

Advances in the care of retinal diseases



Recent advances in eye imaging and treatment have dramatically improved outcomes for patients with retinal diseases and lowered the risk of severe vision loss and blindness. Retinal diseases are the leading cause of vision loss in older adults. Age-related macular degeneration is a major cause of blindness in many developed countries, and cases of diabetic retinopathy are expected to double in the United States by 2050, according to the National Eye Institute (NEI).

A major goal of retinal specialists at Doheny Eye Center UCLA is early diagnosis and treatment of retinal diseases using the most precise therapies. Doheny Eye Center UCLA offices are located in Pasadena, Arcadia and Fountain Valley to provide patients in those communities access to academic-level medical care close to home.

Advances in imaging technology

Doheny Eye Center UCLA retinal specialists are international leaders in the development and implementation of new non-invasive imaging technologies for diagnosing, treating and monitoring retinal diseases. In recent years, optical coherence tomography (OCT) has provided ophthalmologists with cross-sectional views of the structure of the retina while OCT angiography renders information on vascular structures throughout the retina. Swept-source OCT provides a newer method of obtaining images in the deep retina and choroid.

Progress in preserving vision

“Imaging technologies and biotechnology drugs have revolutionized the treatment of retinal disease and have also led to significant reductions in blindness,” says Michael Ip, MD, professor of ophthalmology at the David Geffen School of Medicine at UCLA and a retinal surgeon at Doheny Eye Center UCLA.

Today, the treatment of retinal diseases evolves rapidly based on the publication of data from clinical trials. Doheny Eye Center UCLA retinal specialists are often investigators or leaders in those studies, says M. Ali Khan, MD, assistant professor of ophthalmology at the David Geffen School of Medicine at UCLA and a vitreoretinal surgery specialist at Doheny Eye Center UCLA.

Patients with challenging cases may benefit from participation in one of the many clinical trials ongoing at Doheny Eye Institute or its affiliated partner, UCLA Stein Eye Institute.

“We have some of the nation’s top experts in retinal diseases,” Dr. Khan says. “If someone has a condition that has no treatment, we may be the place that has a clinical trial evaluating that condition.”

For some patients, retinal specialists may use the newly available Fluorescence Lifetime Imaging Ophthalmoscopy (FLIO), which can provide information regarding retinal health and may help identify patients with retinal diseases at earlier stages or target areas of the retina most in need of therapeutic intervention. Doheny Eye Center UCLA is one of only a handful of centers in the United States with this novel imaging capability.

Advanced retinal imaging may be used to improve the accuracy of diagnosis, tailor treatments to individual patients and to better understand ocular disease. These advanced imaging technologies are available at all Doheny Eye Center UCLA locations.

Medical therapies

The most common retinal diseases — age-related macular degeneration, diabetic retinopathy and retinal vein occlusions — are typically treated with a growing arsenal of anti-vascular endothelial growth factor (anti-VEGF) medications.

Steroids may also be recommended for these common conditions. New, longer-acting steroids provide additional convenience for patients, requiring fewer injections at longer intervals.

Minimally invasive surgery

Surgical treatment for conditions such as retinal detachment, macular hole and epiretinal membrane has improved with the use of minimally invasive instrumentation, including 27-gauge vitrectomy, which minimizes damage to surrounding tissue and result in fewer complications and faster recovery for patients. Doheny Eye Center UCLA retinal surgeons have extensive experience with these novel techniques.

Integrated care

UCLA Health provides integrated care throughout Doheny Eye Center UCLA and UCLA Stein Eye Institute. Multidisciplinary care and coordination with other UCLA Health departments is provided to treat patients with diabetes, cancer and other diseases that can involve vision, such as diabetic retinopathy and ocular melanoma. Doheny Eye Center UCLA specialists work with referring physicians to coordinate care and transition patients back to their own ophthalmologists.

Research

Numerous clinical trials that compare the current standard of care to investigational treatments are available to patients, including research to improve the treatment of advanced dry macular degeneration and diabetic retinopathy. Our physicians are investigators in many nationwide clinical trials on emerging drugs for central retinal vein occlusion, diabetic retinopathy and age-related macular degeneration.

At the Doheny Image Reading Center (DIRC), a leading Doheny Eye Institute research facility, investigators work with nonprofit agencies, the federal government and pharmaceutical companies to advance a broad research agenda. Projects include investigating sustained-release drug delivery mechanisms, stem cell therapies and genomics and biomarker research.

Participating physicians

Gad Heilweil, MD

Health Sciences Assistant Clinical Professor

Michael Ip, MD

Professor of Ophthalmology

M. Ali Khan, MD

Assistant Professor of Ophthalmology

Phuc Phil Le, MD, PhD

Associate Physician Diplomate

SriniVas R. Sadda, MD

Professor of Ophthalmology
President & Chief Scientific Officer
Doheny Eye Institute

Irena Tsui, MD

Assistant Professor of Ophthalmology

Contact information

Doheny Eye Center UCLA Arcadia
622 W. Duarte Road, Suite 101
Arcadia, CA 91007
626-254-9010

Doheny Eye Center UCLA Pasadena
625 S. Fair Oaks Avenue, Suite 280
Pasadena, CA 91105
626-817-4747

Doheny Eye Center UCLA Orange
County
18111 Brookhurst Street, Suite 6400
Fountain Valley, CA 92708
714-963-1444

uclahealth.org/doheny