

FOCAL POINT

Important News and Information from Columbia Eye Clinic • Spring 2017

Refractive Surgery vs. Laser Cataract Surgery

The surgeons at Columbia Eye Clinic offer both refractive surgery (PRK/LASIK) and laser cataract surgery, but what is the difference between the two procedures?

LASIK or PRK, also known as **refractive surgery**, is a laser procedure used to correct nearsightedness, farsightedness and astigmatism. **Refractive surgery** cannot correct presbyopia, the age-related loss of close-up focusing power, so you may still need reading glasses after the procedure.

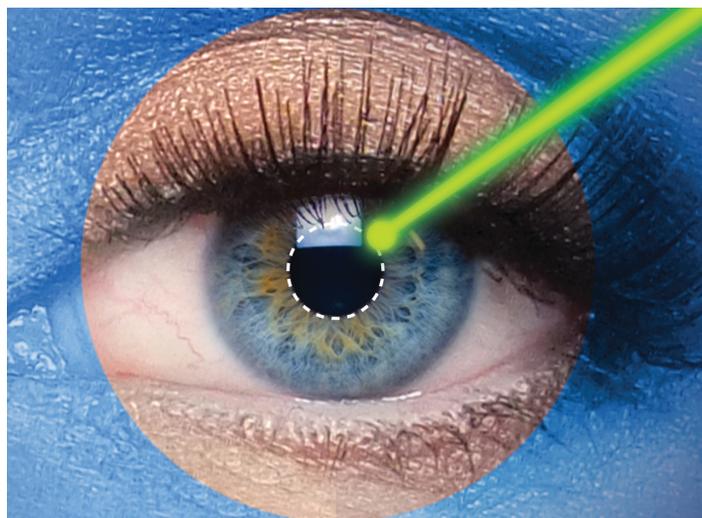
In the procedure, a laser is used to reshape the cornea—the clear, round dome at the front of the eye—to improve the way the eye focuses light rays onto the retina at the back of the eye.

For people who are nearsighted, **refractive surgery** is used to flatten a cornea that is too steep. Farsighted people will have **refractive surgery** to achieve a steeper cornea. **Refractive surgery** can also correct astigmatism by shaping an irregular cornea into a more normal shape.

More than 90 percent of people who have **refractive surgery** perform most of their everyday tasks without glasses or contact lenses. Your doctor will consider your vision needs for work and leisure activities to determine if refractive surgery is right for you.

Some patients may need a second enhancement surgery or might need to wear glasses for certain activities, such as reading or driving at night.

Laser cataract surgery is a bladeless surgical laser used for cataract and premium lens procedures. A cataract is a



clouding of the lens inside the eye that occurs naturally with age. A laser can be used rather than a hand-held blade to make incisions as well as opening the front of the cataract and softening it prior to its removal.

The laser can also be used to correct astigmatism during premium lens procedures and cataract surgery. Astigmatism is an irregularity in the shape of the cornea that causes both near and distance objects appear blurry or distorted without correction by glasses or contact lenses. The laser is used to make incisions into the cornea which are placed at the exact location of the astigmatism.

—Continued on page 2. See **“SURGERY.”**

SURGERY

—Continued from cover.



The benefits of laser surgery include:

- The laser provides an extremely detailed 3D image of the eye. Since each eye is structurally different, surgeons can use the measurements the laser provides to plan your surgery much more precisely.
- The laser automates challenging steps, allowing precise, repeatable incisions through an image-guided system.
- The laser enables better centering of the intraocular lens which is a significant factor in determining final visual outcomes.
- The laser procedure causes less inflammation to the eye, so patients heal more quickly and experience improved visual acuity more quickly than with traditional cataract surgery.
- The laser enables the physician to simultaneously correct certain amounts of regular astigmatism to reduce your need for glasses.

Cataract surgery is one of the most commonly performed surgical procedures in the United States and has been shown to significantly improve vision and quality of life for patients who undergo the procedure.

The physicians at Columbia Eye Clinic have the experience of thousands of refractive and laser cataract surgeries using the most advanced technology available. If you would like to reduce or eliminate your dependence on glasses or contacts, your doctor can recommend an individualized treatment option that is right for you. ●

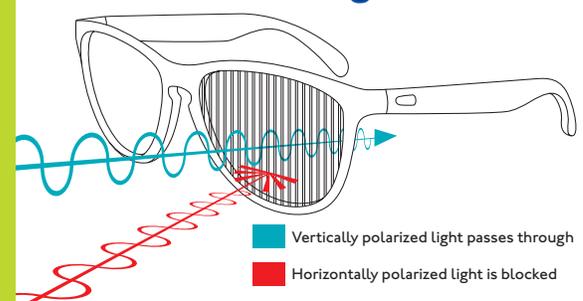
What Are The Benefits of Polarized Sunglasses Over Traditional Tinted Lenses?

Polarized lenses improve vision by making colors appear deeper and bolder and eliminating uncomfortable and often dangerous glare, as well as filtering harmful ultraviolet light. Darkly tinted sunglasses without UV protection can potentially do more harm than good, as the darkness of the lens can cause the pupil to dilate, allowing damaging ultraviolet rays into the inner parts of the eye.

Tinted sunglasses may reduce brightness, but they do not remove glare like a polarized lens. Polarized lenses can play an important safety role for drivers, particularly in morning and late afternoon sun. The dangerous, vision obscuring light reflected off bright, flat surfaces such as water, wet roads, sand, snow, car hoods, and windshields can be virtually eliminated by wearing polarized lenses.

For fishing and other watersports, polarized lenses eliminate the burden of eye strain and squinting that are magnified on the water. They also give anglers the edge for sight fishing and for safety by allowing you to see objects below the surface of the water. Polarized sunglasses won't improve your golf swing, but from the fairway to the tee box, polarized sunglasses will help your game by reducing glare from water hazards and by helping you spot your ball more easily.

How Polarized Sunglasses Work



Light waves coming directly from the sun vibrate in all directions and are considered non-polarized. When vibration is restricted to a single direction or plane, the light is considered to be polarized.

The concept behind polarized lenses is perhaps best illustrated by thinking of the lens as containing a microscopic Venetian blind. The slats in a Venetian blind block the transmission of light from certain angles while allowing it from other angles. Polarized lenses have a special layer that creates the effect of vertically aligned “blinds” to absorb the reflected light that impairs vision. ●



Tips to Protect Your Eyes From Sun Damage

The days are longer, the sun is hotter, the beach beckons and out comes the sunscreen. But summer revelers looking forward to sizzling hot fun in the sun shouldn't overlook their eyes when it comes to protecting themselves from damaging ultraviolet rays.

Excess sun exposure can put people at risk of short-term and long-term eye problems. If eyes are exposed to strong sunlight for too long without protection, UV rays can burn the cornea. Long-term sun exposure has also been linked to an increased risk of cataracts and cancerous growths on or near the eye.

Here are five things people can do to cut their risk of eye damage from the sun:

- **Wear the right sunglasses.** Look for those labeled "UV400" or "100 percent UV protection" when buying sunglasses. Darkness or color doesn't indicate strength of UV protection. UV rays can go through clouds, so wear sunglasses even on overcast days. Adding polarization can reduce glare coming off reflective surfaces like water or pavement. It can provide clearer vision for activities like driving or being on the water. And while contacts may offer some benefit, they cannot protect the entire eye area from burning rays.
- **Check your medication labels.** One in three adults uses medication that could make the eyes more vulnerable to UV ray damage according

to the American Academy of Ophthalmology. These include certain antibiotics and birth control pills. Check the labels on your prescriptions to see if they cause photosensitivity. If so, make sure to protect your skin and eyes or avoid sun exposure when possible.

- **Put a lid on it.** In addition to shades, consider wearing a hat with broad brim. They have been shown to significantly cut exposure to harmful rays. Don't forget the sunscreen!
- **Don't drive without UV eye protection.** Don't assume car windows are protecting you from UV light. A recent study found that side windows blocked only 71 percent of rays, compared to 96 percent in the windshield. So when you buckle up, make sure you are wearing glasses or sunglasses with the right UV protection.
- **Don't stare at the sun.** *Sun worshipers take note:* directly gazing at the sun can burn the retina, the light-sensitive layer of cells in the back of the eye needed for central vision. This condition is called solar retinopathy. While rare, the damage is irreversible. Ask an associate in our optical department about how you can protect your eyes from excess sun exposure and have it made in the shade this summer. ●



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*Some exclusions apply. See associate for details. Offer valid through September 30, 2017.

Columbia Eye Clinic Giving Back to the Community

Columbia Eye Clinic's physicians and staff want to see their friends and neighbors in the Midlands community flourish. To help strengthen our community and enhance the lives of people in the Midlands, Columbia Eye Clinic contributes to a variety of local and national non-profits, schools, healthcare, arts, conservation, faith and youth sports organizations. We are proud to have provided support to more than 30 organizations last year including the ALS Association, The Frye Foundation, Free Medical Clinic, Historic Columbia Foundation, Thornwell Children's Home, and YMCA of Columbia. ●

Columbia Eye Clinic Physicians

Front row, left to right:

- Lynn Hicks Snoddy, M.D.
- Garner J. Wild, M.D.
- D. Reynell Harder Smith, D.O.

Middle row, left to right:

- William F. Crosswell, M.D.
- Edward G. Mintz, M.D.
- Hal H. Crosswell, Jr., M.D.
- Derrick A. Huey, M.D.
- Derek L. Barker, M.D.

Back row, left to right:

- R. Mitchell Newman, Jr., M.D.
- Edward G. Crosswell, M.D.
- William Cain, Jr., M.D.
- Charles D. Finley, M.D.
- William A. Johnson, Jr., M.D.
- H. Holland Crosswell, III, M.D.



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