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To Read the Menu, Baby Boomers Turn to Eye Treatments

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A few months ago, George Miller, 55, a computer sales manager in Lexington, S.C., had reading glasses scattered all over the house. Worse, he found it was impossible to read a menu at night in a dimly lighted restaurant or the many car magazines that came to his house. "It really bothered me a lot because I love to read," Mr. Miller said.

So, when he heard about a new experimental eye surgery on the local television news, he researched it on the Internet and called his ophthalmologist.

"I'm a little vain," Mr. Miller conceded. Though the new procedure, which uses radio waves to correct near-vision problems, had not yet been approved by the Food and Drug Administration for his problem, he had it done last winter.

"It was a no-brainer," said Mr. Miller, who no longer needs reading glasses. "I can't imagine why anyone who could afford it would not do it."

Biology and vanity are collaborating to make vision correction techniques a boom market, as some 78 million aging Americans seem intent on seeing well but looking good. Granny glasses? Grandpa's bifocals? Not for them. Offer them the option of paying \$1,500 for a three-minute remedy and the eyeglasses are gone.

"The baby boomers are kind of a picky bunch," said David Harmon, president of MarketScope, an eye care market research company in Baldwin, Mo., near St. Louis. "They want to be fixed."

Last month, the F.D.A. approved the latest surgical procedure, called conductive keratoplasty, to correct a common near-vision problem for people whose eyesight is otherwise excellent, in a minimally invasive way.

Unlike Lasik, the popular laser surgery, conductive keratoplasty procedures do not involve using lasers to change the shape of the eye. Instead, a tiny instrument applies radio waves in a circular pattern on the outer cornea, shrinking small areas of collagen, a

fibrous protein found in connective tissue, bone and cartilage. The treatment increases the cornea's curvature, improving near vision.

In the last few years, about three million people, as many as 5 percent of Americans with vision problems, have opted for Lasik surgery to correct nearsightedness, farsightedness and astigmatism. In Lasik, the surgeon cuts and pulls a flap in the cornea and then uses a laser to reshape the underlying tissue at a cost of up to \$1,600 an eye. Neither Lasik nor conductive keratoplasty is covered by most insurance plans.

The latest procedure is only one of an array of new vision therapies, recently introduced or in late stages of development. They include improvements that make laser surgery machines more accurate and eliminate the knife blade typically used to prepare the eye, as well as a dozen new types of lens implants.

One new artificial lens mimics a healthy 20-year-old's ability to see at both near and far distances. Others eliminate harmful high-spectrum blue light, reducing the need for sunglasses.

William Link, a California scientist and entrepreneur who helped start several eye care companies, estimates that established companies like [Alcon](#) Laboratories, [Bausch & Lomb](#) and VISX have spent a total of \$750 million in the last five years developing products for the baby boomers. In addition, Mr. Link says, he and other venture capitalists have contributed more than \$140 million to companies like Refractive, the start-up based in Irvine, Calif., that developed conductive keratoplasty.

The company teaches eye surgeons to do the procedure and sells them the machines for about \$58,000, compared with about \$325,000 for laser machines.

Conductive keratoplasty was approved by the F.D.A. for hyperopia, a less common vision problem, two years ago. After 30,000 cases, an agency panel of 12 experts unanimously recommended it for near-vision problems, and it received approval March 16.

Conductive keratoplasty is usually performed on one eye only. The other eye provides most of the distance vision, and the mind coordinates the visual information as it does for people who naturally have one farsighted eye and one nearsighted eye. Even so, if the patient's prescription requires treatment in both eyes, it can be done on the same day.

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Ophthalmologists say the corrective effects may weaken after five years or so, but the procedure is too new for them to be sure. An F.D.A. panel said patients should be warned that the treatment "may affect depth perception," which could be a driving hazard. The panel also recommended to the full agency that there be information in the label about a

relatively few patients who ended up with astigmatism after the procedure. Dr. Penny A. Asbell, an ophthalmologist at the Mount Sinai School of Medicine in New York, recalled that a patient who works with younger colleagues in the music industry also wanted the procedure even before it was approved.

"He didn't want to be the only one at the table putting on reading glasses to read a contract," Dr. Asbell said. "Everybody else there is hip-hop, or whatever they do," she said.

Ophthalmologists say they find that many middle-aged patients are conservative about trying risky eye operations. An estimated 1 in 10 Lasik patients needed a repeat treatment until the technology was improved. The F.D.A. warns on its Web site that the procedure is not for everyone.

Last year, Alcon, which says it has 30 percent of the market for eye surgery in the United States, received approval in the European Community for a new intraocular lens implant for cataract patients that enhances close-up and distance viewing. The procedure has not yet been priced in the United States, the company said. These new lenses may cost as much as \$600 each.

Although the company expects F.D.A. approval in 2005 for United States cataract patients, who are typically in their late 60's and 70's, the new multifocal lenses will probably attract some younger patients willing to pay for the implants. The new lens will also protect against blue light, eliminating dependence on sunglasses after the operation. "Also, they won't need a cataract operation later on," Bill Barton, an Alcon vice president, said.

Mr. Barton said tests with cells in the laboratory suggested that blue light might be a "causative factor" in macular degeneration, the leading cause of blindness in older Americans.

Alcon is also testing a prescription drug that is intended to stop or prevent changes in the eye that lead to macular degeneration. Bausch & Lomb is doing early stage research on a continuous drug delivery system at the back of the eye implant to combat the disease.

Despite all of the advances, millions of Americans will hold fast to their eyeglasses. After all, it might not have been as funny to watch Jack Nicholson and Diane Keaton using their vision problems (along with Viagra jokes) to illustrate advancing age in the comedy movie "Something's Gotta Give."

Still, for people who are over 40 and start having trouble reading, the message from the eye industry is clear: there are more options than ever.

Mr. Link, a managing director of Versant Ventures, a venture capitalist firm in Menlo Park, Calif., turns 58 today. He had the conductive keratoplasty procedure last year and

was rewarded as a fly fisherman. "Now I can tie the flies on my line without reading glasses," he said.