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## New device offers hope for the vision-impaired — if they can afford the price tag

By Kate Masters [kmasters@newspost.com](mailto:kmasters@newspost.com) May 29, 2017



Staff photo by Bill Green

Frederick resident Jamie Gallimore wears a demonstration pair of the NuEyes to read a book to her son, Noah, 4, in their home.

The latest vision rehabilitation device incorporates military-grade technology and adjustable magnification in a pair of portable smartglasses that wouldn't look out of place on Robocop. The device boasts voice-activated commands, text-to-speech ability and — in the newest model — full internet capability. Plus a baseline price of \$5,995, not covered by insurance.

Called NuEyes, the device is also a harbinger of hope for Frederick resident Jamie Gallimore — if she could afford it.

“I try to have an open mind about it,” Gallimore said in an interview at her home in a Ballenger Creek neighborhood. “I know everything over time gets a little more affordable. ... I know it's a possibility that I could have them. It's just a matter of being patient.”

Gallimore, 40, is used to being patient when it comes to her vision. The mother of two has struggled with ocular health issues since at least 2000, when she noticed that the vision in her right eye was beginning to go wavy.

Living in Oklahoma at the time, Gallimore wasn't particularly concerned about the issue until she booked an appointment with an ophthalmologist, a doctor who specializes in treating diseases of the eye. At the office, she was told she would immediately need to undergo laser surgery on her retina, a light-sensitive layer of the eye that converts images to brain wave signals.

Seventeen years later, Gallimore is still experiencing problems with her vision.

Ophthalmologists have diagnosed her with choroidal neovascularization, a condition that causes blood vessels to grow abnormally underneath the retina. Dr. T. Mark Johnson, a Rockville-based ophthalmologist who currently treats her, described the ailment as a juvenile form of macular degeneration, a deterioration of the retinas that normally affects patients over 60.

“She has those blood vessels that have grown abnormally, and so those abnormal blood vessels leak and bleed and they cause her retina to be swollen, which impairs her central vision,” Johnson said.

As the condition progresses, Gallimore's eyes have begun to fail her. She permanently lost central vision in her right eye when scar tissue formed after the laser surgery in Oklahoma. Two and a half years ago, blood vessels also began to grow in her left eye; the vision there has since grown so blurred that it feels completely gone.

"I mean, it's interesting," Gallimore said. "I've been trying to qualify for disability, and they gave me the field-of-vision test with all the lights. Well, I can see light, but if you put words or an image in front of me, part of the image isn't there."

The condition, she added, is like having a permanent blind spot directly in her field of vision. Johnson described it as more like pockets of blindness, which can force patients to scan an item completely with their eyes to see it, in order to compensate for weak patches.

"People that have this condition, they lose their contrast vision, so they develop little spots where they don't see in the middle of things," he said. "So, for example, if they were looking at a word like house, they might see the h and the o, but they might not see the u and the s."

### **New hope**

As she continues to struggle with vision issues, Gallimore said she worries most about the effect on her two sons, Noah, 4, and William, 1.

Though she's technically still able to drive, Gallimore said she prefers to stay off major roadways and stay below 60 miles an hour, which limits her ability to take the boys on trips.

When they do venture outdoors, she fears that she'll lose track of her sons. "I've lost Noah two or three times at the park," she said. "He's so fast. And 4-year-olds don't want to come when you call them, so it scares me because the further away he gets, the more of him I can't see."

She also worries that she'll miss her children growing up. When Noah starts school, there's no guarantee that Gallimore will be able to see his holiday performances or pick his face out in a crowd. Right now, she said, she can't even read to the boys; the text in most of their books is too small for her to make out.

That's where NuEyes comes in. Gallimore was first introduced to the device around Christmas in 2016, after Johnson suggested that she would be a good candidate for the glasses. Since then, she's met several times with Kristi Moore, a NuEyes distributor, who taught her how to use the device and made sure it made a difference in her vision.

"The first time she brought them over, she stood all the way over there with this vision chart and was like, 'What's the smallest letter you can read?'" Gallimore said. "And I said, 'E.' You know, the big 'E' that's at the top, the one everybody should be able to see. Then she had me put the glasses on and she said, 'OK, keep reading, keep reading,' and then she said, 'OK, now take the glasses off.' Well, my jaw just hit the floor. Because I suddenly had about 20/20 vision."

To truly experience the impact of the glasses, it's necessary to try them on. Slide NuEyes over the bridge of your nose and you're suddenly looking at the world as if through a smartphone camera — things look slightly grainier, but you can also blink and focus on objects in your periphery.

With the command "glasses make bigger," the device will zoom in and magnify whatever you're looking at — a crucial tool for Gallimore, whose sight is limited by the blind spot in her immediate field of vision. NuEyes can also flip the contrast on items so that users can view documents as white text on a black background, or vice versa.

"Being able to adjust contrast situationally can be very, very helpful," Johnson said. "Especially for patients like Jamie, who are losing their contrast vision and have trouble discriminating colors that are similar and picking up background from foreground."

The sticking point for Gallimore, though, is the price. Despite ongoing advances in vision rehabilitation technology, virtually no rehabilitative devices are currently covered under insurance, said Dr. Janet Sunness, a clinical spokeswoman for the American Academy of Ophthalmology. Some federal agencies, such as the Department of Veterans Affairs, will purchase the device for clients, but as a stay-at-home mother, Gallimore doesn't qualify.

"Low-vision devices in general are very expensive," Sunness said. "There's always a delay in getting technology into the domain of the medical world, even though there's no question that we're moving more and more in this direction."

Another issue, according to Johnson, is that many doctors simply don't prioritize rehabilitative devices or think to recommend them to clients. And as long as the demand for such technology remains relatively low, he said, the baseline price will remain relatively high.

"I think attention to visual rehabilitation is maybe under-considered by a lot of practitioners," he said. "And a lot of people might be unaware of how much technology there is out there, but I also think as a profession we underestimate the degree to which vision affects people's lives. Even those of us who are immersed in it all the time."

### **Waiting for change**

Gallimore continues to hold out hope that she'll eventually be able to purchase a NuEyes device for herself. She and Moore established a GoFundMe page to raise contributions, and she and her husband, Robert, are continuing to save for the device.

"It just makes you feel really small," Gallimore said, referring to her vision problems. "People look at you like, 'Oh, are you illiterate?' Well, no, I'm not illiterate. I just can't see."

As an example, she recalled a memory from early in her time in Frederick, one that nonetheless continues to sting. She was grocery shopping in Walmart, she said, and headed to pay at a checkout line that looked shorter than some of the others. What she didn't realize was that the line was specifically for customers with 20 items or fewer, a fact that she quickly realized when she reached the register.

"The lady almost scolded me. She said, 'You do realize you're in the 20 items or less line?'" Gallimore said. "I must have turned all kinds of colors, and the only thing I knew to tell her was, 'I'm legally blind — I can't read your sign.' So, it's little things like that, where, if I had the glasses on, I would have known, and all these people wouldn't be glaring at me from behind."

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Follow Kate Masters on Twitter @kamamasters.

### **More Information**

To donate to Jamie Gallimore's NuEyes GoFundMe page, visit [www.gofundme.com/nueyes-jamie](http://www.gofundme.com/nueyes-jamie).

## **Kate Masters**

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