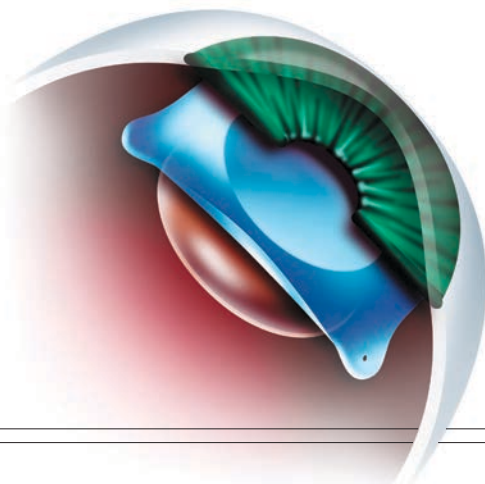


Implantable Contact Lens

Implantable contact lenses (ICLs) offer an exciting alternative for those suffering with moderate to severe nearsightedness who are not candidates for laser vision correction. Think of them as semi-permanent contact lenses placed inside the eye to add focusing power and reduce or eliminate dependence on corrective eyewear.



Placed inside the eye, ICLs add focusing power to the natural lens.



NEW LENS

ICLs provide excellent quality of vision. They may be an option for people who are too nearsighted for laser vision correction or cannot have LASIK because of dry eyes.

ICLs have been widely used around the world since 1990. Several options are available but our surgeons generally prefer the Visian ICL. In US FDA clinical trials with this lens over 99% of patients reported satisfaction three years after the procedure.

HOW IMPLANTS EVOLVED

The early development of lens implants was inspired by British pilots injured in World War II. When the Plexiglas canopies of their fighter planes shattered during attacks, tiny fragments

of this material sometimes pierced and lodged in the pilots' eyes.

Dr. Harold Ridley, an ophthalmologist in London, discovered it was often safer to leave these plastic fragments in the eye than try to remove them. Since the eye tolerated the material with no adverse reactions, he created an artificial lens implant to be placed inside the eye from the same type of material.

However, it was not until the early 1970s that artificial lens implants and surgery techniques developed to the point where the procedure was considered safe and effective. Today, lens implants are made from a number of high tech materials and are routinely used in approximately 3 million Americans who develop cataracts each year.



ICLs are positioned behind the iris—the colored part of the eye.

HOW THEY WORK

Unlike lens implants that replace the eye’s lens after cataract surgery, ICLs are placed in front of the natural lens. In this position, they work in combination with the eye’s lens to add more focusing power. ICLs offer dramatic results that are quite predictable. They are maintenance free and never need cleaning.

RANGE OF CORRECTION

ICLs can be used to correct moderate to very high degrees of nearsightedness between -3 and -20 diopters.

HOW SURGERY WORKS

Although ICL surgery is a sophisticated microsurgical procedure, it is relatively simple for those undergoing treatment. Patients relax in a reclining dental-type chair while assistants make sure they are comfortable in preparation for surgery. They are not put to sleep, but can be sedated with oral medications, if necessary.

The surgeon makes a micro-incision that allows the implant to be inserted behind the cornea. Each lens is specifically selected for focusing power that matches the eye’s needs and is carefully positioned. The opening into the eye is very small and heals quickly. One eye is treated at a time in a procedure that usually takes 15 minutes or less.

With ICLs positioned in front of the eye’s natural lens, they could restrict the important flow of fluid through the front part of the eye. To prevent this, the

surgeon performs a simple procedure called an iridotomy by making one or two tiny openings in the periphery of the iris. This may be done during the implant surgery or as a laser procedure during an exam before the lens is implanted.

AFTER SURGERY

In most cases, visual recovery is rapid. A few hours after surgery, patients see well enough to perform regular activities with dramatically increased visual freedom. During recovery time, which may take a few days, the other eye provides normal vision. However, if both eyes require correction, vision will be imbalanced until an implant is placed in the other eye as well.

ICLs cannot be felt inside the eye and side effects are minimal. But increased light sensitivity can be expected for a few days, so sunglasses may need to be worn more often than usual.

If the visual outcome is not ideal once the eye has healed, a second procedure to adjust or replace the lens is generally possible. Also, laser vision correction can be used to fine-tune the result or correct astigmatism.

REMOVAL LATER IN LIFE

With age, most people develop cataracts—a clouding of the eye’s natural lens. The solution for a cataract is to surgically remove the clouded lens and replace it with a lens implant. During this procedure, the ICL first needs to be removed. Then a new lens implant is selected to provide optimal focusing power. Although cataracts may begin to form earlier in life, the average age for cataract surgery in the US is about 72 years.

CANDIDATES

Good candidates for ICLs must meet the following criteria:

- Between 21 and 45 years of age
- Stable refraction
- Healthy eyes with no disease or abnormality
- Nearsighted within the appropriate range of correction
- Willing to accept the risk of possible complications

ADVANTAGES

ICLs offer several advantages:

- Can correct very high amounts of nearsightedness
- The cornea is not altered
- May be an option when corneas are too thin for LASIK
- May be an option when dry eyes prevent LASIK
- Do not affect the natural lens’ ability to change focus
- Outcomes are predictable
- Vision stabilizes quickly
- Side effects are minimal
- Can be removed or replaced

RISKS

Potential risks include:

- Infection
- Hemorrhage
- Swelling or inflammation
- Undercorrection or overcorrection
- Induced astigmatism
- Dislocation of the lens implant
- Glaucoma
- Retinal detachment
- Cataracts

QUESTIONS

If you have questions about ICLs, talk with your optometric physician or call our refractive surgery counselors.

*Pacific Cataract and Laser Institute
Refractive Surgery Counselors*

800-884-7254
www.pcli.com



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