

Botox, PRP, Red Light Therapy, Laser?

## Pros & Cons of Popular Cosmetic Trends & Anti-Aging Remedies

With Dr. Amy B Killen

**James:** Hey Amy, super excited to have you here. Thanks for coming to chat about these important topics to get started. Like what causes skin-related aging and wrinkles and, you know, the little spots that people despise and dryness. **What is the underlying sort of driving or causative factors that lead to this as we age?**

**Amy:** Well, the number one cause of skin aging is actually photodamage. So UV light, you know, sunlight damage. I know there's a lot of controversy in sort of wellness crowds about the sun. The sun is beneficial, but it is also the number one cause of skin aging. It actually can damage your DNA in your skin. And when that happens and the cells can die and essentially you end up getting mutated cells or dead cells. So that's the number one cause.

But you can also certainly get the same kinds of things with pollution. You can get the same kinds of things with, you know, poor diet and oxidative stress, lifestyle factors. And there's a lot of different things that do it. But essentially creating damage that, you know, the cells can't repair is the number one cause.

**James:** Yeah, and you're right, like there's so much, like, positive talk about the sun and people sunning obscure parts of their bodies on Instagram. And yes, and I get that too. I mean this is a giant star in our neighborhood, in the universe that gives life to the entire planet. So it makes sense that it has to be beneficial for us in some way. But are you saying then, and I do know that Dr. McCullough was like the first one to really sort of say to me at least that, you know, photoaging is one of the most prominent forms of aging and yet he was very pro sunlight. So I've tried to reconcile those two.

**What do you recommend? Is it early sunlight, or an evening sunlight and just avoid the midday sun? And how does that relate to people in different latitudes?**

**Amy:** Yeah, I think that some sunlight is a good idea. I think, you know, 10, 15, 20 minutes depending on your skin type, depending on time of day, on your body is great. You know, we do know that sunlight is important for increasing nitric oxide, which is gonna be all about blood flow and healthy, you know, help all your systems stay healthy. serotonin, which is for mood, you know, and there's all these positive things to getting some sun. But the truth is you get a lot more sun,

especially on your face and like hands and you think you do just outrunning errands sitting by your windows. And all of these things are causing those, areas to age faster.

So I tell people, you know, wear sunblock like a mineral sunblock on your face, your neck, and if you want the back of your hands, because those areas are getting too much sun usually. And then if you wanna go outside, and sit in the sun for 10, 15, 20, 30 minutes, then do it, but do not get burned and try to get sun other places on your body that you know, beside your face.

**James: So do you go outside with, like, gloves and a hat on, and a scarf?**

**Amy:** I do not, but I do wear sunblock on my face every day.  
I've definitely learned that I need to do that if I wanna slow aging.

**James:** Yeah. Wow. And so what if people, we're sort of like gonna divert through a lot of topics here cause I have a lot of questions. **What if people wanna be tanned, what do they do then?**

**Amy:** I mean, it's a struggle, right? Because we all look, not all of us, but a lot of us look better tanned. Like I feel like I look way better when I have a tan than when I don't. And so part of me is like, just get a tan and don't worry about it. And then the other part of me is like, no, no, you're aging too fast and it's like this push and pull situation. but you know, again, some sun is okay but you definitely don't wanna burn. That's the number one cause of skin cancers, is getting, you know, frequent, burns over and over again because you're just really wreaking havoc on your, cells. But I think you just gotta be kinda smart about it. And obviously if you have lighter skin tones, then less sun probably for you than if you have darker skin tones.

**James:** Got it. Perfect.

**And so, is it the photoaging that results in spots and the dots that people start to notice after they have a child, or when they're 40, or when they're 50? Or is that to do with like these sort of liver spots-- to do with, like, damage because of poor quality fats, you know? What is happening there?**

**Amy:** So there's a couple different things that can cause that hyperpigmentation. So hyper meaning too much pigmentation. So certainly the sun can do it. Hyperpigmentation from the sun is very common. and then melasma is the other kind of very common source of dark spots and that's more hormone-related.

You know, a lot of women will get that, like you said, like when they're having, when you have kids or when they're stressed, that also is sensitive to the sun. So that it can be hard to tell the difference between just regular sun damage and melasma, but the treatments can be very

different because you don't wanna put a laser, for instance, on melasma, but you do potentially on just regular sun damage.

**James:** Okay, got it. So I guess maybe a little bit more of a philosophical setup question here too, Amy, and I've had some discussions with my team on this. We had a meeting yesterday and I'm like, okay, everybody, let's go around the table. What do you wanna ask Amy? And someone said we should talk about like what is okay about aging and what's not okay about aging. And then also like, because in Japanese philosophy, they have this wabi-sabi thing, right, where they give honor and respect to things that are sort of broken or old, you know, by repairing the pottery with like a bit of gold in there. So it like highlights the crack, you know, then also, and I get that, but then on the other side, people are unnecessarily causing their own damage.

**So if people are like, oh, you have to embrace aging, but they're eating like deep fried chips and they're getting too much sun exposure and they're, you know, aging themselves unnecessarily too fast, how do we sort of balance these two ideologies?**

Because we wanna look younger because youth and health are tied together. I remember I interviewed Dr. Christine Northrup and she said the number one thing that determines the health of a mate is how you feel that they look, and this is where beauty comes from. If someone looks healthy, that generally means they're healthy inside, right? And so this is a mating cue, so it's natural for like Revlon and all these companies to like profit from this natural cue, but where does it go too far?

**Because we see the women that have the big, you know, lips where they've used too much filler or how do we balance these two, Amy? And it's a bit of a philosophical question, but I'd love your thoughts on it.**

**Amy:** Yeah, I think it's a good question and because I, you know, I'm very into longevity and optimization and all of these things, not just for skin, but for everything. And certainly get some pushback, like, you know, why are you trying to slow aging? Like aging is beautiful and this is, you know, we're supposed to age, and absolutely my take is we're supposed to age, but with age normally comes the breakdown or the degradation of multiple systems in our body. That's part of aging.

And I think that's the part that many of us want to try to slow down or to stop. So we don't wanna stop, you know, time from actually moving on, but we wanna stop our bodies from breaking down as much because, you know, there's no arguing that age is good for you, aging is not good for you. It breaks down your cardiovascular system and your skin and your sexual system and I mean basically every system in your body. So can we separate those two? Can we, you know, kind of separate the biological age from the chronological age? And that's what we're trying to do in longevity medicine.

**James:** Mm-hmm. Great answer. Awesome. So let's start like talking about some of the most least invasive approaches to looking after our skin. Maybe just like at-home remedies or things people do on a day-to-day basis. And then we'll move towards like light and then maybe laser and then injectables. Let's discuss this whole sort of spectrum.

**First of all, in terms of just like day-to-day or weekly routines that people can do, let's say for their face skin, what are big yeses and what are big nos in your book? Like is it using abrasive-like scrubs or clay masks, or is that a yes or a no or you know, what sort of topical products could people use or do you recommend on a daily basis or avoid that people should avoid?**

**Amy:** Well, I do like clay masks. I think that those can be really great. I do like some exfoliation maybe, you know, every few days or once a week depending on how abrasive it is. But you don't want to disrupt the skin mantle, all of the, you know, the healthy microbiome on your skin, so you don't wanna overdo it, like you don't want to over cleanse or over scrub or, you know, those kinds of things. I do like a daily sunblock, like I mentioned, like a mineral sunblock, which is gonna be like zinc oxide or titanium dioxide, preferably over a chemical sunblock, like oxybenzone or the ones that, you know, destroy your coral reefs and probably your hormones.

And I actually really do like a daily retinoid as well at nighttime, and retinoids are gonna, you know, essentially are a whole line of vitamin A-derived products from retinols, which you can get over the counter. And they're the least, you know, irritating all the way up to something like a treat to no, which is a prescription can be very irritating, but is really good for slowing down aging as well as treating acne.

So I do like a retinoid every day. And then I also like some sort of antioxidant serum, whether that's, you know, vitamin E, vitamin C, resveratrol, green tea extract, like something that has antioxidants to help, help kind of reverse some of the damage that your skin gets during the day. So those are my kind of go-tos during the day, during the day every day. Retinoid, some kind of antioxidant serum, and a mineral sunblock.

**James:** Amazing. **So retinoid is a vitamin A extract, is that right?**

**Amy:** Mm-hmm. It's a derivative. Yep.

**James:** A derivative of vitamin A.

And one thing you mentioned there was this acid mantle. I remember when I first interviewed Daniel Vitalis and he really awoken me to this idea that the human is like a donut and we have a hole here and we have a hole here at the other end, and that's the inside of the donut and the

outside of the donut is our skin. So we are all skin on the inside and on the outside. And so when we think about our digestive tract, that is something that we know we have to look after and we have to support the bacteria in there. But then if we think about the acid mantle on our skin, we don't often think about supporting the bacteria there, right? And we use half soaps and harsh chemicals on our skin.

**So are there other ways that we can support our microbiome on our face? I mean, I know that sounds funny, but like our bacteria on our face.**

**Amy:** Yeah, like, you know, what are the main things is not, like you said, not using really harsh chemicals to, you know, on your face as far as cleansers. You wanna always have ones that are pH balanced because your, you know, your skin is usually about 4.7 to five on the acid base scale, so it's pretty acidic. so you don't want to use things that are gonna break that down.

You don't wanna just use random, you know, antibacterial hand wash on your face, like if you're traveling or something. So, you know, bring your own skin cleanser with you if you are concerned about that. and then, you know, you can support your whole body microbiome. but just by being healthy, by eating healthy, by eating diverse foods and all of those things as well, that will keep all of your microbiome everywhere healthier.

**James:** So let's now talk a little bit about some therapies. Now as it relates to the skin, one of the things I start, I'm starting to see everywhere on Instagram ads and Facebook ads is like red light therapy. And I go to, like, sauna centers because I like to do sauna and infrared. And there's like, you can choose the light in your sauna and it's gonna impact your skin.

**Where do you sit with this light therapy, and is it effective, and should we be using it on a regular basis?**

**Amy:** I do. Like, so, photobiomodulation is kind of the blanket term for these different types of light. And red light therapy is one of the more common ones that we use for skin because it's been studied and shown that it can actually help to regenerate skin or rejuvenate skin.

You're looking at red light wavelengths and that may be 650 or so nanometer wavelength. And so this is like the panels that you see or the things that wrap around your face or the, you know, the beds that you lie in. Like most of those are red and near infrared, so it's gonna penetrate the skin or, and then just deep to the skin. And what that does is it essentially charges up your mitochondria in your skin.

So it's, increasing your mitochondria's ability to make ATP, to make energy, which of course is gonna make the cell happier because it has more energy and so it can perform better, it can increase collagen production over time and elastin and all the things that kind of keep your skin

youthful. You know, I don't know if the saunas that have the light are gonna be, they're, not gonna be nearly as effective as like, you know, putting a light pretty close to you. Because obviously the distance from your skin makes a difference. but I do like red light, I like it for healing also, like if you have an injury of some sort, you know, a burn or you had a procedure done, or you have a scratch or a scrape I like using red light for healing because it's great for skin healing also.

**James:** Nice. Yeah. I do see some of the devices that people are like wrapping around their knee for regenerative regeneration. Next thing, like, I had a really interesting experience, sort of during Covid and then post covid. I was stuck on a tropical island. It was pretty lucky I guess in Vanuatu but I got a lot of sun damage because I was surfing a lot and then I was on some remote islands and then I was not able to get sunscreen all the time or it would wear off. And then I noticed when I was traveling after that, I'm like, wow, my skin aged a lot during Covid. And then a friend of mine said, oh, you should consider getting some laser therapy. And I also had some veins showing up here on the inside of my nose.

And so I went, I was in Europe at the time and I had a recommendation from a friend and I walked into this guy's office and, and lo and behold he was one of the world's experts on laser therapy and he trains all these sort of BBL and NYG sort of laser therapists all around the world. And he's like, oh, you're from Australia. That's so cool. And I don't know how I got into seeing, because since I've spoken to people, they're like, you can't see this guy. So maybe he saw my passport and I was Australian, and he wanted to chat with me because he loves Sydney, loves Australia. His name was Dr. Andrew— or something like this.

Anyway, he looked at my face and he took some photos and he started to explain to me what he was gonna do. And then he showed me some before and afters of the patients that he's worked with that did like one therapy a year or like two therapies a year. And it was insane, Amy, like, I was so shocked, like rosacea, broken pillars, you know, veins, like the, the blue vein lines all sort of like disappearing and then the dots, like the pigmentation dots were disappearing. So essentially he showed me all these photos and I was like, great, let's do it.

And then he proceeded to do a session on him and after the session, like he used three or three different types of lasers. One was an IPL laser or something, and he would zap my nose where these lines were. And it felt like an electric shock going up the vein. And then the three or four days later it bruised and then a week later it disappeared and it was like insane. And the BBL laser got rid of a lot of pigmentation, rosacea sort of capillaries in me.

**And I'm like, where has this been? Why didn't I know about this? What are your thoughts on this? Is it safe? Is it good? Should people be doing it? And what are the dangers to look out for?**

**Amy:** Yeah, yeah.

So IPL, which is Intense Pulse Light and BBL which is like a Broadband Light, same similar technologies. Essentially they're, throwing light in different wavelengths at your skin and depending on how it's programmed, different things will absorb the light. So you can program it for the darker spots to absorb the light, the pigment. And when that happens, it kind of zaps the pigment and then over the course of days or a week or so, the pigment will like kind of rise to the surface and slough off and it can be very impressive. I had, I remember I did a backpacking trip for a month, after college and I was up in Wyoming for a month and I had all kinds of, yeah, sun damage, hyperpigmentation, I looked like it, like just crazy amounts.

And I had an IPL and it was like life changing. All of that sun damage is lofted off over the course of a week. so love IPLs and yeah, you can also treat, you can also treat little blood vessels, you can treat all kinds of rosacea, things like that. BBL which is a little bit less, pointed at one thing is also great for maintenance. You can do BBL treatments like once or twice a year. And there's some studies that show that it actually changes gene expression in the skin so that your skin is behaving like more youthful skin when you do BBL treatments, you know, once or twice a year.

And they have some studies that have been done that over the course of like a decade. For instance, if you're doing these like once a year, the before and afters, you actually don't tend to age during that time. Like the skin doesn't age, it's crazy. so I'm a big fan of those. they are safe except that they can burn you. So you have to have someone that knows what they're doing because you can actually get a burn. They can be pretty significant if you have, if you go too hard with that light.

**James:** Okay. Okay. Got it. **And so when you say IPL, that's a different system and that's targeted at different types of spots, is that correct? Compared to the BBL, which is just more of a broader spectrum?**

**Amy:** They're just a little bit different deliveries. But you, for, with both of them, you can decide specifically, you know, not you, but the doctor decides, how to tune it so that it's affecting different parts of your skin. So for instance, you could say, I wanna attack the dark spots on your skin and that's one wavelength, or I wanna attack the blood vessels on your skin, and that's a different one. So the, the doctor has a lot of leeway or or the person doing the laser to figure out, you know, the best thing to treat on your skin and how to use that laser.

**James:** Got it. Okay. So I have a few questions. I've had a great experience. You've had a great experience and I heard actually this said the other day as well, that this long-term use of it can actually create a regenerative process.

**Amy:** Yeah.

**James:** In the scene, which is insane. I mean, like that should be generating more interest in business than a L'Oreal cream, but it's going to be light and we're gonna encompass a lot more of this as we move into understanding the effect of quantum and energy on the body.

**I understand light therapy, but what is laser exactly? You know, I try to figure out the acronym and it's not as simple as light and sound or something, you know, but what is laser and does that have anything to do with your obscure tattoo that you got on your arm or is that something different?**

**Amy:** Yeah, laser is just focused light. So like classic laser, laser treatments like IPL and BBL are just classes that are just focused light treatments. There are other types of treatments that you can get that are, for instance, radiofrequency.

Treatments like radiofrequency with microneedling or things like that. And that's not actually a laser that's using heat instead. And then there are other technologies that use a combination of light and heat or yeah, use ultrasound or they use, you know, there's all different things that can be used, but laser is literally just a light that's being focused in different ways.

**James:** Got it. Okay, cool. So let's transition next one crazy, crazy, sort of thing going on around the world with this like dragon's blood facial or, and essentially they extract your blood from what I understand. They spin it, they get the plasma out. They do PRP and PRP seems to be like getting a lot more attention. I know that you speak about it a lot, and people seem to be getting results with it. **What's your take on PRP and microneedling together as a facial treatment?**

**Amy:** Yeah, I like how it's dragon's blood. That's funny. so PRP is, yeah, it's been around for decades but especially in the last 10 years or so, it's become more popular for skin. it's very, very safe. You're just using your own growth factors from your own blood and we're just spinning it and we're concentrating those platelets. And the platelets have a lot of growth factors and the ability to regenerate and repair your skin. So microneedling is essentially, you know, taking these little devices with little needles that go up and down really quickly.

They create these little channels that are about maybe one and a half or two millimeters deep and then those channels, but first of all, the channels themselves will induce collagen production. So that's increasing your body's making of collagen because you have a slight injury and then you apply the PRP on top and it gets absorbed into those channels. And that just further, helps your body be able to increase collagen production and elastin production. So I think that PRP is a great first step if you're sort of starting out and trying some of these biologics, these biologics for skin. but then, you know, since then we have other things as well that we can use either instead of PRP or with PRP to even get better results.

**James:** Such as?



**Amy:** Such as?

**James:** –Then the next part of the question would be like, can people do their own needling? Like is that safe with the roller or does that go in at the wrong angle? Or do people need to be using the correct device that's going straight in and out? And can people use this to help regenerate hair? I've always admired your cool undercut funky hair.

**Amy:** Thank you.

**James:** A lot of people, A lot of people when they hit 40 or 50, a lot of women are like, or even 30, they're like, damn, my hair is just falling out constantly. Like I've heard PRP can be great for hair regeneration. So talk to me through that. **Talk me through that and potential alternatives to PRP as well.**

**Amy:** Yeah, PRP can be good for hair as well. but the problem is it takes several treatments, usually at least three treatments spaced about a month apart. And these treatments are, they can be fairly painful. The scalp, you wouldn't think it, but the scalp is one of the most painful places to inject. And we use numbing cream and nerve blocks and nitrous and all the things, but the scalp is painful. So some people don't come back for multiple treatments because it's uncomfortable. But it definitely can increase hair growth in men and women if you do all three treatments.

And then sort of beyond that we have other, other biologics like for instance, exosomes or growth factors, they're kind of like the action arm of a stem cell, so they're, communicating with your own cells. But these exosomes or growth factors come from often comes from like placental tissue or birth tissue that's been donated to a lab. and there's all kinds of good stuff in there from stem cells to exosomes and growth factors that can be really helpful for increasing skin health and, and the way it looks as well as hair restoration.

**James:** Got it. **While we're sort of on hair, like, is there anything else you recommend for women or men, I guess, that are suffering from just generalized hair loss? And are there any treatments that you recommend?**

**Amy:** I mean, the first thing for women especially is to figure out why your hair is, you know, why you're losing hair because it could be so many different things. It could be you have a low iron, you have a, you know, low thyroid, your estrogen is low or high. Stress is a big one. Hormones, you know, there's so many things that can cause it in women in men it's about, you know, 96% of the time it's gonna be androgenic alopecia or male pattern vaults.

So in men it's less likely to be something else. But in women it, there's a number of things that can cause it and if you don't figure out what's causing it, then it's really hard to treat it. but I do like PRP I think I also like Minoxidil, which is just Rogaine, and that actually it's a topical, it's been around for years, but it works for both men and women and about 50% of people will have improvements in hair growth with daily minoxidil. there are also some peptides that I like for hair, that can be helpful that again, topical application and peptides are just short proteins.

So when you hear the word peptide, it just means like a little short protein. They are usually sold by their prescriptions often or they're sold by different companies. But there's a couple of different peptides like PTD-DBM or GHK copper, which can be good for hair as well.

**James:** I've heard a lot more about peptides in the last sort of year or two, especially in the sort of functional medicine space. And people are talking about them for regeneration. Cause I had a surfing injury in my knee that has taken some time to heal and it's at 95% now. So I'm super grateful for that. But people are like, oh, you should be getting peptides, you should be injecting peptides into that spot.

**What's the difference between injectable peptides, topical peptides and oral peptides? Because I think you can take all three, right? And for different reasons, which would you take? What, if that makes sense?**

**Amy:** Yeah, so some peptides, most peptides I would say are injectable. And the reason is because they're too big to be absorbed by your stomach intact and they're too big to go through your skin barrier. There are a few that you can apply to your skin topically, like the GHK copper, which is good for skin rejuvenation and hair restoration. But like the healing one that we talk about a lot is called BPC-157. You've probably heard of that. That's the most common peptide people talk about. And that one can be injected, but actually that one also can be taken orally because normally it's found in your stomach, your stomach, your gastric juice, like that's where it's found in your body. So it lives in your gastric juice. It's very stable. It doesn't get broken down by the acid in your stomach. And so you can take that one orally. but a lot of them you can't take orally just for that reason. They're just too big, or too unstable when you swallow them and they get broken down in your stomach.

**James:** Okay, cool. Thanks. Love it. Let's talk about the big topic, the big B, the Botox, the injectables. Let's get there. Like obviously, you know, coming from a sort of a more of a natural bent on my side, and I love your message and I love following you because you bridge the natural and I guess potential side effects of it.

**Are there any other alternatives that are also injectable? And it's a nerve toxin, right? So is putting this in the skin safe and, and like what, where do you sit on this?**

**Amy:** Yeah, you know, I actually really, I actually like Botox. I think that it is very safe. It's one of the most used, you know, millions and millions and millions of people have used Botox over the last decade. It is a neurotoxin, so it, does stop your nerves from releasing the signals to your muscle. And that's how it works essentially for about three months, sometimes a little bit longer.

It stops the muscles from being able to contract because they're not getting the signals from the nerves. So you know, but it's very targeted. You're not, you know, you put it in a one spot and it stays in that spot. It's not gonna go from there, you know, into like your bloodstream or things like that unless you have a very, very high dose. So the only people who've had any serious side effects, and by serious I mean, you know, that the people have died or had things like that, that were really bad, were getting just ridiculous, ridiculous doses and not for cosmetic reasons.

But for like, if they had spasms in their legs or things like that, you know, because of paralysis or nerve, you know, spinal cord injuries, like those are the people who have bad side effects for the most part. Any side effects you get from Botox or any of the other neurotoxins like Dysport or Xeomin, there's all different ones. They all work in a similar way. The side effects you're gonna get are they could be annoying. Like you could have asymmetry where one brow is high and one's, you know, and one's low or, or even like your eyelid is a little bit dropped down like this. But they don't last for more than a couple of weeks to months and they do go away because that nerve recovers and is able to start firing again.

**James:** And so, like first of all, like how do we get lines? We get lines because we're squinting or we're trying to, like, not let sun into our eyes or we have, like, a frown if we get upset at our partner or at the world or something. Right?

**Amy:** Yep.

**James:** So these are ways that we develop lines, right? So are there any natural ways that we can slow the development of lines? I guess maybe wearing sunglasses, I don't know. And then Botox is the most effective way you're saying, but do people have to keep taking it? What if you stop taking it, do you get, does it get worse? And then if you're recommending frequent use, so you're saying like once every six months or a year to sort of like be from a preventative perspective for age-related lines?

**Amy:** Yeah, so to answer your first question, there's two different kind of lines on your face. There's ones that we call dynamic lines, which are the lines that are created because you're making a dynamic, you know, facial expression like smiling or squinting or those kind of things. And those are the ones that Botox can help.

And then you have the static lines, which are lines that just develop just because of gravity or maybe because of sleep. You know, you're sleeping on one side and you get lines on your face,

they can develop like things like that. Botox does not help those lines. And you know, I think it's a personal choice.

Certainly some people don't like Botox and I think that that's wonderful also, I'm not here to push it. It's just that I do think that it's effective. You know, there's nothing really out there that does you, gives you the same results, but certainly there are some things that might give you not the same but like some decent results. Like there are some topical, there's, there's a peptide called Arline, which is just a topical peptide that over time, works kind of in the same way to slow down the ability of muscles to contract. Just the small muscles. And so you can have some improvements with that. It's not the same, but it, you know, it can still be helpful. and then also just keeping your skin really healthy. Your, you know, young, might have 15 year old daughters and they make all kinds of facial expressions and they don't have lines because their skin is youthful.

So everything else that you do, whether you know your lifestyle, your diet, your exercise, topical things you're putting on your skin, oral things you're taking in, like supplements that you're taking in, all of those can keep your skin healthy and so you don't notice those lines as much.

**James: So when it comes to supplements or diet to reduce lines, what does that mean? Like vitamin C for collagen production? Is it like increasing water intake so that you have more water in your system? Like what are some of the, what are some of the more sort of natural approaches that people could do as an alternative to Botox, but also if they're doing Botox to be on top of that anyway?**

**Amy:** Yeah, I love, you know, so there's collagen, you can certainly take in collagen and vitamin C like you said, you can take, collagen in and vitamin C together and that's great for helping your skin to red reduce, you know, to create collagen. I do also like oral hyaluronic acid. So hyaluronic acid, we think of it as being a topical, what you put on your skin and it helps with moisture, and your skin retaining it. But actually, there's studies that show that even after just about three months of taking oral hyaluronic acid, you can have improvements in hydration and elasticity and keeping the skin barrier functioning well. then there's some other ingredients that I like a lot for skin that are supplements. Things like Spermidine for instance has gotten a lot of attention in the last couple of years for its ability to improve skin and hair.

I also like an NMN and NR which are gonna increase your NAD levels and that's something else that can help with skin. So there's a lot of outside of the normal sort of healthy diet stuff, there's a lot of these newfangled ingredients out there that I think can be really beneficial for skin also.

**James: Got it. And what about, what things could we be ingesting that are bad? I know we sort of covered at the start there a little bit, but like, is coffee bad for the skin, or is alcohol bad for the skin or is, you know, deep fried foods? I think that's definite no, no we don't want those**

**sort of fats in the body, but are there any sort of outliers that you're just like, don't do this anymore if you want great skin?**

**Amy:** Yeah, I mean I think, I think lots of sugar for, you know, anything like simple carbohydrates and lot of sugar a little bit is fine but you that you wanna keep your blood sugar generally low for all kinds of longevity purposes. But one thing is that when you eat a lot of sugar and you have higher blood sugar levels developed, you get what's called Advanced Glycation End Products or AGEs and those directly attack the collagen in your skin.

So the collagen's like the scaffolding of your skin. And so when you have a lot of high blood sugar for a long time, those AGEs are literally coming in there and pulling out those two by fours in your house, and all of a sudden your house is falling down. So sugar is really bad for your skin in high doses, you know, chronically, it's okay a little here and there, certainly trans fats, anything that's inflammatory, it's causing inflammation in your body, is bad for your skin.

Also because your skin, you know, it's like any other organ, it needs good blood flow, it needs good, you know, ability for the cells to be healthy, so avoid the trans fats. But you, but do eat some healthy fats like, you know, the omega-3 fatty acids are actually really good for skin because that's gonna help the skin barrier stay intact so that the water stays in your skin and it helps protect it from, you know, the sun and all the things out there. And then, you know, lots of fruits and vegetables as everyone I think probably knows, is great for skin antioxidants and all of that kind of stuff. And then get some protein and you're good.

**James:** Easy. Like that. Just like that Dr. Amy's nutrition recommendations 101.

**Amy:** Exactly.

**James:** You're full of so much knowledge. Thank you so much. You're probably also challenging a lot of the people listening to this that are like hardcore natural, but I guess this is the bridge.

**Like, how do we look at emerging technologies and ideas to be as strong, powerful, and youthful as possible? So let's go to some more lifestyle factors. I know that you're a huge fan of ice bathing and also of our cold plunging and even sauna therapy. Talk to me about those and then anything else that's generally beneficial to the skin, like, I don't know, whether it's running or cardio or weightlifting? And then with regards to the hot and cold therapy, how often do you generally recommend and is infrared the same as a normal sauna? Like, I just have some questions about that, so we'd love your thoughts on this.**

**Amy:** Okay. Yeah, so yes, first, exercise is amazing for your skin. So, you know, whether you're doing running or trampoline jumping, like I just started doing recently or you know, whatever your, your choice of exercise is certainly good for every body system, including your skin, you know,

increasing blood flow, getting rid of toxins, just keeping everything healthy in there. So highly recommend that.

As far as the cold and hot therapies, there's not as much evidence on cold for, for skin. I mean certainly there's that theory that cold therapies like ice plunges and things can reduce inflammation and potentially decreased pore size. But it hasn't been studied as much as, you know, there's still lots to learn about cold therapy. Sauna is great because, you know, sweating, you really are getting, you're releasing all of these different toxins and things from your skin and you're increasing nitric oxide, which is gonna open up your blood vessels so that you get better blood flow, which again, your skin loves blood flow just like every other part of your body.

So I do, I think there's, there's more research on sauna, but I think both are great. I think cold plunges and things are a lot of fun and well, they're not fun while you're doing it, but they're fun afterwards. You feel pretty great.

**James:** Yeah, I agree. I love getting in the ocean like all times of the year, especially even when it's cold. So it's coming into winter here in Australia where I'm at right now, and yeah, I'm down there, you know, five, six in the morning, like three, four or five days a week and getting in the ocean you feel challenged to begin with, but when you get out you feel invincible, you feel so great and yeah, it's best feeling in the world.

So I'm a huge fan of the cold now and I wasn't always until I started working with women, and now I don't miss a day where I have a cold shower at the end. A buddy of mine is really into ice facials and so he freezes like a bowl of water every day and like, and apparently Tom Cruise does this, I don't know. And so then he wakes up in the morning and like, I don't know if he pours hot water on it or just like cracks it open and then dunks his face into this cold water.

### **Is there any benefits to the therapy?**

**Amy:** You know, it's funny, I just saw a video on this as well. I think, Dave Asprey or someone was talking, was showing someone about how to do this, you know, he's called a salad bowl ice facial. It's so, random. Again, I think it's the same kind of idea as ice plunges, you know, decreasing inflammation potentially in the skin, which, you know, inflammation is a driver of all, you know, of aging as well as like breaking out acne, things like that can be caused by inflammation. So I think that there's certainly a theoretical, possibility that you might see improvements in some of those things. I, haven't seen a lot of research on it, but, you know, feels good. So I don't think it's dangerous for sure. Well, I mean, unless you don't hold, unless you start breathing in the cold water, which would be a bad idea.

**James:** Yeah, don't drown.

**Amy:** Don't drown.

**James:** A couple of rapid fire questions here. **What are your some of your favorite foods that you would ingest?**

**Amy:** I think, you know, lots of, just lots of fruits and vegetables in general are gonna be great for skin, citrus foods, you know, tomatoes, like all of those things. Pasta, pasta sauce at least is good for skin. And then healthy fats, you know, anything that you can get as healthy fats, nuts for instance, or avocado or things like that are excellent for skin as well.

**James:** Got it. A couple of questions from the team. Like and this is really interesting cause we discussed a lot on this call, in this discussion.

**If you had to choose one thing that you did like once a year or twice a year, because some of these things could be expensive, what of all the sort of, therapies or ideas that we discussed today, would you sort of recommend, or if you couldn't recommend one, what would be your top three? Okay, so I would choose, I have to do three.**

**Amy:** So I would choose either a BBL or IPL, so that's gonna be for sun damage. And then I would choose some sort of tightening, like a radiofrequency with microneedling, like a Morpheus8, and then the third one would be some sort of other regenerative treatment like exosome injections or stem cells or PRP.

**James:** Okay. **So this skin tightening recommendation you just made, you said microneedling, but what was this Morpheus8? I mean, this sounds like the matrix, like what is this thing? And you, we haven't discussed that yet. So what is this?**

**Amy:** So it's one, there's, there's many different brands out there, but essentially this is done in a doctor's office. It's extremely painful by the way. There's needles that go in like into your skin and then the ends of the needles heat up and so you have a heat and you have the microneedling together and then it kind of stamps and moves over and, you know, keeps doing that. And each time those needles go in despite numbing, it hurts. Like it hurts bad. but it's very good for tightening your skin over time.

**James;** Okay. You're not really selling it that well.

**Amy:** No, no. It hurts. It hurts.

**James:** What do they say? No pain, no beauty, no pain or something.

**Amy:** Yeah, no pain, no gain or something. Yeah, no gain. Yeah, it's rough.

**James:** Yeah. Cool. Well, Amy, it's been really great to chat with you. Thank you so much for sort of opening, I guess the aperture and the lens of what, I guess our community, or at least for me, might feel is safe or effective for helping with the skin and certainly, diet and laser and potentially some injectables. And of course, like, light therapy, and hot and cold therapy, and exercise are, are probably gonna be much more on the, on the radar as new science and research comes out to support this. So thanks so much for being a voice for this and helping people to look as young, healthy, and happy as possible. So thank you.

**Amy:** Thank you. This has been great.

**James:** And do you have any sort of final message or anything for people listening to this or exploring these techniques or where people can follow your work? Just let us know now.

**Amy:** Yeah, so I'm pretty active on Instagram, Dr. Amy B. Killen, and I talk about skin, but I also talk about all things health, longevity, hormones, sexual health. I kind of cover the gamut. And then my website is [dramykillen.com](http://dramykillen.com) and you know, my message is just to go out there, do your research. I think that we can bridge traditional medicine and, and in natural medicine, there is a middle ground. And I think that it's worth finding that middle ground cause there's a lot of good stuff in there.

**James:** I love that. I'm definitely a fan of the Buddhist middle path approach to nutrition and medicine because the same in nutrition, there's like paleo and then vegan. It's like, wait, what about the middle? There's so much we can agree upon. So, taking this philosophy into, longevity medicine and anti-aging medicine is really interesting as well. So thanks so much for your time. Awesome we connect in this way and I can't wait for people to watch this.

**Amy:** Thank you.



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