

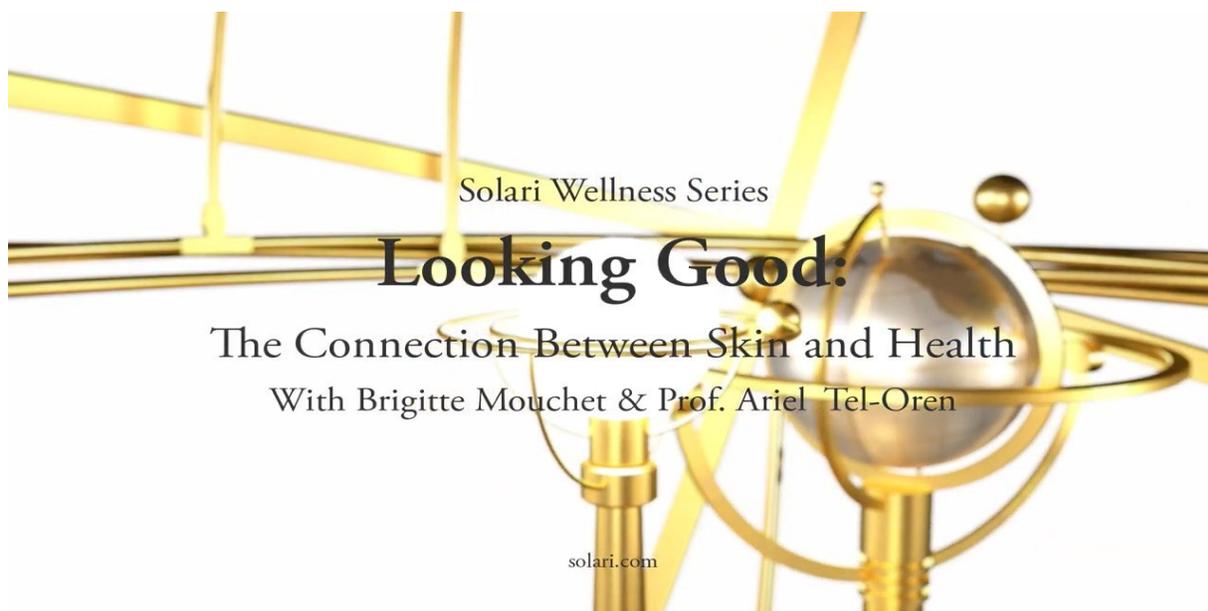
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# The Solari Report

December 10, 2020

**The Solari Wellness Series**  
**Looking Good: The Connection**  
**between Skin and Health**  
**with**  
**Professor Adiel Tel-Oren (“Dr. T”)**



**Brigitte Mouchet:** Hi. This is Brigitte Mouchet with The Solari Wellness Series. I have the pleasure to interview today Professor Adiel Tel-Oren, also known as Dr. T. He is joining us from Israel where he is currently quarantining with his family.

Dr. T, welcome to The Solari Wellness Series. I really appreciate your taking the time for this interview.

**Dr. T:** It's my pleasure.

**Mouchet:** Thank you. Dr. T has a very diverse and interesting background. He started his career as a professional musician before getting into the medical field and becoming an expert on skin and gut health, relying on functional and natural medicine, including nutrition, to help his patients.

He is also active in humanitarian and ecological projects, and he seems to be able to keep some time available for adventure. We will have a chance to talk about that later.

Dr. T also loves to share his expertise with a wide variety of audiences. Basically he can be seen almost anywhere in the world.

The topic for our discussion today is, 'Looking Good: The Connection between Skin and Health'. We are going to talk about the skin, we are going to talk about the benefits of sunlight, and also of red and infrared light, and then hopefully we will have some time to talk a little bit about how the skin can be an indicator or even an early indicator of some health issues.

So we have a lot to discuss here. Let's start right away.

Dr. T, could you talk about why the skin is so important?

**Dr. T:** Well, you can ask that about every organ in the body. We can always say that every organ is important. But the skin deserves that question – perhaps more than most other organs – because it is not recognized enough. People make the assumption even in medical school that skin is being described as this external peel around the body that is designed to protect and to provide some

cushioning, but very little attention is given to many other functions of the skin as a crucial organ that is actually as important as the liver.

I always say that the skin is our second liver. Everybody recognizes the importance of the liver in producing numerous metabolic products for the entire body to utilize. We know about at least 600 types of metabolic pathways that are associated with liver function, and everybody worries about their liver if it is plugged or fatty or cirrhotic or infected or inflamed because immediately they see symptoms throughout their entire body, but they don't realize that our skin is extremely productive. It's a huge organ. It is the largest organ in the body, and it would be so wasteful to have such a big organ stay there just for external protection as a layer covering everything to keep us warm. That would be very wasteful, just like wearing a two-ton raincoat would be very inefficient.

If you have a big, thick coat around your body, you want it to do other things besides keeping you warm, and the skin does a lot more than just protect us from the outside environment; it has its own huge immune system. So I actually call the skin a huge immune organ just like the gut is. The gut is the first immune organ in terms of size, and the skin is the second. Most people don't think about the skin as such.

It's the second liver, it's the second-largest immune organ, and it is also a very important organ of the nervous system. It is actually the third brain. We have the first brain in the nervous system, the second brain in the gut, and the third brain is in the skin. So one organ is at the top three of extremely important functions that support and service the rest of the body, and yet we only notice it as this external shell that is there to look pretty or is there to protect us from the outside environment, which is obviously something that other organs don't do.

The skin is so important. It makes hundreds of nutrients that the rest of the body needs. Even if it didn't do anything else – even if it didn't protect us from the environment, didn't provide cushioning, didn't provide recognition of bugs walking on us or cold air or extreme heat or warning from potentially damaging agents in the environment – if it only had one function to produce numerous nutrients for our body to survive, we would give it much more respect than we do today. That is what I am trying to get people to be aware of, to know that the skin is not just skin-deep; it goes far, far deeper than that because of all of the

metabolites that it manufactures and provides to the rest of the body. That is what it is in a nutshell.

How does it manufacture them? Why does it manufacture them? In what circumstances? That is really important.

Just think about how the liver responds to stimuli. When you eat certain things, you shed different components of bacteria in the gut which make their way to the liver, and the liver responds. The immune system of the liver react

When we eat certain nutrients, the liver does certain things with them. The same is true with the skin, but the skin gets its stimulation not from the food that we eat (because the food is in touch with the gut first) but the skin is in touch with the outer environment that stimulates it into action. The most important stimulation it receives for its productivity function is the one that comes from the sun. That is the myriad of frequencies of photons that hit the skin when it is exposed to sunlight with all of its different components.

This is how it has always been. This is not a new thing. We actually evolved in our natural ecosystem thanks to those frequencies of photons that hit our skin and give it the messages necessary for it to respond with metabolic functions.

Various metabolic pathways within the skin get into gear and get into action, and we start making nutrients that the rest of the body needs and deserves in order to be healthy and actually to be vibrant and to have energy – to have vitality.

As long as we are not getting enough of those frequencies, we cannot expect health; we can expect to somehow travel along thinking that we are healthy, but not realizing that we are extremely far, far away from health. The only way that we are going to experience that vitality and that vibrancy that is our inalienable birthright of all animals in their natural habitat is if we give the body the opportunity to experience what animals in their natural habitats experience with all of its different components.

The largest component that we are now missing in our lives – even if we eat healthy food, even if we sleep well, even if we exercise, even if we avoid toxins –

is nothing if we are not getting hundreds of nutrients that we are severely deficient in. We cannot expect health without them. That is why humans today are not as vital as they should be. We have this ability to have extreme health, to feel like 20-year-olds when we are 70, to feel this burst of energy that is continuously permeating every cell of our body and telling us, “There is nothing we can’t do.”

To have amazing speed and strength and endurance is all scientifically proven. We have this ability, but we are failing our own destiny because we are not giving ourselves the opportunity to utilize our skin the way that it was intended to be used as our second liver to manufacture amazing products that give us this extra level of health that none of us have even experienced yet to know what it is that we are capable of achieving. And that is a shame. That is really a tragedy that people who think that they are healthy are so far away from what they could really experience to appreciate health at its highest possible level.

**Mouchet:** I see. So can you give some concrete examples of some of the substances that the skin manufactures when exposed to sunlight as well as the health benefits? Then maybe you could talk about skin from an aesthetic point of view. If so, what can we do? Is it automatic when we are healthy that we have good skin? Maybe you could touch on that as well.

**Dr. T:** Just like we say that there are no bad dogs, there is no bad skin. We may abuse it. We may do things to harm it, and we can get into that later, but all skin is good if we give it the opportunity to do its job and if we don’t abuse it.

People think that when the skin is bad, it’s really an issue of looks and appearance, but if they only had a way to see what their liver looks like, or if they only had a chance to see what their brain looks like, we just don’t have a way to do that. Even with an MRI, we don’t really see how the brain looks; you only see a shadow. You see two dimensions instead of three because every slice, even though all of the slices together are three-dimensional, every slice in itself is almost two-dimensional. So you don’t truly see the entire appearance of the brain.

People don’t say, “I have a beautiful brain.” They don’t say, “I have good brain because I don’t have pimples on my brain.” They don’t know that; they don’t

see it. You may have all types of liver acne and brain eczema, but you don't see it.

It's very important to realize that just like any other organ, the skin will represent so many of our insults to its integrity, and then it will call for help. It will show us the problem. That problem needs to be at the root cause. We will get into that later if we have time.

The important thing to address your question is that there are maybe thousands of nutrients that the skin manufactures. The science is just in its infancy when it comes to the skin because nobody had the interest in studying it for many, many years except for the cosmetics industry because they needed to know what to put on the skin that would not immediately show damage. People would obviously not use their products if they show damage. So they have done a lot of research, and they have hired a lot of researchers.

Most of the studies about skin function come from that industry, and I've read a lot of their studies which are very interesting from a clinical perspective. Unfortunately dermatologists don't read those books because it's about manufacturing products to put on the skin, not about pushing them to their patients. So they don't really get the interest in doing that. Many of them get more involved with the business of making people appear more beautiful and not thinking about the product that you put on the skin and what is the negative impact in the long run.

The skin manufacturers, for example, use nitric oxide. Nitric oxide is the darling of molecular biochemistry. It won a Nobel Prize. Now there are thousands of products on the market that are designed to increase our nitric oxide production. People realize that nitric oxide is crucial for their brain function, to slow down dementia and Alzheimer's, to improve sexual function, to fight off erectile dysfunction, to bring the blood to the various peripheral organs so that they get their nutrients, and many other things.

So nitric oxide is very important, but it is also a potentially damaging molecule if you have too much of it and you cannot convert it to a different chemical that is neutral. Otherwise, it can convert into a very potent free radical that can damage the brain and can damage the tissue. So the body is very complex.

If we listen to nature, we don't need to know that complexity. We don't need to care about it because nature takes care of it. In the case of sunlight, when you are exposed to a UVA, which is a portion of the ultraviolet radiation of the sun, UVA forces you to manufacture the nitric oxide in your skin, but then you need UVB to release it. So you need both UVA and UVB to manufacture and to release the nitric oxide from the skin and into the blood vessels. Then it can do a lot of good for the entire body.

People don't realize that they can take 100 capsules of L-arginine and amino acid, and it will make maybe a tiny, tiny bit of nitric oxide if any at all because there are so many inhibitory pathways going from the mouth. If you don't mix the nutrient with the saliva, and if you don't have the right bacteria in your mouth, you won't make any nitric oxide by taking those supplements. But the skin does it directly. It manufactures it, and it releases it in huge quantities.

This would explain why a patient who came for one of my health retreats in Florida, which are very effective, because one of the therapies that I created there is a privacy sun deck where all year long you can expose your naked body – every square inch of your skin – to the sun. People who come even from sunny states like Nevada or Arizona are suddenly getting their erections back. They are suddenly feeling vitality again because normally they don't know how to utilize what is obvious in nature. You don't even have to ask the question in nature.

Maybe they are getting only UVB or only UVA or only some components of the sun. So it's like eating an orange versus just taking a vitamin C capsule and saying, "Well, I don't have to eat my orange today because I got my vitamin C."

Do you know how many thousands of nutrients of bioflavonoids and flavonols you are missing when you are not eating the entire orange or the entire lemon with the peel and you are just taking vitamin C? That is what people are doing with vitamin D, which is another one of the products that the skin manufactures in relationship to the sun. So besides vitamin D and nitric oxide, there are numerous endorphins which are natural painkillers and pleasure/hormone-like substances and messengers and neurotransmitters that are manufactured in the skin. Brain development or brain growth factors are also manufactured in the skin.

The skin is a part of the nervous system. It is actually manufactured at the same time that the brain and the nervous system are manufactured and from the same origin in the embryological component of our life in the first three weeks. So the nervous system is integrated into the skin, and the skin is integrated into the nervous system such that the skin can manufacture neurotransmitters that are used by the whole body.

When you expose your skin to the sun and your whole body to the sun, you make serotonin in large quantities – much, much higher than any serotonin-inducing drug like the antidepressants that are supposed to inhibit the reuptake of serotonin at the synapses. Those are nothing by comparison to sunlight in the morning in terms of manufacturing serotonin.

There are many other products of sun exposure that have been studied, and many that have not been studied yet. Just imagine carrying a truck behind you full with skin. This is what it would be like if our skin was not designed to do more than what we have given it credit for. Making hundreds of nutrients is what it does, and some of those nutrients are then metabolized to make thousands of other nutrients. Some are metabolized within the skin – which is efficient – and some outside of the skin. For example, the skin also manufactures different protein carriers that will carry the other products like the vitamin D into the circulation where they can do their job.

There are so many nutrients that we know of, but there are so many more that we still don't know, and we must remain humble about our ignorance and just go out to the sun to trust in nature because that is where we came from. We tend to trust our mother because we came from her womb. Why shouldn't we trust the sun, because we came from the sun's womb as a species? People came after the sun was here. The sun has made certain that we would evolve into what we have become – a surviving species. We are still around thanks to the sun.

Some like to turn the sun into an enemy. Dermatologists are telling people that the sun is an enemy. That is a major disservice to our intellect as well as to our health. Without the sun, we are shadows of what we could be. That is obvious because it's the same as being deficient in hundreds of nutrients that you don't

necessarily get in your diet, but it's even worse because now these people are aware of the importance of nutrients, so they are avoiding white flour and avoiding white sugar and eating wholesome foods and are taking supplements. They are not as deficient in most nutrients as they used to be in the Dark Ages and in the Middle Ages and even in the early 19<sup>th</sup> century.

Now they are not so deficient. Nutritionally we cannot improve that much. We can improve a little here and there, but not to the same extent that we can improve our health by going into the sun and claiming our nutrients from the sun which we are so deficient in. I always say that we are the equivalent of scurvy sufferers, and you know that scurvy is vitamin C related. So we have scurvy of sun deficiency. We have sun deficiency syndrome that is not recognized because we have been scared into the darkness to stay away from the sun, to smother ourselves with SPF creams which block our skin's ability to manufacture all of those nutrients. Therefore, we become sicker and sicker the more we hide our skin from the sun, thinking that the sun is only here to damage us. That is as logical as saying that our mother gave us birth just to damage us.

**Mouchet:** I agree with everything you said. So what would you say is the best way to consume sunlight? I'm sure that we don't know anymore. Is it in the morning? Is it in the middle of the day? Is it in the evening? I think that some rays are better than others, and they have different effects.

**Dr. T:** First of all, we should not assume anything because the complexity of nature is too much for us to make such assumptions. We should just try to emulate what would have happened in nature.

I call it the 'gather-vore' lifestyle. You gather what nature would have provided you back in the days when everything we obtained for ourselves came from nature. So we gather. Just like we gather our food and we gather our air and we gather our fluids, we also gather our sunlight. But we are not doing it out of awareness; we are doing it just because it's a part of life.

If you look at people who live closer to nature today in the tropics where all humans emanate from, you see that their sun is sufficient to bring their vitamin D level in the blood to anywhere between 60 and 80 nanograms per milliliter of

blood. So vitamin D, as important as it is as only one of the nutrients manufactured in the skin, it is really not to be tested for the purpose of ruling out vitamin D deficiency. That is a big mistake, which makes us think that vitamin D is the replacement for the sun.

We need all of the sun's rays, not just the UVB. The UVB is in charge of manufacturing dozens of nutrients in the skin, and vitamin D is just one of them. It is only one, and it is only for the UVB.

We also need the UVA. Many studies have shown that people who are in a hospital room that has windows end up staying in the hospital for a much shorter time than those who are in rooms with northern windows or in rooms that have no windows at all. It's a dramatic difference. We know that UVB does not cross glass, so it was not the UVB that made them healthier faster and recover from disorders much, much sooner; it was other rays like the light itself – the visible light – which is not the ultraviolet A or B, which are not visible. It was the UVA also. The UVA creates nutrients as well.

The important thing is the ratio. If we are in the sun, the sun takes care of the appropriate ratios of the different solar rays of photons that hit the skin at their own individual frequencies and at the right timing. If we want to emulate the sun with technology, we have to understand how it would be nature first. In nature we would be waking up early in the morning, and as soon as the sun rises – or even before sunrise – there would be enough light to start working and start collecting food and start getting ready for the day. You cannot waste time when darkness in the evening prevents you from doing anything but sleep.

Remember, before electricity we had to observe the circadian rhythm that was enforced upon us by sunlight. Our metabolic pathways depend on that rhythm. So you wake up at 4:30 or 5:00 in the morning when there is first light and you can start preparing for the day and doing things that would help your survival. Then you experience sunrise, and the blue light of the skies around sunrise – and even before sunrise and right after – is predominantly blue light, much more than the other components of the solar spectrum. You get the whole spectrum, but you get more blue which gets into your retina but also your skin. It encourages the pathways that help you get alert and help you become active and functional and able to make decisions and so on for a more productive life-

saving day. That is in the morning.

Then in the evening, it's the opposite. Blue becomes suppressed, and instead, orange hues and red hues become more prevalent as components of the solar spectrum. That triggers less serotonin production, or rather more conversion of serotonin into melatonin, and we become more tired and foggy-brained and ready to start preparing for bed. That is how nature wanted it to happen.

If you convert the serotonin into melatonin at the right time, then when the blue light comes, you stop the conversion, but you have a lot of building blocks to make enough serotonin in the morning to become alert and upbeat to start the day. If you get the blue light in the middle of the night, you destroy all that because you make more serotonin which wakes you up, and you are not able to sleep well and manufacture all of the immune components and digestive components and neurotransmitters that are encouraged by melatonin at night. That is why people who don't sleep well and who don't have sufficient melatonin to hold them in deep sleep are at much higher risk of cancer than those who have sufficient melatonin at night and sufficient serotonin during the day.

It has to be made by the body to stay true to the circadian rhythm. If you just block something to get more serotonin, it is not going to do it. If you are just going to take vitamin D instead of manufacture it in the skin, you are actually harming yourself in some ways, and there are quite a lot of ways, which is a whole other discussion, of how vitamin D supplements can actually harm us when we take them in large doses to replace the sun. But vitamin D supplements do have value when we are severely deficient because a severe deficiency in vitamin D is just as bad as a severe deficiency in any other nutrient.

You want to pull yourself out of severe deficiency, and then you don't want to rely on supplements. At that point if you try to mimic nature and bring yourself to a level of 60 to 80 nanograms of vitamin D by taking supplements, it is all harm and no benefit.

Once you reach 30 or 35 nanograms and you try to increase it further artificially by taking things orally instead of allowing the skin to do its job, it is only harming our own metabolic pathways. Like I said, that is a whole other

discussion.

Obviously in nature we would be out and about throughout the whole day, and at noon we would be getting the most amount of UVB in a short time when the sun is high enough up to make our shadow small or shorter than the length of our body.

When you look at your own shadow and you see how long it is because the sun is already lower and closer to the horizon, say at 4:00 or 5:00 in the afternoon in summer, your shadow becomes very tall – taller than you are. That is an indication that you are not getting UVB anymore.

In order to get our UVB, which is crucial to making nitric oxide and vitamin D and other nutrients, you need to be in the sun when it is high in the sky. But you don't need it for a long time because your skin recognizes the difficulty of obtaining a lot of solar rays at high noon because high noon comes and goes. The further north you go, the less of an opportunity you have to get exposed to this almost 90-degree angle, depending on where you live.

If you want the sun to be the most effective, you need to make sure that at high noon, which in the summer it could be 1:00pm because of the Daylight Savings, you have to not look at the watch, but look at the sun. See if it is at the highest spot. That is when you go get your whole skin exposed, even if it is only for ten minutes. That would be enough. If you are further in the south, ten minutes is more than enough. How would you know? Because your skin will tell you. UVB also has the function of warning our skin, telling us that it is starting to burn, and that is when we get out of the sun or switch sides.

When I am in the sun at high noon in the summer – and it is very hot in Florida – I may do seven minutes on my back, and then my skin tells me that it is too much, and it gets uncomfortable. Then I switch and get another seven minutes on my belly. When it feels like it's too hot, I switch and go on my side. Then the side that did not get the highest intensity or density of solar rays because it was getting it from an angle – being on the side for five minutes and then switching to the other side for five minutes – then I can go back on my belly and on my back because they have recovered already; I didn't let them get damaged. I 'listened' to my skin and what it was telling me, and I avoided burning it and

staying too much.

All you need to do is listen to your skin, and it will tell you when to switch sides. The majority of your skin, I do it naked. If you get the majority of your skin – even if you wear a speedo or just a tiny bra and underwear – you will get enough skin exposed to make a lot of good things. If you are naked and you expose your reproductive organs to the sun, you make huge amounts of testosterone. If people knew that, they would be out in the sun every day naked, wouldn't they?

**Mouchet:** Yes.

**Dr. T:** They pay huge amounts of money to get testosterone from the outside – from prescription drugs that are extremely expensive. So here you can make 100-200% of your normal level testosterone just by exposing your testicles or your labia to the sun directly, even if it's just for five minutes.

There are no places on the body where the sun would not shine in nature. So you should allow it to shine into your crevices and give your skin the opportunity to do its job. This also fights off so many other diseases because of the immense effect on the immune system. I don't know if we will have much time to get into the effects of the immune system which is crucial for so many viruses and bacteria and mold and fungus and parasites. The list goes on and on. This also applies to autoimmune diseases, not just skin-related like psoriasis and eczema, but for so many other autoimmune diseases that are internal.

The skin is like an assistant conductor. The conductor is the sun. It tells the skin what to do, and the skin is the assistant.

You need to be in the sun throughout the day at multiple times. That is what I am trying to get at. But if you want to be efficient in modern society, you need to at least go for a walk around sunrise and go for a walk around sunset so that your retina is exposed to the light composition in those times of the day, and then make the most impact of sun exposure by going out at noon and maximizing that exposure to the largest section of your skin as possible. If it's in the winter and you are south of the 35<sup>th</sup> parallel, which is a line going from Atlanta to L.A. through Phoenix, more or less, anybody living south of that latitude can somehow get enough sun even during the winter if they go at high

noon and expose all of their body and if it's warm enough.

If it's cold, the skin fails to manufacture sufficient quantity, but there are some warm days in those areas south of that 35<sup>th</sup> parallel. In those areas, even if you do it once or twice a week, if it is a sunny, warm day, you can at least avoid severe sun deficiency – even if it won't be sufficient for vibrant, optimal health. It will still be better than any supplement.

If you are north of the 35<sup>th</sup> parallel, you may have no choice but to have some vacation in the south where you would try to fill up your batteries. Remember, it's not vitamin D; it's everything else. Vitamin D is nothing more than a test marker telling us how much sun deficiency we suffer from. Once you take the supplement, you lose the ability to utilize that test as a marker for sun deficiency because now you don't know how much of your vitamin D represents your sun deficiency and how much it represents the supplement that you are taking.

Nevertheless, vitamin D supplements are still important if you are very deficient. It's very easy to take a small dose of vitamin D – like 1,000 or 2,000 IU – in the dead of winter if you live in the north to get vitamin D out of the severe deficiency zone, but it's not enough to pull you out of sun deficiency, which means hundreds if not thousands of nutrients are deficient while you are taking your vitamin D.

That is not enough, and that is why I have invented a product called Sun Replacement Therapy or SRT. That is a way for us to get the whole spectrum of photonic nutrition. That is a term that I use for obtaining all of the nutrients that are supposed to be made by the skin as a result of sun exposure. That is photonic nutrition, and it applies to all of the photons from all of the frequencies starting from the far infrared through the medium and near infrared all the way through the visible spectrum and finally the UVA and UVB that are all supposed to be crossing through the atmosphere, enriching our naked skin as the case would be in our natural habitat.

I hope that explains more or less what it is that we need to do. If we cannot do it because we live north of the 35<sup>th</sup> parallel, we may need to rely on Sun Replacement Therapy, which is the only device that is attempting to give you the entire spectrum of the sun, although I still would say that the sun is better.

Sometimes you cannot rely on the sun when you have a 9-to-5 job or when you are living in a city with tall buildings or where there is a lot of shade and you cannot have enough sun or because of your modesty or your religion. People have different traditions that make them cover up. Also, people may be so fearful of the sun that they put SPF products on their skin. They will never be able to be healthy doing that, in addition to the toxicity that gets into the skin.

The skin is also a very important organ of elimination. It is a detoxification organ. That is another aspect of it that is blocked when we smother the skin and destroy it. The skin is also an organ of the microbiome; it has its own probiotics just like the gut, and they are extremely important for our health and for our protection. Any time that we smother the skin with oils and with other products, we destroy the microbiome.

Every time we use soap we destroy the microbiome and destroy the protective, fatty layer of the skin. So it is very important to respect that organ and to expose it to what it should be exposed to to make its nutrients and to not expose it to things that, in nature, would not ever be available that are interfering with its metabolic functions.

Listen to one little thing that exemplifies what I am talking about and tells us to be modest: When we are told to go out to the sun only in the morning and in the afternoon and to avoid it at high sun, what do you think happens? The UVB doesn't make it to the skin, so it doesn't give us a warning sign to switch sides or to go into the shade. We have no warning. So we stay much, much longer in the sun and we get a lot more of the UVA than we would have otherwise. So we lose the balance of UVB to UVA. As a result we don't release the nitric oxide, and it converts to peroxynitrite, and we have severe damage to the skin, the brain, the connective tissue, our collagen, our joints – everything – gets destroyed because of sun damage resulting from not heeding nature and blocking the UVB but allowing enough UVA to still go through. That is the reason why those who are in the sun from 9-10 and from 4-5 (which is what the dermatologists tell them to do) are at a much higher risk of skin cancer whereas those who go to the sun at high noon and listen to their body (because the UVB gives them the warning signs) will have a much, much lesser risk of ever developing basal cell and squamous cell carcinomas, which are the most common cancers of the skin, which are protected by the sun.

When you are in the sun the way I described, you are protecting the DNA of skin cells from mutating by regenerating the DNA and utilizing the DNA polymerase enzyme which is also responding to sunlight. So if you are in the sun and you listen to the warning signs of not staying too long, you only regenerate the DNA of the skin instead of damaging it. But when you stay in the sun a long time because of SPF cream and because you are only doing what you are told and you are going in the morning and afternoon instead of at high noon, you end up not continuously regenerating your DNA, and you develop more and more mutations which lead to damage of the skin, which can ultimately result in skin cancer.

Isn't it interesting that what you are told is the opposite of what you should do?

**Mouchet:** Yes, so there is a lot of bad news there – or things that we need to change.

**Dr. T:** But it's good news. If you know what to do, it's good news. The bad news was believing the authorities or the experts who tell you to buy their products instead of listening to nature. The good news is that nature knows better, and we need to listen to nature instead of to those 'experts' who never studied nature.

**Mouchet:** When you go out in the morning, how long would you stay exposed to the sun? Twenty minutes?

**Dr. T:** Again, it depends on many factors, but I generally tell my patients to go for a 30-minute walk in the outdoors. They can be clothed at that time. The skin will not get that much sunlight, but what gets into the retina is very important.

**Mouchet:** So in the morning and the evening it's more about the eyes.

**Dr. T:** You don't have to gaze into the sun; you just have to have the ambient light. Thirty minutes in the morning and thirty minutes in the evening is enough, even in the winter. But you will not get all of the benefits that you get from the sun being high up in summer. That is why I tell people to go to the website at [www.photonicnutrition.com](http://www.photonicnutrition.com).

**Mouchet:** Is that a device or a pill or a potion?

**Dr. T:** No, it's a device that manufactures the full-spectrum of photons. Then you get your UVB and your UVA at the appropriate ratio. You get the full-spectrum and a little bit of infrared, and you also get blue light. It's not exactly blue, but it's between blue and green. It's the perfect frequency to generate what we need – the serotonin and so on – without damaging the retina. The blue is a little too much for the retina if you get it manufactured.

Whatever you manufacture cannot be as good as nature, but it can get close. If you have no choice, then it is the next best thing. Most people living north of Atlanta, and unfortunately people who have 9-to-5 jobs or night shift workers who cannot be in the sun at high noon or have no privacy or don't have a garden or a yard or a porch that are south-facing, those people will need to basically spend 10-15 minutes early morning before they go to work in front of the Sun Replacement Therapy device. In those ten minutes, they should get the full-spectrum in front of naked skin because they do it in their bathroom. They can be rotisserieing and rotating their body in front of the device so that their entire skin gets exposed – maybe five minutes front and five minutes back or even three minutes front and three minutes back, and then two minutes on each side. That should be enough to get them all the photonutrients that they are missing so they get photonic nutrition in its totality.

That is almost as good as the real deal. It is almost as good as nature. But in the summer if they have the ability to get the sun, I recommend to ditch the SRT device and go to the sun. Unfortunately most people, even in the summer, smother themselves with toxic SPF products and they still cannot go to the sun most of the week because of their schedule or because they live in a tall building and they don't have enough sun. So they might need the SRT even during the summer in those cases.

Each person will do as they see best. They are their own judge of when they need the SRT and when they can go to the sun instead and get the real deal.

**Mouchet:** So the device is only to be used in the morning?

**Dr. T:** Because of the COVID situation and because some of the components come from China, there has been a delay in the production of this SRT device. It is very close to being completed; we just need the last parts and then it will be available for people to benefit from. If they sign up on the [www.photonicnutrition.com](http://www.photonicnutrition.com) website, they will be the first to know when the device is ready.

**Mouchet:** And should we only use it in the morning, or any time of the day?

**Dr. T:** When the device is ready, it will come with instructions that will show you that in the morning you need the blue, and in the evening you turn off the blue.

**Mouchet:** I see. I get it.

**Dr. T:** I'm just trying to be practical. Most people will do it in the morning when they do other things for their body, like they run, they go to the gym, they shower, or whatever it is that they do. So this becomes part of their health routine. Ten minutes before they go to work they can do this, and some people in the winter are driving to work when it's still dark. So at least they get their ten minutes, and it will get their serotonin surging, eliminate their seasonal affective disorder, and many other issues will be resolved. They will be so much healthier all year long if they do something like that in the morning with the blue light to get the serotonin surge that they need.

If they choose to use it in the evening, it will still be of great benefit. They will just have to turn off the blue component.

**Mouchet:** I see. I have a few questions. Is that okay? They are little questions, but I wonder about sunglasses. I suppose that we should never wear sunglasses and we should wear a hat instead, or should we not even wear a hat?

**Dr. T:** It depends. If you are uncontrollably in the sun and your skin is not tan enough to be protected, the idea is to slowly develop a healthy tan which then allows you to be in the sun longer without damage. Then you make even more nutrients through the skin.

A healthy tan is really healthy. If you don't have it, and you expose your face to the sun all day long, then your nose gets burnt and peels and your forehead gets burnt. That is not good either. That wouldn't have happened in nature. People would seek the shade when it gets too hot, or they go for a siesta in the shade.

If you are a farmer or a marathon runner and you do it all day long and you are out in the sun without heeding the warning signs of the sun, then UV protective clothing – like a hat and a shirt – would be beneficial. You still get your 20 minutes or 10 minutes or 30 minutes, depending on your latitude and your skin type and so on. So you still get your noon exposure to the whole body, but then you cover up.

Don't cover up with SPF creams, but with clothing. That is the same as going into the shade. You just carry the shade with you.

**Mouchet:** What about sunglasses? They are probably not very good, right, except when you are on the water?

**Dr. T:** Again, it depends on what environment you are in. If you choose to be in an unnatural environment like a brightly reflective snow or a brightly reflective sand and sea, and you are there all day long – which you wouldn't be in nature – then you would need to protect your eyes. In nature, you would go to the beach to collect some things, and then you would go back to the jungle or the forest to seek shade.

If you are on the beach all day long, there might be too much reflection that could be a challenge to your retina. Some of the cells in the retina could be damaged from excess. But then you need to be worried about what type of sunglasses. If they do not filter light in an even way, then you might get too much of one type of photons, and that imbalance could damage the retina.

If you have to wear sunglasses, which I personally don't do (I never wear sunglasses; I just know how to avoid excessive brightness directly to my retina), like if I was a skier and skied all day long, when the sunlight is blue and the snow is extremely bright, I would definitely use polarized sunglasses. I would only use polarized. I would not use any other tints or layers added artificially to block one type of ray over another. I would like the light to still be in its natural

ratio. So all of the different frequencies are still there, but just in lower quantity.

Instead of five to ten, it will be one to two. It's the same ratio. Five to ten is the same as one to two. So you just get a smaller quantity, but you are still getting the same ratio of all of the rays, and that is what polarized glasses do. They filter everything equally; you just get 50% of the exposure instead of 70% or 80% or 100%. It is only 50%, but it is equal in terms of the composition of the different rays.

**Mouchet:** And how do you get sunglasses without the added tint?

**Dr. T:** You just get polarized sunglasses that don't have a tint. Polarized sunglasses are naturally blocking 50% of the radiation by having the glass that is itself polarized. So if you take two pairs of sunglasses that are polarized and put them in front of each other and rotate one of them 90 degrees, you will see how dark it gets. Then you switch another 90 degrees, and it becomes light again. Then you know that it is truly polarized, and you don't need a tint.

**Mouchet:** Is it true that older skin doesn't absorb the nutrients from the sun as much as younger skin?

**Dr. T:** What would be more accurate would be to say that older skin is less likely to manufacture all of the nutrients that are stimulated by the photons from the sun.

The photons will still be absorbed by the skin. They will still hit the skin and stimulate it, but not as much if the skin is damaged.

I don't call it 'old skin'; I call it 'damaged skin' because people can have damaged skin at the age of 20. I have ways to measure it, but that is a different discussion. So you can be 25 and have skin that is as damaged as somebody's skin who is 60. And you can also regenerate the skin and make it healthier. So what used to be a dysfunction in productivity becomes less so, and you can manufacture your nutrients again by taking good care of your skin instead of damaging it further.

It is true what you are saying. When skin is damaged, it is making a lot less of

the photonutrients, so your body's photonic nutrition is going to be highly deficient. That is when you need to be in the sun even longer and get more time in front of the SRT. So maybe it will take you twice as much time to manufacture the same amount of photonutrients in the skin to benefit your entire body.

**Mouchet:** Is it true that taking a shower after being in the sun removes and destroys the vitamin D that would have been produced by the skin? I've heard that before.

**Dr. T:** First of all, there is no science that has proven it yet. I've scoured scientific literature on that because I wrote a book on the topic, and there is no scientific evidence that shows that. But from my clinical experience and from my research in indigenous people living in countries where they don't take any vitamin D, like in Nepal, I tested a bunch of people. I was shocked by the fact that they had a much higher level of vitamin D than Westerners even though they hide from the sun, they have dark skin, and they don't take supplements. The bigger difference is that they have a healthy microbiome of the skin. They rarely take showers – maybe once a week.

So the shower causes some damage. Maybe it's the soap. Maybe it's the hot water. Maybe it's the chlorine. Everything that dries out the skin and takes out the outer layer – like soap and scrubbing – is not what we would do in nature.

Theoretically it causes damage in the skin so it manufactures less. I don't think that it damages the vitamin D directly; it simply damages the skin so that the skin makes less vitamin D. Or, it damages the fatty layer on the outside of the skin where some of the fats and photonutrients are going to be stored, like vitamin D.

**Mouchet:** Vitamin D comes from cholesterol, correct?

**Dr. T:** It's not just cholesterol. You have a whole number of lipids manufacturing the stratum corneum, the outer layer of the skin, and cholesterol is only one aspect of that. There are many other ones – omega-3 fatty acids, sebaceous fluid coming from the sebaceous glands, and different types of phospholipids that are derived from our diet but are manufactured by the skin.

Also, as the skin becomes more and more keratinized as the layers go more and more towards the surface, you accumulate much more of those membranes of the cells that have died. Those membranes are mostly fat lipids.

So cholesterol is a part of it as well. That is a whole other discussion about the biochemistry of the skin. Of course, when you put soap on the skin and you dry that outer layer or when you scrub the skin or when you put oil on it, you completely interfere with the natural consistency and biochemical integrity. That structure affects the function.

You might manufacture less, you might store less, and many of the products of the skin are fat soluble or else the skin wouldn't be able to store them or transfer them across cell membranes to the circulation so that they can do good in the rest of the body.

Obviously we want to maintain that fatty layer and not damage it by showering with chlorine and soap and fluoride and all of the toxic materials that are making their way into our water today. So the shower has many ways which can damage our skin and its manufacturing ability. I just don't like it when we ask just about the vitamin D because that brings us back into our old habits of thinking that the sun equals vitamin D. That is a huge mistake, and that is why it is so important to again and again say that vitamin D is just a marker for sun deficiency. We should use that marker. We should test vitamin D to know how deficient we are in sun.

When vitamin D is naturally between 60 and 80 because of sun exposure, then it's telling us that we are no longer deficient in sun, that we have enough sun to be healthy and vibrant. You think you know how many people today can say that they have enough solar exposure to get vitamin D naturally to be 60 to 80? I would say it's less than one in 1,000 people in the U.S. Most of the people get to that level by taking mega doses of vitamin D supplement, and they are missing the train. They are missing the whole concept. They are not getting sun; they are getting only one nutrient instead of thousands, and they are actually telling their skin not to manufacture vitamin D because there is enough in the blood. The skin makes less, and this mechanism of manufacturing vitamin D is coupled to many other manufacturing production belts, like a factory.

One productivity is coupled to another and another and another just like a clock – a fine, Swiss clock with thousands of tiny wheels. If you stop one wheel, you are stopping all of the other wheels. Then the body stops manufacturing so many other important nutrients that it needs because it's getting a huge dose of one vitamin from the wrong direction – from the gut.

The gut is designed to absorb a tiny amount of vitamin D, but not close to the amount that we are supposed to manufacture – thanks to the sun.

These are the short questions. I wonder what will happen to the long ones!

**Mouchet:** I have one more short question. I live in the mountains here, at 6,000 feet. It is very, very dry. I do need to put something on my skin otherwise it's too dry.

Are you saying that none of that is good, even organic oil? It's not good and I shouldn't use it?

**Dr. T:** The skin is not designed to have pure oil intercalated into its stratum corneum. What you are doing is you are changing the fatty consistency, you are diluting the natural fatty acids that are necessary for the protection and for the microbiome and the probiotics or the microbiota of the skin. They cannot survive when you put that oil on your skin and you change the pH, and the entire function of the skin is no longer going to be there.

So what you could do first is take less showers. The skin creates its own oil. The problem is that people take a shower every day, and then they wonder why their skin is dry.

If you live at 6,000 feet and you take a shower once a week with lukewarm water for a short time instead of scrubbing your whole body with soap, maybe you could put the soap only in your armpits and your crotch instead and be done, then you are not going to damage your skin that much. It will stay pretty oily naturally, and it will be protected – even in a dry environment.

Also, another thing that you could do is get a humidifier. Humidify the air – at least in your bedroom – so that the skin will not get excessively dry during the

day. This is addressing the underlying cause. Instead of just smothering yourself with oil, look at what dryness is. Dryness is not enough water in the air. So you add water to the air in a room where you spend at least ten hours of your day. You can move the humidifier to your bedroom, too.

While you are doing that, if you are using a one-liter or half a liter humidifier, you add to it different molecules that you would have inhaled in nature which boost the immune system and support you against viruses and other things. So you can kill a few birds with one stone.

**Mouchet:** Thank you for answering those small questions.

Coming back to infrared lights, the device that you mentioned is the solution to replace real sunlight instead of using normal red light that we can find at the hardware store or infrared saunas, correct?

**Dr. T:** No. It all depends. This is a very deep discussion about the different types of infrared. When we are doing the Sun Replacement Therapy, we don't want too much infrared in it. We want a little bit, but not too much because infrared is the number one cause for free radical damage in the skin and aging of the skin from the sun.

Infrared does not give us the warning sign that the UVB does. So we get exposed to a lot more of the infrared when we are in the sun with sun protection products. So I want people to control their infrared and just to use it for specific purposes.

There is far infrared which is used for heating up the body and there is near infrared which is done for specific patches of your body or your skin for improved mitochondrial function. That is more for therapy of a specific part of your body.

Each one has a different purpose for clinical reasons or for health reasons in general, or wellness, and people usually take care of those things separately. Therefore, I didn't want to incorporate too much into the SRT because the SRT is designed for a ten-minute process, no more than 15 minutes. For far infrared, that would not be enough.

**Mouchet:** I see.

**Dr. T:** It makes no sense to try to have one machine address all of the physiological needs. If you live in the tropics, you have far infrared all the time; you feel warm all the time. So I cannot emulate that. I cannot bring the tropics into your own home. But when you use a hot water bottle or when you use a heater that is like the radiators that they use in old houses, then you are creating infrared. That is heat. So you already are heating yourself. If you want more than that, you get the far infrared sauna. I use that, and I recommend it to my patients. I tell them exactly which one to buy to save money and to not spend money on bells and whistles that are not necessary.

There are all kinds of gimmicks and tricks in the industry to sell you things for twice as much money that you don't really need. If they want to get near infrared, I will tell them what they can do for the benefit of near infrared to a specific body part. Then they can get that separately. It would be irresponsible of me to offer all of that because it could cause damage if they overuse it when I know specifically that what I want them to have is the full spectrum of the sun, including UV, but the infrared is basically heat. They already are getting that in many ways.

If they need more, it needs to be measured. You cannot do more than a few minutes of near infrared without a potential for damage. Far infrared you can do for 30 minutes or 45 minutes. But again, you have to limit yourself, and you have to know what to do while you are doing it to avoid the damage of trying to do better than nature.

Fortunately there is a lot of science involved. When people obtain the SRT, they will get full instruction on what to do and what not to do, including a discussion of the different infrared components and what they could or should do – some of which can be reserved to another discussion. Just like another discussion could be reserved to how to keep the skin healthier from all of those skin conditions that we often see on so many people by diagnosing the inflammation that is coming from the gut that is affecting the whole body but is visible on the skin as the external organ that we can see.

There are two tests that I send to Germany that measure parameters that are not available with any American lab. It can tell people so many things that affect their skin, including something as simple as itching and scratching, which could be easily diagnosed through seeing if they have too much histamine in their stool.

You can tell exactly who is a candidate for this treatment and who is a candidate for that treatment. You can tell who is a candidate for this diet, and who is a candidate for that diet based on different inflammatory markers in the stool, all the way down to the marker that tells you if you have colorectal cancer. Without doing a colonoscopy you can detect colorectal cancer up to 20 years earlier than with the colonoscopy so you can avoid the terrible damage of removing a part of the colon or even dying from catching it after it's too late through a colonoscopy.

A huge percentage of the population is walking around with colorectal cancer, and they will never know it. Even after they do a colonoscopy, they will still not know it because it misses 99% of colorectal cancers until it is too late and too advanced, and then they have to either count the days or have a surgery and have a very poor life quality without a big chunk of their digestive system.

That can be avoided through a test. That is a whole other discussion, but I definitely recommend for people who are over 35 or 40 not to wait until they are 50 and do an invasive procedure that has many potential side effects and can even result in severe disorders or death, but to just test your stool and find out the inflammatory components and the enzyme that is manufactured only by colorectal cancer cells so that you can start doing something about it and completely reverse it in more than 99% of the cases. If you catch it early, it is very easy to reverse within three to six months of simple therapy.

That is directly affecting the skin, as I see very frequently, from acne to other things. So it is really important for healthy skin to test the stool for 50-60 parameters of health that are done in Germany.

Also, people ask me all the time why they have skin growths and tumors and skin cancer. It all starts from the same sources of damage to skin cells. Different types of skin cells would lead to different types of lesions without getting into

details. The end result is skin cells that are exposed to chronic damage and inflammation are proliferating. That is the response of the tissue to inflammation. Cells have to replicate because there is a recognition in the tissue that damage is being done, so they need to replicate to replace dying cells. This replication sometimes ends up without checks and balances, and it ends up with a tumor or with a mole or with a dark spot. All of those represent abnormalities.

Pathology takes place, and that is when you grow these lesions. They represent pathology in a certain type of tissue within the skin – whether it's a nervous tissue or the sebaceous gland or the epidermis or the dermis or the subcutaneous fat, and the diet has a lot to do with it. What we eat and what we don't eat directly affects our tissues that would result in all of those skin lesions.

As you know, I have clinics around the country that are operated by local doctors that I have trained. Those doctors and physicians are removing those skin lesions without surgery. So people can get rid of their skin lesions and feel better about themselves and their own appearance. More importantly, they can remove areas of proliferations and potential mutation very simply without using surgery. You can go as deep as you need to go to remove things from the root, if necessary, without the deep scars of surgery.

**Mouchet:** Yes, I have experienced that myself two or three years ago. It's impressive. It is totally painless.

**Dr. T:** I'm glad that you had this experience. I really thank you for interviewing me today.

**Mouchet:** Thank you. In conclusion, I wanted to ask you if there is anything else that you would like the listeners to know about all of the other things that you are doing. You are doing so many things.

**Dr. T:** Well, they can come to health retreats, which we do by invitation. They can schedule consultations by phone if they want by contacting [clinic@ecopolitan.com](mailto:clinic@ecopolitan.com). They can join foraging retreats in Wisconsin, which I do annually. They can join a trek to Nepal to the Himalayas, to visit the orphanages that my organization has built, and to visit schools that we support. There are other activities like that, some of which are available at [www.ecopolitan.com](http://www.ecopolitan.com).

It's a bit outdated, but if they have other questions, they can just email [clinic@ecopolitan.com](mailto:clinic@ecopolitan.com) and get specific answers.

If they want to test their hormones, we do that in Germany with a method that is called Human Identical Hormone Balancing and Substitution Therapy instead of bioidentical, which is the old thing. Doing cutting edge things that can help people balance their life and become healthy the natural way without relying too much on man-made inventions and using interventions only when it is really necessary is what we strive for so that we create a healthy foundation.

That is why people come to our retreats in Florida – to get a healthy foundation so they learn how to have a healthy lifestyle and enjoy the food and learn how to prepare it so that they can go back home equipped with the knowledge to bring their health to a whole new level and get the lifestyle measures that would not only pull them out of disease, but create a level of vibrancy and vitality that they never knew was possible.

**Mouchet:** Great! That is really amazing. I think that there are so many other things that we could talk about, and we may have to bring you back for more. But for now, I want to thank you very much for your generosity with your time and expertise and for everything you are doing to make this world a better world.

**Dr. T:** Thank you, Brigitte. I really appreciate it, and I will be happy to cover other topics from ecological construction to humanitarian work and so on. We have many topics – from musculoskeletal to nutrition and so on – to help people get the message and carry it forward.

**Mouchet:** Thank you again. This is Brigitte Mouchet with the Solari Wellness Series. Thank you for listening, and take good care of yourself because it's more fun to be well.

## **MODIFICATION**

Transcripts are not always verbatim. Modifications are sometimes made to improve clarity, usefulness and readability, while staying true to the original intent.

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