Presbyopia Decoded: Why Your Arms "Aren't Long Enough" Transcript

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Introduction to Presbyopia

Your eye muscles are being tasked to do a lot of work when that lens is getting stiffer. So we can try to make some things easier on the muscle. I'm gonna go ahead and put this out there.

Eye exercise, you're not gonna be able to make your eye muscles stronger like we talked about. The muscles aren't the problem, it's the thick lens. So doing eye exercises isn't gonna hurt you, you'd knock yourself out.

But if you could fix this problem with eye muscle exercises, we would all be doing eye muscle therapy in our practices to solve this instead of talking about glasses and contact lenses, okay?

So it's not something you can train your muscles in to be able to cure, right? This is Doctor Talks, real talk from real doctors on the issues that matter to you most.

This episode was recorded during the Eye Health Summit where the world's leading experts shared breakthrough insights in vision and holistic eye care.

Welcome back, everyone. Today, I'm so excited to welcome Dr. Jennifer Lyerley as our expert guest on presbyopia to talk about ways to manage this issue that happens to almost everyone once you reach a certain age.

Welcome, Dr. Lyerley. We're so excited to have you here. Thank you so much for having me. I'm really excited to talk about this because every single person is going to have to deal with this in some extent in their lifetime.

Absolutely. It's inevitable for the vast majority of people. But before we get to that topic of presbyopia, Dr. Lyreley is an optometrist. She practices in Raleigh, North Carolina at TruVizion Eye Care.

She's also the founder, co-founder of Defocus Media, and she has her own podcast. educating many other people, including lots of eye care providers about some of these topics that we're going to be talking about today.

So we are again, so honored to have you join us. So first of all, Dr. Laralee, could you just give us a little bit of background about what drew you to the field of optometry?

Like, why was it that you wanted to be an eye doctor and what drew you to this particular area of expertise, which is presbyopia? So you can see, I wear glasses, I also wear contact lenses.

Growing up, I was one of four kids and I was the oldest. So when we went to the eye doctor, we were there for a very long time. And my childhood optometrist was just a nice guy.

He let me help on the eye exams. He let me play with the equipment. And it really sparked some joy in me around this profession. I wanted to grow up and do that too.

As far as specializing in presbyopia, I think I just do it because that's part of what optometrists do. We're helping people see. And if you're seeing anyone over the age of 40, 45, this is something that you're going to have to help and be really versed in talking about.

But maybe what makes me a little bit different is I'm really willing to try new things and think outside the box. So I've embraced presbyopia and all the different ways of correcting it.

Maybe that's one of my colleagues, but I'm here to encourage that today. Absolutely. And your story is not unlike many other eye care providers.

Dr. Lyerleyu2019s Background and Interest in Optometry

Many of us did have vision issues as children or teens or young adults. And that's what drew us into the field because we saw the tremendous benefit of some of the treatments that we received to help us see better.

Now we want to pass along that information to our patients and help others as well. So I love that, Dr. Lyerle. So for our audience. Let's just give us a 30,000 foot overview.

What is presbyopia? Why does it happen? Who tends to develop this problem? Where I call it like my arms just aren't long enough syndrome, but the medical term is presbyopia.

Think of presbyopia as just a normal birthday related change. It is really no different than getting wrinkles on our face. our hair turning white. It's happening sometime in those middle years of life, but there's no metric world.

We usually see around 40. Some of my patients start having trouble seeing up close, feeling like they have to hold their arms out further away in their 30s.

And some of them, it doesn't hit them till their 50s, maybe even 60s. But sometime in that time in life, you're gonna notice like, oh, it's a little harder to adjust.

I think what's really important to understand about this is that the eye-focusing system has a few different parts. So there's a lens inside of our eyes.

It's right behind the iris or the color part of the eye. And its job is to focus in and out, just like the lens on the camera. So every time you move your focus far away to close, that lens is adjusting in and out.

From the day we are born, the lens is one of the only body parts in the human body that never stops growing. Every year of your life, it is laying down layers.

It's getting thicker. Think of it like a little food trunk in there. It is just laying down rings and rings and rings. So around 40, it's getting so thick.

Those muscles are trying to adjust it to focus in and out. And that thing is thick. It doesn't budge quite as easy as it used to. And next year is thicker.

And next year is thicker. And next year is thicker. We don't have any way to stop the thickening from happening. That's what science is trying to break through, of course.

But every year that we're alive, that lens keeps thickening up. And it's actually the same process when you get to 60, 70, 80. It causes a cataract to develop.

So I think there's this misnomer that it's, oh, my muscles are weakening. Actually, the muscles are as strong as they've ever been. They've lost nothing.

But what they're having to do to adjust this really stiff, thick lens is getting harder and harder until eventually it's possible. Dr. Larelly, I love that analogy.

I've actually never heard that particular analogy before about the lens being similar to a tree that's growing and every year there's a new layer that's added to it.

And like when you talk about the flexibility of the lens and how it gets stiffer, it's like when you think of a young tree like a sapling, it easily can bend in the wind, right?

But as the tree gets older, it gets thicker, the trunk. It's more sturdy and it doesn't bend as much to the wind or at least the trunk of it doesn't bend.

So that's a wonderful analogy of how this change happens in our eyes and it is physiologic. It's part of aging. You can't get away from it. I always tell my patients if you live long enough, three things are going to happen to your eyes, right?

You're going to develop presbyopia, you're going to develop cataracts, and you're going to develop these fine lines and wrinkles around your eyes. It's going to happen.

So rather than try to fight it or struggle with it, I really try to encourage my patients to embrace this aging change and try to find ways to adapt. So let's talk about the best ways to manage presbyopia.

What Presbyopia Is and Why It Happens

What are some simple things, before we talk about corrective lenses or anything like that, what are some simple things people can do to manage it when they just can't hold things close, they have to hold things really far away to focus?

Yeah, your eye muscles are being tasked to do a lot of work when that lens is getting stiffer. So we can try to make some things easier on the muscles.

I'm going to go ahead and put this out there. You're not going to be able to make your eye muscles stronger like we talked about. The muscles aren't the problem.

It's the thick lens. So doing eye exercises isn't going to hurt you. You knock yourself out. But if you could fix this problem with eye muscle exercises, we would all be doing eye muscle therapy in our practices to solve this instead of talking about glasses and contact lenses.

something you can train your muscles in to be able to cure, right? All right, so back to, but how can we help? Let's reduce how much the eye muscles are having to do.

And one of those things is making sure you have good light. If you are a person that's going through presbyopia or even the earliest parts of it, you're going to have noticed that light really makes a difference.

If you're looking at small print, if you have good bright lighting, it's going to be a lot easier to focus than it is in dim lighting. And the reason why that is, is our eye muscles that control the lens adjusted in and out of the focus are called the ciliary muscles.

Their other job is to adjust the size of your people. And so in bright light, they're constricting, people get smaller, and that's cranking in your maximum eye muscle strength for focusing up close.

In dim light, people have to relax. It's dilating. You've got to get more light in there so you can be able to see. But those eye muscles then can't engage the full amount of focus, so it's harder to focus up close.

Give yourself good light. Make it easy to get it on your eyes. And then try not to hold things so close, like your computer, for example. An arm-length away is a great setup.

Try, the closer you are to things, the more your eyes have to work. and then taking breaks. I know this is easier said than done, but I highly recommend to my patients, set a little timer every 20 minutes, every 30 minutes, something like that.

If you know you work on the computer eight hours straight a day, take some breaks during the day, look across the room, close your eyes, blink a few times, let your eyes have a chance to refocus.

Otherwise, your eye muscles are going to be really tuckered out and it's going to make it even harder for you to focus up close. Those are some amazing tips, Dr.

Lyreley. The other thing I oftentimes tell my patients is when they're using a device, there are so many settings you can adjust to help you read better, right?

So we know technology can be our friend in this scenario of presbyopia. So what are some tips you give patients for their devices? Good point. Don't feel defeated about changing the size on things.

I've had several patients in their 60s tell me, I don't have any trouble seeing up close. I've been talking about, I'm going to need reading glasses. I never need anything.

And then they have their phone out and they've got two words on the screen per text message. So if you make the size bigger, you'll find you might not need reading glasses.

It's a tip that a lot of my patients are doing right now. Another really cool tip is the flashlight on your phone. If you're having a hard time seeing something, you can use the light on your phone for extra visibility or even put it on the camera, hover over what you're looking at and make it bigger.

It's like a built-in magnifying device just right there in your hand. Um, also changing the contrast of, so let's say you're reading on a tablet. I love putting things into more of a night mode, black background, white text, a little easier to focus, added contrast, but you can find softer ways of looking at things that are less tiring on the eyes.

Yeah, I love all of those tips. I've tried them myself. And actually, initially, I used to feel a little embarrassed about increasing the font size on my phone.

My daughter used to laugh at me like, oh, mom, you're so old. You can't see. You have to increase the font size. But you know what? If it helps you, do it.

Right? You're the one who has to suffer if you can't read properly. So there is no shame, there is no stigma in increasing the font size on your phone.

Trust me, I've been there. The other thing I wanted to just ask you about Dr. Lyrely is you mentioned like using the flashlight and the camera or taking a photo and then magnifying it.

There are also some apps that do that as well. Do you recommend just doing your natural phone settings or using an app? There are a couple out there that I've tried, which is your preference.

I've just been having patients use their built-in camera, but yeah, to hear about the apps, because I'm not familiar with them. Yeah, I think there's one called Big Magnify, and it can do a lot of the things you just mentioned.

So it shines the flashlight, it can take a photo, it can really blow it up, and it can also invert the colors. So you can see white lettering on a black background.

So there are a couple of them out there. I would just say experiment and see what works best for you. What are some of the most common ways that you treat it in your office as an optometrist?

So, you know, the original, if you will, the first thing you're probably going to get talked to about if you're coming with these visual complaints is, all right, how do we correct this with glasses?

And I think there's kind of two main categories of glasses options. You've got what's called single vision glasses. This would be something like computer only glasses, reading only glasses.

When you put them on, they be clear at that specific location. So like really clear here if they're reading glasses. If you look across the room, now they'll be blurry.

And that's when you have people taking their glasses on and off or wearing them down here on their nose. Really classic with reading glasses to see this happening.

So you can look over them far away and look through them for reading. Well, let's say you don't wanna do that, okay? You can wear progressives, which as you can see, they're invisible.

Lifestyle Tips for Managing Near Vision

There is nothing delineating the distance from the reading. What's cool about, let's say for example, a full progressive is at the center of your glasses, the whole top portion, you're gonna have all your far away vision.

And then when you look down, you'll get gradually more and more help with the up close. So let's say you're a minus three prescription. So in your progressive glasses, you're gonna have a minus three, a minus 275, a minus 250, a minus 225, a minus two, all the way down to your reading prescription.

All of that's in there, but the con is all of that's in there So when you're looking at different places, there's only going to be a small amount dedicated to individual tasks.

And that's why for some of my patients, they'll find that a combination of progressives for out and about and specific task glasses like computer glasses or reading glasses that make a wide space for that activity is a useful combo to have those.

Yeah. And I also find that when patients first get their progressive, let's say their very first prescription, they have to adjust to it, right? Because if they're not looking in exactly the right spot for that right target distance, it's blurry.

And also with the progressive part, now, correct me if I'm wrong, Dr. Larriely, but you said the top part's for distance, so it's pretty wide. But the bottom part is it's going down, getting to your reading prescription is very narrow, right?

It has this hourglass shape. So again, if you're looking just a little bit off to the side, if you're outside of that zone of the prescription, it can be a little blurry.

And all progressives have that same design where, and that's how they're able to change, because they have to change the power of the lens from distance to up close without a visible line separating them.

That'd be a bifocal, right? But the only way they can make that change happen is to have this peripheral defocus down. Now, depending on the design and how old or new the design is, you can get wider and wider peripheral defocus, or wider and wider central zones, smaller peripheral defocus zones.

But even the very top-of-the-line progressives on the market, there's going to be an area out here along the edge that's not got clear vision, where the power is changing the glasses.

Yeah, no, I've definitely experienced that where I've gotten progressives and it's taken me a while to get used to them. It also depends on where it sits on your face and how large the frame is, et cetera.

I wanted to just ask you something earlier about what you said about myopia. So let's say somebody has myopia, which is nearsightedness, and they have a minus three prescription and they don't want to work progressives.

Let's say they're not comfortable with them. What else can they do? Yeah. One great option that many of my myops will do is wear distance glasses and take them off to see up close.

This is why people ask me all the time, like, why haven't I had LASIK? I do, my job is a lot of up close work and I seem fabulous up close. So being a low myop has a lot of perks.

In the fact, a lot of my patients that struggle the most are low-mides because they seem so perfectly up close without anything, and they only have trouble when they're wearing their glasses and contact lenses.

But when you have something focusing your eyes for far away, your lens can't adjust its focus. So that's when you

create the problem of not being able to see up close.

Got it. And actually that's what I do is when I, most of the time I wear my contacts and I actually wear multifocal contacts sometimes and we'll talk about that.

But when I'm wearing my glasses at night, I just take them off to read and use the computer because my natural focal point is here. So I don't really need anything.

So why strain your eyes with wearing glasses and having to accommodate if you don't need to. Dr. Lirely, this has been such an intriguing conversation.

I'm sure that you've really created some eye-opening insights for many people about presbyopia, what causes it, what are some base options for treating it.

We're going to take a very short break, hear from one of our sponsors, and then we'll be right back. Did you know that most adults spend over 10 hours a day on devices?

In our screen-dominated world, meet your eye's new ally, Fortify. Fortify is designed to defend your macula against blue light with a potent blend of lutein, zeaxanthin, mesozeaxanthin, and astaxanthin.

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From teens to adults, Fortify empowers you for healthier screen time. I'm Dr. Rani. Don't let screams dim your view. See the world without limits with Fortify.

Science in every capsule. Act now. Visit my website to learn more about Fortify's powerful ingredients and to purchase.

Glasses Options: Single Vision and Progressives

Let Fortify be your partner against blue light. Fortify. Empowering your vision. So thus far, Dr. Lirely, we talked about some basic approaches for presbyopia, which would be single vision reading glasses or work glasses and then progressive lenses.

Let's talk about contact lenses. What are some options for contact lens wearers and presbyopia? So you've got two main categories of contact lens options, multifocal contact lenses where you're going to get a blend of up close and far away vision or mono vision contact lenses, which is where one contact lens is going to be for far away and one contact lens is going to be for up close.

Now, as soon as I described that, you see maybe one sounds like it has a clear advantage over the other. Multi-focal contact lenses are the newer version.

They've been on the market for about 15 years now, but really only really good for the last decade. And you definitely see a mindset change because they have gotten so good in prescribing doctors personal preference.

A lot more multi-focal is because it's preserving the binocularity, the ability to move the two eyes together. And both eyes get to do both things. They're multi-focal.

So you want to share your experience a little bit? Yeah. So basically in my mid forties, I was really struggling with presbyopia and I started with a multifocal that was a low add.

So they come in different powers, low, mid and high. And what happened was it worked really well for a couple of years. Then I had to graduate to the mid level and that worked well for a couple of years.

Then I had to graduate to the high level. And after a few years, that no longer worked for me. I was still having a lot of trouble. And then I went to the second option you described.

So then I switched over to mono vision. And I love it. It was a little bit of an adjustment, but I'm so happy. I can see my phone clearly. I can read clearly with mono vision.

So try out different things. That's my recommendation from my personal experience is what may work for you also at one stage of your life may not work for you at a different stage of your life.

So true. I'd love to dig in a little bit about what's different about these in case someone's considering it but wants to know more. So multifocal contact lenses.

I think sometimes there's this misconception that it's always progressives, like your glasses, but they function in two totally different ways. When we're talking about glasses, we talk about the progressives, the distances in the top, then you get into the computer, then you get into the reading, and you move your eyes up and down to get to different places.

Think about a contact lens. You move your eye up and down, the contact lens just stays in the center. You're always looking through the center of a contact lens.

So you couldn't possibly design it in that same way. So the way that it gets around that is in a multiple contact lens, you actually have layered rings stacked into the center of the contact lens.

So at any one moment, your brain is seeing both a distance and an up close vision stacked on top of each other. I like to describe it to my patients as like looking through a screen door.

You can look through the screen and see outside. You can focus on the screen and then you'll notice outside's blurry behind it. But when you're looking through a screen door, you can always see those things, right?

It's not just like a perfect crisp outside. So I tell people like there's always something you're looking through. So it's not your crispest, clearest 2020 vision of your life.

It's a blend of focus. And that's why I think they purposely say they don't call them progressive contact lenses for a reason. And like you said, many people will notice on the lower eye parts when their eyes don't need as much help, maybe a little easier to use.

As your eyes need more and more help, it's really hard to get enough reading blend, have great up close without it hurting your distance blend. So there's these compromises.

That's a word I hate to use, but I always tell people it's like a seesaw. The more distance I put in there, the less reading, the more reading I put in there, the less distance.

So we're just trying to find the right blend for you. And I like phrasing it that way instead of what are we compromising on? Let's focus positive here.

We have a pretty high success rate. It's like an 80% success rate. Now monovision, pretty similar success rate. It's about 75% when you look at the study data.

And patients like yourself, and honestly, I'm similar prescription probably, we really can take to monovision. If you see great up close without glasses or contact lenses, any contact lens I put on your eye to help you see far away is gonna take away some of that ability to see up close.

So if your naked eye is perfect for up close, just wearing one contact lens for far away would preserve that great thing that's happening over here. Um, it, like you said, takes some getting used to it.

I always told people, give it a good two weeks. You're going to hate it. The first couple of days, hang in there. Nobody says, Oh, it feels great. Natural look out of one eye.

The other con with mono vision that you might've been this is if you do a lot of computer work. We do not have three eyeballs. We only have two. So I have to pick.

One eye is probably going to pick driving because that's important. So then the other eye has to pick, is it going to be good for reading or is it going to be good for computer?

And for some people, they can do either one, but some people's eyes are very specific on what they need for each distance. And one of those two things is going to be out of focus.

But here's the great news. You can always supplement with glasses over the top. So let's say it's really good at this one thing, but you'd love to use two eyes to look at your computer for eight hours a day when you're on your computer.

Contact Lens Solutions for Presbyopia

Hey, let's put some computer glasses over top of your contact lenses. I think just going into it with an open mindset of it's not one size fits all. These are not time machines.

The glasses aren't time machines. The contact lenses aren't time machines. None of these is going to give me my normal 25-year-old vision. This is my 40-year-old vision.

But if I'm open-minded to solutions, there's a lot of creative thinking we can do. Absolutely. And I think the other thing I heard you say as you were explaining this is you really need to first determine what your own needs are, right?

So are you spending most of your day at computer arm's length distance? Or is most of your day up close on your phone? Or are you outside? Do you work outdoors?

Are you not really up close? And then relay that information to your eye doctor, because that's really important for your eye doctor to know what your daily needs are.

And maybe they change. Maybe you have different needs during the week than on weekends, and that's totally fine. Maybe you have a couple of different pairs of glasses or different types of contact lenses for different purposes, and that's okay.

We all wear different clothing based on the weather. When it's colder outside, we wear coats, and when it's warmer, we wear lighter clothes. So you can adjust that with your, I guess you could call it your eyewear as well.

Dr. Lyerley? Absolutely. I have lots of patients who will do multiple contact lens prescriptions for. When they're playing sports or when they're out at the beach, they won't distance contact lenses with really clear vision.

And then when they're working on their regular nine to five at work, they prefer Monday through Friday to have lenses more shifted towards the computer clarity.

They can still drive home in, but the clarity is more set for that indoor vision. And that's fine. Don't be so rigid with yourself. But like you said, as a doctor, we have to be listeners first and make sure our patients know, like, this is a conversation.

This is not just, oh, here's your number. This is your prescription. This is the consistent discussion happening where I'm listening to your feedback.

I'm offering help. You tell me how that's working. So it's a collaboration. Yes, yes. So well said, Dr. Lyreley. So well

said. So now let's talk about some of the latest advancements in presbyopia management in the past few years.

There have been some pharmaceutical drops that have been FDA approved to treat presbyopia and then some that are in the pipeline. So can you explain to us, Dr.

Lairley, what do these drops do and what has been your experience? Have you prescribed them for patients? What do they say? Are they happy with them? Do they use them on a regular basis or do they not find them useful?

So the way these presbyopia eye drops work is they make their people temporarily small. You might have remembered earlier when we talked about you see better typically up close in bright lighting when you're going through presbyopia because in bright light our people constricts and it pulls in our maximum eye muscle focus to get that lens maximally adjusted.

Now the other cool thing about a small people is you're going to get less peripheral distortion and what we call extended depth of focus. So if you've ever looked through, it's called a pinhole at the doctor's office.

They held this little thing up as a tiny hole to look through, and you're like, oh, I see amazing with this little point. A pinhole, if we're able to create it, would give you great vision at multiple locations.

But you have to make a pretty small point of focus to do that. So the first drop that got FDA approved back in 2020, it was called Buidy. It is 1.25% pylacarpine, and it shrinks the pupil.

Now, there was still much excitement in ICARE when this came out. It's the first time ever we were going to be able to talk about an eye drop instead of just glasses and contact lenses to improve vision.

I wrote several prescriptions when things got started and my patients from this part, they told me like, yeah, it helped. But it was a bit underwhelming.

And so what we've learned with pilot carping and it was right here in the study data for FDA approval. We were probably really excited that the study data told us this was going to happen too.

When it got approval, the study data showed somewhere around 20% to 30% of people had a three-line improvement when they're uncorrected in their visual acuity for the first couple of hours, and then it wore off.

So it's just a small amount of improvement for a short amount of time. They went out back to the FDA to get approval for a second time a day drop to try to extend that effect, maybe after each drop a maximum of six hours.

On three lines, let's say you're between 50, without anything. All right, so you're going to get down to 2025. But if you just put your reading glasses on, you'd be 2020. So many of my patients were comparing it to wearing their reading glasses and like, yeah, but it's not as good.

And that was some of the cons. In addition to side effects, polycarping can cause headaches. It can make your vision feel dim because it is making the people really small.

It can cause redness. And while there were no study data in the clinical trials for VUID, saying that a retinal detachment was caused, we know that polycarping as a molecule can be associated with risk of retinal detachment.

So I'm very careful about the patients that I will mention it to. In their study data, they only prescribe for people between plus one to minus four, and obviously no history of surgery, no retinal pathology.

And I really stick to that very narrow treatment window to make sure I minimize the risk of retinal detachment.

Presbyopia Eye Drops and New Treatments

I have to share I tried view it in myself because I was like this is really interesting when it first came out and I wanted to experience it before I prescribed it to patients and what it didn't really cause me headache or redness or anything like that.

One interesting thing it caused me this is again a personal anecdote is I have floaters and it really increased my awareness of the floaters. for whatever reason, even though my pupil was smaller, I really noticed my floaters a lot more.

And so I said, you know what, this isn't for me. I'll stick with my multifocal contacts or my progressive lenses. And many of my patients, when they ask me about this particular drop, I will explain to them, it can work, but it's short acting.

So what I would say is, don't use it every day. If you have a special event that you're going to and you really need to have that really crisp, clear vision, use it for that.

But it's not, from my perspective, it's not something I would suggest that people use it on a daily basis for. What are your thoughts about that? You know what, I totally think that it's also not inexpensive.

Instead of just picking up a pair of reading glasses, it's probably not practical for people as an alternative. So I completely understand that mindset, where it's kind of like, hey, when I need an electric hit or it's a special occasion, I'm going to minimize these glasses for this XX event.

Got it. Now, what else is in the pipeline for PresBOP? I know that there's a couple of other interesting options that are soon going to be available. Yeah.

So back last year, QLOSI is the newest drop. It's FDA approved now. It's not yet available for me to write a prescription in my QHR, electronic health care under system.

How do you spell that? It is spelled Q-L-O-S-I. QLOSI? And I was told it's like close C, so close C. And so it is also polycarpene, but at a lower concentration, 0.4%. It's also preservative-free, which when you look at the cytopress profile, it's causing a little less headaches, less redness, less site irritation.

They also were able, with the molecules they're using as a carrier to help with better penetration, to get more action. So with something around 40% of patients, we're getting that three-liner or more near-vision improvement within the first couple of hours.

And so this is one of those where if you're open-minded to it, it looks like it might be more effective, maybe worth retrying, but it is also polycarpene.

One thing that a lot of doctors that are interested in is the new molecule that's slated for an FDA decision in August. So this is called a podufidate, when the FDA makes a decision about approval.

So August of 25, it's called a secladine. It doesn't have a name brand yet because it's not approved, but it's from a company called Lens Therapeutics.

not polycarpene, and it's a selective myotic. So there's less pulling on the ciliary muscles when it creates a very small pinhole, much smaller pupil size than either the polycarpene drops.

And in their clinical studies, they were showing something towards 70% of patients had the three line or greater near visual acuity and it lasting for up to 10 hours.

At 10 hours, 40% of people were still having that three line of improvement or more. To be maybe more effective, maybe longer lasting, potentially a lower side effect profile, but we'll know more if or when it ever does actually kind of come to market.

So there's a lot to be excited about. Yeah, no, that is really exciting. But I do have one question. The drop that you just mentioned, the second drop that is slated to be FDA approved, if it constricts the pupil so much, doesn't it cause decreased contrast, trouble more trouble in dim lighting?

What are some of the trials show? Are there any side effects to that? Yeah, same thing. So it can cause dimming of vision. Interestingly enough, in this specific acycloidine trial that was submitted to the FDA, very few people rated it as something that was a concern.

The side effect rate was very low. 90% of people said at the end of the study, I'd rather continue to use this drop. So everything side effects, whether it was headache or the dimming of vision or any initial slight irritation when you put the drop in, was rated as very low and mild with this drop.

Interestingly, also, we know physics-wise, if you do make a true pinhole pupil, you might be able to get some improvement to distance physician two, and that's what their clinical data shows that they submitted to the FDA.

Interesting. Wow, these are really exciting developments in the eye care space for treatment of presbyopia. I know that some people, I've had patients who come in and say, well, if the pinhole works so well, why don't I just get those pinhole glasses?

And yes, you can buy these pinhole glasses. I believe you can buy them online. Why would a patient not just wear pinhole glasses if they're trying to read?

Yeah. So here's the crazy. All right. Let's say you look through a pinhole, like everything that you're seeing is total black, except for that one small point of clarity.

So can you imagine trying to drive in that, walk around, you're going to be tripping over everything. It's like a horse wearing blinkers. So in practicality, pinhole glasses, pretty limited in usefulness.

You're only going to be seeing a small point straight ahead of you. However, a pinhole inside your eye, the optically is going to work a whole lot different because inside your eye, much closer to the retina, you'll have a wider peripheral field of view, potentially.

We've had pinhole surgical devices before that didn't work all that well. I think about the camera inlay, for example. So pinholes are something we're trying to replicate in the real world for a while.

And we just haven't really been able to nail it yet, it feels like. Yeah, I always tell my patients when they want to buy those pinhole glasses, I always tell them we use them in the office diagnostically to help determine your best potential visual acuity, but practically it just does not make sense to walk around with pinhole glasses for the reasons you just described.

It's just- After they bust all their teeth out on the curb leaving the office, they'll regret that decision. Yes, yes, I agree. Well, Dr. Larley, this has been such an incredible, exciting, fun discussion.

I wanted to ask you, we just have a few minutes left, but I wanted to ask you, is there a common myth or misconception you often hear from patients about presbyopia that you would love to dispel today for our audience?

I think people have a lot of unfounded anxiety about presbyopia. coming from, oh, if I wear glasses to help, to make my eyes feel better, to help me see better, I'll get dependent on them.

My muscles will continue to weaken. They'll continue to decline. And I think that's why I make this. Every time I talk to a patient about this, I make it a point of discussion.

Earlier in this conversation, I made it a point of discussion. The muscles actually aren't weakening. So that's why you're doing eye muscle exercises.

It's not going to hurt anything, that's for sure. But it's not going to cure your presbyopia to exercise it away. Also wearing reading glasses isn't going to decline your vision or make things worse because the muscles aren't getting weaker.

That's not what's happening.

Pinhole Glasses and Common Misconceptions

It's just the lens stiffening and you wearing glasses or not wearing glasses doesn't change the lens thickness at all. And so that's why they can sell reading glasses over the counter at the grocery store, at the dollar store, at Target, no prescription needed.

I could pick up those glasses and start wearing them. And would their vision look weird? Probably, but it's not going to hurt them at all. And that's why you're able to sell them without a prescription.

All they are are magnifying lenses. But carrying around a magnifying glass has some cons. You have to hold it all the time. So someone had the genius idea, let me take magnifying glasses and put them into glasses holes.

So now you're just wearing the magnifiers instead of holding it. Isn't that genius? And that's all that is. And so when I tell people they're just magnifying glasses, but put into eye holes, they feel a lot safer about what wearing glasses does.

Yeah I find that there are some patients who really just feel like they're they don't want this to happen and they feel I don't know if it's necessarily shame or just with this there's a huge movement towards anti-aging these days I'm not going to get older I'm not going to wear those glasses there is this almost like a stigma around wearing reading glasses and I tell my patients like If you're struggling, yes, you can do certain things without wearing the reading glasses, but if you wore the reading glasses, your life would be so much easier.

You would be so much more comfortable doing what you love to do, whether it's on a screen, on your phone, reading, etc. All those daily tasks would be so much easier.

So I really tried to separate that kind of notion that this is like a weakness that's within us. What you were saying, it's not getting weaker. It's a physiologic change in the lens of the eye, not the muscles, the lens of the eye.

The great news is, right? If you don't wear the reading glasses, it doesn't matter. Your eye isn't going to get better. It isn't going to get worse. It's going to keep feeling worse no matter what, but that's just birthdays.

So it's not like you're hurting yourself by not wearing the glasses, but if you did give yourself some help, it would help with eye strain and headaches and maybe even those wrinkles from squinting and like Maybe you can enjoy reading more.

So yeah, if it makes your life easier, let your body have some help. That's okay. And like you said, it's not defeating to do. But great news, if you choose not to do it and just make your thought bigger, give yourself good light, that won't hurt anything either.

Yeah, absolutely. Thank you for those reminders and the reassurance there, Dr. Lairley. That's really, really helpful and great information. Again, this has been a wonderful discussion.

I really appreciate all your insights and sharing your experiences helping people with presbyopia. Dr. Lairley, if any of our audience wanted to reach out to you to get more resources from you, learn more from you, maybe even become a patient, how could they find you?

So probably the easiest place to find me is online. I'm at idolatry. It's E-Y-E dot D-O-L-A-T-R-Y on Instagram. I'm also, like Dr. Bonnie said earlier, the co-founder of the Defocus Media Podcast, and we have social media at Defocus Media, or you can check out our podcast.

If my partner, Daryl, is here, he would tell you, iTunes, Google Play, Apple, anywhere you can get a podcast. You can listen to the Defocus Media podcast.

And we have quite a few podcasts around presbyopia, if you guys are interested. And if you live in the Raleigh, North Carolina area, I would love to help you.

I'm at True Vision Eye Care, so phone call away. Excellent. Thank you so much. We will share all of those links right below your interview. And I hope people do reach out and learn more from you because you're an incredible resource.

And thank you all for tuning in and please stay tuned for the next episode coming up very soon. Thank you for tuning into Dr. Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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