

The Future of Eyecare & Eyewear Is Now

Expert Opinions About the Neurolens System

Roundtable Discussion Report

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Symptoms of eye misalignment can include headache, neck pain, eye strain, eye fatigue, dry eye sensation, and motion sickness. A study that included over 160,000 patients revealed that at least 2 of 3 people experience symptoms due to eye misalignment. That number will continue to rise with the shift to more remote working and learning. Adults spend an average of 7 hours a day staring at digital screens, which can exacerbate eye misalignment symptoms. Unfortunately, only 1 in 10 people report these symptoms to their eye doctor because most people don't know that their eye doctors may be able to offer a solution. Many patients are also unaware that their symptoms may be associated with eye misalignment and prolonged digital device use.¹

The Neurolens system consists of two elements: the **Neurolens Measurement Device, Generation 2 (NMD2)**, which can identify eye misalignment as small as 0.01 prism diopters and acquires thousands of data points per patient, and **Neurolenses**, which are the world's first and only spectacle lenses that incorporate a contoured prism into the design to correct eye misalignment and alleviate symptoms. In this discussion, advisors share their personal and clinical experiences with Neurolens and how the system has affected their practices and patients.

The Neurolens system includes an easy-to-use, mobile device and tablet-friendly lifestyle index questionnaire that allows patients to indicate signs and symptoms related to eye misalignment that they may otherwise fail to mention to their doctor. Once the patient's symptomology has been established, the NMD2 tests for subtle eye misalignment or phorias with an accuracy and consistency unattainable by traditional testing methods. Quality vision is not merely about clarity, it's also about comfort and improved quality of life.¹

Challenges with Traditional Methods

KARPECKI:

How have doctors measured phorias traditionally? What are some of the challenges of these methods?

NANASY: The average general practitioner may not be doing a thorough job of measuring phorias because the process is complex and time-consuming and because they don't know what they would do if they got a result that was an outlier. Neurolens takes that kind of intimidation off the table and allows all doctors to give the same level of care.

CORBIN-SIMON: Prior to Neurolens, we would probably get a different measurement from one practitioner to the next due to their personal clinical experience.

NELSON: Neurologists don't do any phoria measurements. However, I've learned a lot since working with optometrists more closely, and it's very interesting to see the crossover between the two specialties.

State-of-the-Art Technology

KARPECKI:

How has the NMD2 changed how you approach phorias?

CORBIN-SIMON: The NMD2 has significantly changed the way I practice. The lifestyle index questionnaire allows patients to bring up their issues

before I even ask. Having an interactive graphic that shows patients how their eyes are working helps them understand the concept of misalignment more easily. The graphic helps to explain why they're experiencing motion sickness while in the car, sensitivity to light while driving at night, and eyestrain from looking at the computer for eight hours a day. I'm having better conversations with my patients. It's like I've found this magic wand, and when a patient puts on a new pair of these glasses, they feel amazing. Two days ago, a patient came back after being examined and prescribed Neurolenses, and she told me that, after wearing these glasses, her headaches don't exist anymore.

NANASY: I had prescribed prism for years, but when I learned about Neurolens, I knew that I wanted contoured prisms for my patients because each of them has different phorias at distance and up close. No matter how good I am at measuring, this device is better.

At the time, I had a patient with an extensive history of headaches for years, in addition to motion sickness and dizziness, and she was on a lot of medication for these. She had been wearing Neurolenses for about three weeks when she told me that she hadn't had a headache since making the change.

NELSON: People with chronic headaches are happy to have an objective measure, such as a lab test or an MRI, that they can look at. These patients are unfortunately used to not being listened to regarding some of their issues. Not only do I listen to their answers when I ask whether headlights bother them at night or if they have neck pain, but now I have a solution to their issues, one that helps them quickly feel relief.

MONTECALVO: There's this public perception that eyeglasses only fix sight; that if you see clearly, then you don't need to see the eye doctor. I've been working to change this misperception. Neurolens is one of the first systems that dispels this myth, and patients soon realize that their eyes may be the reason for their headaches.

Neurolenses and the NMD2 have made a tremendous change in so many lives, including in our practice. I've been able to educate my entire staff on binocular vision in only 30 days.

When I was told that Neurolens had a 93% success rate, I didn't believe it, but our practice actually gets better results, which is truly unbelievable. I've been prescribing standard prism for years, and they are not the same thing.

Importance of Correctly Measuring Eye Misalignment

KARPECKI:

How well does the NMD2 evaluate the extent of misalignment at distance and near? How important is that?

NANASY: The device integrates the peripheral awareness system and gives a better measurement than I could ever give with my phoropter and more accurately than I could do with a cover test, and it's all done before the patient even gets to my chair.

MONTECALVO: We know there are different phorias for distance and near. The instrument automatically shows the variation and what happens in those situations. There's also a graph to show patients what their eyes are doing when they

look far versus near. This is huge and saves time communicating with the patient.

CORBIN-SIMON: It only takes about two minutes to do the test, and it's something the technician can do. It's great to show patients their results, and it's mind-blowing for them to see their starting point versus where they were drifting. This helps them understand where their symptoms are coming from, showing that their eyes are doing this all day and are unable to sustain it.

Symptom Management with Neurolens Contoured Prisms

KARPECKI:

How do contoured prism lenses help patients with headaches?

NELSON: My job as a headache specialist is to sort out the migraines from tension-type headaches and medication-overuse headaches. When I'm unable to resolve these issues after multiple treatment options, I refer to the optometrist.

Previously, I hated getting to the bottom of my toolbox with patients, having nothing left to try. Although their scans might be normal, they're left



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DR. RAY CORBIN-SIMON

with chronic headache that I cannot do anything about. Neurolens treats an entirely different headache type that was not previously described.

MONTECALVO: It can be frustrating and challenging for neurologists, family doctors, and internists to face a headache issue that seems unresolvable. The message of this interdisciplinary relationship between neurologists and optometrists is essential.

CORBIN-SIMON: When patients tell me that they've seen neurologists, chiropractors, and other specialty doctors, I pay close attention to what they say because, even if I've prescribed them glasses before, I wasn't testing for misalignment of the eyes. Neurolens was the missing piece of the puzzle all along, and it has made the difference.

NANASY: It's so great to work alongside other professionals such as chiropractors, neuropsychologists, and neurologists. It is also beneficial for the patient to have all these great minds come together. I remember the first time that one of my patients' neuropsychologists called me to say "you fixed them with glasses?!" "Yes," I said. "Sometimes we can do that; it's like magic!"

Contoured Prisms vs Standard Prisms

KARPECKI:
How does contoured prism or Neurolenses compare to standard prism?

MONTECALVO: Optometrists who do vision therapy should think of contoured prism as another tool in their kit, one that allows us to solve problems we couldn't before.

NANASY: When a student athlete comes in needing accommodations for SATs and ACTs, and they need their problem fixed as fast as possible, Neurolenses are invaluable. Patients are happy that I'm able to give

them something to get them on their way. Some patients will need the glasses forever while some only use them for certain activities, like when they're studying.

A patient of mine who hadn't had a headache in three weeks since wearing Neurolenses came in for a follow-up and asked me how often she should wear them. I told her that she should wear them full time for another couple of weeks, and then if she wanted to, she could slowly back off a little, wearing them while at work or when she's looking at the computer to see if the headaches come back. She replied: "why would I do that?" Fair enough, I said, and she continues to wear them all day.

How Common is Eye Misalignment?

KARPECKI:
Is eye misalignment niche, or is it common among our patient population?

NANASY: It's not niche to have binocular vision dysfunction—it's niche to know what to do about it. Patients don't know what they're supposed to tell us. If we don't ask, they won't say it.

CORBIN-SIMON: When I got my first pair, it was amazing. Nothing was swimming in the room, I could see everything quickly, and I felt comfortable. It's a game changer.

Every optometrist should have this in their office. I test all my patients for Neurolenses. We're going to continue using computer screens and doing digital work, so we need to provide some treatment to our patients, and this is the next level.

MONTECALVO: This isn't niche; the number of patients with this condition is enormous, and unfortunately, it has been largely overlooked by our profession. Thanks to Neurolens, we're becoming more aware of the need to treat eye



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misalignment issues. So many patients don't realize that many of the symptoms they experience, such as neck and shoulder pain, might be a result of problems with their eyes.

NELSON: I'm surprised by the number of patients in my chair who have this set of symptoms. People will be surprised to know how much of the population has these issues. There are more cellphones than people in the world, so this problem is not going away; it's probably getting worse.²

CORBIN-SIMON: A week into wearing my Neurolenses, the neck pain on my left side completely went away and hasn't returned for over 3 years. I was convinced that it was from my heavy shoulder bags, and so I saw a chiropractor every month. It would feel better after the treatment, but then it would come back again. To this day, it still freaks me out when I tell patients that I don't have neck pain anymore, simply thanks to a pair of glasses.

Billing Made Easy

KARPECKI:

***How does billing for Neurolens work?
How has that affected your practice?***

NANASY: When doctors see the price, some will think "great, that's going to bring my revenue per patient up." Others will wonder how they'll explain why patients should pay the higher price out of pocket. In my experience, patients come back after I've prescribed Neurolenses, and I'm always waiting for them to ask if they can get a regular pair this year and not Neurolenses, but this has never happened. Once you resolve these issues for them, they're going to stay in the glasses and stay with you. Also, headaches are expensive!

NELSON: Many patients have spent a lot of money and time searching for an answer, and they want to feel better, so I haven't found the price-point to be an issue for them. Along with the cost, they're missing work and family time. If someone goes to work feeling bad, they're less productive, so the impact on society as a whole is major.

CORBIN-SIMON: If patients have gone to all these other doctors trying to find relief, and then you present a solution, they're going to pay for it. And if it doesn't work, the company will give their money back. It's a win-win. Patients are looking for a solution, and if you don't give it to them, they'll find it elsewhere.

NANASY: It's a blessing in disguise that it's not covered by any plans because patients know what



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DR. AMANDA NANASY

they're in for, and we are able to prescribe it without having to jump through hoops.

MONTECALVO: Many optometrists don't realize that all of the diagnoses for binocular vision conditions are medical issues. Follow-up visits are billed to patients' major medical insurance. Optometrists must understand that these are medical conditions, not benefit plan issues.

Neurolens & Reading Speed

KARPECKI:

In a double-masked, parallel arm study evaluating reading speed at baseline, 60 patients were divided into two groups, where the treatment group received a pair of Neurolenses while the control group were given a premium single vision lens. After 7 days, what was most interesting was

that patients in the control group were reading a little over 12 words per minute faster compared to the Neurolens group, which was reading almost 21 words per minute faster. That's an almost 70% increase with a statistically significant P-value of 0.03.³ What are your thoughts regarding this compelling study?

MONTECALVO: It's incredible. They've changed the stimulus to visual input and shown a change in reading speed. Vision has a tremendous amount to do with reading. I have patients every day who feel like failures because they're embarrassed about being in a classroom. Neurolens helps them tremendously, not only with the physical reading aspect but also with the psychological aspect.

NELSON: There are two ends of the spectrum here. There are people who have trouble reading because when they start, they get uncomfortable, get a

headache, or get tired. On the other hand, if you told overachieving college students in pre-med, pre-optometry, or pre-dental that you can make them read faster, they're going to buy that.

CORBIN-SIMON: Neurolens helps patients do their work better. I have patients who have struggled with being productive at work or studying because they must spend so much time looking at a computer screen and are uncomfortable. I have suggested to some patients that they wear a pair of Neurolenses over their contact lenses when doing work, and they've said that they do so much better. They are able to work for longer periods of time without feeling fatigue and have done more work in less time.

NANASY: Neurolens helps patients let go of what they have been holding onto. Now patients can function at their maximum capacity. It's not making patients read better, but it allows them to reach their full potential. It gives patients back their power.

MONTECALVO: Patients who begin to have presbyopia stop reading and driving because they have convergence problems and have to change their lifestyle. Don't you want to read for the rest of your life? Don't you want to drive at night anymore? When we prescribe Neurolenses, those problems are solved.

First Experiences with Neurolens

KARPECKI:

What first got you interested or involved, and what made you decide to adopt Neurolens for your practice?

CORBIN-SIMON: For me, it was a no-brainer. I knew I had to have Neurolens at my practice. Once I began implementing it and saw the positive feedback from patients, I wanted to tell everyone about it. I had a list of patients whose problems I wasn't able to resolve, so I contacted them to see

if they were candidates for Neurolenses. I'm not looking to see more patients, so the financial impact has been great. Many patients purchase out-of-pocket.

NANASY: I was already prescribing prism, so I knew that I wanted to offer Neurolenses to my patients. But at first, I considered Neurolenses for my specialty patients only. If the other five doctors at my practice thought that one of their patients might benefit, then they would let me know, and I'd help them with it. But once I saw how easy it was and the difference it was making, I made sure all our doctors were comfortable using it. Neurolens is not only great for my patients and practice but theirs as well.

MONTECALVO: I was one of those doctors who thought that, because I already prescribed prism, I didn't need Neurolens. However, because I believe in making things available if people are asking for it, I looked into it.

Neurolenses are not the same as what I was prescribing, and it transformed our practice to have a gold standard. It was the easiest thing we've implemented in the 35 years of our practice, and our entire team was on board within 30 days. The company is phenomenal to work with, and they have great technical support to help us understand features and answer any questions we have.

NELSON: We all go into medicine because we want to help people. Neurolens makes a device that makes a huge difference in the lives of patients. I identify patients and refer them, and it makes me so happy when they come back feeling and seeing better.

CORBIN-SIMON: In the past, my conversation with patients who experienced dry eye was to tell them to try the newest artificial tears on the market. Often, a patient has no signs of dry eye, but they are having symptoms. Now, my conversations are different.

I tell the patient that they don't really have dry eye, they have misalignment of their eyes, and that's creating the sensation of dryness. Once they put on a pair of Neurolenses with contoured prism, it goes away.

The Future of Eyecare & Eyewear

KARPECKI:

What is your advice to eyecare practitioners who are contemplating integrating Neurolens into their practice?

MONTECALVO: It's an economical intervention that has potential profitability for your practice that also helps patients. Not only that, but it improves quality of life and is time saving. Don't we all want to have a better quality of life and have more time to do things that we enjoy doing with friends and family? Neurolens allows you to do that.

NANASY: Everyone wants to give the best care possible, and to differentiate ourselves, we are looking to specialize. What's one thing that every optometrist already provides? Glasses. So, if you already sell glasses, why wouldn't you want to be known for carrying the best possible product that you can give to your patients?

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we can impact your day-to-day life with this product, and that's something that I want to be a part of.

CORBIN-SIMON: We want our patients to not only see better but to also feel comfortable when completing their tasks. That's the number one reason why I went into this profession. We have seen other specialists in other areas change and progress, and now it's our turn. We have to move the needle a little more, and bringing this device into your practice is the best way.

Patients return and bring other patients along for you to help them as well. It has changed their lives, and they want to make sure that other people around them with similar symptoms can also get relief. Neurolens is here to stay, and more doctors need to get on board to realize that there are so many patients who are asking for help. It's our job to step up and help them solve their problems.

NELSON: Seeing the number of people whose lives are changed by Neurolenses can turn a bad workday into a fantastic one. It's the feeling that you're helping somebody and making a difference.

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