What Is an Ophthalmologist?

An ophthalmologist is a medical doctor (MD or DO degree) who has completed a minimum of four years of clinical training after medical school.

Ophthalmologists diagnose and treat eye diseases and related vision disorders. They may perform intraocular and periocular surgery. They prescribe and fit eyeglasses and contact lenses to correct vision problems, as well as treat medical and surgical disorders of the eye. Ophthalmologists work closely with other health care colleagues to enhance the ocular and general health of individuals and work to improve the welfare and vision health of communities.

A Small but Mighty Specialty

There are approximately 18,000 practicing ophthalmologists in the United States.

- Ophthalmologists represent 3% of total physicians.
- Ophthalmologists practice in various settings:
  - Academic medical centers and hospitals (17%)
  - Solo practice (26%)
  - Ophthalmology group practice – multi-subspecialty group (e.g., glaucoma, retina, comprehensive, etc.) or single-subspecialty group (e.g., retina only) (47%)
  - Multi-specialty group practice with other providers (e.g., internal medicine, surgery, etc.) (8%)
  - Other employment models (e.g., hospital based, Kaiser Permanente-model or private equity) (<5%)
  - Corporate, with pharmaceutical and device companies as well as start-ups and tech companies (<5%)

“While ophthalmology is obviously a science, it’s the art that differentiates the virtuosos from the average; it’s what most ophthalmologists aspire to. Our role as ophthalmologists is to practice the art of genuinely caring for the whole person and communicating compassionately.”

MARIA M. AARON, MD
EMORY SCHOOL OF MEDICINE
Career Diversity

An ophthalmologist's practice can be a combination of clinical care, surgery, research, teaching and administration depending on individual interests.

• There are eleven subspecialties in ophthalmology, each addressing specific or complex conditions in certain parts of the eye or in certain types of patients.
  - **Cataract/Anterior Segment**: treatment of diseases affecting the cornea, iris, ciliary body and lens; can also involve refractive surgery
  - **Comprehensive Ophthalmology**: primary treatment of most eye conditions such as glaucoma, diabetes, cataracts, etc.
  - **Cornea/External Disease**: treatment of diseases affecting the cornea, conjunctiva, sclera and eyelids
  - **Glucoma**: treatment of glaucoma and disorders that increase intraocular pressure or damage the optic nerve to cause ophthalmic disorders
  - **Neuro-Ophthalmology**: combines knowledge about neurological and ophthalmic conditions, such as damage to the optic nerve or visual pathways
  - **Ocular Pathology/Oncology**: medical as well as surgical care of patients with ocular cancer; study of tissues excised from the eye and surrounding tissues to provide precise diagnosis of disease
  - **Oculoplastics/Orbit**: ophthalmic plastic surgery techniques, such as orbital surgery, upper facial reconstructions and cosmetic lid surgery
  - **Pediatric Ophthalmology/Strabismus**: treatment of ocular conditions that affect children; commonly, strabismus or misalignment of the eyes, amblyopia, genetic abnormalities and neoplastic disorders
  - **Refractive Management/Intervention**: treatment of refractive errors, such as nearsightedness (myopia), farsightedness (hyperopia), astigmatism or presbyopia
  - **Retina/Vitreous**: medical as well as surgical management of retinal and vitreoretinal diseases; may use laser therapy, vitrectomy, cryotherapy and retinal detachment surgery to treat conditions
  - **Uveitis**: treatment of immune-mediated ocular conditions that cause inflammation of the iris, ciliary body or choroid of the eye

• There are many opportunities for mission-driven work in underserved areas of the United States or other regions around the world, including teaching, surgery, population eye health and building health care systems.

Underserved Communities

Eye disease disproportionately impacts African American, Latino and Native American communities. Untreated eye disease can lead to blindness or significant visual impairment.

Underrepresented minority groups comprise 30.7% of the U.S. population but only make up 6% of practicing ophthalmologists.

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<th>Minorities* as Percent of the U.S. Population</th>
<th>Minorities* Among Practicing Ophthalmologists</th>
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* Data as reported in JAMA Ophthalmology (2016) is based on those minorities historically underrepresented in medicine: Black/African American, Hispanic/Latino and Native American (American Indian/Alaska Native/Native Hawaiian).
Ophthalmology Residency in the United States

Competitive but Achievable

498 residents were accepted into 122 accredited residency programs in the 2020-21 match cycle. In the last three years, 81% of US allopathic applicants and 45% of US osteopathic applicants matched.

Ophthalmology is considered an “early match” specialty due to the early February match. Thus, prospective ophthalmologists have to commit earlier than medical students interested in other specialties.

Structure of Ophthalmology Residency

Post-graduate training lasts a minimum of four years.

- The first year (PGY-1) is an internship year that may combine elements of other specialties (e.g., internal medicine, surgery, family practice, pediatrics, OB-GYN, etc.).
  - Beginning in 2021, PGY-1 will include an ophthalmology program-based internship for students who have matched into ophthalmology.
- The following three years (PGY-2 through PGY-4) are devoted to ophthalmology training.
- About 60% of graduating residents complete a fellowship.
  - Most fellowships are one year in duration.
  - Surgical retina and oculoplastic fellowships are usually two years.

Explore Whether Ophthalmology Is Right for You

- Connect with an ophthalmologist mentor who is doing something you might want to do. Find out if they have a track record of mentoring.
- Get close to ophthalmology residents. They may have tips and resources to share as you learn more about ophthalmology.
- Find a research opportunity that is meaningful and interests you. The most meaningful research requires substantial commitment and work. Run the opportunity by your mentor – you want to be sure that the project is likely to result in at least one authored publication and/or a national meeting presentation.
- Experience the day-to-day work of an eye surgeon. Shadow an ophthalmologist. If possible, find ophthalmologists in different practice types and subspecialties to shadow.
- Initiate or take a leadership role in a community outreach project. Demonstrate innovation and leadership.
- Develop relationships with established ophthalmologists. These will lead to strong letters of recommendation.
- Read tips on applying to residency: aao.info/residencytips

“"If ophthalmology is your passion, if you look at that retina for the first time and go, 'Oh my gosh, this is what I want to do for the rest of my career' – follow your heart.”

RUSSELL N. VAN GELDER, MD, PHD
UNIVERSITY OF WASHINGTON SCHOOL OF MEDICINE
Minority Ophthalmology Mentoring Program

The Minority Ophthalmology Mentoring program is a partnership between the American Academy of Ophthalmology and Association of University Professors of Ophthalmology.

The purpose of the program is to increase diversity in ophthalmology by helping underrepresented in medicine (URiM)* students become competitive ophthalmology residency applicants. Students receive one-on-one mentorship, valuable guidance in medical career planning, networking opportunities and access to a variety of educational resources.

Visit aao.org/minority-mentoring or email mentoring@aao.org to learn more.

* URiM students include those who identify as Black or African American, Hispanic or Latino, or Native American (American Indian/Alaska Native/Native Hawaiian). The program is seeking medical students entering their first or second year of medical school.

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