# THE VISION CENTER



The Vision Center at Children's Hospital Los Angeles is committed to preserving every patient's sight and is the only program in the United States with expertise in virtually every pediatric ophthalmologic subspecialty.

Every year, The Vision Center's Board-certified ophthalmologists and retina surgeons conduct nearly 17,000 patient visits and perform more than 1,400 surgeries. These high volumes reflect the Center's standing as an international referral center for families from across the country and around the world. The team treats the full spectrum of eye disorders, from common conditions like strabismus, also known as cross eyes, that affect daily life, to retinoblastoma, the most prevalent type of eye cancer in children, which can be life-threatening.

Research also plays a vital role in The Vision Center, often leading to changes in protocols based on findings that have been proven to enhance treatment. Among the team's numerous accomplishments, researchers at CHLA:

- Pioneered the concept of chemoreduction for retinoblastoma patients
- Discovered a safer way to gather genetic information about a child's eye tumor
- · Demonstrated the efficacy and efficiency of telemedicine visits
- Launched testing of a revolutionary new gene therapy procedure for an inherited eye disorder that previously had no cure

### **PROGRAMS AND CENTERS**

# **Retina Program**

Using the most advanced techniques, the Retina Program treats disorders caused by abnormal development of blood vessels in the retina or hereditary retinal degeneration. CHLA is the only facility in the world to combine the use of a tiny endoscope with a portable spectral domain optical coherence tomography to detect and treat conditions such as retinopathy of prematurity. It is also one of just 10 institutions in the country performing a groundbreaking gene therapy surgery to target a rare genetic condition called Leber's congenital amaurosis, in which a healthy copy of the mutated gene replaces the defective one to restore vision.

# Retinoblastoma Program

For more than 30 years, The Vision Center has been at the forefront of retinoblastoma care. In 1987, researchers at CHLA identified the gene that causes this type of eye cancer and in 2014 developed a unique next-generation sequencing test to personalize treatments based on each patient's genetic code. The Retinoblastoma Program's experts were also behind the invention of the RetCam, now used worldwide by clinicians to visualize the back of the eye during surgery, and they developed a process to safely deliver chemotherapy directly to the eye.

#### **Cornea Program**

Every year, more pediatric cornea and cataract surgeries are performed at The Vision Center than any other institution in the United States. This includes nearly 30 corneal transplants. The Cornea Program specializes in treating cataracts, glaucoma, Peters anomaly, keratoconus and anisometropia, among other conditions, with the latest technologies such as refractive lasers and minimally-invasive cross linking surgery.

# **Eye Birth Defects Program**

For children with anatomic abnormalities of the eye and optic nerve, the Eye Birth Defects Program coordinates care from multiple specialists, such as endocrinologists and neurosurgeons. Patients also have the opportunity to participate in research investigations, including the world's largest study on optic nerve hypoplasia, the leading single cause of blindness and visual impairment in infants in the U.S., and a first-of-its-kind study to improve diagnostic methods for children with autism.

## **ACCOLADES AND ACHIEVEMENTS**

The Vision Center is the program of choice for thousands of families seeking the best eye care for their child. Each component of the Center's treatment framework—from the exam equipment to surgical techniques—has been specifically designed with children in mind.

- An estimated 70% to 80% of what children learn is processed through the visual system, and any impairment can be life-altering. The Center focuses on meeting with patients as quickly as possible to mitigate the effects of a vision disorder that can disrupt school, home life and a child's overall well-being.
- The Vision Center is affiliated with the USC Roski Eye Institute and the Keck School of Medicine of USC, a partnership
  that gives CHLA patients access to promising clinical trials and USC faculty members who are renowned leaders in
  the field of ophthalmology.
- More than 60 research studies are underway at the Center, all aimed at identifying better ways to detect and treat
  a variety of pediatric eye conditions. The team's research findings are routinely featured in prestigious medical
  publications such as Nature, JAMA Ophthalmology and Proceedings of the National Academy of Sciences.
- The Center has one of the largest education programs in the Western U.S., training more than 21 residents annually who contribute a valuable, diverse perspective to our clinic.

REFERRALS, ADMISSIONS AND TRANSPORT SERVICES

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