▲ Andrew Hendershot, MD

Changemakers: Eye Disease

From routine eye exams to advanced treatments, specialists at The Ohio State University Wexner Medical Center Havener Eye Institute care for patients at every stage of life. Working together across disciplines, physicians, optometrists, researchers and care teams use the latest technology and surgical techniques to protect vision, treat disease and help prevent blindness.

Through clinical care, research and education, Ohio State experts are diagnosing eye diseases earlier, applying precision-based treatments and improving outcomes with new knowledge.

Optometry vs. Ophthalmology: Who Does What?

Eye care often involves two types of specialists who provide coordinated, high-quality care for patients to support long-term vision health.

Optometrists provide primary eye care and help monitor vision throughout a person's life. Their care includes:

- Performing routine eye exams
- Prescribing glasses and contact lenses
- Treating common eye conditions
- Identifying early signs of more serious eye diseases and referring patients to ophthalmologists when specialized care is needed

Ophthalmologists are medical doctors with a minimum of eight years of post-undergraduate training. Their care may include:

- Diagnosing and treating sudden or acute and long-term chronic eye diseases
- Providing medical treatments
- Performing eye surgery to manage common and complex eye conditions and diseases

Learn more about services on the **Eye Conditions, Specialties and Services** webpage.

▲ Sayoko Moroi, MD, PhD

CHANGEMAKERS

THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

What Are Eye Diseases?

Eye diseases affect the structure or function of the eye and may involve the eyeball, eyelids, eye socket or surrounding tissues and vision pathways in the brain.

Common conditions include:

- **Cataracts:** Clouding of the eye's lens that makes vision blurry
- **Diabetic retinopathy:** Damage to blood vessels in the retina caused by high blood sugar
- **Glaucoma:** Damage to the optic nerve that leads to vision loss
- **Macular degeneration:** Age-related damage to the central retina that affects sharp, detailed vision
- **Retinal detachment:** A medical emergency in which the retina pulls away from the back of the eye and can result in central or peripheral vision loss

Early detection and treatment are critical to preserving vision and preventing long-term complications.

Learn more about symptoms and treatment options on the **Eye Care and Ophthalmology** webpage.

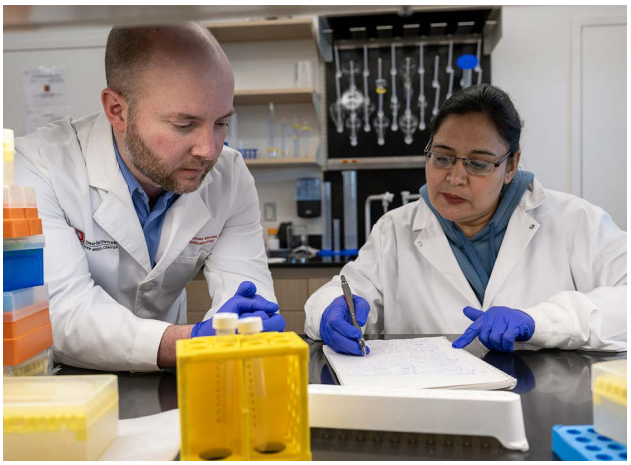
The Role of Genetics in Eye Health

Some eye diseases are inherited. When a close family member has a genetic eye condition, other relatives may have a higher risk of developing it as well.

Researchers have identified more than 500 genes linked to inherited eye diseases. At Ohio State, specialists can conduct an ophthalmic disease risk assessment, which reviews genetic testing results and family history to help patients better understand their risk.

A risk assessment may be helpful if:

- Eye disease runs in an individual's family
- A parent or sibling has a diagnosed genetic eye disease
- An individual has an eye condition that may have a genetic component



▲ Thomas Mendel, MD, PhD

Research programs such as the Ocular and Ophthalmic Genetics Program study how genetic and environmental factors contribute to inherited eye diseases. This work helps improve diagnosis and guide more personalized treatment approaches.

One example is the work of Thomas Mendel, MD, PhD, whose research on gene therapy aims to restore vision for people with inherited retinal diseases. This promising work could help reverse certain types of blindness.

Learn more on the **Health & Discovery** website.

Protecting Your Eyes as You Age

Vision plays an important role in overall health, safety and independence. Just like the rest of the body, eyes benefit from healthy habits.

Steps that support eye health include:

- Getting regular eye exams
- Wearing protective gear such as hats, UV-blocking sunglasses and safety glasses or goggles when necessary
- Quitting smoking
- Eating leafy greens and vegetables rich in beta-carotene
- Getting enough sleep
- Limiting screen time
- Staying physically active

Visit the **Health & Discovery** website to learn more about eye health and aging.