Glaucoma Basics and Why Early Treatment Matters

The reality is that glaucoma doesn't sleep. And so if it is present. There could be things that one can do with like certain foods that one can eat, certain exercises that one can do, but we know that the best way for treatment to slow it down is by lowering the eye pressure and to be able to have continuous follow-up visits to evaluate if there is stability or if there is progression because the ugly side of glaucoma when it's left untreated is that it can lead to permanent blindness and that permanent blindness is irreversible.

So with that being said, sometimes if one has a exam with one doctor and they're skeptical, sometimes going to another doctor that they trust who might be saying the same thing can make them help them to accept the diagnosis so that they could be proactive and do something about it to help preserve their site.

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. Welcome back to the iHealth Summit.

I'm your host, Dr. Ronnie Banik, and I'm so honored to have today my expert guest talking about glaucoma, Dr. Constance Oke. Thank you so much, Dr. Oke, for joining us today.

Thank you so much for having me. I'm excited to be here. So for our listeners, Dr. Oka is a leading glaucoma specialist here in the US based in Virginia, and she's the author of two books, which is amazing.

One for practitioners called The Building Blocks of Trabectome Surgery, and one for patients called The Glaucoma Guidebook. So we, again, are so honored to have you here today to share your expertise in this particular area.

But before we get started on the specifics of glaucoma, could you first share with us what interested you in this specific subspecialty of ophthalmology?

Dr. Okekeu2019s Path to Glaucoma Specialization

What was the draw to glaucoma for you? Actually, it was a combination of two things. The first was me reading a book that talked about the different specialties of medicine.

And for some reason, ophthalmology was one of them that really stood out to me because I liked how it was well-rounded. Uh, it was prestigious in the sense that it was about a common sense of the eyes that people care a lot about.

And it was a surgical subspecialty. I like the fact that it was outpatient care. People can walk in to see you. So they're fairly healthy. You could take care of different age populations, young to the old.

And so it was one, like I said, that just stuck up with me as an area that I was really interested in. Then I had a really good experience doing research when I was in college at Cleveland Cleveland clinic and the area of neurobiology.

And I had a great experience. And when I came back to Yale, which is where I went to college, I had to get my to get my bachelor of science degree. I needed to do research with a mentor.

And so I looked at a book. And in that book under neurobiology, there was a section of one mentor who was working on the optic nerve and glaucoma under ophthalmology.

And I reached out to him, his name is Dr. Joseph Caprioli, and he became my first mentor in ophthalmology because he just put me under his wing and got me really excited about ophthalmology and glaucoma in particular, and then never left.

Wow. That's a wonderful story. And thank you for sharing that. Your patients are so privileged to have you care for them. And I'm sure you've helped them protect and preserve their vision as they go through their journey with glaucoma.

So for our listeners who may not be so familiar, could you just explain what is glaucoma? What part of the eye does it affect? And what type of damage can happen in patients with glaucoma?

Yeah, so glaucoma is a eye condition that affects a structure in the eye called the optic nerve. The optic nerve is like a cable between the eye and the brain.

And the way it looks when we look inside the eye is kind of like round like a donut with a nice thick rim all the way around. What happens in glaucoma is there is a thinning or loss of that room of tissue and if you lose enough of it, it starts to equal loss of vision and if too much gets lost and end up leading to blindness.

There is a way to protect those optic nerve tissues by lowering the pressure inside the eye because the eye pressure can be like stress on the optic nerve and it can cause wear and tear and damage to those optic nerves.

And like I mentioned before, once the damage is done, it's not reversible. And so our aim is to protect that optic nerve tissue. And when it's treated, we can definitely slow it down and protect vision.

When it's left untreated, it can lead to blindness. I love that analogy you just shared about the optic nerve being like a donut.

What Glaucoma Does to the Optic Nerve

So there is that center part of the donut, which is the whole of the donut. And what happens in glaucoma to that center part? Could you just explain a little bit about that?

Yeah. So if you can imagine, like the rim is thick. And as the nerve tissues start to die off, there is the center part. It just starts to getting more larger and larger and the rim gets thinner.

And we call that process cupping. So the center is like, and so cupping is not good because the more cupping that there is, it means that the rim. the tissue, the optic nerve tissue is getting damaged and it's getting less or lessened.

And so we want it to be thicker as opposed to being thinner. We don't want it to be increased in cupping. And that's how I would explain that analogy.

Mm-hmm. Oh, wow. Thank you for explaining that. So what is there a normal range for a cup size that you typically see that where you say, okay, this is a healthy nerve.

It doesn't have any damage. It doesn't have glaucoma. And then on the flip side, is there a number or range in which you become concerned about possible glaucoma does damage?

Yeah. Okay. So normally when we're born, we have a certain finite amount of optic nerve tissue and say a certain number of fibers. And we can actually lose up to 50% of those fibers and still be able to have a healthy functioning optic nerve.

If we say a cup to disc ratio is like say 0.3, that's a healthy small cup. 0.5, that's just maybe some cupping that might be suspicious, but at the same time could still be a very healthy nerve.

When you start to get into 0.7, that means that rim is getting thinner, 0.8, definitely 0.9. That's a more advanced

stage of glaucoma. And so the, as we get closer to 1.0, that is closer to more damage.

And so you want to be closer to 0.1. A healthy nerve range would be about 0.3 to 0.4. Got it. And can that go, can that be reversed? Let's say someone comes in, they've had some damage, their cup to disc ratio is like 0.6, 0.7. Could they go back to a 0.3 or more normal cup size?

Technically, when the damage is done, we typically say it's not reversible. Now, if you want to get technical, sometimes there can be, let's say for example, if someone has a really high pressure in the eye and they have a lot of signs of physical cuffing and they have some type of treatment that significantly lowers their eye pressure.

And that sometimes had caused there to be physically a slight change in the cup, but it may not necessarily. reverse the damage has already been done to the nerve tissue.

It might just change the actual shape of how we see it physically. But so when we talk about glaucoma, we really are thinking of the mindset that once the damage is done, we're not reversing it because we don't have a cure yet for glaucoma.

We're working on it. There's research being done in the area of stem cell research. That's very promising, but we don't have it yet. And so our mainstay of treatment is preventative.

And so the best way to treat is to catch it early. And the only way to catch it is by actually physically looking in the eye. We can't diagnose glaucoma just by looking on the outside of someone.

We actually have to look inside the eye to look at the optic nerve and do some testing to evaluate how healthy the optic nerve is. Understood, understood.

So someone can't just look in the mirror and know that they have glaucoma. It's something that you have to go see your eye doctor for, either an optometrist, an ophthalmologist, or even a glaucoma specialist to really get the testing done and then to get the formal diagnosis.

I wanted to go back, Dr. Okeke, to something you mentioned earlier about the eye pressure. You mentioned it a few times. Now we talked about cupping and normal numbers for cupping, normal ranges.

What about for eye pressure? Are there normal ranges that you use to determine whether someone has glaucoma or not?

Eye Pressure, Diagnosis, and Measuring Glaucoma

Yeah, so the eye pressure really is really important in how we manage glaucoma because it helps us in our treatment. But it's not the only thing. We have to remember that it's about the end organ damage.

It's about the damage to the optic nerve. And so a normal eye pressure, we typically say is 21 millimeters of mercury or less. But let's say, for example, if you have a normal nerve, then that normal pressure of 21 is good.

But if you have an abnormal nerve, let's say you have a lot of cupping, but your pressure is 18, It doesn't mean that you don't have glaucoma just because your pressure is within a normal range.

Because if there's damage to the nerve, it may be that your nerve is just susceptible to pressures that are at 18. And how do we treat? Well, we need to get the pressure even lower.

So the pressure could be down to maybe 12 or 10. And that could be a nice safe pressure. So when someone has glaucoma, we get away from the term, what's your normal pressure?

And we go towards the term, what's your target pressure? And that target pressure is determined based on your stage of glaucoma, the function of the nerve, how healthy is it, or is there already areas of damage?

And we set a target pressure, which is a place where we feel that the eye pressure should be to help to stabilize the glaucoma. Thank you for that explanation.

Many patients often don't quite understand the concept of eye pressure. When you go to, let's say you go to see a regular primary care doctor, one of the metrics that they measure in the office is your blood pressure.

So I try to explain it to patients that whenever you go see an eye doctor, it's one of your vital signs for your eye health is your eye pressure. Is that safe to say, Dr.

O'Kaykay? Oh, yes, yes. It's an important pressure. Important measurement for the eye exam, just like blood pressure. One should note that eye pressure and blood pressure are not directly related.

I get that question a lot. So if my blood pressure is high, does that mean my eye pressure is high? No, no, not. There's not a direct correlation. Now elevated eye pressure, I'm sorry, elevated blood pressure.

There could be some things that can happen to the eye as a result of elevated blood pressure, some things that could happen to the small vessels in the eye that can cause damage over time and cause other problems within the eye.

But an elevated eye pressure does not equal an elevated eye pressure. They're very separate systems. So within the eye, there's a fluid called aqueous humor.

And the pressure of the eye has to do with how much fluid is being made and how much fluid is being drained out of the eye. And there's a certain ratio of that.

And so when the ratio is in balance, the pressure should be within a normal range. When the ratio is out of balance, then the pressure can get elevated, and elevated eye pressure is a big risk factor for glaucoma progression or development.

Got it. Okay, I understand. Now, I know that there are different ways to measure eye pressure in the office. There are various devices that your eye doctor may use.

What do you consider the best way to measure eye pressure? Yeah, so there's the gold standard for measuring eye pressure, something called Goldman appellation.

And so if you've been to an eye doctor and there's a, they put an eye drop in your eye and you lean in a machine and they actually physically touch the eye in order to measure the pressure, that's considered the gold standard.

There are some other tools like handheld devices that could be used to measure the pressure. They can be very similar, but again, the gold standard is the Goldman appellation with a slit lamp.

Got it. And now I know that there are some companies that are manufacturing devices for home use for eye pressure measurement. What are your thoughts on some of those types of home monitoring devices?

Yeah, I think that the home monitoring devices could be very helpful in terms of gathering information for patients. It's really important to be able to utilize all the resources in order to get good training, to be able to use the device as well at home so that one can get accurate measurements.

But it is something that as we continue to develop our technologies and they get better, I see that as something that can be very useful for patients to use that information at home and be able to allow us to download it in the office to use it as a way to monitor patients outside of the office.

Got it, got it. So as technology improves, so does our ability to help patients manage their conditions like glaucoma. Now I have a really important question to ask you, Dr.

Okeke. There are different types of glaucoma, and I know it can get very complex with the various subtypes and so forth, causes of glaucoma, but can you just generalize for us the main categories of glaucoma and what do they mean in terms of, from a patient perspective, what do patients need to know about the two main types of glaucoma?

This is something that I explained really well in my book with pictures that I don't have here to talk about, but I like to give this the sink drain analogy.

So two main types of glaucoma are open angle and narrow or closed angle glaucoma. So when we talk about open angle glaucoma, within the eye, there is a drainage system, like I mentioned, and that drainage system keeps in balance the fluid in the eye, fluid being made and fluid getting out.

And so you can imagine like a sink that has a drain. And so you can imagine that within the drainage system, there's a faucet that's on, that's always on.

The fluid is going through this area where the stopper could be down into the top of the drain and then through the drainage system. So it looks like the system of the sink is on and the fluid should be flowing through.

Open-Angle vs Narrow-Angle Glaucoma

And so in open angle glaucoma, it looks like the system should be open, but somehow there's not a clog in the sink that you can see, but there's some type of clog that's somewhere down in the pipes.

So somewhere in the pipes, there's a clog and it's stopping the flow. And so instead of all the fluid going through and there not being a collection in the sink, in opening glaucoma, there's a clog that you can't see, but you do see that the fluid is rising in the sink.

And in a closed system like the eye, that causes an increase in eye pressure as the fluid can't get out as well. So that's open angle glaucoma. And in the United States, that's the most common form of glaucoma, open angle.

Now, with narrow angle, this is more of we can actually see the obstruction. So if you have the sink that the faucet's on and you're looking at the sink, the actual stopper is down.

So you can see that the stopper is physically down. And that's the reason why the fluid is collecting, because you can see that closure. So in angle closure glaucoma, we actually see the structure where the drainage system is.

We could see that it's closed. So we do things to try to either physically open it or we try to find a new drainage system or create a new drainage system around it.

Thank you for that very eloquent explanation. Again, I love your analogies. Async analogy is just such a wonderful way to describe this to patients. It's complex.

Again, as I mentioned earlier, these are the two main categories, but even within those categories, there are subcategories. But from a patient perspective, would one know whether they have the first type open angle glaucoma or the second type either narrow angle or closed angle glaucoma?

I will say that typically no, in the sense that when we look, like again, when we look at someone's eye, we can't tell. We actually have to look with certain types of instruments to be able to look at the area of the eye that we call the angle and see if the angle is open or see if the angle is narrow.

Now, there are two distinctions between the two because typically with open angle glaucoma, there aren't many symptoms, if at all, until the glaucoma gets into a more moderate to advanced stage where the symptom is I can't see.

Now in angle closure glaucoma, if the angle gets a bit too narrow, you can actually have an angle closure attack

where your pressure actually suddenly goes up.

Your eye can feel pain. It can be, you can have some blurred vision, some redness in the eye. And so you can actually have more symptoms with narrow angle glaucoma again, compared to open angle glaucoma.

Now with narrow angle glaucoma, it is found in the United States. It's not as common as open angle glaucoma. Narrow angle glaucomas tend to be a little bit more common in Asian populations.

And that has something to do with the shape of the eye being a little bit smaller. And because it is a little bit smaller, just the anatomy is a little bit more narrow.

And so they're a little bit more prone to having angle closure. But like I mentioned earlier, symptoms can happen with angle closure glaucoma much more commonly than with any symptoms from open angle.

Got it, got it. And you must explain all of this in your book as well, right? The glaucoma guide, the differences and the types of symptoms. So I would highly recommend if anyone has glaucoma, wanted to learn more about it, or maybe they have a friend or a family member with glaucoma that you get Dr.

Okeke's book, which is excellent in describing these various different types of glaucoma. This has been so informative, Dr. Oksof, thus far, our discussion on glaucoma.

We are going to take a very short break to hear from one of our sponsors and we'll be right back on the iHealth Summit, so stay tuned. Discover Nourish, the Core of Ageless by Dr.

Rani. It's more than a multivitamin, it's nature's wisdom in a capsule. I'm Dr. Rani, the creator of Ageless Eyes. Nourish isn't just a supplement, it's a commitment to your vitality.

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Nourish. Elevate your life with eyes that see the world anew. Welcome back everyone to the Eye Health Summit. Today we're chatting about glaucoma with our expert Dr.

Constance Okeke. Thus far, Dr. Okeke, we've talked about the different metrics of glaucoma, cupping, eye pressure, and some of the different types of glaucoma.

Now let's move on to chatting about what are the treatment approaches that you oftentimes use in your patients with glaucoma? Can you tell us a little bit about what the options are and how you decide which patient is best suited to a particular treatment approach?

Oh yeah, sure. As I mentioned before, how we treat glaucoma is all aimed at lowering the eye pressure. So all of our treatment modalities do that. I would say that there's three main buckets.

One is medications, and that typically comes in the form of eye drops. We have six different classes of eye drops, anywhere from usage of once a day all the way up to maybe four times a day.

They can work in, it can work in symbiosis, meaning they can be additive. So sometimes one has to use one or two or three different types of drops. The exciting thing in the world of glaucoma is that there's always innovation.

And so even with the arm of in medications, we now have ways that new ways of medication delivery. So we actually have a way to implant the medication within the eye and it can last for a period of a year to two years.

Now we actually have an implant called iDose that can be placed in the eye and it can last for a period to three to four years.

Glaucoma Treatment Options and Staging

And that's an implant we can place right in the office setting that can last about a year to two years. And so we have great technology there. And then another bucket is laser treatment.

And that laser treatment is something that uses light energy to stimulate the natural drainage system so that it can flow better. And then there's also another bucket of surgery, different types of surgery.

There's one arm that we call minimally invasive glaucoma surgery, where we clear out and flush out the clog material within the drainage system, like I mentioned before.

And then we also have surgeries that create a whole new drainage system. So those are the three main buckets for our treatment methods. I see. And so how would you decide when you're, let's say you're seeing a glaucoma patient for the first time, you've done your testing on them, their eye pressure may be elevated, maybe they have some cupping going on.

How would you decide which of these different buckets the patient may be most appropriate for? Yeah, it all depends on the stage. So a person can come in for the first time to see me, but they may have mild or moderate severe glaucoma.

So if they have mild glaucoma, we're typically talking with the first modes of therapy, which is typically either medications or light energy treatment.

Over the last 20 years, we've been using light energy treatment and it's now become a first line treatment for glaucoma because we've done a lot of research on it and area.

called selective laser trabeculoplasty. There have been a number of studies that have shown that there can be some benefit in using light energy treatment first, especially in early glaucoma.

And the nice thing about this light energy treatment is it's something that could be done. An office setting can take about 5 minutes or less to do, but its effectiveness can actually last for several years and that can also help to regulate the eye pressure and be more consistent.

Sometimes people have issues with drops. Maybe they don't remember or they have side effects with their cost and the light energy treatment can be very beneficial because sometimes they can allow patients to either not have to use drops or use a lower amount of them.

And it's very exciting in that area because we now have even newer innovations and technologies. We have something now called DSLT, which I'm excited about, which is a laser treatment or light energy treatment that's even faster, takes seconds to do, and it can give excellent pressure lowering and make the experience for the patient even better.

Wow, amazing. And so you mentioned earlier that you decide on the treatment based on the stage mild, moderate or severe. Are there additional tests you need to do aside from determining the cupping and the eye pressure that will help you determine whether someone has mild, moderate or severe glaucoma and how aggressive you need to be with that particular patient?

Yes, great question. So going back into how we diagnose glaucoma, yes, we evaluate the pressure and yes, we look at the nerve to determine our cupping, but we also have diagnostics that help us to get even more detail on

the structure and the function.

So we usually use a test called OCT, which is takes a picture of the optic nerve and can in much detail determine how much nerve tissue is there so that we can establish if there's a good amount.

There's a lesser amount, and then we can use those tests over time to see if that stays stable or if that changes. Also, we have the ability to evaluate the function of the optic nerve, a very common test that's often repeated.

annually is the visual field test. In that test, patients look at a light and we are able to determine how well the nerve is functioning, if they have any blind spots and where those blind spots are located.

And that test is actually very crucial because it helps us to decide the stage of glaucoma. Is this someone who has moderate, I'm sorry, mild, moderate or advanced glaucoma.

And so if we find a patient who we're seeing and the pressure is, let's say 20, but they have advanced glaucoma, Based on their testing, then we may choose to do something maybe a little bit more aggressive than just starting them on drops, or maybe we start them on late light energy treatment and drops, or maybe we would have a slow or low threshold, consider a surgical option for the patient, depending on how responsive they are to those initial treatments.

Mm-hmm. Understood. Now, sometimes there are other factors that may come into play regarding how aggressively you treat a patient for glaucoma. For example, family history, maybe, or their race, or other medical issues.

Can you just go through a couple of these other potential additional risk factors for glaucoma where you may be more inclined to treat more aggressively than to just observe and wait and see, like a wait and see approach?

Yeah, it could be like, we've been talking about pressures that are been in, like, say, the 20s, but what if someone comes in the pressures 40 or 50? Those are going to constitute something much more aggressive, which typically is going to be some type of surgical intervention.

If somebody has been has a very aggressive family history of a lot of their family members have glaucoma, maybe some of them have lost vision in one. or both eyes or had multiple surgeries, then we might tend to be a little bit more aggressive about trying to get their pressure down.

And yes, maybe they may be an earlier candidate for some type of surgical intervention. If somebody is struggling, let's say that they actually do okay with their drops, but they're on four drops and they can't keep up with that.

And they're not going to be able to be compliant because they have other issues that are going on with their health or their family or just life happens.

then that could be a reason why we need to consider another option, whether it's a laser treatment or a surgical option to help lessen the load. Because sometimes what might seem like the easy thing, which is maybe, oh, just using a drop may not be the best for the patient.

And now because we have so many, so much innovation, we actually are in the mindset of more intervention, interventional glaucoma, because sometimes we have to help the patients help themselves because if they can't keep up the drops, if they, They want to do what's right, but at the same time life happens and they're having a struggle or the drops they want to use are bothering their eyes.

And they have these bouts of not using them because they make their eyes red and they have to go to a meeting. So they stop the medicine. These are all reasons why one wants to work with your doctor to say, Hey, I'm having these problems.

What are my other options? Cause there's a lot of options and it's exciting in the area of glaucoma now, because

there's so many tools in our pocket that we can use.

to help make the patients experience better, but they also help to preserve their vision. Absolutely. It's a very exciting field and there's always improvements and innovations.

I wanted to go back to the topic of family history. In your experience, in your patient population, what percentage of patients do you have a positive family history of glaucoma?

It's quite common. I would say that I would probably at least in the 40 to 50%, but you have to understand that glaucoma because it is so sneaky. There could be times when it is in the family, but people don't know.

Sometimes people don't share that information because they feel like it might be a burden to let people know about these issues.

Risk Factors, Family History, and When to Treat More Aggressively

But to be honest, it's actually doing more of a service than being a burden. When people know that they need to be checked for glaucoma, it's caring for the person because the earlier it is detected, the easier is treat and there's more vision to preserve.

And so it's really important for people who do have glaucoma to share it with their family members. And not because it's a burden, but because you want to make sure that they get their eyes checked and have every resource to do that early so that they can protect their site.

And it's also good to discuss those things because But on the flip side, support is good when it comes to glaucoma. And having support from your family members, having them have a better understanding of what's going on with you can also help you in your journey with glaucoma.

So it's good to be able to be open and communicate with these conditions of glaucoma because it can be helpful. But on the other flip side is I have some temptations say, I don't have anybody in my family who has glaucoma.

How could I have it? The reality is that it doesn't have to, it doesn't have to, it can skip generations. It doesn't, you could be the one in your family of many that has it and no one else around you does.

So just because it's not running in your family doesn't mean that you can't have it. So there is a strong genetic predisposition, but it's not a hundred percent.

And it's important to know that if no one in your family has glaucoma, it doesn't mean that you can't have it. And also sometimes when you find out, hey, I have glaucoma and you start asking around, it's not uncommon for people to start finding out, oh, someone so did have it because they didn't really share that information.

Absolutely. And I always ask my patients whenever you're together in a get together, let's say it's a birthday, you're celebrating anniversary, a holiday, open up the conversation, ask everyone, because it's so important in terms of protecting eyesight to know early rather than to find out years or decades later that you've had this condition, you haven't been diagnosed, but all along it may have been managed to prevent vision loss.

So start those conversations and open up those lines of communication. absolutely. Now in our last few minutes together Dr. Okeke, I wanted to ask you there are some patients who are a little bit hesitant to if they hear the word glaucoma and their doctor tells them oh start these drops or have this laser procedure perhaps even have a surgery they're quite hesitant to do that and they would prefer to try to manage things more quote unquote naturally, whether it be diet or supplements or lifestyle.

What are some things people can do from a preventative approach to help manage glaucoma and prevent any further damage to the optic nerve? Yeah, I will say that there are some things that I can suggest that patients do as a supplement.

However, before I talk about that, the first thing that I would suggest doing is to consider getting a second opinion, because the reality is that glaucoma doesn't sleep.

And so if it is present, There could be things that one can do with like certain foods that one can eat, certain exercises that one can do, but we know that the best way for treatment to slow it down is by lowering the eye pressure and to be able to have continuous follow-up visits to evaluate if there is stability or if there is progression because the ugly side of glaucoma when it's left untreated is that it can lead to permanent blindness and that permanent blindness is irreversible.

So, without being said, sometimes if one has a exam with one doctor and they're skeptical, sometimes going to another doctor that they trust who might be saying the same thing can make them help them to accept the diagnosis so that they could be proactive and do something about it to help preserve their site.

Now, when patients are under my care and they. are being treated and they want to do something extra in order to help take care of them, their eyes. I do suggest other certain vitamins.

There's a really good vitamin supplement called the optic nerve formula by science-based health. And it's a compilation of components that help to increase in blood flow to the optic nerve, which we have found that can be protective because one aspect of damage to the optic nerve could be related to blood flow.

I also suggest that patients, certain foods that are rich in nitrates, green leafy vegetables like kales and spinach, the nitrates have been shown to be helpful to also support the optic nerve and increasing nitric oxide.

That can be also very important in protecting the optic nerve. Nitric oxide is something that's endogenous in the body. The other things I say are to exercise because again, exercise can help increase blood flow to the optic nerve and then just to also to get support.

So if there's any avenues for being able to talk to other people about glaucoma or to questions, get more information. So that 1 stays informed I mentioned my book that was part of the reason I wrote the book to provide avenues for information for patients and it easy and conversational way.

But also there's other support and information out there through nonprofit organizations like. the Glaucoma Foundation, the Glaucoma Research Foundation, Prevent Blindness, Bright Focus.

All of those are organizations that I work with, whether as an ambassador or an advisor, to help in the fight against glaucoma. So those are some other resources as well.

Well, thank you for sharing all of those incredible insights and those resources, and we will certainly include those links under the interview so people can access them.

I've also, you mentioned earlier, Dr. Oak exercise. I also just wanted to mention that there are certain types of exercise that may actually increase eye pressure.

Lifestyle, Supplements, and Exercise Considerations

and maybe not be not so such a good idea in patients with glaucoma or advanced glaucoma. Can you name what some of those specific types of exercise may be or things that you tell patients to try to avoid to that may increase their eye pressure?

Yeah, there are exercises where the like the head goes below the waist, especially in certain types of yoga exercises, the positioning where their heads are down like in the downward dog position for too long.

Now, I would say that it's not that we typically tell patients to not do those types of exercises if they just are occasional yoga do exercise maybe on a daily basis.

Now, if there's someone who's an instructor and has glaucoma and is in those positions more frequently, one would give, maybe give some caution to the frequency of how much they invert the head.

And there are certain types of situations where someone has what we call valve salvo, where there's pressure. If you were playing an instrument, like a trumpet, you do a lot, use a lot of pressure in order to create the air to force through the instrument.

And there are certain activities where there can be an increase in pressure. If it's one thing that's on occasion, it is not something that we. necessarily say to avoid, but it's more something that one might have caution depending on their stage of glaucoma if they've had a recent procedure.

So those are the kind of questions you would want to bring up to your doctor who's evaluating you and knows the stage of your glaucoma to give you more advice on that.

Yeah, just to expand a little bit more upon what you just said, Dr. Okeke, with inverted head postures in yoga, we presume that the eye pressure goes up.

Is that correct? And that's why it's something to be cautious about. So that would include downward dog, your head stands or hand stands for prolonged periods of time.

and with the Valsalva maneuver, this is when you bear down and you strain. I also tell my patients who do weight training, generally we think of weight training as a good thing to do.

It builds strength that's good for your muscles, good for longevity, but when you're lifting heavy weights, if you're also holding your breath when you're doing that, that can transiently increase the pressure in your eyes.

So you want to be very mindful and be breathing when you're doing those types of activities, breathe in and out instead of holding your breath and again straining down hard.

And I love what you mentioned about certain instruments, something that we typically don't think about, those types of forceful breath or blowing types of activities that could potentially increase eye pressure.

And one other one that just came to mind is swimming with goggles. What are your thoughts about that with patients who love to swim and they wear tight-fitting goggles around their eyes that may potentially increase eye pressure?

Do you have any recommendations about those types of activities? Yeah, as long as the the goggle where it sits is around the orbit of the eye, okay, and that's not an actual pressure on the globe, then it should be okay.

As you mentioned, underwater like deep diving, that can sometimes create pressure on the eye, depending on how scuba diving, deep diving for periods of time, there could be some risks involved in that.

Again, it's not to say that no one can deep dive, but these are questions that you can ask your provider who sees your eyes and sees your stage of glaucoma and can give you some advice on a discretion that you might particularly have based on your current situation.

It's not something I would tell everybody, and if someone has mild glaucoma wouldn't be something that I would be so concerned about, especially if it was something on an occasional basis.

if it becomes something that's a chronic condition or I'm seeing some changes that are happening in the eye and I'm now asking questions, what else could be going on?

These then give reason to maybe give more caution. These are the kinds of things that you want to bring up to your doctor to have good rapport with them to explain what's going on.

And that's one other thing I'll just mention is that sometimes patients want to, they don't want to bother their doctor or they want to, they want to be a good patient.

They don't want to tell them that might be struggling to do X, Y, or Z. But the most, the best thing that you can do is let your doctor know exactly what's happening, exactly what you have trouble with because there are other options.

Sometimes I've had patients who've been, you know, they got a medication and they're saying they go to the pharmacy and that medication is like $300. And it's not like I'm thinking, okay, that's not what you have to take in order to manage your glaucoma.

Sometimes there's another drop in another class that will work just as well. And I can switch you right over. And that's not a problem in my eyes. I just happened to choose that one.

I don't know everybody's insurance and what, what will cover and what will not cover. But if the patient didn't tell me that was an issue, then I couldn't solve the problem another way.

So it's important for there to be good communication with your doctor. and also know that there may be other options that are just as fine, just as good, maybe even better if there's an issue with the current treatment strategy that you have.

Those are some wonderful points, Dr. Okeke, and thank you for sharing those. So again, I can't echo that more. Have an open conversation with your treating doctor because there are many options and it's best for your doctor to know what you're dealing with and what your goals are for you really to decide on the best course of therapy together.

It should be a team effort. Well, thank you again, Dr. Okeke for sharing these incredible insights and your experiences with glaucoma. If anyone in our audience wanted to learn more from you, perhaps access some of your resources.

I know you do a lot of education in the eye health space on glaucoma. How could they reach out to you? Perhaps even purchase your books? How could they find you?

I have a website. It's called www.drconstanceokeke.com. That's one way to find the new things that I'm working on. the glaucoma guidebook, that's actually a Johns Hopkins health book.

The website is www.theglaucomaguidebook.com.

Resources, Patient Education, and Closing Remarks

I'm excited that we'll be putting out an audio book sometime soon this year and checking out those resources will be able to allow you to get access when it comes out.

Wonderful. We will be sharing all of those links below so you can access Dr. Okeke's resources. She also has a few free downloads that she's going to be offering as part of the iHealth Summit.

So could you just very briefly describe what those what those resources are for our audience? Yes, one of the resources is relating to eye drops. I extensively interviewed some patients in terms of some of the most common problems or challenges with eye drops and this guide is some quick fixes to some of those top challenges and relating to cost installation memory.

And then also another guide has to do with preventing blindness and some of my top tips in order to help prevent glaucoma blindness. And some of those are excerpts from my book.

And so that's the other guide as well. Thank you. And I hope people do take advantage of those three resources that Dr. Okeke has offered and please share them again with your friends and family.

Thank you again for being part of the iHealth Summit. We are so honored to have had you as a speaker and to learn from you. So thank you, Dr. Okeke. Oh, you're very welcome.

It was great to be here. And thank you all for joining us for this episode. Stay tuned for next time when we will be sharing much more on the iHealth Summit.

Could you share with us maybe one myth or misconception you often hear from your patients when it comes to eyelid changes or cosmetic procedures around the eyes that you'd like to dispel?

There are a lot. There are a lot. But I would say that one of the things that I want to dispel is has to do with kind of more of a global understanding of what eyelid surgery is.

Eyelid surgery is very important because of both the aesthetic and the function. So people often worry that if they have a procedure at a younger age or have it done once, they can never have it done again.

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.