



EPISODE 771

Nutritional Sunscreen & The Truth About Sun Protection

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SHAWN STEVENSON: You are now listening to The Model Health show with Shawn Stevenson. For more, visit themodelhealthshow.com. 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. Prepare to have your mind blown on this episode. We're going to be talking about the truth about sun protection and how our nutrition impacts our relationship with the sun. You're about to discover some startling facts. about skin cancer, about sunburns, and about how our nutrition plays into all of this. And to kick things off, it's always important to know what we're actually talking about. So if we're talking about a sunburn, What is it? Well, first of all, we have specialized cells in our bodies that can actually feel heat from the sun that can absorb light from the sun and so much more.

SHAWN STEVENSON: Consider this light from the sun travels 93 million miles through space. It moves through all kinds of cosmic and atmospheric barriers and still reaches you in a way that's so profound that it instantly changes your physiology. UV light, ultraviolet light in particular, is most notable when it comes to skin damage. Whether we're talking about sunburns or the progression to various forms of skin cancer. Now, just to be clear, UV light from the sun also does many wonderful things, like killing pathogens. UV light is the most powerful natural virusicide in our environment, with the ability to kill viruses. UV light also plays a primary role in the entrainment of our circadian rhythms. This entrainment influences literally every system and cell in our bodies. From hormone production to digestion, to immune system function, and so much more. Everything about us is influenced by our interaction with light. The most commonly known benefit of UV light from the sun, however, is its critical role in activating vitamin D production in the human body.

SHAWN STEVENSON: Vitamin D is a group of fat-soluble steroid hormones that have a huge number of roles in our bodies, from immune system health, from cognitive function, from our sexual health, and so much more. In fact, a 2010 report published in the journal Genome Research found that vitamin D influences several hundred genes, many of which control disease suppression or expression. Vitamin D is incredibly important for human health. And it's primarily produced in our skin in response to ultraviolet radiation from sunlight. It is this natural interaction that we evolved with that gives us power. That gives us resilience against chronic and infectious diseases. And there are literally hundreds of studies denoting how remarkable vitamin D is.

SHAWN STEVENSON: And again, we evolved producing it naturally when interacting with the sun. Keep that in mind going into this that Ultraviolet radiation, ultraviolet light is not all bad. There are many critical benefits, many critical important things that we need to get from that UV exposure. But, and this is a big old but, dysfunction with our skin's interaction with UV light is what causes sunburn. We all have remarkable UV-sensitive cells called melanocytes that produce a protective compound called melanin. Now, many people know melanin as the pigment that gives our skin its color. Also, it influences the color of our hair, the color of our eyes, and so much more. But, melanin also functions as a powerful, systemic antioxidant itself. It's a free radical scavenger that reduces and protects against inflammation and works in association with our immune system. Melanin poppin. Melanin is one of the most remarkable compounds found in the human body. It has so many different benefits in regards to keeping us healthy, reducing our risk of disease onset, and in particular, helping to modulate inflammation in the body.

SHAWN STEVENSON: Melanin also intelligently absorbs ultraviolet light and converts it into other forms of energy. Yes. Sometimes when we think about absorbing light and turning it into energy, we might think about plants, right? We might think about a plant's ability to do that via photosynthesis, right? We might even conjure up Little Shop of Horror vibes, alright? Feed me, see more vibes with photosynthesis and a plant coming to life and being able to do things. But in many ways, we are plants that walk around because our ability to absorb sunlight and turn it into energy is a very, very real thing that we don't talk about enough. The human body is capable of building specialized proteins that transform light energy into chemical energy. One of these proteins known as melanopsin uses light energy to set our circadian rhythms, as we already mentioned. Briefly, light actually entrains our bodies to produce certain hormones and neurotransmitters at certain times. This is the catalyst. It entrains our bodies on when to be alert and when to sleep.

SHAWN STEVENSON: Also, light influences our heart rate variability, our metabolic rate, our immune system function, and so much more. Light carries energy with it. You can sometimes actually feel that energy in the form of heat. It's very, very profound, but we take it for granted. We're kind of. jaded by this incredible experience. We are part of all this. Now, one of the most remarkable aspects of our cell's ability to convert light into energy is how light prompts the movement of certain proteins that allow us to see light itself. Light triggers certain proteins in our brain, in our eyes. to do certain movements that enable us to see colors that enable us to see certain aspects of light itself. It is a domino effect that is started by light that enables us to interact to experience and appreciate light more. It's really, really cool. Now, with all of that being said, dysfunctional activity of our melanocytes and having less overall melanin production. i. e. having a lighter complexion can predispose someone to easier sun damage. Note I said predispose not cause sun damage. Less melanin and dysfunctional melanin activity is only a risk factor but it does not guarantee that someone

will get sunburned. Melanin absorbs UV light but if these cells are not functioning normally or they're overburdened UV light has a much higher probability of causing significant free radical damage. And these free radicals are essentially unstable molecules that can damage our cells, damage our proteins, and even damage our DNA.

SHAWN STEVENSON: When someone has an abnormal UV light reaction within their skin, prompting damage being done by free radicals, Their immune system is recruited in droves, sending increased blood flow and immune cells to the site of the UV overexposure. And this reaction of the immune system is what causes the redness and the pain associated with the sunburn. It is our immune system's reaction to the UV light. Now, circling back to the potential of UV light to damage DNA, the unchecked replication of DNA-damaged cells is the primary concern with sun damage and cancer. But again, it is connected with inefficient immune system function and not merely the act of being in the sun itself. This is very, very important to understand. Yet, instead of making sure that our skin is healthy and interacting with the sun, intelligently, as we have for generations upon generations of humans before us, instead of ensuring that our immune system is functioning properly, mounting an appropriate response and not over or underreacting to UV exposure, we have now normalized a multi-billion dollar industry of sunscreen to hopefully act as a shield to attempt to take the need for healthy skin and a healthy immune system out of the equation. And the question is, has it worked? Well, it's important to first look at the prevalence of cancer overall. Now according to the NIH and the National Cancer Institute, the prevalence of cancer in the United States has more than quadrupled since 1975.

SHAWN STEVENSON: Cancer prevalence has at least doubled in all age demographics analyzed, including in people under 50. Now, a wide variety of cancer types have gone up precipitously since the 1970s, despite all of the apparent medical and health innovations, and that includes skin cancers. From 1972 through 2004, the rates of malignant melanomas have more than tripled in men and nearly tripled in women as well. Again, this is happening in even younger populations. In fact, a study conducted by the Mayo Clinic Tracked rates of melanoma in people aged 18 to 39 using population data from a city of Minnesota. From the year 1970 to the year 2009, the researchers found that the rates of melanoma went up eightfold in young women and quadrupled in young men. To say that the rates of skin cancer have skyrocketed in this recent 40-year time span is truly an understatement. Skin cancer rates have risen dramatically in recent decades despite an explosion in sales and usage of sunscreen and its presumed sun protection. A study cited in the top-tier peer-reviewed journal, The Lancet, highlights this paradox.

SHAWN STEVENSON: In their analysis, the researchers highlighted the rising incidence of non-melanoma skin cancer in several countries including the United States. The scientists

stated, quote, this increase is the reverse of what is expected given the continued increased purchase of sunscreen per head in the United States and the UK since the 1990s, unquote.

SHAWN STEVENSON: This 2010 study titled The questionable effects of sunscreen goes on to note this paradox, quote, The contradiction suggests that increased population exposure to sunscreen does not translate into a reduced risk of skin cancers. This finding is particularly important for public health measures to prevent nonmelanoma skin cancer and melanoma. It could be that sunscreens are being improperly used or that they are ineffective in the prevention of skin cancer or that other factors not related to UV light are leading to an increased risk of nonmelanoma skin cancer and melanoma. Unquote.

SHAWN STEVENSON: The scientists go on to state, quote, sunscreen has the potential to have negative effects since the synthesis of vitamin D relies on UVB radiation. Since vitamin D deficiency has been linked to the pathogenesis of many diseases, it is crucial that the effectiveness of sunscreens and their use are thoroughly investigated, unquote. This analysis is really noteworthy because researchers are really trying to take a balanced perspective here because they're taking this approach where they really can't demonize something that's so ingrained in our culture as being effective, like sunscreen.

So they have to throw out the obligatory. Well, maybe people are just using it wrong, you know, this, they're putting it on every two and a half hours. It's supposed to put it on every two hours. They're supposed to slather, slather, but they're only dibbling and dabbling. They need to put on more. They need to look completely coated. They're supposed to lather up until they're practically invisible to the sun. So much coating that they change colors themselves. Right? So again, just denoting that, Hey, maybe people are just using it wrong. But they also acknowledged that the product itself might be ineffective at doing what it's proposed to do. And, most importantly, they noted that this increase in skin cancer, despite the rampant increase in the purchase and use of sunscreen, could actually be the result of something other than the mere presence of ultraviolet light on human skin. And this is where we come in at. Now, the question is, what can be causing our increased susceptibility to sun damage despite our new rampant use of sunscreen?

SHAWN STEVENSON: And another question is, knowing that our skin is made from the food that we eat, does what we put in our mouth affect our sensitivity to the sun? Well, I thought it would be best if we actually started by looking through the lens of modern medicine and the well-established increased risk of sun damage. If you're taking certain medications, all right, you're taking certain oral medications, right? You're putting something in your mouth and it's making you more sensitive to the sun. An analysis titled drug-induced photosensitivity published in the journal drug safety in 2019 details much of this. One of the most well-known drugs that increases the risk of sunburn are antibiotics. Antibiotics are well noted in study after study.

It's one of those things that you can just glance past and really miss when hearing this list of side effects when they talk about So, you know, headaches, nausea, photosensitivity. What they're saying is increased susceptibility to sunburn and dot, dot, dot potential skin cancer by taking these antibiotics. That's crazy. Like, why would that be? That doesn't really make sense until we peer into our inner universe and look at the damage that can be done by taking an antibiotic. Our bacteria cells are in close proximity to our immune system cells, and the majority of our immune system cells are located within the human gut.

SHAWN STEVENSON: So there's typically, according to which researcher you talk to, maybe one cell layer thick distance from our gastrointestinal tract and all of its inhabitants and our immune cells. So there is a very, very close proximity. And if we're damaging our bacteria, we are inherently going to create some, we'll just call it dysfunction with our immune system. Now, we've talked about this issue on numerous episodes of the model health show with the very very best Gastroenterologists in their respective fields award winning Publicist, Scientists the list goes on on tens of thousands of patients and this is a common theme where when they went to medical school, antibiotics were just one of those things where it was just given out as a protective thing, help somebody to get over an infection. But we've overused antibiotics, and sometimes, oftentimes, using antibiotics in situations where they don't need to be used. And understanding that, although we want a targeted antibiotic in some instances, there are multiple antioxidants that actually contribute to what can be referred to as friendly fire.

SHAWN STEVENSON: Killing off our beneficial or probiotic flora in our guts. And knowing that, again, this is dramatically influencing our immune system function. And so taking antibiotics leading to increased risk of sunburn has to do with the damage that is causing to our gut and by association, the impact that it has on our immune system. Because going back, that redness, the pain associated with a sunburn, that is our immune system and its overreaction oftentimes to the sun exposure. Now we wanted to mount an appropriate response because we need that feedback. If we're having too much sun exposure, like for example, somebody's just spinning, you know, months at a time indoors, and then suddenly they go to the beach for two hours and they get a sunburn, they need to get that feedback that this is inappropriate, their body is trying to protect them.

SHAWN STEVENSON: We look at these signs and symptoms as flaws of the body. These are things that my body is doing me wrong. It's causing me pain instead of looking at it as critical biofeedback. Oftentimes our bodies expressing symptoms as an adaptation to keep us healthy. But we look to certain drug classes, whether it's topical applications, whether it's internal drugs to mute a symptom instead of allowing our bodies to heal paying attention to the feedback and changing our behavior right now. With that being said, this is the number

one drug class, again, something we put in our mouth that makes us far more susceptible to sunburn.

SHAWN STEVENSON: Antibiotics are number one far and away, but another one of these drug classes that's noted in this study, and again, this was published in the journal Drug Safety in 2019. Another drug class is NSAIDs or nonsteroidal anti-inflammatory drugs. Again, why would these drugs that are helping to reduce pain, that's why they're prescribed, that's why people take them and when I was dealing with my own health issues in my early 20s, I was taking Celebrex, right? I was taking different NSAIDs, that was just one of them I was taking to help me to deal with pain. But what we aren't taught is that pain, again, it is an expression of our immune system. It's this biofeedback because when we're taking the NSAID, we're inherently going to be disrupting our immune system response. Because a lot of our pain experience is driven by our immune system and its response. It is our immune system that is triggering the pain. It's not the injury itself. It's not the trauma. It's not the muscle spasm or whatever the case might be. It is our immune system's response. Of course, we have the feedback with our nervous system as well, but our immune system is what's creating the inflammation. And so we want to get out of pain and the NSAIDs come in and the NSAIDs are basically like, forget what you're talking about immune system. We're not trying to hear all that. We're here for one job and one job only. And the immune system's like, what do you mean? NSAIDs, like, it's provocative. It gets the people going. Shout out to Jay Z and Kanye, watch the Throne album.

SHAWN STEVENSON: Now with that being said, we are blunting a very important biochemical feedback when dealing with pain. Now this does not mean in any way that we should just suffer with pain. But for us to just have normalized taking NSAIDs and not understanding that everything comes with a cost. Oftentimes we're not addressing the real underlying issue of the pain. We're simply muting a symptom or trying to mute a symptom. And that can also lead to this now rampant use of drugs in our society, in particular drugs that numb or mute pain, going all the way to this multi-billion dollar industry of opioids that have, as of this recording, killed about half a million Americans. Now, just having access to these different things, doesn't mean that people who've abused or utilize opioids are doing so to eliminate pain, but there's psychological pain as well as physical pain and there are many people in that count that there was not their intention to die from taking that drug class but as you've probably seen on many of these new really well-done feature stories and documentaries on the opioid epidemic a lot of folks are getting into it and the use of them prescribed by their doctor to help them to get out of pain And one thing leads to another.

SHAWN STEVENSON: And so I'm saying all this to say that these different drug classes do not come without a cost. Whether it's the rampant use of antibiotics and NSAIDs. This really twisted system is profiting from our pain and from our sickness. And this episode is about

taking back your power. Becoming more aware of this really crazy interaction that we have with humans evolving interacting with the sun for thousands upon thousands upon thousands of years and having very very low rates from the best data that we have even up until recently up into the early part of the 1900s, rates of skin cancer were low and our registries for these things were also not normalized. But, it wasn't until the 1970s when an explosion began to happen, and it's just gone up and up and up and up since then, as we detailed earlier in the show.

SHAWN STEVENSON: Our interaction with the sun, we need sunlight in order to be a healthy, sovereign, functioning human being. But something is seriously awry here, and what I just listed with these drug classes, these are just some of the commonly used drug classes that increase the susceptibility to harm from sunlight with a culture here in the United States that now has about 70 percent of our citizens at any given time taking a pharmaceutical drug, do you think that this might be one of the most overlooked things that's causing our rampant dysfunction in interacting with the sun? You probably know the answer to that. Now, I use that as a lead-in, because this is a well-documented medical phenomenon that putting something in your mouth in the form of a drug can make you more susceptible to sunburn and the potential risk increase for developing skin cancer. Now this is going to lead into our conversation about nutritional sunscreen and how certain foods can dramatically improve our resilience against sun damage.

SHAWN STEVENSON: We're going to kick things off with a study published in the International Journal of Dermatology that tracked the nutrition of healthy female subjects with moderate sun exposure in their daily lives and found that the drinking of coffee led to significant photo protection, reduced UV related skin spots and reduced photo aging of their skin. How, Sway? How? Well, another study found that in addition to the plethora of polyphenols and other antioxidants found in coffee, compounds called melanoidins are a notable part of coffee's protection. In fact, several biological activities such as antioxidant, antimicrobial, anticarcinogenic, Inflammatory, anti-hypertensive effects and more have been attributed to coffee melanoidins. These colors are pigments and coffee has that brown complexion. Alright, cocoa brown. It has that brown complexion and this is, again, as surprising as it might be, coffee has been found in numerous studies to be protective against sun damage. Now, let's clear this up right now. This does not mean to run out to Starbucks. What the buck. And get whatever that is. Pesticide-laden low qual No disrespect! Well, respectfully disrespect because it is what it is. Not getting that stuff. With all the different additives and sugar and all that kind of stuff. We're talking about High-quality organic coffee. Alright, and the population that was studied are drinking high-quality organic coffee.

SHAWN STEVENSON: With that being said, if you are going to partake in the experience of coffee, this doesn't mean that you can't add your favorite, you know, milk to it. Again, get the

best quality you can or a little bit of a sweetener. But the quality matters, especially with coffee because it is one of the most pesticide-laden crops in our world today. And this is why I'm such a huge fan of the coffee from Four Sigmatic. Because not only do they have the most high-quality organic coffee, but they also have it infused with these powerful time-tested medicinal mushrooms that are also noted in study after study after study to be supportive of immunomodulation, right? Helping our immune system to ramp up activity when it's needed and to calm the immune system down when it's needed to not overreact or underreact. That's called immunomodulation. And medicinal mushrooms like Chaga, and Reishi. Like Lion's Mane are all well established to be immunomodulators. So highly recommend checking them out. Go to foursigmatic.com forward slash model. That's F O U R S I G M A T I C dot com forward slash model and you get 10 percent off storewide. All their incredible coffee blends. Today, I had their Think Blend. This was organic coffee with chaga and lion's mane, which researchers at the University of Malaya have determined that lion's mane is neuroprotective, helping to protect our brain cells against degenerative diseases. So really, really special stuff. Also, other studies have affirmed lion's mane is effective at helping to reduce symptoms of anxiety. So again, [4sigmatic.com](https://foursigmatic.com) forward slash model for 10 percent off all of their incredible coffee blends and now moving on so number one, if we're looking at nutritional sunscreen, it's in the form of this beverage called coffee. All right, really, really cool.

SHAWN STEVENSON: Now, another one of these beverages again in that same kind of dark skin domain is chocolate. A fascinating study published in the Journal of Nutrition took a group of 24 women and exposed parts of their skin to UV radiation from a solar simulator and noted how quickly it took for their skin to become reddened from the exposure. They also ran a battery of tests to determine things like their skin density, skin hydration levels and blood flow to their subcutaneous tissues. Noting that chocolate, dark chocolate, in particular, is rich in protective antioxidants called flavanols. They split the women up into two groups. One group was given a hot chocolate beverage to drink daily that was high in these flavanols. While the other group was given a hot chocolate beverage. That was very low in Flavanols. They split the women up into two groups. One group was given a hot chocolate beverage to drink daily that was high in Flavanols, while the other group was given a hot chocolate beverage that was very, very low in Flavanols. They assessed the impact on the women's skin health after six weeks and then again after 12 weeks of drinking their respective hot chocolates. Here's what happened. The researchers had the women come back into the lab and expose their skin to UV radiation again to compare their skin response to their pre-daily hot chocolate reaction. After six weeks, the women drinking the high-flavanol hot chocolate had 15 percent less skin reddening from UV light. And after 12 weeks, they had 25 percent less skin reddening from the same UV exposure. Actually, they used a little bit more powerful UV exposure, and they had 25 percent less skin reddening.

SHAWN STEVENSON: After 12 weeks of this high-flavanol hot cocoa. And here's the most important part. The women drinking hot cocoa with low flavanols showed no improvement in their skin response to the UV radiation. Incredible. What's more, the scientists also noted that the women drinking the high-flavanol hot chocolate had significant improvements in blood flow within their skin compared to the low-flavanol group. The high-flavanol hot cocoa group skin was also 16 percent more dense, 11 percent thicker, 13 percent more moist, and 30 percent less rough. And 42 percent less scaly than it was at the beginning of the experiment. This is one of those things that should stick with us for a lifetime. To know that something like chocolate can make our skin so much healthier, can help our skin to be more resilient when exposed to UV light. That's really special. But not just that, making the skin more moist. Making the skin thicker. Like, these are all things that we probably want more of because what this is really saying is that it's dramatically protecting against photo-aging of the skin. Now here's the rub. The researchers also noted that conventional hot cocoa and chocolate products lose the majority of these naturally occurring flavanols through conventional processing.

SHAWN STEVENSON: So if you're just getting hot cocoa out on these streets like I'm trying to get that. That healthy skin, you're not getting it. And plus, again, all those additives that can be damaging the skin, causing more cross-linking, all that stuff like sugar. What we really need to look for is, again, dark, high cacao percentage chocolates, right? So whether this is a, you know, a chocolate bar of sorts, or in particular a cacao beverage. So cacao, as we've talked about numerous times, I did a TED talk on this, like 15 years ago about cacao, the origin, the real root of all chocolate. But it's been so denatured, right? Through all these different processes where it becomes something that is just so far removed from its potential health benefits. Like this is yet another benefit of chocolate is sun protection, but we want to make sure that it is high quality. And by the way, just to circle back again, even today, this is a true story. This morning, my youngest son, Brayden is 12 years old. He had a day off from school. They've been getting so many days off - first of all, I don't know if any other parents are feeling me on this. It seems like they get way more days off than we got off. But he had a day off from school and he asked me because I was about to make my wife her coffee. He asked if I was gonna make him a hot chocolate as well. And so I made him his favorite hot cocoa beverage, which is the Rishi hot cacao from Four Sigmatic, alright? So it has organic, high-quality cacao. And Reishi is in there as well. And plus some other things that make it taste nice, kids like it, that whole thing. So, you know, again, getting those benefits into his body. And if you see my son, he's just, you know, he's, he's got the glow. He's got the Bruce Leroy. I definitely attribute that a big part of it is to his nutrition.

SHAWN STEVENSON: Now, moving on, again, I want you to keep this in mind too. Think about the colors of these different foods, right? And we see these melanin-like compounds in some of these foods, right, that have this kind of darker, brownish, even to the point where it

can appear black hues in the kingdom of foods. Those might be things that can support our melanin production and the healthy function of melanin in our bodies. That's what this research is pointing to. But again, nature, the doctrine of signatures, nature, the sign of nature is telling us by the way that the food looks, how it tastes, how it functions in nature, what it can potentially do for us if we're paying attention.

SHAWN STEVENSON: Now moving on to another food that we can add to this nutritional sunscreen category tomatoes. A double-blind placebo-controlled crossover study. This is a really, really well-constructed study. Published in the British Journal of Dermatology, found that lycopene and other nutrients derived from tomatoes can significantly increase our skin's protection from the sun's UV rays. Alright, when I think about tomatoes and pasta sauce, I think about Italy vibes, right? And there's certain cultures in Italy that are known to have that complexion. As well, you know, like maybe there's something in the food culture that creates more resilient skin and allows healthy interaction with the sun where these particular cells that are absorbing the light, this, this pigment within the skin is being expressed and being able to do what it does. It's really, really special. But again. Our food is telling the story. Our, our ancestors have passed these things down. Now, to pivot from tomatoes, and to second the benefits of lycopene, watermelon actually contains about 40 percent more lycopene than an equal amount of tomatoes, and watermelon has this amazing benefit of being far more hydrating than most other fruits, making it a powerful one-two punch for healthy skin and hydration during those summer months. All right. So watermelon is one of those things to look to. Again, it just kind of has this resonance, this vibe, and certain cultures utilizing various melons in particular watermelon that has that reddish color. Think about this again. It's not just the browns. It's also those red hues as well.

SHAWN STEVENSON: And to take that a step further, another category. In this nutritional sunscreen is red berries. Red berries like raspberries and cranberries contain a remarkable nutrient called a logic acid that's been found to reduce our skin's inflammatory response to ultraviolet rays. According to a study cited by the Federation of American Societies for Experimental Biology, the researchers also noted that these berries can also protect against the breakdown of our skin's collagen pretty and other fruits that are in the same kind of hue you know this reddish and purplish hue like pomegranates and acai also contains a logic acid plus a study published in the international journal of cosmetic science found that a vast array of phytonutrients found in acai can provide the skin with a small but significant SPF protection, and SPF being, of course, sun protection factor. Yes, what we are eating, and what we're putting in our body determines the quality of our skin and how it interacts with the sun. All right, this should be common knowledge. If we're making our skin out of high-quality real food nutrients, we're going to have a healthier interaction with the sun automatically.

SHAWN STEVENSON: Now also, this should be urging us to, yes, absolutely include more of these red and purple-skinned fruits, especially during times that you'll be in the sun more often and this is something that we build up this effect by the way. This isn't like okay I'm going out in the sun tomorrow. Let me start eating a bunch of raspberries All right, and I've been indoors for three months hibernating like a bear and now I want to get out here in these streets. Now, this is something we build up over time, many of the studies that we mentioned, multiple-week studies, even six weeks can create a significant improvement in sun protection with our skin. So we absolutely want to include more of these red and purple-skinned fruits more often. A study published in 2021 using powdered concentrations of a sun-protective fruit noted that just two tablespoons of that powdered fruit provided the benefit of about one cup of the fruit itself but with notably less sugar as well. And so keeping this in mind we can make this a both-end world, right? Get you, get you a fruit who could do both.

SHAWN STEVENSON: All right, have some fresh fruit, but also utilize some superfood concentrates of these key super fruits. Again, in particular, the red ones, reddish purplish hues, pomegranate. raspberries, cranberries, acai, and you can find all of that in the Organifi Red Juice blend. It's organic, all organic, low-temperature processed so you retain a lot of these nutrients that we're looking for and is super easy to include, and kids like it as well. Give our kids this internal sun protection. Highly recommend checking out Organifi's red juice, especially when we know we're going to be out in the sun and we have some sun time coming up. Having some red juice on a daily basis is really, really awesome. And again, kids like it as well. So it's kid-tested and parent-approved. Head over to [Organifi.com](https://www.organifi.com) forward slash model. That's O R G A N I F I dot com forward slash model. And you're going to get 20 percent off their amazing red juice blend. All right. So head over there, and check them out. [Organifi.com](https://www.organifi.com) forward slash model for 20 percent off in particular. If we're talking about nutritional sunscreen, their red juice blend, plus you're getting 20 percent off storewide. They really do hook you up. Head over to check them out. [Organifi.com](https://www.organifi.com) forward slash model.

SHAWN STEVENSON: Now, knowing that our nutrition can improve our body's resilience against sun damage. Well, according to Dr. Kate Shanahan, being that our skin is significantly impacted by the oils that we consume, she stated, quote, seed oils like canola oil and vegetable oil, seed oils under your skin magnify the inflammatory effect of ultraviolet exposure, unquote. Now there's a common misconception that these omega 6s because if we're looking at omega 3s being more anti-inflammatory, omega 6s are more pro-inflammatory, this is not as simple as a statement like that, because omega 6s are critical for many different functions in our bodies. She states that the root cause of the inflammation is not the omega 6 in the oils, but the oxidation of those omega 6 is the oxidation of those oils. Even in the production process of ultra-process oils like canola oil, numerous oxidative

procedures are used in addition to the high heat production end of itself, creating all of this free radical activity and oxidation.

SHAWN STEVENSON: Chemical deodorizers are used and other things like, for example, hexane is used in the production of canola oil, which hexane, if that sounds familiar, it's made from crude oil. Yes. The same source of gasoline. So this is literally flammable explosive stuff. And you know, just normalizing that in our food supply, you know, an oil that is newly invented ultra-processed is the perfect labeling for that food product, if we're talking about canola oil and vegetable oils and all of the different treatments they have to undergo to be quite fit for human consumption is just ridiculous. All right. Bleaching agents, deodorizing agents. It's just ridiculous. And it's in almost every conventional food product on store shelves. Now, even though its use is so widespread, it's only regulated. We're talking about hexane, by the way, it's only regulated in a limited way by the FDA under the secondary direct food additives permitted in food for human consumption. All right. So I'm just talking about one aspect. If we're talking about inflammation and something that's literally flammable, I just thought that was interesting to add in there and what's being used to make the products that we've normalized. Now, what about other oils? Well, our skin is one of those organs that is going to absorb topically as well as what we're eating, those oils are going to be utilized for our skin in a big way because our skin is really the outermost extension, the outermost portion of our nervous system. It is so important in how we're interacting with our environment. Our skin is really, really special, and this delicate balance of water and oils and these different layers of our skin and how we've developed as, as a species is really, really cool, but the oils that we're using, providing ourselves to make our skin with really do matter. So we want to make sure that we're consuming high-quality, minimally processed oils, right?

SHAWN STEVENSON: Think about Italy again, olive oil, right? Olive oil. And how do you make olive oil? You press the oil out of the olives. That's it. That's it. All right. That's extra virgin olive oil. If you're wondering. All right. Usually, you know, stone press, cold processed, if we're talking about the oxidation factor, that's not going to be a part of this story if the olive oil is treated right, you got to treat olive oil, right? Shout out to Popeye. All right. Now, what about topical use of some of these oils? Well, if you look at certain cultures, they've been doing this for a long time. You know, something like coconut oil, for example, to provide some protection for the skin, but more so just to provide some, some hydration for the skin in a way. Coconut oil does provide a little bit of SPF protection when used topically. Interestingly enough, I am not at all advocating to swap out the conventional sunscreen with SPF one billion for coconut oil. I'm not at all saying that want to be mindful of this just by putting some coconut oil on your skin does not mean that you can haphazardly go out in the sun. In particular, if your skin is not acclimated to sun exposure and this is the heart of this whole conversation is looking at, we've already done the sunscreen thing. That's a billion-dollar industry, but we, continue to get higher and higher rates of sunburns and higher and higher

rates of various forms of skin cancer. Something's not adding up. And yet there's all this dramatized fear of the sun. Like the sun is trying to kill us. There's literally a website, all right, it's called The Sun Is Trying To Kill Me. All right. And it's like a dermatologist and like this researcher and it's just. That perspective is not healthy.

SHAWN STEVENSON: It is silly. We don't have a life here on this planet without the sun. It just, it doesn't happen. It doesn't exist without the sun. And I mentioned this earlier, 93 million. 93 million miles away. 93. You remember running the mile in school? That's a long ass distance to be running. 93 million miles, the sun, those rays coming from the sun reach us through all kinds of cosmic obstacles, our atmosphere, all this stuff and touches us and we can feel its heat. We can, we can literally incite all of these incredible activities within our bodies that keep us healthy. That interaction produces vitamin D within our bodies that help us with, again, our cognitive function, our immune system, our cardiovascular health, our sexual function, the list goes on and on and on and the catalyst is the beautiful sun and its rays touching our skin. Now, we have to go about this with intelligence because we no longer have a culture that spends a lot of time in the sun. And that's part of this problem. But we've also got to look at, and be honest about, our treatment of this, like trying to create this glorified barrier on our skin, like some kind of, again, making us turn into the invisible man or visible woman out here on these streets, like the sun can't see me, right? I'm John Cena, right? With sunscreen, it just doesn't work like that. We cannot have this conversation, and this could be a whole masterclass in and of itself, so I'm not going to spend too much time on this, but we have to mention, what about these conventional sunscreens themselves? Could they be potentially increasing our risk of disease and dysfunction and even cancer? Well, a randomized trial published in the Journal of the American Medical Association titled Effect of Sunscreen Application Under Maximal Use Conditions on Plasma Concentrations of Sunscreen Active Ingredients has recently caused some big concerns.

SHAWN STEVENSON: Some media outlets went wild framing it like sunscreen is just deadly and it's out here killing people, while others framed it as fear-mongering and said that these chemicals are not shown to be harmful to humans. Right? So people are going to both extremes. See, I told you sunscreen is messing you up. Now the people like it's fear-mongering, lather up, slather up, Right? Get the paintbrush, and brush it on. All right? Fear-mongering. Well, as you know, it's probably not ideal to swing in either extreme in this situation, but it's more logical and science-based to take this perspective that we need to acknowledge how often the widespread use of newly invented synthetic chemicals, like what's found in conventional sunscreens, have been accepted as safe and to later find out that they were actually quite dangerous. And we have literally hundreds of documented examples of this happening, taking the lives of millions of people along the way. You know, whether this is DDT, whether this is chlorpyrifos, and the use of growing our food and all of the damage that is done to reproduction and reproductive health whether it's the Teflon

chemicals that again have recently been removed some of the chemicals in Teflon that are noted in this category of PFAS these forever chemicals that are known to cause like renal cancer a kidney cancer for starters and Reproductive issues and list goes on and on We've talked about many of these different things that were considered safe, widely used in our culture and then later on, we found out, Oh, wait a minute, that was actually making me sick. Again, this would take up an entire masterclass just to go through all the different chemicals that are found in conventional sunscreens that are noted to be causative agents at some degree of. Um, dozens of different chronic diseases, but as a resource, I'm going to point you to an analysis that was published by the environmental working group titled The Trouble With Ingredients in Sunscreens and I'll put that for you in the show notes as well and commonly used ingredients in sunscreens are definitely problematic. There is a plethora of data on this. In particular, they noted, quote, We have even more concerns about ingredients such as oxybenzone, which many studies have linked to hormone disruption unquote.

SHAWN STEVENSON: Oxybenzone is commonly used in conventional sunscreens that say, Hey, oh, we don't have these other chemicals, right? paraben-free. We don't have these hormone disruptors in our sunscreen, but then it has that in there. All right. So we have to be more intelligent buyers of sunscreens, absolutely. But more importantly, we have to be more intelligent in creating healthy skin and cultivating healthy sun exposure. And by the way, here's why it matters with Oxybenzone. A randomized controlled trial published in the Journal of the American Medical Association, looking at systemic absorption of chemicals from commercial sunscreens, found that Oxybenzone was being absorbed into study participants' bodies at levels that were up to 200 times higher than the limit the FDA established as safe without the need for further testing. It's been going on for a long time It's been going on for long time but if we don't have a catalyst to question these things it just becomes background noise, we can be putting things into our skin in efforts to protect us, and they're actually causing us harm. Now this conversation was all rooted in the common belief that too much sunlight causes skin cancer.

SHAWN STEVENSON: But there are also several studies that show that not getting enough sunlight also causes cancer. All right. This is about being intelligent with our interaction with something that gives us a life. And as mentioned, there is no data indicating that our hunter-gatherer ancestors were ravished by skin cancer. And today there also aren't high rates of skin cancer in animals, except the ones that we feed. nor are there high rates of skin cancer in humans today who live closer to a hunter-gatherer lifestyle. But, how do we go about this? The most important sun protection is to build up sun exposure gradually, allowing our bodies to adapt. Allow the incredible pigment that we produce, our melanin, which regardless of our skin complexion, what's really interesting is that humans do tend to have a roughly similar amount of melanin-producing cells, but that does not mean that we're

as pigment-rich, by the way, but we have the capacity to produce this protective pigment to some degree.

SHAWN STEVENSON: It's one of those things that we build up over time. It's just like exercise. You don't go to the gym the first day. You haven't exercised in a year and you go do a three-hour workout and just do lift heavy. All right, you're just doing everything. You're just beating the crap out of yourself. You're going to experience some pain. You're going to experience a tremendous downside. But we do that with the sun. We do that with sun exposure. And sun exposure is a hormetic stressor, absolutely. And so to go from 0 to 100, to go from 0 or maybe 10 minutes of sun exposure for several months, and then to go on vacation, which we tend to like, we want to go somewhere where it's really nice and sunny. That transition is inappropriate. We need to build up that resilience. We need to allow our bodies to adapt. So if you are doing that, yeah, go and dip yourself in the SPF 1000. If you're going from zero sun exposure to being out in the sun, or you can do this more appropriately. Right. And even if you go into the beach, you know, again, just maybe you can cover yourself a little bit better. Maybe spend 10 minutes going to the ocean and whatnot, hang out. But keep yourself covered. You don't necessarily need to slather up with whatever, but just be smart again. If you're concerned about the PFAS forever chemicals the hormone disruptors whatever else might be coming through with these conventional sunscreens that again far beyond the limits that are established by the FDA to be safe for humans without further testing they're not saying that is harmful, but they're just saying without further we don't know I'd rather not be an experiment. All right. So the most important way of building up sun protection is building up a tan for you. And when we say a tan, this does not mean that you're going out and roasting and basting yourself. This means that we're building up that melanin protection over time. That is the most valuable sun protection that cultures all over the world are just doing. They're just doing it.

SHAWN STEVENSON: In our culture where we're largely indoors a lot, we have this whole concept of indoors and outdoors period. This is a situation where we number one need to make sure that we're getting our nutrition right when it comes to building healthy skin and doing our best to get some sun exposure, building up our time in the sun and thus building up our resilience against sun damage. These are the most logical science-backed things to do in the face of a culture that has spent billions of dollars on sunscreens and yet have the highest rates of skin cancers ever known to man. Something's not adding up because that math isn't mathing. All right. It just doesn't make sense. And I hope this provided you with some really valuable insights and proactive things that we can do as far as our nutrition, as far as our awareness about our association with the sun, and our vital need for sun exposure. And also for us to appropriately interact with the sun for us. Paying attention to our own complexion, our own skin tone, knowing how much time we could spend in the sun, and just understanding our body literally builds up resilience over time.

SHAWN STEVENSON: And so giving your body some grace. Making it an effort to making it a priority to spend some more time outside. Because here's another interesting thing, even if we're outside and the sun isn't directly hitting you, it's reflecting off. That's how powerful it is. It's reflecting off of so many things and hitting our skin still. Alright, whether it's certain types of ground material that we're walking on. Whether it's a body of water. That actually is one of those things that increases the risk. of sunburn is the fact that if somebody's going to the ocean suddenly or onto a beach, the reflection of the water is magnifying it, making it even stronger. Alright, so just being aware that we don't have to go out there bucket naked in the sun on day one. Just build up some time, just get outside more, give ourselves these vital inputs, be more human, and build up real resilience and healthy interaction with the sun.

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