete is full of proteins and fats. By themselves, these secretions from the apocrine glands are usually odorless. But when these secretions get together with bacteria, a whole new world of smells gets unlocked. Many bacteria thrive in moist areas, like our armpits. Our skin is covered with bacteria from our heads to our toes. Most of these bacteria are symbiotic and highly protective of our skin and many aspects of our health overall.

This microbiome of our skin is incredibly important for our overall health. But places like your armpits can be especially favored by bacteria. In fact, there are approximately 1, 000, 000, 1, 000, 000 bacteria per square centimeter of armpit skin. Alright, so there are millions and millions of bacteria holding up shop under those pits. And when puberty hits and you start producing apocrine sweat, bacteria go buck wild feasting on those fats and proteins and the compounds that they release as a result of what give off those musty odors? All right. So these are essentially the byproducts or the waste products of the bacteria that are dining buffet style on the fats and proteins secreted by those particular sweat glands.

SHAWN STEVENSON: Now there are indeed other factors that influence our smell, our unique genetic makeup, the unique microbial profile in your body, so your gut microbiome, and on your skin, your skin microbiome, our personal hygiene practices. Our levels of psychological stress also influence our potential body odor. And even our diets can influence our baseline signature smell. We'll just call it a signature smell. Now, I remember, even the signature smell idea, I remember doing a session in the hyperbaric chamber. Alright, and my wife and son were there. My son was waiting as I came out of the hyperbaric chamber. And he wanted to jump in there and he was like, Oh, this smells like daddy in here.

It smells like fresh made daddy. My man says, fresh made daddy. All right. So he was probably like seven at the time, seven or eight. And so that was alluding to this signature smell that I have. Apparently, he said that it, you know, it wasn't a bad smell. He said it smells good, but it's just like this signature smell smells like dad, right? And by the way, let's just be honest. Okay. If you smell me, I'm smell good. Okay, all right, but that doesn't mean that any of us can't get a little bit more funky because it's true. Also that some people can get more funky than others. All right, shout out to Bruno Mars uptown funk all right. Some people can get uptown downtown funk all the kinds uptown downtown sidetown All right.

And we want to understand that, again, we all have a signature smell and there's different factors that determine this And we also don't want to villainize the fact that we as humans And anyone can end up a little smelly at times And now we understand why that is like what is actually creating these these smells But we also don't want to ignore That most people don't want to SMELLLLLLLL! Where your body is cooking. So the question is how do we best support healthy hygiene without going off the deep end? All right, because again, we can get to this place in our cultural influence of, of cleanliness at all costs to where we start doing ourselves harm and also villainizing the fact that humans as other creatures have certain smells. And there's nothing wrong with that.

However, again, this isn't saying anybody wants to, you know, have to be forced to smell, you know, your uptown funk. And so how do we go about having healthy hygiene without going off the deep end? And also, for example, washing away that protective barrier that our skin microbiome provides for us? Well, number one, Wash it! Okay, that's number one. Pretty simple. Wash it. Now, what does that mean? Well, this could mean a bunch of different things. All right, so some people could see this as like they're gonna hit up the caress. They're gonna hit up the dove. They're gonna hit up the head and shoulders. They're gonna all of these deeply, deeply toxic and chemical laden substances that are marketed as healthy, right?

Antibiotic soap. Right? No, no, no, no. We know we've talked about this on many episodes of the Model Health Show, the detriment, the harm caused by haphazard use of antibacterial,

anti microbial, anything, right? We're past that. For decades now, the data is clear that attacking bacteria haphazardly is problematic to human health.

We want to be more intelligent in our interaction with anything antibacterial. Now with this being said Get yourself a good soap and some water. All right a good soap natural soap All right. We'll put a couple of links to some soaps that I like out there that don't have harsh chemicals. Soaps that are more akin to things that humans have been utilizing for centuries. Avoid harsh chemical soaps, again, that strip away the protection of your healthy bacteria. And by the way, I want you to be clear on this. If somebody is dealing with funky pits, all right, they got funky armpits, especially for the youth, all right, especially for kids that are going through puberty. You're not going to miraculously just wash the bacteria away with scrubbing your armpits. Especially those bacteria that have taken up shop just beneath the skin.

It doesn't work like that. You can't just scrub away the stank, all right. So it's really about creating a healthy environment from the inside out and the outside in to help to modulate those smells and have a healthy hygiene practice and also again having a nice signature smell That we can create with these different practices. So again, number one wash, okay, wash. At least semi consistently, all right. Number two deodorant. Now, there are some camps that swing all the way to the other end because we got one side of the camp. Deodorize at all costs degree. Axe Secret, you're not going to let the secret out that you can stink too.

Mama. All right. We got all those loaded with toxic chemicals and then people can swing all the way to the other side. I don't put nothing on. All right. I don't stink to yourself. That's what they say to themselves. All right. And they just, you know, the, the, the free spirits out here. All right. Now again, not to say that, you know, your, your smells are not going to be invasive to other people's nostrils. I'm not saying that. Maybe you just are. Your signature smell is just, I don't know. You just got that Brad Pitt fragrance. I don't know why I said Brad Pitt. Because of the pits! Ah! Bang, bang, bang! Gotcha. Oh my goodness. But just keep this in mind that deodorants, there are some very, very health affirming, supportive versions of deodorants.

But we want to do our best ideally just based on the data to avoid antiperspirant deodorants if we can, because that's a thing, you know, it's just like, okay, if the sweat is causing this reaction, we'll just block the sweat from coming out. And that's what antiperspirants do. They essentially create this like gel, the synthetic barrier that clogs up your pores. And doesn't allow your body to sweat, which is, if you think about it, is that a good idea? So, of course, data's coming out now affirming that blocking up your sweat pores with a synthetic chemical is probably leading to some health problems that people are experiencing. But there are many cleaner deodorants available today that have non toxic ingredients.

SHAWN STEVENSON: And again, I'll put a couple of my recommendations for you in the show notes. But keep this in mind. Everybody's different. That's the thing. That's why deodorants like Secret and Degree are coming in with these very very powerful chemicals because they're trying to go across the board. We're gonna we're gonna cut the smells out of everybody at all costs. All right by any means necessary, all right. And when we're looking for something that has cleaner non toxic ingredients, everything isn't gonna jive for everybody because we're all unique. And what I want you to be aware of is that when you're experimenting and trying out different deodorants, this is so overlooked. And I'm so grateful to my toxicologist friend.

All right, she was a board certified toxicologist who worked in the chemical fragrances industry. She knows. The inside of this business, she knows where the bodies are buried or where the bodies are clogged up with chemical antiperspirants, right? She knows what's going on behind the scenes. And she shared this incredible insight that most people never think about, which is when you're going from a toxic deodorant that is clogging up your pores and damaging your body's natural systems to something that is "natural". There's going to be a changeover, not because the deodorant is working, but because of the bacteria. Because of the changeover that takes place as your body is recovering from all the chemical mess that we were slapping on our bodies previously. Our bodies have to readjust, get back in order, find homeostasis. And we might blame this "natural deodorant" for not doing its job or for even making you funky.

Alright, so we want to be a little bit more patient with this changeover process. And also again, take your time, find something that works for you. And keep in mind there are so many other factors that can influence our signature smell and other things that we can address, which is another big issue here. Another potential help in this is cleaning up our diet, all right. These bacteria are going to be feasting on, you know, it's basically like ultra processed food for bacteria. That's going to be coming out of our pores. All right, and they like it too. Why would they not? It's all designed and chemically created to be highly addictive.

And, by nature, you're gonna, I mean, if you want to take a risk and eat that hot dog at 7 Eleven, or that nacho with chili and cheese at 7 Eleven, you want to take that risk. You're probably gonna have some unpleasant smells that come out of you. All right through your own digestion, but what about the bacteria that are digesting the chemicals. That are coming through your skin. They're probably gonna have some strange smells as well. All right, so just keep that in mind that there's all these different factors to consider and we're moving away from things that are unknowingly for many of us causing us harm. And understanding yes, we want to be a part of society. We want to smell good. But the way we've gone about certain things has been detrimental for no reason.

SHAWN STEVENSON: They don't have to be like that, all right. Now I want you to remember something as we move forward. Sweating is a part of your body's amazing thermoregulating system that helps you to adapt to different environments. That's what this thermoregulation process, the process of sweating is about, helps us to adapt. And it's something for us to appreciate and to support in a healthy way. And now speaking of thermal regulation, one of the fastest growing health practices that's actually been utilized by cultures all over the world for thousands of years is activating the power of thermogenesis by briefly exposing our bodies to cold temperatures. The peer reviewed science on the benefits are too numerous for us to name, including improving metabolic health, which this also includes boosting the production of satiety hormones by exposing ourselves to cold. Improving insulin sensitivity by exposing ourselves to cold temperatures. And this is according to a recent meta analysis titled "Health effects of voluntary exposure to cold water". It's also been found that cold exposure to improve our mood and mental resilience increases our ability to manage stress. It levels up our stress threshold.

And it's also been found to improve our cardiovascular health. And this is why for several years now, my family and I have been utilizing a cold plunge as part of our wellness practice. And if you want to utilize the power of cold plunging, the very best cold plunge tub in the world is from the folks with the name itself. It's the folks at Plunge. This tub is a long lasting and durable. I've had mine for several years outdoors, by the way, it can be indoors and outdoors. Mine is outdoors and has dealt with all kinds of elements. And it is just basically like the day that I bought it. It's amazing. It's clean and ready to use whenever you want.

It has a continuous water flow and 20 micron filter that pulls debris out of the water. It's self contained. There's no need for additional plumbing, no need to repeatedly find ice or to try to get your water cold enough to unlock the benefits of this cold thermogenesis therapy. Once you fill it up, your water can actually last for a couple of months. It's kind of like a little mini swimming pool without additional maintenance. Again, indoor outdoor use. You can set the temperature to whatever you want, but it cools as low as 39 degrees Fahrenheit. For those who like it extra chili. Now, if you go to plunge.com/model right now, you're going to get \$150 off of the plunge tub of your choice. When you use the code model at checkout again, that's plunge.com/model, [P L U N G E . com/model](https://plunge.com/model). Use the code model at checkout. And you get 150 bucks off the cold plunge tub of your choice. Now, again, my family's been utilizing the incredible tub at Plunge for several years. I love that.

It's one of those things for our family to do together and to challenge ourselves. And also what I've seen firsthand, the benefit that I see is increased stress resilience for sure and an instant improvement in mood now. No one said that this was easy. All right.

SHAWN STEVENSON: But it's one of those things that and according to the data and we've had on the world's foremost expert on this science she has a phd in Brown fat essentially brown adipose tissue and metabolic health. So brown adipose tissue is what's activated when we're exposed to cold. And her data is revealing that 11 minutes total in a week presents an enormous amount of health benefits when utilizing cold exposure. Now, transitioning from our ability to smell funky body odors, it begs the question of how those smells actually reach us. And how well can humans actually smell.

And our next weird phenomenon is why do certain smells trigger strong memories? First up, and just looking at this incredible experience, this phenomenon of being able to smell, how well can humans actually smell? It was once believed that humans have a relatively weak sense of smell compared to other species in the animal kingdom, but that belief was turned upside down about 10 years ago when an analysis published in the peer reviewed journal Science uncovered The human nose can distinguish between nearly 1 trillion different smells. It's not that other animals have a better sense of smell than us. It's that our sense of smell is more specialized for the subtleties of, well, being human. Our sense of smell helps us to experience, for example, an enormous ray of subtle flavors in food. Most people don't realize that a lot of what we experience as flavor.

It has to do with how things smell. That proximity of food close to and in our mouth is where the human sense of smell really shines, right? We've got our flavor template, right? Our taste buds have some very predominant flavor receptors, right? So we've got those five major ones, but the sense of smell brings about unlocking thousands, millions of different flavor notes that we can experience. And we have olfactory receptors in our nose that pick up molecules from our environment and convert that data into signals that are then sent across the olfactory tract into our brain. And our brains have about 40 million olfactory neurons that can decipher unbelievable amounts of data.

Our olfactory neurons are the only neurons that are continuously replaced and updated in our brains. These neurons get changed out every four to six weeks. Pretty incredible. Unlike data from our other senses that has to go to a relay center in the middle of our cerebral hemisphere to be processed and then distributed to other areas of our brain. Data from smells and our olfactory system can go directly to our limbic system. And this includes our hypothalamus that's largely considered the master gland of our brain that's interconnecting or interfacing with our endocrine system and our nervous system. This also includes our amygdala that's deeply tied to our emotions and our hippocampus, which is regarded as the memory center of our brain. Data from smells goes directly to these areas of the brain. Whereas again, data from our other senses has to go to a relay center first.

SHAWN STEVENSON: Now this is why smells are deeply tied to our memories. Again, this is going and connecting directly with our hippocampus. But not just images of those memories, but the feelings of those memories. That's where the tie in with the amygdala and our emotional centers of the brain come into play because smells are hitting those up directly as well. So a smell can transport you, not just a visual memory can come up if you smell a certain thing, but a certain feeling, right? So there's a certain smell that I picked up not that long ago that it's coming to mind right now.

And it reminded me of being at my grandma Olamay's house and when she would cook and she would make spaghetti every holiday, which I don't know. It's not necessarily a holiday food, you know, an African American community. But every holiday she makes spaghetti and I smelled something that transported me back to grandma Olamay's house and she had the plastic on the sofa. She had the plastic on the sofa. All right. She wasn't on some, you run it. Kids need to be sitting there behind down. They'll be running all through my house. Don't be coming in and out. Don't be letting my good air out the house. All right. It was not the fun place to be until I got older. Then it's like, it's hell of love with grandma Olamay.

But when I was a little kid, I was like, I'm poor mom, but I wouldn't let grandma older may hear me. Of course. And my uncle Kevin lived there for a time as well. And, you know, he's kind of like that older uncle. That's like, you know, uh, a teenager, you know, like 18 years old and he had a Nintendo. It was just a door away from some fun and whenever he was there, you know, and come in, you know, we could, you know, let me play a little Nintendo baseball, but if he wasn't there, you know, that door stayed closed. It was like. I don't know, like it was like a door in the matrix. Like I just, I need the key. I need the key master. All right. So it was not a lot of fun being over there. And so all of those feelings, you see all this came back just from a smell. All of these things started to come up. Right. So powerful, you know, our sense of smell. And a big part of why certain smells are connected to strong memories is our sense of smell develops much faster than our other senses.

Some experts believe it's our first sense to really function at a high level and again it feeds data directly to different areas of the brain. Now, I've got a question for you. Have you ever thought about what the ability of smell actually does for us? Smell is a very powerful internal guidance system. Our sense of smell guides us away from danger and towards things that are rewarding. If we're talking about a natural context, much like other species. Now the rub is, for example, our ability to smell whether or not a food is safe to eat. We evolved with that ability. Many of us today, we don't know the difference between anything and anything. And it's largely because of this invasion of artificial flavors and artificial smells in our food supply. The invention of things like a gas chromatograph were able to isolate chemicals that make up certain flavors and certain smells.

SHAWN STEVENSON: And then being able to add those flavors and smells to other things that are not those things, right? So you can add the strawberry smell to things that are not strawberry. You can add the orange smell to things that are not oranges. We generally think about this in the context of foods, but there was something else that jumped out to me. That if you grew up in the 80s and the 90s, you're going to remember this. It was the scented markers. The scented markers, the smell of that watermelon marker, the smell of that orange marker. The smell of that cherry marker.

Kids out here getting high at school. Nobody, they thought this would be a good idea. All right. That sh*t smell good. It smells good. It was like, Unnaturally good aroma with these scented markers. And again, people looking to monetize these new developments again. And being able to isolate smells and add them to things were again, where's the regulation on this stuff, right? It's just put into our culture and you know, consumerism. If you even want to be cool, we get the scented markers. We had the scratch and sniff stickers too, right? What? Who? How? But we wanted that though. We want scratch and sniff. Alright, why am I, like it's on my skin right now. But you know, you put this scratch and sniff on a piece of paper, you scratch it, get a little smell. Even the teachers would hand these out, alright?

And so, these artificial versions of certain scents have really messed up our scents. Our common sense and our ability to sense whether or not, you know. Something is dangerous in the context of food or something in our environment, right. Our sense of smell has been largely distorted and like many senses and strengths that can decline with age. Your sense of smell will only significantly decline when you're not using it. So we could take back control of this very very powerful part of our human anatomy, our human experience, our emotions, our ability to create memories.

Smell is tied to all these things and we can protect and even improve our sense of smell if we're proactively using it. Because many of us, we're just going through life. We smell what we smell. So much artificial garbage is in our environment that's fiddling with our sense of smell and we're largely oblivious to the whole thing. But I'm telling you, To take back control of your nose. All right, take back control of your nose. Take your nose to the scent gym. All right, that's the mission for today. It's one of the big takeaways from today is to intentionally take your nose to the scent gym. Literally stop and smell the roses. Stop and smell the roses, alright? Take in these natural smells when you have the opportunity. One of the things that I've been doing lately is simply taking a moment and smelling my food, alright? Cause we can get wrapped up, even if we're eating healthy and we're, you know, just powering down, we're chilling and you're just present with your food, all the things, whatever, alright? We can become oblivious to actually taking in the smell of our food and noticing things, right? So the other day, for example, I had some peaches along with my breakfast.

SHAWN STEVENSON: I had a couple of small peaches and I just took a moment because I remembered this, that we had been working on this behind the scenes. I had been preparing for this masterclass and I just took a moment to just smell that peach. Ooh, Smell good. I smell very, very good. So whether it's the strawberries that I might eat it again, we eat things regularly, but we don't take a moment to actually just really draw that fragrance in from real things, right? Draw that smell in, take your nose to the scent gym, seek out natural things to smell, you know, whether that's the smell of grass, the smell of a tree, the smell of somebody that we love, you know. Just being able to take in babies, man, babies smell the best man. All right. If you get an opportunity, you know, to smell a baby, take the opportunity, all right?

Take our nose to the Scent Gym, provide our nose with real inputs intentionally, and that sense is going to get strengthened. So whether it's simply being able to smell the natural fragrances of life. Or the super smelling ability that some people have to even smell when rain is coming. Which, according to scientists at Texas A& M, humans have been able to do for thousands of years. Our nose definitely knows how to help us live a healthier life. And speaking of rain, there are many ways that rain and other changes in weather influence our bodies. Which leads us to number five on our list of five weird facts about humans, health, and nature. Number five, the question is, how does the weather affect our bodies?

Changes in weather affect our bodies in some pretty mysterious ways. While the biology and psychology of all humans are influenced by the weather, a new study cited in the Journal of Life and Medicine revealed that up to 30 percent of people have remarkable changes to their health, including their mental health and even physical pain based on changes in weather conditions. This sensitivity is referred to as Meteoropathy. According to the researchers, "meteorological variables such as barometric pressure, air mass, temperature, humidity, cloudiness, weather fronts, wind speed, precipitation, and sunlight affect health and are associated with changes in the concentration of cerebral neurotransmitters in the brain".

We know that in general, more access to sun exposure, for example, leads to mood improvements. But an analysis published in the Journal of Affective Disorders determined that seasonal increases in sun exposure can actually reduce psychological stress, right? We know that stress is a huge component of multiple epidemics of chronic diseases today, infectious diseases as well, by the way, and we'll put this study up for you guys. According to an analysis that was published in JAMA, up to 80 percent of all physician visits today are for stress related illnesses is huge. I'm just going to repeat that part only. It is a huge cofactor And so many disease outcomes. Now, let's dig a little bit deeper because it's not just about the sun exposure itself. It's also temperature, a certain level of warmth, not too hot and not too cold. It's this Goldilocks zone specifically.

SHAWN STEVENSON: And this is according to the data it's between 50 and 70 degrees Fahrenheit, is shown to increase positive emotions, decrease negative emotions, and even decrease fatigue. But here's something interesting. How and how much changes in weather affect different people can vary significantly. A study tracking the impact of seasonal and weather variation published in the journal *Emotion* in 2011 demonstrated that yes, there are obviously people who have mood improvements in warmer, sunnier weather, but there are also people who respond in an opposite way and have mood declines in sunnier, warmer weather.

And according to their data, the same holds true with rainy days, with many people having mood declines on rainy days, while some people don't have any notable changes in mood at all when it rains, while a percentage of others actually have a mood uptick. What the study in the journal *Emotion* asserted is that weather reactivity may run in your family and have a genetic component. While other data shows that our unique life experiences that may coincide with certain weather can deeply influence how we respond to weather conditions throughout our lives. For example, maybe you had a special moment happen when it was raining, the birth of a child, a first date, a graduation, a first kiss, and the rain conjures up positive feelings.

While something seemingly negative could have happened during the rain, a breakup, a tough loss in a game, et cetera. And now we subconsciously connect the rain with a negative mood. The same thing can hold true for any other weather condition as well. It is our life experiences that get anchored in with the sights, smells, sounds, tastes, and feelings from the environment around us. And the cool thing is that we get to choose to create new associations if we want to. If we're intentional about it, that's the power of the human mind and our awareness. For example, say rainy days might be tied to a low mood experience for you. The next time it rains, you can choose to do something joyful.

You can choose to play in the rain. You can choose to dance in the rain. You can choose to open up the blinds and while the rain is pouring outside the window, watch funny movies. All right. This is something that we actually did recently with my youngest son. I'm taking him through the Martin Lawrence collection right now, all right. I got to make sure that my boy is well cultured. All right. And so, you know, just thinking about this, there was an era when Martin Lawrence was the guy. I'm talking about. He was the hottest thing. He was hot, like cayenne. He was hot, like fire. All right. He was, he was flaming hot and so many incredible things. Obviously, deaf comedy jam, obviously the *Martin show*, which was a cultural phenomenon. Like these things just can't be replicated every Thursday, 7 PM. Central. We are there. I don't care what's going on in our lives. We're watching Martin and everybody's talking about it at school the next day. All right. But then the movies hit.

SHAWN STEVENSON: Right. Just back to back to back. *Blue Streak, Bad Boys, National Security*. So I'm taking it through these really family friendly collection as well, especially, and actually my wife was out of town recently. She went to an incredible event in DC with her friend, Jalisa. So shout out to Jalisa.

And while she was out of town, it was the boys' time. So we went, we went to see *Bad Boys 4: Ride or Die*, went to see bad boys, had some amazing food. We got food together several times. We hung out, we gamed, we played basketball. We just kicked it. You know, but it's just a great experience. And now he's like, so into Martin Lawrence. He's literally rewatching these movies yesterday. He rewatched *Blue Streak* and he's just been walking around the house, quoting in particular, there's a Dave Chappelle part in this and really Martin helped to put on incredible, talented people like Dave Chappelle as well. So, during that time, it was raining outside, we decided to pop on a classic movie and create a positive association. And so we all have the ability to do that because our environment influences our mood, but we can also bring the energy to it. Now, it's not just psychological changes when the weather changes. We are a part of nature. We are a part of nature. Our biology changes dramatically based on the weather and what time of year it is.

Researchers at the University of Cambridge published data showing that the activity of thousands of our genes differ from summer to winter. The study found that the activity of almost a quarter of our genes differs according to the time of year, with some being more active in winter and others being more active in summer. And this seasonality also affects our immune system cells, the composition of our blood, and even our fat tissue. All right. So keep all this in mind. We are a part of nature. When nature changes, when the weather changes, when the seasons change, our biology changes, our gene expression changes. We are a part of all of this.

The question is what happens when we cut ourselves off from that circadian input. We know what happens, disease and dysfunction. We cut ourselves off from the very indicators of life, the very thing that is guiding us to health and to wholeness. Now, there are even notable studies that demonstrate that some people do indeed experience more bodily sensitivity when it's about to rain, for example. You know, there's probably somebody in your family, I know, like family associate who like, you know, my knees are hurting, you know, it's about to rain, right? Just it's kind of like, ah, you know, whatever, just like an old wives tale kind of thing. But in reality, this, according to the data, it's only noticeable factually, like again, studied in a small percentage of people. According to a study that was cited in the *European Journal of Pain*, looking at people with rheumatoid arthritis. The study notes that changes in temperature and barometric pressure can possibly alter the sensitivity of joints.

SHAWN STEVENSON: The researchers stated, "the hypothesis that weather changes might significantly influence pain reporting and clinical care and research In some patients with rheumatoid arthritis cannot be rejected". Again, this is not across the board, barely noticeable in a lot of study participants, but it does show up. It is a strange phenomenon that when it's about to rain and in particular, the changes in barometric pressure can bring about an expansion of tissue, of ligaments. It's really, really interesting how our bodies react to changes in the environment, if we're in proximity to the real world in particular.

But with all of this, it's just another gentle reminder that we are a part of nature. We are very, very special, very, very unique. We are made, our bodies, when we see ourselves in the mirror, when we see our friends and family, we're looking at all of the elements that came from this amazing planet, right? That's what makes up our bodies. Every single cell of our bodies are made from things that come from this earth and come from this incredible universe. You know, we are made up of elements that have existed for forever, forever. So powerful. There's just been changing forms. You know, there's this wonderful tenant that energy cannot be created nor destroyed.

It's just transforming itself and it transformed itself into you. And I appreciate you so much for being a part of this mission and for sharing your time with me today. I hope that you got a lot of value out of this and learn some cool things. And please share this out with people that you care about. Share these fun facts or share this episode directly. You can send this directly from the podcast app that you are listening on. And of course you could share this episode on social media. That's always amazing. I love to see that. Share it out with your friends and family on social. You can tag me. I'm @Shawnmodel. on Instagram and Pop over to the YouTube channel as well If you're listening to the audio version and subscribe to the model health show there You can see all kinds of cool stuff that come along with an episode like this And listen, we're just getting warmed up We've got some amazing master classes and some world class guests coming your way very very soon So make sure to stay tuned.

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. That's where you can find all of the show notes. You can 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.