askDR.BEN
PODCAST TRANSCRIPT

Speaker: Dr. Ben Johnson
Episode 2: How to Reverse Aging

Hello, and welcome to the Ask Dr. Ben Podcast. I'm your host, Ben Johnson. As a holistic-minded physician, I've spent the last 20 years looking outside the box and conducting research to find the true causes of skin conditions and other diseases. And while the focus of my work has been on aesthetic medicine and unlocking the secrets to reversing skin damage, this podcast will also include many other exciting revelations pertaining to you and your family's health and wellbeing. So, let's get started.

Today, we are talking about permanent age reversal. So, this is a subject matter that I love because I'm so fascinated in the skincare industry in dermatology, plastic surgery. And many of you ask if it's possible to permanently reverse aging skin. Most of them would say no. They would say that "No, you take your antioxidants on your surface of your skin to help slow aging, but aging is going to occur regardless." And they might say, "Well, you can burn off your old skin, your damaged skin, and a new skin will replace it." And maybe that's their version of permanent age reversal. But in general, if you ask people, "Hey if I keep using this product, will my skin get younger and younger every month?"

Because that would be the indicator that, in fact, real long-term changes are happening. And of course, we know the answer for just about every skincare product in the world is no. Now, as a formulator and a physician, of course, but as a formulator, I would tell you that when I started in the formulating game 20 years ago, and I looked at all the different active ingredients that you could choose from, I believed the hype like everybody else did.

I had heard, for example, that vitamin A is essential to the skin, which of course, it is. But because I apply retinol to my face, it is well known to turn into retinoic acid, it will stimulate more collagen and the net result of me using a retinol every day is I'm going to get more collagen, which obviously implies that your skin should get thicker over time. And yet it never seems to do that. In fact, if you want to do the test, one way to know for sure whether or not your skincare products are doing the job for you. And that is to stop them for a few days. Literally just switched to a moisturizer, and it can't be a plumping peptide moisturizer because that also creates a temporary effect. Just cut back a few days and what you're going to learn is that your skin will deflate. It will deflate because the main ingredients being used in skincare today are not designed to create real physiologic activity. They're simply designed to create a plumping effect within your epidermal layers, which is your surface skin layers. Your epidermis on the top, your dermis on that next layer below. So, your epidermal layers, if you plump them, it is well-known that the wrinkles will appear smoother. They will be less deep. In fact, most companies use something called surface measurement to tell you about how great their anti-aging product is for you. In other words, they rub something on the skin that plumps it temporarily, and then they measure your wrinkle, and they say, "Hey, good news. This peptide or this special new active ingredient improves your wrinkles by 70%." Well, I mean, I don't know if we've all become numb to those sorts of claims.

It's not real. I mean, it would be so nice, and I think we would all be lining up if there was really something that improved your wrinkles by 70% in a couple of months, and that was real change. It's like reset the clock, if you will, on your skin. That would be fantastic. But that doesn't happen, does it? And again, if you want to test that out, stop that really expensive

peptide serum you're using. Stop that vitamin A you're using, and what you might end up finding out is your skin deflates back to where it was. And unfortunately, probably deflates to a phase of aging where it actually will look worse than when you started that product. So, what do we do about that? What are the secrets to age reversal? Is it really possible?

Again, I fall back to one important thing, which is your body is unbelievable. Your skin is so powerfully responsive, so intelligent in maneuvering to whatever you do to it to fix problems and new problems too. You might think, "Well, yeah Ben, the skin, it adapts. It's not really intelligent. It's just adapting intuitively, innately. It's part of the inherent design of the cell." Listen, I'm not going to go too deep into that conversation other than to tell you that I don't believe in that. I believe that the body has essentially proven that all the cells are intercommunicating. And if all the cells are inner communicating, in other words, your big toe cells know exactly what's happening with that infection in your sinuses, and everything is working in synergy.

In other words, one system will slow down if it's going to help another system get its hands around a problem. So, all your body is constantly shifting its activity based on that microenvironment. And it's checking your blood in picoseconds to see where your hormone levels are at. How are levels of this peptide? How is oxygenation? In other words, is your tissue oxygen proper enough? Oh, if it's not, it's going to, literally, trigger your subconscious to accelerate your breathing. I mean, all of these things are happening. We just take them for granted. And I just want to remind you, don't take things for granted. So, your skin is no exception. It's going to adapt. And so, when you present something irritating to the epidermis and or something, that is what we call hydrophilic, which means it likes water.

So, if we put something that likes water in your epidermal layers, or we put something in your epidermal layers that trigger an inflammatory response, then what happens is your skin swells. This is the primary mechanism for all skincare products around the world in their efforts to improve your wrinkles. There is little if no action happening to actually try to thicken your dermis, okay. It is your dermal thinning. That is the main cause of wrinkle formation. And that's that second layer down. So, you have to have a strategy that bypasses the first layer as much as possible. You have to have a strategy that actually makes the skin want to perform better. And there are secrets to this, believe it or not. One of the main secrets to age reversal is analyzing and acknowledging and supplementing skin starvation. Skin starvation, it turns out though, this is again, my 20 years of holistic medical research. Skin starvation is the number one cause of aging.

I'm catching myself because I do believe emotional unrest is the number one cause of aging. Okay. Just so, you know going to go back to that in recurring fashion here. Emotional unrest, the fears of anxiety, well, fear in general, anger, hate. Probably a handful of related emotions. Those trigger inflammatory reactions in your body. And it's well-proven in the research by the way that not having a lot of emotional unrest dramatically improves cancer survivability, and other cancer, well, and other disease improvement all based on where's your head at. So, number one cause of inflammation in the skin, believe it or not, your negative thoughts every day. But the number two cause is skin starvation. And what's happening there is that at around age 25, and maybe it's occurring a little earlier these days, but let's assume it's about age 25.

Your skin starts to get fewer and fewer blood vessels coursing through that dermal matrix. As we know, there's no blood supply in the epidermis, so it's relying on the dermis food supply to keep it going as well. And so, at age 25, that starts to decline, and it's about 1% a year. So, let's just imagine that you are now 50 and, oh, by the way, I'm a few months from 53. So, let's imagine that you're 50-years-old now. That means you have 25% less food supply being fed to your dermis. And as we know from very well-established studies, your body in its intelligence adapts to shortages, right? If you eat half the calories your body needs every day to stay functioning properly, it will literally shut down certain aspects of your metabolism or slowdown in order for you to survive that lack of nutrients.

And the same thing happens in your skin. So, when your skin sees less blood circulation going through it every year, and again, let's just go to that 50-year-old with 25% shortage, then your skin will slow down the turnover rate by 25%. It's not just collagen. It's maintaining the barrier. It's responding to sun exposure. Everything you can imagine diminished for a 50-year-old by 25%. So, one of the main areas of focus for me and my company, Osmosis, and just my general advice to all of the estheticians and physicians that I educate around the world, is to restore that first and foremost. So, how do you do that? I mean, maybe I'll just touch on it now, and we'll get into some ingredients probably in more detail in future episodes.

But you know, one of my favorite ingredients is niacinamide because niacinamide, a B vitamin, is a vasodilator. And it allows for an increased food delivery to the skin in a not too harsh of a way, as say, compared to a niacin, which is a little bit more harsh on the fleshing side of things. I also love my growth factors. So, I'm a big believer in using stem cell-derived growth factors. Specifically, well, I mean, new blood vessel formation occurs from vascular VEGF, Vascular Endothelial Growth Factor from FGF, which is fibroblast growth factor, and a whole host of hepatocyte growth factor. Also, involved in new blood vessel formation. There's probably 20 important growth factors in triggering new blood vessel formation. And why am I telling you this? Because I'm saying you need to apply those topically when you have a shortage, although increasing new blood vessel formation is important and can help, but to get that done, you really do need to apply these topical growth factors, which work through the follicle to encourage new blood vessel formation. There's ingredients like retinaldehyde, which appears to trigger new blood flow activity.

There's an ingredient and one of my fan favorites is chlorella vulgaris. Chlorella is powerful in increasing new blood vessel formation. And so, I would just tell you, in general, I focus on that because if you really want to reset your skin's age, and that's what we're talking about, right. Reversing aging is resetting it. Well, then you've got to reset the blood supply back a decade, or hopefully even back two decades to a 30-year-old. That's my goal with the recurring twice daily application of specific ingredients is I want to reshape how the dermis is laid out. I want to, obviously, increase the dermal thickness, and that's phase two of this conversation of permanent age reversal. In order to re-activate your fibroblast, you need a fibroblast recruiter. So, my favorite ingredient in that department is called asiaticoside.

So, this ingredient increases the recruitment, the calling on of the collagen making cells in your skin called fibroblast. So, we make sure to bring that into the formula, right. So, the same formula I want to use to increase circulation, is the same formula I want to use to

increase fibroblasts, is the same formula I want to use to, actually, activate the fibroblast, right. It's one thing to bring more fibroblasts into your dermis, but it's another thing to find the right ingredient to stimulate and trigger new collagen and elastin formation. So, that's where the subject gets very interesting. And we're definitely going to have to do our own vitamin A deep dive podcast here in the near future. But let me just share with you this retinaldehyde, which is a precursor to Retin-A. And Retin-A, or really, I should say retinoic acid. Retin-A is a trade name, but retinoic acid is the most potent collagen stimulator in your dermis.

However, big, big, big caveat, big, but here. You should never use retinoic acid on your surface skin. You should stay far, far away from retinoic acid. The reason why is there are two clinical studies. One showed that the dermis, that precious commodity that you have is declining by 1% a year, and by age 50, you are missing 25% of. What the research study showed was that retinoic acid, when applied daily to the skin, thin the dermis in one study by 18%, and in another study by 34%. That's 18 and 34 years of aging. Let's just merge those two data points and say that applying retinoic acid to your skin over just one year, well, actually, the study for 34% was over four years.

So, let's say if you've been using Retin-A for two years, there's a very good chance your dermis has thinned by 25%. Two years of retinoic acid use, dermis thins by 25%. Now in those studies, it's kind of funny that they talk about what the good side of that is and they say that it causes epidermal thickening. So, it doesn't thicken the part of your skin that's directly related to your wrinkle. It actually thins that. However, for a period of time, it will thicken your epidermis.

And actually, that's what all vitamin A's say they do. None of the vitamin A's actually distinctly show an increase in dermal collagen thickening. That's really what you're looking for. That is what's permanent age reversal is all about. Whenever you think in your epidermis, it's a temporary event. I mean because your epidermis is temporary. It's a 30 to 40 days cycle of replacement. So, whatever you did last month to thicken your epidermis, which again, not a whole lot of long-term benefit to that, will go away as soon as you stop it. And important to know that retinoic acid thickens the epidermis by poisoning it. It is a poison to the skin. It actually interferes with immune cells. The thing about retinoic acid is it's such a powerful tool. You want the skin to be in charge of making it.

And when you use retinaldehyde, my favorite vitamin A, your skin becomes in charge of making Retin-A because retinaldehyde is what your skin uses to make Retin-A. Doesn't use retinol, doesn't use retinyl palmitate, or any of those vitamin A's you've been sold a bit of goods on. No, it's actually retinaldehyde that converts to retinoic acid. And I do want to add a little caveat here because some of you, at this point, maybe going, "Okay, Dr. Johnson's making some interesting points, but he owns a skincare company. He's biased." Let me address that right here and now, I am not biased. I am making educated decisions. I have the same right as any other skincare line to use regular retinol in my products. I chose not to. I could have used retinoic acid for my physician clients in my medical line. I chose not to. I could have chosen several of the ingredients that we probably get into detail in future podcasts on. And I chose not to. Not because I'm biased, but because I spent the time to try to understand exactly why they worked physiologically.

What was actually happening? Was there any collagen being made? And while I do trust the data that says that when you put retinol on your skin, there is an increase in collagen manufacturing at the dermal level. And I get how that could be confusing to you. So, I want to say this in a simple and as slow a form to help you understand it. If I put something on your epidermis that causes your epidermis to shed, then yes, in fact, I will trigger new collagen, increases in collagen, measurable increases in collagen, and at the dermal level because that's the only place collagen is made by the way. All the epidermal collagen is made in your dermis. So, you are going to measure, I'm going to put vitamin A on the surface skin, retinol in this example, on the surface skin. And it's going to cause my skin to shed. It's called the keratolytic effect. It literally breaks down my epidermal barrier, increases my sun sensitivity, dehydrates my skin, and causes my skin to shed. And as a result of that, my fibroblast will start making an increase in collagen.

And where does that collagen go? It's going to replace the shedding epidermis. So, my point is to say that yes, these studies on retinol will suggest that there is collagen being made that's permanently rejuvenating. But in fact, the only measured change in the skin happens at the epidermal level, which is temporary, and the increased collagen is feeding the change in the epidermal level. So, hopefully, that made sense. Obviously, if you guys have more questions on my podcast, feel free to email me at benjohnsonmd@gmail.com or perhaps you're going to check out some of the other places where you can see some of my videos on YouTube. We're going to give you direction to where you can find all that stuff if you want to dive deeper on some of these subjects where I'm choosing not to go too deep at the moment.

So, we're talking about age reversal and we're talking about the strategies to actually, permanently, reverse aging skin. What I'm here to tell you is alpha hydroxy acids are not the right choice at any time unless you're talking about them being presented to the skin in an amount under 5% and ideally a little bit buffered. So, let's walk through that a little bit. You see what alpha-hydroxy acids do, and that includes glycolic acid in particular. You also have a beta-hydroxy acid called salicylic acid, alpha-hydroxy acid that's more commonly used as well. You've also got, malic acid and lactic acid. So, lactic acid, as it turns out, is something that your skin utilizes as a natural moisturizing factor. So, having 1% or 2 or 3% of lactic acid on a daily application is perfectly fine because it's not enough to damage your barrier.

It's not low pH enough to cause exfoliation and it is a source of moisture within your skin. So, that's where I distinguish that makes sense. And by the way, only lactic acid is found in your skin. Glycolic acid is not a natural moisturizing factor. Malic acid is not a natural moisturizing factor. So, you would choose the alpha-hydroxy of choice. In my opinion L-lactic acid is a corrected version of lactic acid. The reason why you want to use that is because that is the best natural moisturizing factor. So, if you use stronger than those strengths of those acids or you do a chemical peel with those acids at 10 or 20% strength, you are damaging your skin. You're literally burning your epidermis, which for the most part, isn't the end of the world. If I burned my epidermis, my skin would go into emergency mode, and yes, my skin will suffer for the next 7 to 10 days as it attempts to replace everything that got burned.

So, there's a bit of a negative there, to be honest, because when your skin is busy focusing on repairing burned tissue, it is certainly not capable of replenishing your dermal collagen.

Again, we want to go back to the most important things that you want to do for age reversal and that is to restore dermal collagen that's been lost over the decades. There's actually one other piece. You know age reversal is not all about collagen. It's also about discoloration and texture changes. We see our texture change. We see our pores enlarging. We see age spots show up. We start to see liver spots and other red spots and then we get to the precancerous lesions. These are all with each new and upcoming decade.

So, what I want to tell you about the acid peels is the problem isn't as directly in the damage to the epidermis, but don't for a minute think, "Oh, I'm refreshing my epidermis, and my epidermis needs it." I do not believe that to be true in any way, but what it does, unfortunately, is there's a part of your epidermis that is called the dermal-epidermal junction. It is basically the first part of your skin that doesn't shed every 30 days. So, that dermal-epidermal junction, also known as the DEJ, takes hits. It's taking hits from the sun every day that you go out. It's taking hits from the environmental toxins that are going into your skin. It's taking hits from the acids that you may have used. The lasers that you may have opted in for. All those things cause hits to the DEJ and as the DEJ accumulates damage, it eventually starts to show weary signs. Those weary signs, number one, show up as red spots, but almost universally, they turn into brown spots because your skin creates pigment to hide them.

So, using acids to try to increase turnover is not the way to go. Instead, what you want to do to increase your turnover rate is you want to feed your skin. Second thing, in order to increase collagen, you want to use a vitamin A that actually triggers collagen manufacturing without harming the epidermis. You do not want your dermal skin, your fibroblast, the makers of your collagen and elastin, too preoccupied with the epidermal collagen. You want it to be done with it and not have to keep working on it. So, if you're constantly peeling your face, or let's say you love to use your scrub cleanser every night, please don't. Because what you're doing is, you're taxing your collagen and making cells and making them make faster than they have the capacity to make. Remember, we're going all the way back now, those fibroblasts are starving for nutrients.

The reason why they're producing 25% less collagen at age 50 is because they're starving for nutrients. So, if you keep shedding your surface skin, if you keep scrubbing away your protective barrier, you are going to force an increase in the starvation event of your skin. So, this is really an important concept to understand. So, getting back to permanent age reversal, I'm going to close on a general idea here, which is this. The healthier you are in your everyday living, the less toxins you ingest, the more exercise you do, the better diet you choose, the better your skin is going to respond anyway, number one. Number two rebuild the circulation of your skin and you reset your skin's performance. If I improve the circulation, let's say like we talked about 25% loss in circulation by age 50, let's say that I restore a certain amount of the capillaries in your skin by 10 years. Now, all of a sudden, you're making collagen like you did 10 years ago because you fed the fibroblast.

There was nothing wrong with your fibroblast they just needed more food. It's kind of like another analogy. If you go to the gym and you starve yourself of protein, you know that and doesn't matter what you bench press, you are going to fail because you didn't feed the protein to your muscles to respond to this new request. Same thing's true with the skin. So,

we want to restore the circulation. We want to restore the number of fibroblasts. We want to restore any other nutrients that may be involved in the manufacturing of collagen and elastin. And quite honestly, the key nutrients that are involved in repairing wounds because your skin is in a constant state of wound repair.

Whether you know it or not, remember, it's working 24/7 for you. It's quite a remarkable organ and it has to overcome a lot of stuff. So, finishing on this idea, you also want to restore your barrier because restoring your barrier reduces the level of trauma that your skin faces as you go out into the sun every day. A lot of people don't even think about that. They think, "Oh, it's okay. I exfoliate my skin, and I know it's compromising, but I use a good moisturizer and a good sun protection." Really? You think a moisturizer is replacing the sun protecting benefits of a fully intact barrier. Let me teach you right now. That is not true at all. In fact, moisturizers cause more leaking of moisture than they do retention of moisture which is a shocking fact and probably another podcast in and of itself.

Then finally, I want to say that there are more ingredients involved here. There is an oxidative damage repair ingredient called trioxolane that I have patented that I am madly in love with. It has the ability, whereas antioxidants are designed to slow free radical damage. This is the first-ever molecule designed to repair the oxidative damage. So, you know how we said, "Oh yeah, your skin, we just want to slow the aging process." No, no, no. We want to repair aged skin. That is the goal that I want to reset your mind to. So, I'm super excited to share with you even more deep dives into all of these types of modalities as we go beyond just focusing on oxidative repair in order to, permanently, reverse aging. You need DNA repair and I have been diving deep into all the possibilities of how to repair DNA.

We have clinical evidence showing in one of our clinical trials that we can, in fact, reverse actinic keratosis by applying a DNA accelerating set of ingredients. The product itself I'm talking about is called, catalyst and those clinical trials are available on the website osmosisbeauty.com. So, I encourage you to go, see what we did in that regard, but the main one that reflects DNA damage was our improvement of AKs in over eight weeks. So, improving DNA damage, improving circulation, improving collagen stimulation, improving starvation, improving the growth factor population.

The key thing I want to say is there's never going to be one ingredient. There's never going to be one vitamin A, even though I love my vitamin A called retinaldehyde, and it's available to others as well. It's out there. It's just the way we're doing it stabilized and liposome delivered is a little bit different. I love my vitamin A, but on its own, it's probably not permanently reversing aging. In order to permanently reverse aging, you're going to need to do all of it together.

So that's why I would, oftentimes, when I formulate, I choose every serum has a category that it's addressing. The results speak for themselves. I think we are one of the leaders in this idea that we can permanently change the skin. We actually have some amazing scar reversal results and before and after's, that are also available at osmosisbeauty.com. But this was a little sampling for you of what we're going to get into in these podcasts. I'm so excited to share more with you. I have just so much information bubbling out of me after this last 20 years of research. And I am so excited to tell you that it's not just about information. It's

about results. So, we're going to get there. Thanks for joining me today and we'll see you on the next podcast.

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