



VITAL SIGNS

## **Zooming in on vision correction** **How to weigh various surgery, spending options**

By [Kristen Gerencher](#), [CBS.MarketWatch.com](#)

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### **SAN FRANCISCO (CBS.MW) -- Consumers looking for the right medical and financial fit for vision correction surgery can go cross-eyed considering all the options.**

Lasik is by far the most popular procedure that surgically corrects most kinds of nearsightedness, farsightedness and astigmatism, with both traditional and "custom" Lasik accounting for 90 percent of vision-correction surgery.

But it isn't cheap, is rarely covered by insurance and patients with certain visual characteristics aren't candidates for the procedure.

As workers with prescription eyewear take stock of the remaining balances in their pretax flexible-spending accounts, many are considering whether to have vision-correction surgery, what kind is right for them and whether it pays to delay taking action until next year.

Americans pay \$3,570 on average to have Lasik surgery on both eyes and they dig up to \$800 deeper into their pockets to have the newer wavefront-guided Lasik procedure, said Dave Harmon, president of Market Scope, an ophthalmology industry research firm in St. Louis. Patients are typically in their late 30s and early 40s, he said.

When Lasik first received approval in 1996, "complication rates, though still low, were much higher than they are now," Harmon said, noting that doctors have become better at screening patients.

Those considering pursuing Lasik or other vision-correction surgery are wise not to put it off in hope of seeing major advances just around the corner, he said. "I don't see dramatic improvements on the horizon. I see small, incremental improvements over time."

#### **Weighing cost vs. benefit**

Though the upfront fee can be substantial, surgery often drastically cuts spending on glasses and contacts over time, said Dr. Steven E. Wilson, corneal research director and staff refractive surgeon at the Cleveland Clinic's Cole Eye Institute.

"There is a financial savings," Wilson said. "Usually people do this for quality of life [reasons,] but as a side benefit you do reduce the cost of taking care of your eyes."

Americans spend about \$2 billion a year on refractive surgery, according to Market Scope. They're expected to have 1.3 million procedures this year, up from 1.15 million last year, Harmon said.

As more people consider having laser surgery to shed their glasses and contact lenses, many will find a host of new variations. Here's a look at the latest techniques on the market, their prices and how to tell which one's for you, according to vision-correction experts.

### **1. Lasik**

Lasik surgery, short for laser-assisted-in-situ keratomileusis, begins by using a microkeratome blade to peel back the outer layers of the eye so the doctor can reshape the cornea underneath with an excimer laser. This flap reattaches to the eye's surface.

The procedure, known as "flap and zap" among ophthalmologists, generally takes three minutes for each eye and requires several hours to recover your vision, said Dr. Paul Dougherty, a clinical instructor at UCLA's Jule Stein Eye Institute. "It's not painful when it's happening, but some people can get some discomfort within the first four to six hours," he said.

### **2. IntraLase**

Refers to Lasik surgery that uses a laser to make the flap that lifts the outer eye layers during the first part of the operation instead of the microkeratome blade used in traditional Lasik. There is some conflicting research on this option.

Some studies suggest patients who opt for IntraLase have fewer complications and less need to have a follow-up enhancement, Harmon said. Still, some patients have a higher incidence of inflammation under the flap after surgery, Dougherty said.

Perhaps the biggest benefit is psychological for patients squeamish about using a blade, Wilson said. "In some cases, that's the major advantage of the procedure -- it gets by a block that some patients have about laser vision correction."

Patients may prefer IntraLase, but they'll often pay a premium for it. "The major downside is it's more expensive," Wilson said. "We charge \$300 more an eye for it."

### **3. Wavefront-guided or Custom Lasik**

A more precise form of Lasik that involves measuring how the eye bends to 200 points of light as opposed to one point in the middle of the eye in conventional Lasik, said Dr. Robert Maloney, spokesman for the American Academy of Ophthalmology. "The pattern of visual impairment in your eye is as different as your fingerprint," he said. "We can literally customize surgery and that makes it more accurate."

Custom Lasik patients are less likely to need a touch-up and report better night vision than conventional Lasik patients, Maloney said.

Custom treatment isn't yet available for farsighted patients but is expected to be approved by the end of the year, he said. People with thin corneas also may not be candidates.

The extra labor and equipment involved may drive up the price by an additional several hundred dollars per eye. Some doctors assure conventional Lasik patients concerned about having halos that custom treatment is available as a backup, Dougherty said. "I tell my patients we can use it as a safety net if you can only afford conventional."

VISX ([EYE: news, chart, profile](#)) is the market leader in wavefront-guided Lasik surgery, accounting for 60 percent of lasers used compared with 20 percent provided by Alcon ([ACL: news, chart, profile](#)), Harmon said. The remaining 20 percent of custom lasers are supplied by Nidek, Bausch & Lomb ([BOL: news, chart, profile](#)), WaveLight Laser AG and LaserSight, he said.

#### **4. Photorefractive Keratectomy or PRK**

This procedure was available prior to Lasik and remains an alternative for many people, especially those with certain eye conditions or thinner corneas, Wilson said. A doctor removes the eye's surface skin with eye drops and performs the corneal reshaping with a laser, though without creating a flap.

The downside is PRK causes more pain and is slower to heal. It typically costs the same as conventional Lasik surgery. Another form of PRK is called Lasek, or laser-assisted subepithelial keratectomy.

#### **5. Conductive Keratoplasty or CK**

Those who are over 40 and are farsighted or have presbyopia can have this procedure that uses radio waves to change the shape of the cornea through heat.

Designed to improve reading vision, CK is similar in price to Lasik or PRK, but the effect often disappears over time and some ophthalmologists don't offer it. Wilson and Dougherty said they had reservations about the procedure and don't offer it to patients.

#### **New generation lenses**

Patients with visual impairments outside the acceptable range for Lasik surgery or who have early cataracts may be candidates for implantable contacts lenses known as ICLs or intraocular contact lenses called IOLs, Dougherty said. The U.S. Food and Drug Administration is expected to approve the first of these implantable lenses at any time.

One that's already been approved is Crystalens from Eyeonics, the first accommodating replacement lens to provide clear vision at all distances because it's flexible and works with the eye muscles, Dougherty said.

To be sure, the Crystalens procedure is pricey -- Dougherty charges \$5,000 per eye -- and has to be done in a surgery center instead of in the doctor's office.

The Cleveland Clinic's Cole Eye Institute is taking a wait-and-see attitude toward the new generation lenses known as Phakic IOLs, Wilson said.

While recent trials suggest the lenses now have fewer complications than they did earlier, "I think we need much longer follow-up to know how safe this is for someone who's 20 years old," Wilson said. "We plan on approaching this with caution."

Most accommodating and adjustable lenses, which will change shape by shining UV light on the lens, are still five to 10 years from becoming mainstream options, said Maloney of the American Academy of Ophthalmology.

"The problem with any lens or surgery including Lasik is it's not perfectly accurate," Maloney said. "You're never sure you're going to get 20/20. You may still have a little nearsightedness or farsightedness or astigmatism."

Ultimately, patients need to consult with their doctors and take into account their prescriptions, the type of visual problem they have, their age and visual needs to determine which correction makes the most sense to pursue, Dougherty said.

Those shopping for a surgeon are wise to choose one who does the pre-operative and post-operative exams as well as performing the surgery, Wilson said.

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