

OPHTHALMOLOGY

Revolutionary Eye Implant for Macular Edema



Shown: Nancy Appell, 56, of Old Bridge began to have vision problems when she was diagnosed with diabetes 20 years ago, but when it worsened so badly she couldn't drive anymore, she sought the help of specialists at Robert Wood Johnson University Hospital New Brunswick. After learning she was suffering from macular edema, Ms. Appell learned she was a candidate for ILUVIEN, a new eye implant, a groundbreaking alternative to frequent eye injections that has successfully improved her vision.

Ms. Appell, 56, of Old Bridge, had problems with her vision ever since being diagnosed with diabetes 20 years ago. If her sugar level was too high or too low, her vision would become blurry. In 2013, she took a turn for the worse.

"Everything became gray," Ms. Appell said. "I would ask my co-workers if it always seemed cloudy or it was just me, and I found out it was just me. You don't miss something until you start to lose it, and then it becomes frightening."

As an assistant retail store manager, Ms. Appell needed to be able to use computers and cash registers. She needed to be able to read receipts and labels on shelves. As an amateur photographer, she needed to be able to focus her camera. Not only couldn't she do her job or the things she loved, but her vision became so bad that she was unable to drive.

Ms. Appell's friend drove her to her eye doctor, Lawrence Feit, MD, of Eye Physicians of Central Jersey in Old Bridge. Dr. Feit immediately referred her to Daniel Roth, MD, Clinical Associate Professor in Ophthalmology at Rutgers Robert Wood Johnson Medical School and an attending ophthalmologist at Robert Wood Johnson University Hospital New Brunswick.

Ms. Appell went to see Dr. Roth the next day. Dr. Roth diagnosed Ms. Appell with diabetic macular edema (DME), a condition that develops in approximately 10 percent of



Shown above: Daniel Roth, MD, Clinical Associate Professor of Ophthalmology at the Rutgers Robert Wood Johnson Medical School and an attending ophthalmologist at Robert Wood Johnson University Hospital New Brunswick.

patients with diabetes. Diabetic macular edema occurs when blood vessels in the retina leak into the macula, the part of the eye responsible for detailed central vision. Changes in the blood vessels of the retina, called diabetic retinopathy, can cause these vessels to rupture and leak fluid. This leakage leads to thickening and swelling of the macula, which was causing Ms. Appell's acute vision to gradually deteriorate.

Dr. Roth prescribed monthly injections of angiogenic inhibitors, or steroids, into the eye to prevent blood vessel leakage and restore her vision. The treatment was successful, and Ms. Appell continued to receive monthly injections for two years. However, the improved vision was always short-lived.

"The injections worked, but they would start to wear off after a few weeks," Ms. Appell

said. "Every four or five weeks, someone would have to take me to two appointments – one for each eye – and I had to miss work. I started to wonder if I would have to do this for the rest of my life."

Dr. Roth recommended a new ophthalmological implant, ILUVIEN, recently approved by the FDA for the treatment of diabetic macular edema. In fact, Dr. Roth was one of the first ophthalmologists in the country to use ILUVIEN, which is ideal for patients who had been treated with corticosteroids and had not experienced a significant increase in eye pressure. The primary advantage of this treatment is that it lasts three years instead of a month.

"Nancy was a perfect candidate," said Dr. Roth. "This implant slowly releases a steroid over the course of three years to stop leakage and prevent recurrence, eliminating the need for monthly injections."

Ms. Appell received the implant in her left eye in April of this year, and in her right eye two months later. Her vision has not deteriorated. "Not having to go back every month is fantastic," Ms. Appell said. "I'm still taking it one day at a time, but I'm much more comfortable driving, I'm doing great at work, and I started taking pictures again."

The connection with RWJ's academic medical center makes it possible for physicians like Dr. Roth to have access to the most advanced treatments and perform such innovative procedures. Ms. Appell's case is yet another example of RWJ's commitment to advancing care through research and clinical trials.

"Ms. Appell is functioning at a high level, and we'll continue to monitor her condition and provide supplemental treatment if necessary," said Dr. Roth. "This ophthalmological implant is a more practical yet equally effective treatment for Ms. Appell and other patients who struggle with diabetic macular edema."

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