Eye on Dry Eye: Addressing the Root Cause Using Latest Treatment Approaches Transcript

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Dry Eye Basics and Common Misconceptions

Without a doubt, it's my eyes aren't dry, they always water. Watery eyes is actually a sign of dry eyes, and majority dry is due to poor oil quality, not so much lack of water, so that's why, for example, if you're walking outside and your eyes water when it is cold or windy, you might actually have or be dealing with dry eyes.

So that's a common misconception that I think a lot of patients don't realize. And the other part is I thing a second one is just why don' I feel it when I wear contacts?

My eyes are perfectly fine. They don"t deal with any issues. But yeah, maybe at night when they take out my contacts, they feel a little irritated. Contact lenses act like a band-aid.

You're covering your corneal nerve endings. where your eye, you have nerve endings there to tell you, hey, I need to blink. I needs to produce more lubrication for tears.

But now if you're covering it with a contact lens, your not reducing the sensation to know that you might be symptomatic. So that's why patients who often say I don't really deal with dry eyes and it feels better with my contact lenses in, it's because it is masking a little bit of the symptoms.

Welcome to the IQ Podcast. I'm Dr. Ronni Banek, here to help you boost your IQ with powerful insights that connect your eyes, your brain, and your whole body wellness.

This episode was recorded during the iHealth Summit, where the world's leading experts shared breakthrough insights in vision and holistic eye care. Hello, everyone, and welcome back to another session on the Eye Health Summit.

Today, we're gonna be talking about a condition that is very common amongst both children and adults, And that condition is dry eye. And to explain about dry-eye, I have invited a special guest, Dr.

Jennifer Tsai, to be my expert for this particular session. So welcome, Doctor Tsay. Thank you, Rani, for having me. This is amazing. I think this is something that I'm really excited about talking with everyone that's listening.

Yeah, so for anyone in the audience who doesn't yet know Dr. Tsai, she is a powerhouse in The Eyecare World. She has her own practice based in New York City, and she's the founder of A New Product, which we'll be talking about.

And she also does a lot of education on social media. So if you don't already follow her, we will be sure to put the links to her social channels underneath the interview.

How did you get interested in this particular area of dry eye? Like what, what drew you to this particularly aspect of eye health? I would say it really started working at when I first graduated working out Mount Sinai in the Cornell department.

Introducing Dr. Tsai and Her Dry Eye Focus

And there was a particular interest because a lot of the patients that I was seeing were putting a bandaid on the problem after they exist instead of addressing it in a preventative fashion.

So I knew that there were a of alternative treatments. that were available if patients really knew about it. And I

wanted to be able to provide this approach and generated the interest in dry eyes.

I would say at least 80% of patients on daily basis deal with dry ice and it's quite common. Absolutely. And I love what you said about not just putting a band-aid on the problem, because a lot of the conventional treatments just treat the symptoms, but they don't really treat underlying causes of dry eye, which we'll be talking about in just a moment.

So I loved that approach. For our listeners, can you just first give us a broad overview of Dry Eye? What is it, what part of your eye gets involved, and what are the Yeah, so dry eye is multifactorial.

It's considered a disease. That means anything from genetics to our lifestyle to even certain medications that we take can cause dry eyes. In short, dry is when your eyes don't produce enough tears.

to help lubricate the surface and your tears evaporate much more quickly than it should. Typically, symptoms will include burning sensation, redness of the eyes, sometimes blurry vision or fluctuating vision, and even light sensitivity as well in this gritty sensation that patients or people will often describe where it feels uncomfortable or your eyes feel just irritated.

Absolutely. And which part of the eye is involved? Is it just one section or is it like a combination of multiple structures that are involved in dry eye?

With dry eyes, the conditions or the areas that involved typically is on the front surface. Oil is produced as part our tear film and that comes from the myobomine gland and sits on our lid surface or lid margin.

We have glands that sit on upper lids and lower lits. We also have a lacrimal gland that sits within the upper region right under a brow, and that's what produces the aqueous component.

They're both necessary to help lubricate the eyes. We have another layer called mucin layer to helps in between. So all of these are very critical to helping lubricated the eye and they work together with your blink reflex to spread the tears.

What Dry Eye Is and How It Affects the Eye

And when dryness occurs, there's usually like an imbalance in one of the areas. and most commonly typically the oil layer which is from the myobomid glands which then triggers inflammation, the dryness, infections and things like that.

So it seems like there's a whole system that works together to lubricate the eyes. So, it's not just the surface of the eye, but these glands that are supportive structures for our tear fill.

And you explained, you mentioned a few times, myobomian glands. Can you tell us a little bit more about these glans? Like, how many do we have? What happens to them during the course of our life?

Typically, it can range, but think of, here are my balloon glands. I describe it like sets of teeth. You're born with healthy amount of straight lined up teeth of equal height.

Typically when we're borne with, and over time, those glands can either shorten sometimes, or you can lose segments or areas of them. We typically have around, on average it could be like 44, 45. we have lower glands and we also have glands up top as well.

Usually the ones that are most impacted over times is typically our bottom glands because with gravity and how we use our eyes, everything settles inferiorly into those areas.

So typically a huge cause is like, for example, screen time, so your screens, we don't blink as often. The eye doesn't get rid of the buildup or bacteria that it produces or sits on the surface.

And so those glands can clog. But other areas that can cause clogging of glands could be even like patients being on, if you've ever taken Accutane, even if he took it 10 years ago, can caused damage to those lands as well.

Now a question a lot of my patients have is, you mentioned earlier, like being on screens and not blinking enough. Can that screen time actually cause shortening of the glands or loss of glands?

Screen time can cause a cascade where it eventually gets to the point where is does cause damage to glands. It's not overnight. So oftentimes if a patient comes in and they're wondering after we do, we rerun their diagnostic imaging to figure out where its coming from and we see damage It doesn't happen just overnight.

So it's over years, hours and years of screen time and think about like also contact lens wear on top of that as well. And that can contribute to eventually hypomagland dysfunction.

Got it. Now you mentioned that there are these certain symptoms of dry eye that could happen. In your practice, what types of patients typically have dry eyes?

Do you see a specific demographic that may be more predisposed to dry-eye? It's a one size fits all kind of disease. Everyone deals with dryness. It doesn't matter based on age, I would say, or ethnicity or area that you live in.

But I will say that there are certain factors that might make someone more prone to developing symptoms or having signs of dry eyes. So one example is where you lived.

If you in an area where the environment is more dry.

Meibomian Glands and Screen Time Damage

For example, Arizona, if you live in a place where it is more cold, like New York in the winter months, where there's less humidity, you're going to notice that you might feel dryness more.

Someone that spends a lot more time on screens, whether that's a gamer or someone that works at a desk all day, especially someone who works remote as well.

I would say in entertainment industry, someone A performer who often has makeup on screens and bright lights and they're sweating a lot. Performers tend to deal with their eyes because that can clog the oil glands.

And then we think of age. As we get older, we're not producing as much tear product volume and especially hormonal changes, menopause, things like that, can occur and cause more dryness.

So there's a whole range of categories that lead to dryiness. I would say we see it in all sorts of different types of people. And just to speak to what you said about environment, I live in New York as well, and we oftentimes have snowbirds who basically spend the warmer months in new York, but then the colder months, they go down to Florida.

And in Florida, patients do notice that with the heat and the humidity, their dry eye is much better than if they spent the winters in a colder climate.

So patients, do you notice the difference? And you mentioned like Arizona, New Mexico, definitely have patients who live there and sometimes travel to New in those environments, those dry, arid environments.

In terms of dry eye, what is the standard conventional therapy that maybe we were taught in school, how we treat dry-eye, and then moving on from there, like what are some of the other approaches that you use in your practice to help people address the underlying root cause of their dry eyes?

A lot of the standard care that we learn in school, again, because dry eye, the population in the market is growing

quite rapidly with more screen time and children using digital screens at a much younger age, we're seeing a huge shift.

So therefore there's a shift in treatments and what we are learning about dry eyes and also on a more systemic level. But surprisingly or not surprisingly, a lot the conventional ways are still the main way that you might notice that.

We all practice. Generally speaking, we always Dr. Sal patients to start with using artificial teardrops over the counter using that maybe two to four to six times a day, depending on how severe it is taking warm towel.

and putting on the lid. Now there's like heated masks that you can use or purchase to use as well, keeping the lids clean, making sure that clean the legs properly.

In the past, we were told to us baby shampoo. That's less common these days. There's better alternatives to help with the lead hygiene as. Well, let me interrupt you for a moment, Dr.

Sai. So what is the issue with baby shampoos? I know then years ago when I was in my training during residency, that was a mainstay. Use Johnson and Johnson baby's shampoo twice a day to clean your eyelashes.

Why is it that we don't recommend that anymore? So first, baby shampoo, the reasoning was that it's gentle on the eyes. So if you're using baby shampoos, it is safe to use.

But it can cause your oil film, your tear film to become foamy. And so the production, and it actually interacts with the protection of what you are producing to create this foaming tear.

Who Gets Dry Eye and Why Environment Matters

It's not necessarily the best option for treating the lids, especially when dealing with dry eyes Yeah, and I've actually heard from patients sometimes when they use the baby shampoo, it actually dries their eyes out even more than when the weren't using it.

Luckily, now we have some other alternatives, which we'll get to in a moment. But OK, so you mentioned the first mainstay is artificial tear drops. And what's a common, I guess you could say, like, mistake some people make with their artificial tears?

Sometimes patients say oh, this doesn't work for me. What are some common habits that you see with artificial tears that may explain why it doesn' work?

I would say the first step is making sure you choose the right brand. So for starters, Isine or Clear Eyes would not be the best option. These drops actually have not just preservatives, but it has specific ingredients that causes your blood vessels constrict and it causes a rebound redness, which is why it feels like it hasn't improved.

It's more of a short-term relief, But it isn't the better option to choose. From there, there are options that are great. Refresh is a very common one, Sustain, Bling, Biotro eye drops are all great.

Starting with preservative free options would be helpful. They have preservatives in bottles, they also come in vials. The other thing is too, eye-drops are helpful, but you have to use it consistently and you use them more than just maybe once a day.

If your skin is dry, you're probably going to apply lotion more once-a-day. And so that's another factor that I think it's like the inconsistency of use drops and maybe choosing the right consistency in the formulation.

If it is more mild or dryness you might want to use just the regular form. if it a bit more moderate you probably want go for a thicker viscosity like a gel form and if its very severe you'll probably use an ointment form with artificial tears.

Absolutely, and I've oftentimes asked patients how often they'll say they have dry eye and they use artificial tears, but it's not helping. And then I'll ask them, how are you using the drops?

And they will say, oh, once a week. I have to educate them about exactly what you said. It's like having dry skin, you wouldn't just moisturize once in a while.

You would use the lubricant very often. The other thing I always tell my patients is it is better to be proactive rather than reactive when you're using artificial tear.

So don't wait for your eyes to get dry. and for them to feel uncomfortable go ahead and put the drops in before they get dry and you'll feel a lot better that way.

So what are some other things people can do to help the surface of the eye to lubricate to, help these oil glands what, are, some of, the things you recommend Dr.

Sai? There's certainly a, lot of medications and treatments available I would say but if we go in stepwise fashion just because we always want to make sure patients sort of the best routine at home because it's important for maintenance, but also a first face to start.

I think a lot of habits include making sure you have a bed stand or desk humidifier when you are working or when your sleeping. Making sure that your diet, you're eating a I would say food rich in omega-3s, seeds, flaxseed, also salmon or fish as well.

Conventional Dry Eye Treatments and Artificial Tears

and avoid smoking. So those are, I would say, general things taking a lot of breaks from screens if possible. But moving into let's say that's not enough, which usually ends up can be the case because again, we know that artificial tears are just adding artificial tiers.

We know not producing your natural amount that you should make, which has reduced. There are treatments that we do at line of sight that aim to restore a lot of what's lost or help to regenerate and reduce the inflammation, Which is typically the root cause of dry eyes and provide this longer term solution for patients.

It's great because if we can identify the root cause, we're not putting a bandaid on the problem. We can reverse a little bit of that damage, but we also can allow patients to live their life because it's impossible to wear ear screens, use drops like 10 times a day, and just follow this hard regimen forever.

But if can reduce the amount of steps at home with treatments that are very proactive that help, that'd be ideal. One of the examples would be IPL, which stands for Intense Pulse Light.

IPL is really great at reducing lid related dry eyes caused by lid inflammation, red hot eyes, also blepharitis and styes. And it helps as well with my blooming gland dysfunction.

We have radio frequency, uses the energy that feels like thermal heat to the patient with her eyes closed is quite relaxing. the energy helps to break down the myobomian glands to actually help return it back into this olive oil consistency to help lubricate the eyes and restore some of that function.

It's great for someone that where they're a frequent blinker, or their eyes water a lot, where the just really feel symptomatic. Also for patients who deal with styes where, they have again, a lots of mybomia and gland atrophy, were they've lost a of glands.

Would either of these two treatments be appropriate for acute sties? You mentioned that they can help improve myoblomia and gland function, but would you use, like, if somebody had a red-hot stye, would use them for these type of patients?

Yeah, you know what? you can actually use IPL radiofrequency on a acute Stye. But do I do that? When a patient comes in with an active site, I don't. I start them with antibiotics and possibly an S or a drop just because it's not going to be a very comfortable patient, a treatment for the patient with a red hot painful stye for us to create your frequency on top of that IPL.

So typically I want that to calm down a bit, get the infection to go away a little bit so when it is not painful, in a couple of days, we h back, let's say in three treatment and as you start resolves and breaks down the infection resolves, but you're left with a mass there, the cyst.

Got it, got it. Well, thank you. Thank you for clarifying that. And so far, Dr. Sai, you've shared so many amazing insights about dry eye and treatments that some patients may really benefit from, not just putting a band-aid on the problem.

We're going to take a very short break here from one of our sponsors and be right back on The Eye Health Summit. So stay tuned. Our dry, irritated eyes holding you back from enjoying your day.

It's time to find relief with the dry-eye bundle. Our all-in-one solution offers everything you need to combat dry eye discomfort. Soothe provides a complete blend of the Omegas 3, 6, 7, and 9 to support healthy inflammatory responses and provide essential nourishment and lubrication for dry eyes.

The patented Bruder Moist Heat Eye Compress helps to to your eyelids oil glands, allowing natural oils to flow onto your eyes, relieving discomfort effectively.

Our all-natural isotonic brooder hygienic eyelid solution delivers professional strength results without the hassle and cost of a prescription. Brooder Hygenic Eyelid Cleansing Wipes with Tea Tree Oil provide targeted relief for dry eye associated with myobomian gland dysfunction and Demodex mite infestation.

In-Office Therapies for Root-Cause Treatment

These wipes can help improve lid hygiene. Visit our website today at drronnybanik.com to get 10% off your first order. Give your eyes the relief they need with the dry-eye bundle.

Welcome back everyone to the Eye Health Summit. Today we're chatting about dry eye with our expert guest, Dr. Jennifer Tsai. You do a lot of dry-eye management in your practice.

However, a lots of the management actually needs to be done at home by the patient. So they need to start to incorporate some of these eye, we call it eyelid hygiene habits.

So what would you recommend for someone with dry eye or eyelid issues, maybe styes, my booming gland issues as they're kind of go to eyelid hygiene routine?

What are some things that you suggest? With dry eyes and blepharitis and sties and clogged oil glands, they are all related. It's related to the structural integrity of your tear production, how your eyes not only lubricates the surface of the eyes, but it gets rid of a buildup or bacteria.

And so part of the purpose of your tears is to wash everything out. Now, when everything sits stagnant and on top of that, there might be underlying inflammation or causes that can lead to skies deform.

And most often times, rather than not, patients will, you'll notice that you might start with one a couple of years ago, but then the frequency goes up.

A lot of it is the breakdown in the homeostasis of, the eyes being able to get rid of it as well. And because t inflammation that slowly s So what patients can do at There are four simple steps.

And the first step is to always keep your lids clean. Keeping the lits clean is not just washing your face with water,

especially for women. If you wear makeup and all of that, if you line your water line, that needs to be properly removed because again, let's say you're using waterproof makeup, it's going to really hard to take off properly.

It's important to double cleanse, which is, to make sure that you clean with an oil-based as well as gel-base to keep that area nice and stripped of any buildup.

The other thing is to make sure if you deal with recurrent size, using a tea tree oil-based lid wipes or foam cleansers are very helpful to reduce any bacterial buildup on the lid and to help maintain the surface.

Hypochlorous acid is such a huge hero ingredient, so much so that I started or launched iGenic, which is my lid hygiene line. It's a eye care line that's focused on keeping the lids clean in a way where it's very important because the hypochlorous acid spray is actually used and it has been used for years as doctors know in like hospital settings as well as in settings for beauty.

And so it is great for calming the skin. So if you deal with skin inflammation anywhere from eczema to rosacea to acne breakouts, it helps to calm that angry skin down.

It helps with bacterial buildup. Now there are different types of concentrations in different formulations.

Eyelid Hygiene and Hypochlorous Acid Care

And the thing about hypochlorous spray is you want to make sure you get the right kind because I noticed that there were so many on the market, which is great.

There's awareness of it, but the bottle formulation that comes in, it has to come in the right type of package. So it's something that I- What is the concentration and the packaging that you suggest people look for?

You want to go for sort of a bottle type. It's not exposed to any type sunlight exposure or air because when that does happen, it turns into water and it is really not effective.

Sometimes if you see that it mixed with other types of ingredients, It is not possible to mix hypochlorous acid spray with a bunch of different ingredients.

If you likely it's not fully as effective as it should be or needs to be. The percentage that we use is 0.02%. It is the right concentration for the eyelid region that's safe and also clinically effective to keep the lid clean.

And this is designed for on the go. So over your makeup, while you're flying on a plane, when you get off the plane after a workout, before bed, and when your first wake up.

It's just something that should part of your lifestyle to keeps the lids clean and healthy. So how do you use it? Do you just spray it directly on your eyelids or do have to spray on something and then apply that to your face?

The first formulation that we designed is just a spray onto the face directly. So close your eyes. And again, like it can be used over makeup, over bare face or over make-up as well.

Just spray to use like a daily mist. Down the line, we will have a more advanced version that will be more viscous that can used with a wipe. There are different usages, and I would say the very first baseline is to make sure that you have something that can travel with and remember to use more frequently, which if we can get there first so that patients actually use it more often throughout the day, we're already going to have a bigger impact when it comes to lid hygiene.

Absolutely. And I just wanted to share something with patients or anyone listening. Many people have heard of the microbiome within our bodies. The gut microbiomes usually gets the most kind of, I guess, press.

But we have an ocular surface microbiom as well. And there are organisms that live on the surface of our eye that

help us to keep our balance. And when those organisms may decrease and some, quote unquote, bad or pathogenic organisms increase in concentration, we can develop a lot of inflammation.

So the products that Dr. Sai is talking about, like the tea tree oil wipes and the hypochlorous acid spray, help to restore the ocular surface microbiome.

Am I? Do you agree with me with that, Dr. Sy? Yeah, it's again, treating the root cause. It's not just, again just putting a bandaid on the problem. Dr Sy, there are just there's so much information out there, whether it is on internet, on social media that people can get.

Is there any common like myth or misconception you often hear from patients about dry eye that you would just love to dispel today for our audience? Without a doubt, it's my eyes aren't dry, they always water.

Watery eyes is actually a sign of dry eyes, and majority dry is due to poor oil quality, not so much lack of water, so that's why, for example, if you're walking outside and your eyes water when it is cold or windy, you might actually have or be dealing with dry eye.

So that is a common misconception that I think a lot of patients don't realize. And the other part is I Why don't I feel it with my wear contacts? My eyes are perfectly fine.

They deal with any issues, but yeah, maybe at night when I take out my contacts, they feel a little irritated. Contact lenses act like a bandaid.

Myths About Watery Eyes and Contact Lenses

You're covering your corneal nerve endings where you have nerve endings there to tell you, hey, I need to blink. I needs to produce more lubrication for tears.

But now if you're cover it up with a contact lens, you are reducing the sensation to know that you might be symptomatic. So that's why Patients who often say, I don't really deal with dry eyes and it feels better with my contact lenses in.

It's because it's masking a little bit of the symptoms. Are there any special contact lens? I know there I have many patients who say I used to wear contacts when I was younger and now I just can't anywhere.

I can tolerate. Can't tolerate them because my eyes are too dry. are there specific types of contact? Lenses that you suggest for your dry eye patients.

Patience rest and foremost, it is most important to treat the underlying issue. Because no matter what type of contact lens we put on the surface, it's going to feel dry, whether it is an hour or in a day.

But you always want to go for lenses that, generally speaking, have a silicon hydrogel material that delivers the highest amount of, we call it, decay or oxygen transmission.

Typically, lenses, that are dailies, are going be the best option to choose from because you throw it away at the end of the day, you're not storing it and reusing it.

It doesn't pick up back to your built up on a lens itself. There's certain brands that are available in, I would say, silicone hydrogel dailies that ours is generally great to choose from.

Thank you for those tips. And personally, I can attest to that. I'm a contact lens wearer and I used to wear two-week contact lenses, two week disposables, but I could not tolerate them anymore.

They used stick to my eyes. Then when I switched to the dailies, it was just so much better. So much more comfortable. Right. There are also specialty contact, right?

Like specific types of contact for more severe dry eye patients. Can you tell us a little bit more about those? At my practice, we fit a lot of patients who deal with more severe dry eyes and scleral lenses.

Sclerolenses are helpful because it creates like a new vault or a cornea on the surface. It's filled with saline solution. So it helps because you don't experience friction of the lens on your corneas itself, which acts in a way to protect it.

And so that is a great option for patients, who they need to find some sort of relief when it comes to their daily routine when it comes to screen time as well.

Got it. And again, this is not a regular contact lens. It's a lot larger than a regularly contact lenses and it requires personalized fitting and requires the patient to be trained in how to put them in and take them out.

So it's little bit more involved. But certainly talk to your eye doctor if you're suffering with very severe dry eye and consider some of these options that Dr.

Tsai mentioned. Beyond the eyelid hygiene, there are things like IPL, which is intense pulse light therapy, radio frequency. There's also something I use in my practice called thermal pulsation therapy or lipoflow is what I used in practice as well.

Specialty Lenses and Advanced Dry Eye Therapies

Well, There are many options out there. I just want to let everybody know that there is hope for dry I know some patients really feel like there's nothing left to try, but there always something.

So what are some other things you do for really refractory dry eye patients, Dr. Tsai, what do you recommend? We also have other treatments in office now focusing on, I would say, just within the space of regeneration and prevention, using stem cells, stem cell therapy in the form of amniotic membrane tissue that we use on the eye.

It's worn like a contact lens, but it helps to wake up the limbal cells around the eyes and to help heal any corneal scarring, any of the nerve damage on the surface, and help with dry eyes, inflammation as well.

And also now there are options using lacrofil, which is similar to filler, using that in the tear to increase your tear reservoir. So there's a lot of new exciting advancements in this space in dry industry that I'm excited.

Yeah, there's always innovation and it's a very exciting time always in the world of ophthalmology and optometry for helping our patients achieve better eyesight.

Thank you so much, Dr. Sai for spending this time with us on the Eye Health Summit. Your insights have been so incredibly helpful and I'm sure that lots of people in your audience, their eyes will be open to the possibilities of managing their dry eye.

If anyone wanted to reach out to you, maybe get access to some of your resources, become a patient, consider iGenX. How could they find you? I share everything on my personal Instagram, which on Instagram and TikTok and YouTube, it's Dr.

Jen and Juice. And then for my practice to book an appointment and to read more about our services and treatments, its line of sight. So the website is lineofsight.co, C-O.

and then phrygenics for the lid hygiene, is igenic.com. Wonderful. And we will share all of those links right below the interview. Again, thank you so much, Dr.

Sai, for spending time with us. Thank you all for tuning in to this episode on the iHealth Summit. I will see you during the next interview, so stay tuned.

Bye. Thank you for tuning in to the IQ Podcast. I hope you enjoyed today's episode and learned something new to help you boost your IQ. Leave us a review and share the podcast with your family and friends.

Stay connected with me for more eye-opening insights on eye health, nutrition, and lifestyle. Until next time, keep your vision clear and your iQ sharp.