

The Eye Guide

Matching in Ophthalmology

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This special edition of The Eye Guide is dedicated to all the mentors, colleagues, friends, and future ophthalmologists who provide help and support to each other.

Introduction

This guide was originally created by Matt Hirabayashi MD in 2020 and has been updated at least yearly after soliciting advice from successful applicants. It's time to turn it over to a new generation, so here is a collection of many different perspectives and personalities.

The purpose of this guide is to help others through a confusing process. This guide is also unique in that it has many contributors, is not tied to any specific institution, and has *no* financial interest with any group. We are in a unique position to be especially honest.

Each applicant's experience is individually different and, as such, there are no guarantees to matching (or in life!). The authors do not guarantee that following this guide will assure a successful outcome. Fortunately, the field of ophthalmology is abundant with mentors and resources, so we advise catering your application resources to your individual needs.

Editorial Key

Text in serif fonts like this are written by contributors.

Examples and editor comments are italicized.

Official prompts from application material are boxed.

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Overview of Ophthalmology

Ophthalmology is the best specialty, or at least the authors certainly feel that way. It's unique in many aspects. It doesn't use The Electronic Residency Application Service® (ERAS®) like the majority of specialties. It instead uses the San Francisco Match (**SF Match**) along with Urology residency and many medicine fellowships). It has a different application interface and independent timeline from the other specialties. As a result, many medical school administrations may not have the familiarity to help navigate a separate matching service. The most significant difference between ERAS® and SF Match is that everything happens earlier with SF Match applications are usually submitted by September, interviews begin shortly thereafter, and match day is early February (vs. matching in March for most specialties). There are ~120 residency programs and ~500 spots.

Ophthalmology residency undergoes frequent productive changes. Many of the specialized fields (radiology, anesthesia, dermatology, etc.) have a preliminary or transitional year as their first year of residency which can be performed at a different institution. Ophthalmology recently adopted an integrated internship year that includes three months of ophthalmology. All four years are completed at the same institution.

Ophthalmology also benefits from an earlier decision but it's completely reasonable to pursue ophthalmology at any point during M3 year. It is a competitive specialty (becoming more competitive) but it is also very individualized so special cases occur all the time and weakness in one area should in no way deter you from pursuing the specialty.

Why Ophthalmology Is the Best

- It's rapidly changing and extremely innovative, there's new lens technology every year, there's the MIGS glaucoma revolution of the past 10 years, there's always new promising ways of treating eye disease and it's always changing, nothing is stagnant.
- There is love and respect for tradition. You learn to use some incredible technology but also your observations during the slit lamp and Dilated Fundus Exam (DFE) are critical to care. In general medicine, the literature shows that the accuracy of the physical exam can be questionable, but ophthalmologists visualize the optic nerve and retina to make decisions directly based on observations.
- It's people's vision. Everything from professional life to free time is largely influenced by the ability to see. It's a focused field that also makes a HUGE impact on quality of life. Patients are incredibly grateful after a routine cataract surgery when everything is suddenly brighter, more vibrant, and clearer.
- The lifestyle is very manageable. It's a "ROAD" specialty (Radiology, Ophthalmology, Anesthesia, and Dermatology). There are ophthalmologists in academic retina practices who work long hours and write textbooks. There are also comprehensive ophthalmologists that have approximately the same hours as a bank. Call is manageable post-residency.
- THERE'S NO ROUNDING, especially in private practice. Residents round on the handful of patients (depending on size of the hospital and volume of the residency) who are admitted with

- eye concerns but there is no drudging room to room for 5 hours a day and having in-depth discussions about sodium status.
- The surgeries are usually short. Cataracts are around 30 minutes in residency and 12 minutes in private practice. Retina, glaucoma, plastics, and trauma have longer cases but the "bread and butter" of ophthalmology (cataract surgery) is short. Compare this to a 1-hour appendectomy.
- It's a small field and everyone knows each other so it's a tight knit community.
- It's a short residency while still being very specialized. It's only 4 years (now all at the same institution).
- Fellowships are still largely optional. Currently, the only ACGME-approved ophthalmology fellowship, believe it or not, is plastics. Individuals can shape their practice in a variety of ways. Some rural ophthalmologists practice a very wide scope. To practice in a large city typically requires a fellowship or some specialization to be competitive.

Ophthalmology May Be Right for You If:

- You like the idea of heavily specializing while still being able to make huge changes in patients' lives.
- You love surgery but not general surgery or the sometimes "intense" surgery culture.
- You might not have loved what you learned the first two years of medical school and are looking for something different than internal medicine.

Why You Might Think Twice About Ophthalmology...

- It's competitive with a traditionally high Step 1 score (when it was graded); there will be "gunners."
- You are walking away from a large part of medicine, so you have to be okay with that. There's a lot more to ophthalmology than you might think so there's a lot to learn and not too much worrying about the nuances of sodium status or heart failure anymore.
- The first year is variable. It might feature 9 months of wards in IM and 3 months of ophthalmology, or it may be a year full of ophthalmology-relevant rotations.

A Day in the Life

PGY-1 Intern year: It's extremely variable depending on the program. There will almost certainly be rotations on the internal medicine wards or ICU. It could also have more ophthalmology-relevant rotations such as ER, radiology, dermatology, and rheumatology. The new requirement is for 3 months of ophthalmology this year.

PGY-2-4: The organization of the ophthalmology years are highly variable based on the program. The first year (PGY-2) will probably consist of comprehensive ophthalmology, some specialty exposure (e.g., plastics and retina), a lot of intravitreal injections, and either starting the initial steps of cataract surgery or cataracts start to finish. PGY-3 and PGY-4 will provide more exposure to other subspecialties, typically cornea, retina, glaucoma, or pediatrics. In general, it's important to pay close attention to how the curriculum is constructed.

Call

Call also varies between programs and there are several important considerations when assessing a program's call. Overnight call is usually every "however big your residency class is" days (e.g., four residents would mean call every 4th night or so during the PGY-2 year). On average, the first/second years cover about one night per week and one weekend per month. Some programs have dedicated night float. In bigger cities call can be busy (having a night float implies call is busy enough to justify dedicated night residents). In more rural programs, the call can be lighter. It's also typically home call (without needing to sleep in the hospital) but some programs have inperson call. Some programs offer post-call days off and some work straight through.

Fellowships

Comprehensive ophthalmologists are primarily cataract surgeons but can have a wide scope depending on their location and comfort level. There are plenty of fellowship options. Here is a very brief summary of them:

Oculoplastics

Summary: This is the only "ACGME accredited" fellowship and is also extremely competitive. Applications are due slightly earlier than the rest.

Diseases Treated: Pathology *around* the eye including droopy eyelids (ptosis), dermatochalasis (excess eyelid skin), diseases of the lacrimal system (e.g., dacryocystitis), thyroid eye disease (TED), myasthenia gravis (MG), giant cell arteritis, and orbital tumors.

Surgeries: Ptosis repair, blepharoplasty, biopsies for suspected cancers or giant cell arteritis, chalazion removal, dacryocystorhinostomy, Botox, orbital decompression for TED, tarsorrhaphies, and complex cases with ENT or neurosurgery such as orbital tumor debulking.

Retina and Vitreous

Summary: Vitreoretinal surgeons specialize in the posterior segment (part of the eye behind the lens).

Diseases Treated: Retinal tear/detachment, diabetic retinopathy, Central/Branch Retinal Artery/Vein Occlusions (essentially strokes of the eye), vitreous hemorrhage, central serous retinopathy, retinitis pigmentosa, macular dystrophies, pathologic myopia, abnormalities of retinal vasculature, macular edema, and choroidal neovascularization to name a few.

Surgeries: The bread-and-butter procedures are the Pars Plana Vitrectomy (PPV), endolaser, gas or silicone oil, and scleral buckles for retinal tears, detachments, and/or vitreous hemorrhages, as well as internal limiting membrane (ILM) peels for epiretinal membranes, vitreomacular traction, or macular holes. Retina surgeons often handle the complications of cataract surgery (e.g., violation of the posterior capsule or dropped lens fragments) and frequently suture intraocular lenses in place.

There are a *lot* of procedures in clinic including injections for diabetic retinopathy, injections for macular edema, pan retinal photocoagulation for diabetes, barrier laser for small retinal tears, or retinal cryopexy/ pneumopexy.

Glaucoma

Summary: Glaucoma is changing. New surgical techniques have allowed specialists to intervene in the disease process earlier than ever. Using visual fields, physical exams, and intraocular pressure measurements the right balance of medications and surgeries slows the progression of glaucoma.

Disease Treated: Glaucoma! Glaucoma is a neuropathy of the optic nerve. Intraocular pressure (IOP) is the only modifiable risk factor, so the entire objective is to find an IOP that slows or stops glaucomatous peripheral vision loss from becoming central vision loss.

Surgeries: The traditional surgeries are trabeculectomies (trabs) and shunt procedures (tube) (which both involve creating another path for the agueous humor to exit the anterior chamber and reduce IOP). These are big eye procedures and require frequent follow-up in clinic. Since the early 2010s, glaucoma has experienced a "MIGS Revolution." MIGS, or "Micro-Invasive Glaucoma Surgeries" are minimally invasive, can often be performed with cataract surgery, and buy time before patients need a conventional glaucoma surgery (trabs and tubes can have complication rates approaching 50% in some studies). This is a rapidly changing specialty and very exciting that ophthalmologists can now intervene earlier in the disease to slow and prevent further vision loss or at the very least buy time before the bigger incisional surgeries.

Glaucoma specialists also perform many clinicbased procedures. Selective Laser Trabeculoplasty (SLT) is a fantastic option for reducing IOP by applying laser to the trabecular meshwork.

MicroPulse® (MLT) and Argon (ALT) are similar variants. The Laser Peripheral Iridotomy (LPI) creates a new pathway for aqueous in cases of angle closure caused by pupillary block. Laser Peripheral Iridoplasty attempts to reshape structures near the drainage angle to increase outflow. Other procedures that are frequently performed in clinic are injections of drug eluting devices like DURYSTA® and even revisions of blebs created in the OR.

Cornea and Refractive/Anterior Segment

Summary: If the cornea becomes scarred or opaque, it can be replaced! These are experts in the anterior portion of the eye. Refractive surgery involves providing freedom from glasses or contact lenses.

Diseases Treated: Cornea ulcers, the many corneal dystrophies including Fuch's, corneal scars, dry eye, corneal ectasias such as keratoconus, and presbyopia/refractive error.

Surgeries: One of the bread-and-butter procedures is the corneal transplant which offers another chance at vision to an eye with a cloudy cornea. Like glaucoma, technology is rapidly advancing in the cornea world and full thickness corneal transplants aren't always necessary anymore. Less invasive options include Descemet's Membrane Endothelial Keratoplasty (DMEK) and Descemet's-Stripping Endothelial Keratoplasty (DSEK) (transplanting just the diseased portion of the cornea) and can reduce the risk for rejection and complications.

Refractive surgeries seek to *optimize* vision and provide independence from glasses thus improving quality of life. There are many refractive surgeries like LASIK (LASer In-situ Keratomileusis), LASEK (LASer Epithelial Keratomileusis), PRK (Photo-Refractive Keratectomy), and the new SMILE (SMall-Incision Lenticule Extraction).

Pediatric Ophthalmology

Summary: This is exactly what it sounds like. Since young children can't answer the question, "Better one or better two?" these specialists must be creative by using techniques like streak retinoscopy to complete the exam.

Diseases Treated: Pediatric ophthalmologists frequently fight amblyopia (abnormal visual development). One of the most common causes of amblyopia is strabismus, or misalignment of the eyes. Refractive error can also cause amblyopia so accurate glasses prescriptions are essential. Sometimes this means using new techniques like dilute Atropine or Contact Lenses to prevent myopia progression (which is a worldwide epidemic). There are many other pediatric eye diseases in their purview such as retinitis pigmentosa, retinopathy of prematurity (ROP), and craniosynostosis to name a few.

Surgeries: The bread-and-butter is strabismus surgery to align the eyes by adjusting the insertion of the extraocular muscles. Pediatric ophthalmologists also surgically treat childhood cataracts, glaucoma, and address ROP.

Neuro-Ophthalmology

Summary: Neuro-ophthalmology focuses on disease of the vision, motility, and the optic nerve as they relate to the brain.

Diseases Treated: Neuro-ophthalmologists often manage ischemic optic neuropathy, idiopathic intracranial hypertension, myasthenia gravis, and adult strabismus.

Surgeries: Like pediatrics, strabismus surgery can align the eyes of adults, and this is one of the most common procedures in the neuro-ophthalmology purview. Although some neuro-ophthalmologists may not operate at all, most perform procedure including optic nerve sheath fenestration for reducing the effect of intracranial pressure on the optic nerve and temporal artery biopsies to assist in the diagnosis of giant cell arteritis.

<u>Others</u>

There are other eye specialties like medical retina (usually injections and retina management without the surgeries), cataract, uveitis, and pathology that are what they sound like they would be. To thrive in these specialties usually requires practicing in a large academic center to ensure the necessary volume to manage rare diseases.

Early Considerations Step 1 and Step 2

The median Step 1 score for matched applicants is traditionally in the mid 240s and crept up every year until it was no longer scored peaking at 247 (~75th percentile). Step 1 is now pass/fail for all scores reported after January 26, 2022. Although there were definite flaws in ranking applicants using a score with a massive standard deviation and not intended to stratify applicants, it provided a "great equalizer." Regardless of medical school, grades, or background, everyone took the same test, and it was a method that program directors used to sift through their 600+ applications. Without this "great equalizer," we can assume that programs are almost certainly focusing on Step 2 as a quick screening tool. However, Step 2 scores are not currently required for the application. While it takes time for trends to become clear, our opinion is to aim for an early Step 2 score of >250. What is the basis of that opinion? >50% of Ophthalmology First Year residents tend to have a Step 2 score of 250 or greater using historical data. SF match has already switched to a "Pass/Fail" entry for Step 1 it is no longer easy to communicate this number to programs even with an older, scored exam. While this is a changing area, it probably is best to take Step 2 early (ideally 1-2 months after your last core clerkship so info is fresh) and report it, especially if it's high but this is something worth discussing with mentors and advisors.

Letters of Recommendation (LORs)

Ophthalmology is a small community and programs value the opinion of their colleagues. Leaving a good impression on everyone you work with is important. Good ways to build rapport with faculty who can write letters are to be proactive, be helpful when shadowing, work under faculty on research, and engage with the interest group at your school (if offered).

Networking in general tends to go a long way in ophthalmology. Despite contentious opinions on "MedTwitter," this too can be an excellent networking tool. Some very influential ophthalmologists and program directors are active on Twitter and it's a small space where connections are easy. Other ways to network are to join programs like **Young MD Connect (YMDC)** and attend productive conferences like **YMDCLive**. Larger conferences (e.g., ASCRS, AAO) can be too big to effectively network, although YMDC typically hosts networking dinners.

Research

This is more of a "check the box" requirement but it demonstrates interest in the field, provides an easy route to solicit an LOR, and is a very effective way to learn more about ophthalmology. Most admission committees are looking for some ophthalmology research. Be involved in as much research as possible but not at the expense of quality of work. In general, independent and original research looks better (and is more involved) than case reports. As mentioned, research is one of the best ways to build relationships with faculty for an LOR and presenting research at conferences can also facilitate connections and opportunities for networking.

Grades

AOA has a statistically significant association with matchin. Outside of AOA, grades and/or class quartiles don't appear to be a major factor because of subjectivity among medical schools. Avoid failing and other red flags (e.g., negative faculty feedback from any rotation). A couple of honors will definitely help but this appears to be among the least weighted factors overall. Again, things are changing with pass/fail Step 1 so it will take time for trends to develop.

Preparing Through The Years

M1

It's extremely important to focus getting adjusted to medical school and succeeding during the first year. While ophthalmology generally favors an earlier decision, spring semester of M1 year is probably the earliest it's worth stressing about being proactive. Many medical schools have a summer research program, and this is the perfect time to first get involved in ophthalmology. It would be helpful to start an ophthalmology research project during the Spring/Summer of M1 year to both learn more about the specialty and start building relationships for the eventual LOR. Don't stress about matching this year, there's plenty of time for that...

M2

Again, it's important to focus on doing well in school. Honor things if the grading system allows it. Consider continuing some light research through this time. The fail rate for Step 1 increased in 2022. Perhaps this was simply due to less rigorous studying for a non-scored exam. Again, more data is needed to detect a trend but don't become a statistic and pass Step 1 on the first try. M2 year is also a good time to try to present a poster or even gain a publication out of the research from the spring/summer of M1. The days may go slow, but medical school goes fast so make every little thing count.

M3

It won't hurt to continue research during this time but also try to honor rotations, especially the surgical clerkships. Consider non-ophthalmology surgeons for one of your LORs. This is also a time where it's common to formally rotate through the ophthalmology department for the first time (if there is a home program, more on this later) so be sure to make a good impression. At this point, also start considering where you want to do away rotations (if any at all). These can start being done as early as the spring/summer before the match cycle, so start thinking about these applications. We will cover succeeding on ophthalmology rotations shortly.

M4

The beginning of M4 year will be marked with away rotations, acquiring LORs, and gathering application materials. The traditional wisdom was to do at least one away rotation at a program you're genuinely interested in or at the major institutions (Duke, Iowa, Bascom, etc.). It would be great to get a LOR from your away but it's not necessary.

Now it's time to apply for residency!

Ophthalmology applications are generally due around early September so consider this for planning. Plan a light schedule for the Fall of M4 to make room for interviews. More on timing details later... Lastly, the AUPO has no plans to return to in-person interviews for residency.

Away Rotations

Introduction

Away rotations, also called "auditions" or "subls," provide an opportunity to rotate with a program to learn about its style, culture, and people. They are generally recommended and can increase an applicant's likelihood of matching. For more, see the paper titled "The Impact of Away Rotations on the Ophthalmology Residency Match".

They can be a double-edged sword in the sense that they allow programs and applicants to get to know each other much better than simply reading an application, but they also are a long opportunity to show programs reasons to not rank applicants.

At least one away rotation is extremely beneficial for applicants (to see a different program if they have a home program).

VSLO (Visiting Student Learning Opportunities™)

VSLO (previously "VSAS") can be frustrating and confusing. The process typically doesn't start until around January of M3. Look up the program requirements and fill out the AAMCAS vaccination record so everything is ready to submit as soon as programs open. **Avoid applying to many programs** as declining aways can reflect poorly on the applicant (there are rumors floating around of programs not extending interviews due to applicants declining aways).

Away rotations are not necessarily competitive so applicants should pick programs that they're truly interested in or would like LORs from. Be careful.

Logistics

To best facilitate an LOR, aim to rotate around **July**. Away rotations are very expensive due to the need for room and board and a car. The website rotatingroom.com can be used to find someone to stay with for a month along with resources from the program's medical student coordinator. It's hit or miss but worth looking into early. Facebook and Reddit are sometimes good resources for this but knowing someone in the city will help a lot.

It is not unusual or uncommon to first hear from the program about general information and where to meet on the first day until a couple weeks before the rotation starts so don't be alarmed. Make any intentions of gaining an LOR known early so they can anticipate writing it. To avoid panicking at the last minute and stressing about whether the LORs are all submitted and ready, give earlier targets than are actually necessary (e.g., around early August).

The Away Rotation

Be helpful and work hard. Keep in mind that doing an elective is a double-edged sword. A program may not rank you (even after a "courtesy interview") if they perceive any red flags during the rotation. Be sure to be the best version of yourself and approach every day of your rotation as a daily interview with anyone you interact with in the clinic and OR. Don't' let your guard down.

Succeeding at an Away Rotation

It's very difficult for any student to help in the eye clinic because ophthalmology requires a unique skill set to complete an exam that is not typically taught in medical school. It's possible to appreciate and report "coarse lung sounds" on IM wards, but you probably won't even have the tools to appreciate lattice degeneration on an exam.

Unfortunately, medical school is still a game that needs to be played. It's played most successfully by being perceived as helpful and making the lives of the attendings easier while not introducing any additional stress or problems to clinic flow.

Here are some ways students can be helpful:

- Show patients the way out of the clinic.
- Clean the portions of the slit lamp that contact the patient (chin rest, forehead rest, applanator, etc.).
- If you know how to take vision and (tonometer) pressure you can help room patients if the clinic gets busy.
- Help with odd jobs: walking patients to the ER, walking samples to the lab, looking for ways to generally be helpful, etc.
- Absolutely avoid things that could slow down clinic like doing your own very thorough exam. You can always ask the attending's preference or ask residents what the attending likes. There will be opportunities to spend time with patients and practice exam skills, just be careful making assumptions.

If you scrub into surgery, your job will most likely be to keep the cornea hydrated with BSS (balanced saline solution). This maintains a good view for the surgeon and protects the ocular surface. It seems minor, but here are ways to succeed in BSS duties:

- Look for the (usually 3) light reflexes from the operating microscope on the cornea, this will be your best indicator of the ocular surface status. Once these become blurry or distorted, the view inside the eye is probably likely blurry or distorted as well. This will tell you when to squirt.
- Don't be aggressive some patients have a sensitive Bell's reflex and every time you squirt the patient's eye could roll back. Be aware of this for sensitive portions of surgery (e.g., the rhexis).
- Don't be so overzealous it actually interferes with the surgeon's view. Constantly wetting the cornea can be distracting.

Choosing Where to Apply

Of the ~120 programs it can be difficult to decide which ones to apply to and how many. The trend across specialties of applying to nearly all the programs has hit ophthalmology as well and many applicants do. As always, apply to programs you're truly interested in. There is no true way to rank programs, but some have world-renowned faculty and exceptional residency programs including lowa, Bascom Palmer (Miami), Duke, Wilmer (Johns Hopkins), Wills, Duke, Emory, Massachusetts Eye and Ear (Harvard), Moran (Utah), and Stein (UCLA). These are "reach" programs for most applicants, but an exceptional experience is possible almost anywhere.

Preparing the Application

The exact timeline of dates is available from the SF Match or AUPO website for each application cycle. Here is a generic timeline:

February M3	Start writing the personal statement		
Step 2	1-2 months after last core clerkship		
August M4	Aim to have LORs ready		
Early September M4	SF Match Applications Due		
Mid-October M4	Release of Interview Invitations begin		
October to December M4	Interviews		
Early January M4	Program Rank Lists Submitted		
January M4	Second Look		
Late January M4	Applicant Rank Lists Submitted		
Early February M4	MATCH DAY!		

Think about the application early. Have your CV ready early (more on this in the "CV" section) and tell your home letter writers to have the letters finished early (we recommend shooting for early August to account for any delays or troubleshooting). The application process happens fast so anticipating is important and being able to just copy and paste things over will help especially if you're in the middle of away rotations or studying for Step 2.

Altus Suite and Casper Test

During the 2022-23 match cycle, the AUPO introduced another aspect for the ophthalmology match: The Altus Suite.

THIS HAS BEEN DISCONTINUED AND IS NOT A REQUIREMENT FOR THE 2023-2024 MATCH CYCLE.

Curriculum Vitae

Keep this updated throughout medical school so it's ready to go. You will also be pasting portions of this into the application portal. It may be helpful to format your CV in accordance with the applications as follows:

- Titles
- Education
- Work Experience
- Research
- Publications
 - Journal Publications
 - Non-Peer Reviewed Publications
- Presentations
 - Poster Pres
 - Oral Pres
- Leadership & Service
- Honors & Awards
- Professional Training & Certificates
- Languages
- Hobbies & Activities

Personal Statement

The personal statement now consists of a short "autobiographical sketch" in addition to answering 2 out of 4 essay questions. The instructions from SF match are below:

"Write an autobiographical sketch (summary of your life, who you are and your aspirations) not to exceed 500 words and answer 2 of 4 of the essay questions below (essay questions not to exceed 250 words each). Select 2 questions from the list below. Copy the 2 questions and limit each answer to 250 words.

- 1) What does resilience mean to you? Describe a situation in your personal or professional life where you have demonstrated resilience.
- 2) Describe an important mentor and relate how that person has been helpful to you.
- 3) Describe a way in which you will add diversity to your residency class. This may relate to your background, upbringing, life experiences, professional/personal interest, or educational path.
- 4) If you were to start an ophthalmology residency program, what would be the three core values you would base it on?"

General Tips for your Personal Statement

- Keep it concise, if possible. Make sure each sentence has a purpose. The committee is looking through so many applications, so you want to make an impression whether they are reading the whole personal statement, skimming, or only picking up 1-2 sentences.
- Hook the reader from the beginning! You've certainly heard this before, but it applies now more than ever.
- Use this opportunity to share who you are in ways that can't be portrayed in the rest of the application.
- Try to avoid cliches (e.g., "the eyes are the windows to the soul"). They've seen this. What can YOU say that is YOU?!
- Don't feel cornered into making the whole personal statement about ophthalmology or related to ophthalmology – YOU aren't completely related to ophthalmology, so this shouldn't be either!

The following is an example of a 2020 cycle personal statement but it had a lot of good feedback:

Example:

"I would rather die than not be able to see." This statement by a patient with diabetic retinopathy captures my drive to pursue ophthalmology in better words than I can conjure. Changes in vision can significantly impact a person's quality of life. I've seen ophthalmologists save children from a lifetime of blindness, allow parents to see their children's smiles again, and take musicians from perceiving hand motion back to reading sheet music. Working to preserve and improve sight while making tangible differences in every moment of patients' lives incorporates everything I could hope for in a profession. Growing up, I was naturally drawn to detail-oriented tasks.

Boatbuilding comprises one of the many hobbies I proudly continued through medical school as I have been captivated by the art and science of building sailboats for many years. While often restricted to materials and tools from home improvement stores, I enjoy the challenge and chance to generate solutions to limitations and overcome obstacles. Doing this in a landlocked state requires determination, but the skills I learned helped significantly with my academic endeavors. Perseverance, problem solving, and hand-eye coordination translated well to both undergraduate science and music courses. I realized early on that medicine actually encompasses all of my passions while promising the opportunity to use creativity and dexterity in the service of others. This made pursuing medicine an easy decision. Progressing through

medical school, I realized that a good physician relies on art as well as science. Just as sailing balances the physics of vectors with the art of gauging the wind, successfully reaching a diagnosis relies on both objective knowledge and subjective judgement. Like my other passions, medicine also has the similarity of constant innovation in technology and technique. A rapidly evolving and hands-on field is right for me. Ophthalmology contains the best of every specialty. I enjoyed the long-term relationships primary care physicians make with their patients just as much as the rapid cures that surgeons provide; ophthalmology offers both. Encountering more rare diseases in the eye clinics than anywhere else, I also recognized the potential to continue learning about medicine in a holistic sense. Research endeavors with Microinvasive Glaucoma Surgery demonstrated how rapidly technology and treatments develop. The idea of a career that allows me to work in a continuously advancing field to defend what many consider their most precious sense solidified my decision.

The ophthalmology faculty has provided generous mentoring, amazing opportunities, and the inspiration to join such a caring and supportive culture. Humbled by the privilege to meet and collaborate with ophthalmologists from all over the country and world, I couldn't imagine working in any other specialty. I aspire to contribute my training in medicine, research, and boatbuilding to ensuring optimal visual outcomes for patients by using my dexterity and inherently persistent and meticulous nature. This will allow a balanced practice as a technically proficient surgeon and a thorough clinician. I've come a long way from making sailboats out of plywood in the backyard with my grandfather. I

look forward to the opportunity to study and develop new technologies and treatments for ocular disease to continue defending the sense so many find as valuable as life itself. Although it seems impossible, a sheet of cloth can push a boat almost straight into the wind and a tube the size of a human eyelash can save an optic nerve. I hope to master both.

Outside Interests and Hobbies

THIS IS POSSIBLY ONE OF THE MOST IMPORTANT PARTS OF YOUR APPLICATION. The majority of things you will discuss during interviews will come from here. Include a lot of things but make sure you are familiar with them. Definitely list playing guitar if that's true but don't be surprised if you're asked to play something during interviews.

Education/Employment/Publications/ Poster Presentations

These are self-explanatory sections.

Here are the SF Match categories for publications:

- Peer-Reviewed Journal Articles/Abstracts (Published)
- Peer-Reviewed Online Publication
- Peer-Reviewed Journal Articles/Abstracts (Other Than Published)
- Poster Presentation
- Oral Presentation
- Other Articles
- Non-Peer-Reviewed Online Publication
- Peer-Reviewed Book Chapter
- Scientific Monograph

If you don't know where to submit what, do your best and always be honest. This also applies for inputting your publications into SF Match's interface - the spaces they have for input may not match with your kind of publication exactly, but convey the necessary information as best as you can.

Career Objectives

This is a small section that requires some generic entry. Programs likely skim this. Here is an example:

"I aspire to practice as a patient-centered, compassionate, innovative, and technically proficient ophthalmologist. I will remain open-minded with regard to the details of my career but plan to continue my passion for research and the most up to date evidence-based approaches to ocular surgery."

Specialty Electives and Related Activities

There will be a section where you'll need to describe the ophthalmology electives you've taken and your experience in them. Says something like "In this 4-week rotation I spent time with X and did Y and Z..."

Public Service and Activities

Copy this from your CV.

Letters of Recommendation

Tell your letter writers (generally recommended to be 2 ophthalmologists and 1 IM/General Surgery) to have the letter ready by early August. You'll put their info into SF Match and it will send them a link to upload it. If you're anticipating one from an away make sure they know early so it can be uploaded by the first week of August. Staying well ahead of this will save you a lot of anxiety later.

Ophthalmology is a small field and letters carry a lot of weight.

Interviews and Interview Season

All applicants should consider participating in mock interviews. This also gives you a chance to practice answering the common questions you know you'll be asked. Make sure they never sound rehearsed. To avoid answers from sounding too "canned" it's helpful to memorize an outline of how you'll answer the questions.

Also, read about the program and city so when they ask about why you chose to apply there you have some things to talk about and you can demonstrate genuine interest.

Lastly, review your own CV and application before the interview so if you're asked about a research project it doesn't catch you by surprise that you were even involved. Make sure you're able to give a quick summary of your role and the results of any research you list. Some interviewers really lean into this. A list of common questions is listed later in this chapter.

Keep Track of Things on Interviews

Consider making a list of things that are important to you (e.g., location, surgical numbers, call, etc.) and keep track of these particular items during interviews. It will help you keep things straight when you make your rank list later.

What to Look for in a Program

- Early cataract surgery exposure and good surgical volume. This is the bread-and-butter procedure of ophthalmology and earlier exposure is better. Residents are required to log 86 cataract surgeries as the primary surgeon, but some feel 200 is about where you feel comfortable on your own (obviously this varies from individual to individual). This means 200 would be a good target number for programs. It's considered impolite to directly ask about cataract numbers.
- Sub-Specialties are well represented. Most programs will have a Retina, Glaucoma, and Cornea service. Not a lot of institutions have ocular pathology for example, and you can learn a lot from them. At least make sure someone is on faculty for the major specialties (including oculoplastics and neuroophthalmology).
- Presence of fellows. Fellows can provide excellent resident education and significantly enhance a program. Fellows also need to operate and sometimes that means less surgery exposure for the residents. It's worth asking how fellows are involved in resident education.
- Call and curriculum. Some programs have a lot of one-on-one time with the attendings, some programs are more "sink or swim", and some programs are both. Some have a "block" structure and some just have you spend a day of the week on different services. Some have a dedicated resident clinic. Try to imagine what would fit your learning style best. As always, think about how important lifestyle is to you.

- Class size. There's a sweet spot between 4 and 6 residents. 2 is probably not enough because that means frequent call even if the program is less busy. 10 might mean less frequent call but should tell you something about how busy the program is and the 10 might be divided over multiple sites. The division of call is important to ask about.
- The intern year. Know what you're getting into the first year. This can greatly impact lifestyle if that's important to you. The intern year is now integrated and it's no longer possible to complete intern year at a separate location.

Interview Numbers

The number of interviews you should attend is extremely subjective. Since hitting the 15 cap is rare, interview everywhere. There are a lot of figures floating around about how many programs you need to rank to match but it varies and depends largely on the person. A candidate can interview at 3 programs and really click with a program and match. Another candidate can interview at 15 programs and leave a bad impression every time and not match. Don't get too hung up on those figures. Because you're wondering, the "magic number" is generally regarded as around 9. Ranking about 9 programs confers a high probability of matching based on historical data. Attending 10 to 12 interviews is reasonable and is usually the aim based on old AAO data. Only interview at that many if you're interested in all of them. Always keep in mind the individual is much more important than historical statistics and these statistics don't necessarily apply to the individual.

The AAO data was from in-person interviews. Virtual interviews have a cap. As of the 2024 cycle, applicants can **accept a maximum of 15 interviews**. This was reduced from 20 the first year of virtual interviews and 18 the second year. The "safe number" may change but we don't have enough data in the virtual landscape yet.

Virtual Interviews

As mentioned earlier, interviews will be virtual for the foreseeable future. As ridiculous as it may sound at first, a ring light is a worthwhile investment. It allows soft lighting and a more professional look. A nice webcam wouldn't be a bad idea either. Also, pick a spot that has a nice clean, plain background. Use whatever you can to your advantage in these virtual interviews. Programs are more likely to remember the applicant with a well-lit and professional-appearing presentation compared to an applicant appearing on a small, grainy screen in the dark.

Having something relevant to your interests nearby/on the wall behind you can help you stand out. An example is having paintings you've made or photographs you've taken hanging behind you. Plants also create a calming space.

Socials

With virtual interviews, social events were not as common. Many programs host virtual gatherings the night before, but others are scheduled randomly before or after the interview date. If multiple dates are offered, try scheduling it before your interview. These events can help you learn a lot about a program and may provide some additional questions to ask faculty during your interview.

Don't be afraid to reach out to current residents for more information before the interview, just be tasteful with how you do it.

There is always a concern about whether the residents involved at these socials have a say in the ranking process. As a vague generality, the program director may ask if there are red flags with any applicants any of the residents interacted with.

So overall, be on your best behavior because acting strangely or uninterested at the socials can harm you much more than being engaged and interested can help.

Interviews/Interview Questions

These are examples of common questions as well as questions that can be directed at the faculty and residents. You will likely be asked "What questions do you have?" with remarkable frequency. It's helpful to have some things ready to ask to minimize the inevitable awkward silence over virtual interviews. It also helps you appear engaged and like you care about and/or researched the program beforehand.

It's hard to overstate the importance of having simple and *positive* questions ready to go for when you're inevitably asked this by everyone throughout your interview experience. Examples of these fast, *positive*, and benign questions are: "What's your favorite part of the program/city?" "How frequently do the residents work with medical students?" "What upcoming changes are you excited for?" "Do you have any questions about my application that I can address?"

It's better to stand out and be memorable, especially in virtual interviews. Ask questions in the lobby, appear engaged, and show that you know something about the program (e.g., that you read the website) and are eager to learn more. Avoid going through any virtual lobbies without acting engaged if possible. Virtual interviews are impersonal/awkward, and you have 3 to 4 hours to make a good impression on programs so don't waste a minute.

The following is a large list of questions that are common for applicants, as well as thoughtful questions for the programs.

Be Prepared to Answer

- Tell me about yourself.
- Why did you choose ophthalmology?
- Tell me about <some aspect of your application, CV, etc.>.
- What do you do for fun?
- Why are you interested in our program?
- Where do you see yourself in 5/10 years?
- Are you interested in pursuing a fellowship?
- If I asked your friends to describe you, what would they say?
- If you were to describe yourself in 3 words, what would they be?
- Tell us about an interesting case you have seen and how it influenced you.
- What are your biggest strengths and weaknesses?
- Why would a Midwest/Coastal person like you move to the Coast/Midwest?
- What are you looking for in a residency program?
- What sets you apart from other candidates?
- What is your biggest failure and how did you handle it?
- What are you most proud of? (inside and outside medicine)
- What did you find interesting in medical school other than ophthalmology?
- What leadership positions have you had?
- How do you deal with stress?
- Who is the person you most admire? What 3 people living or dead would you want to have dinner with?
- Tell me a joke. Teach me someting.
- What is your plan if you don't match?

- If you couldn't go into medicine, what would you do?
- If there is one thing you could change in your past, what would it be?
- How would your spouse feel about moving to this city?
- Explain <poor grade or Step score in your application>,
- What was your favorite (or least favorite) job and why?

Questions for Faculty

- What are you looking for in a candidate?
- What is the breakdown of your preliminary/intern year?
- Where do most residents go after residency?
 Private practice or fellowship?
- Are there many opportunities for research? What kind of research can I expect in this program?
- How many hospitals participate in this residency program?
- Are there opportunities to teach medical students?
- Where do you see the program in 5/10 years?
- What upcoming things are you excited about for this program? What changes have been made recently?
- · What is your favorite part about this program?
- What are your favorite parts of the city?
- Are there formal mentorships with faculty?
- Which department do you think is the strongest?
- How is grand rounds structured?

Questions for Residents

- What does a day in clinic look like?
- What is the call schedule like?
- How many cases are you paged on per night?
- Which areas of the city do most residents live?
 What is the average rent?
- What are your favorite and least favorite things about the program?
- Do residents socialize and get together often?
- Does the program cover lenses, books, and the question bank?
- Does the program cover conference travel?
- What is the didactic schedule like?
- How many call sites do residents cover?
- What is something unexpected about the program?
- Do you feel comfortable asking for help during call?
- What role do fellows play in your education?

Special Note on Courtesy with Questions

Avoid directly asking about surgical numbers. This is one of the games you have to play. Find out some other way. Asking about case numbers directly is considered impolite or tacky for some reason. Programs with good numbers will publish them or make it part of their presentation. If numbers are not included in any of the program's information, then that likely says enough.

Thank You Notes

After the interview it is courteous but not expected to send a thank you note in some form. An email sent to everyone who interviewed you (don't forget to thank the program coordinator for their massive organizational effort) is more than enough. I would suggest making them personalized in some capacity and mentioning something you enjoyed about the program or the city. A copy and paste job might not be the best look. Again, these aren't expected and won't influence everything but it's a nice thing to do. In the impersonal virtual world, it's worth it to do everything in your power to stand out and make an impression.

Open House

A new feature of virtual interviews is the opportunity for applicants to visit programs in-person after programs submit their rank list and before applicants submit their rank lists. This means programs cannot be swayed by which applicants choose to visit them and applicants can collect any additional data they need before submitting their rank list. These visits are optional and vary greatly depending on program.

Chat/Spreadsheet

There is an infamous Google document and/or Discord Chat every year where applicants can talk to each other and post impressions of programs as well as their stats as interview season progresses. It also lists the impressions of programs based on last year's interviews and this can be a good way to know what to expect. Try to avoid getting tied to this though as the applicant numbers are very skewed and it paints an unrealistic picture most of the time. You can find it by googling "Ophthalmology Spreadsheet [MATCH YEAR]". Sometimes these resources need to be shared for access.

Doximity Rankings

Be careful putting too much weight on these as there are some politics involved. An article by the AAO brought up the following points about program ranking:

- "By engaging in every aspect of the process from soliciting nominations to marketing results, we provide a tacit endorsement of the ranking results that undermines the credibility of our profession."
- "There is no consensus on which outcomes measures should be used to assess performance in ophthalmology."
- "There is no valid way to rank ophthalmology residency programs, and academic departments should refuse to participate in any process that attempts to do so."

Basically, don't get too hung up on this. There are some obviously research-heavy and traditionally prestigious programs with "famous" faculty like Bascom Palmer, Wills, Wilmer, Duke, Iowa etc. and there's also some programs with qualities that could give you a sub-optimal training experience (e.g., no VA, minimal faculty) and these are not always reflected in the rankings. It's really important to think about your personal career goals and what you are looking for in a program. Factor in location, family, fit, culture, and what the program has to offer more than prestige.

Ranking and Matching General Advice

Try not to think about the ranking system when making your list. Go with your gut and consider the things that were important to you. Keep track of pros and cons about each program while interviewing. They'll all blend together so it's important to take notes in real time. Some things that are generally beneficial in a program include high primary cataract volume, a VA, and good fellowship matching history.

Ranking

Keep track of what you liked and didn't like about programs as you interview. Pick a couple things (e.g., surgical volume, location, faculty etc.) that matter a lot to you because that may be a good jumping off point for your final list. In the end, nothing beats gut feeling when it comes to making the list. Think about the experience you would have at each program and how it matches with the experience you're looking for.

There is no way to "game" the system, so don't make assumptions about what the programs are thinking and rank in order of your true preference. Don't try to throw in a few "safe" programs toward the top just in case. Truly rank in order of your genuine preference. There are numerous videos that explain the ranking algorithm, but the summary is that the system is intended to work in the applicant's favor.

As you probably know, ophthalmology matches much earlier than the other specialties. This has been delayed in recent years, but early February is when you can expect the match email at **8 AM EST.**

Re-Applying

Introduction

In the TV Series Star Trek: The Next
Generation ®, Captain Jean-Luc Picard said, "<u>It is possible to commit no mistakes and still lose. That is not a weakness. That is life.</u>" Sometimes things don't work out like we hope for, but it doesn't mean it's over and we should give up. One of our contributors, Mia Koci, didn't match her first cycle but then successfully matched the following year. This section consists of her advice in her own words if you find yourself in a similar situation. Hopefully her success is comforting.

Let's turn it over to Mia:

The match rate for ophthalmology was ~80% for US Allopathic seniors in 2021, and that percentage decreases to 74% if you include graduates, IMGs and US Osteopathic seniors. In 2020 I was one of those ~20% who didn't match, and navigating that process was overwhelming, confusing, and there were no good resources. I felt like I was on my own. Hopefully this overview can give some peace of mind, comfort, and hope if you have found yourself in the same situation. That being said, this guide is based on my personal experiences, opinions, and research and is by no means allencompassing.

Firstly, I want to emphasize that this result does not speak to who you are as a person, applicant, your work ethic, or likability. Take time to be angry, frustrated, and sad. Lean on your support system, family, and friends. No one will really understand what is like but know that there are people that care about you and are rooting for you.

First Steps

- 1. Set up appointments with your home program and school deans
- 2. Email PDs and coordinators at places you interviewed and ask for feedback
- 3. Weigh your options which include reapplying ophtho, submitting a rank list for a specialty you may have dual applied into, SOAP into alternative specialty or prelim year

Important Questions When Considering Re- Applying

- 1. How many interviews did you receive this year?
- 2. What were the weaknesses on your application? Would an extra year of research, experience, or developing connections help overcome those weaknesses?
- 3. Do you have the financial means to delay residency?
- 4. Did you dual apply? Would you be happy and fulfilled pursuing another specialty?

Ophthalmology Related "Extra Year"

If you decide to pursue a research year or preresidency fellowship related to ophthalmology with the goal of reapplying (or preparing to apply), here are some tips based on experience. First, update your CV as soon as possible and contact your letter writers. Many of the program applications required a program specific personal statement/cover letter, updated CV, and letters of recommendation, while others simply asked for a copy of your completed SF Match application. Apply to as many programs as possible, especially given the competitive nature of the high-quality, reputable pre-residency programs that others in the same position will be applying for.

Finding these programs can be difficult, and a good resource is listed below. Reddit, Student Doctor Network (SDN) and the Ophthalmology Match Google Spreadsheet are additional resources where similar positions are posted yearly, usually by the students who have completed them and are looking for their successors. While not all programs are created equal, a very beneficial thing to emphasize when interviewing the second time is dedication, commitment, and skills acquired in the research year that would be applicable to residency (effective patient communication, teamwork, problem solving, and applying evidence-based medicine). There is an aspect of gaining mentorship and making connections that could increase your interviews and chance of matching at a program as well, so something to take into account.

Things to Look for in a Program/Research Year:

- 1. Is the program associated with a residency?
- 2. Does the program have a strong track record for matching re-applicants?
- 3. What would mentorship look like throughout the year?
- 4. Is there the possibility of a strong letter of recommendation?
- 5. What is the start date and end date?
- 6. Is there potential to complete a project/paper prior to the application due date or start of interview season?

Preliminary or Transitional Year Internship

Starting intern year by matching into a medical or surgical prelim year or transitional year with the goal of reapplying has worked for others in the past as well. This has become more complicated with almost all ophthalmology programs becoming joint or integrated and there is a high likelihood you will be required to repeat intern year. There is less flexibility with time off for application preparation and scheduling interviews. However, this may be a good choice if you are unable to secure a paid research or pre-residency fellowship position. There is something to be said for someone who is able to manage the workload of intern year while still able to commit to the entire reapplication process as well.

Graduation

Mia was able to delay her medical school graduation and was granted a "leave of absence" to pursue the research year, which was helpful in several ways. Her school administration readily worked with her, she didn't have to pay tuition, and she was still able to get health insurance through the school. Additionally, since she was still considered a USMD senior, she got far less interrogation during interviews to her backup specialty. Some colleagues in similar situations had graduated and because of their MD status, questions about "what happened last year?" would come up often. This isn't an issue if you have a well-developed explanation for "well why X specialty now?" Never be dishonest about dual applying but it is a more difficult situation to navigate as no specialty wants to feel like they're a "second choice."

Lastly, if you aren't planning on SOAP or matching into a prelim year this year, you need to withdraw completely from ERAS and NRMP. That way next year, there will be no record of your application as far as programs can tell and it will look like your first time applying which is helpful.

Unfortunately, there's no perfect formula or guarantee when it comes to reapplying. The match is also unpredictable and people with very few interviews match and people with the "ideal" number of interviews don't match. Take some comfort in knowing it only takes one program to match. If being an ophthalmologist is your passion, what's one more year in the grand scheme of your career? If you are able to approach the year with strategy, a solid backup plan, and openness about your growth and progress from the experience, I think it's worth going through the match again. That being said, everyone's situation is unique and discussion with your administration, friends and family should help guide what is the best next step for you. This is an unpleasant part that nobody likes to think about but hopefully this has been helpful, and if you have your own questions, comments, experiences, or resources, we would love to hear from you.

Special Circumstances No Home Program?

Choosing to pursue ophthalmology from a medical school without a home program presents its own unique challenges. For instance, there are less opportunities to explore the field before choosing to apply, few mentors and/or connections to the academic world, limited exposure to research opportunities, difficulty acquiring letters of recommendations from ophthalmologists, required away rotations (which are a sizeable effort and expense), and so on. Here are some recommendations we have for taking on these obstacles:

- (1) Start early. This is a consistent theme throughout the match guide, which we recognize may be difficult as a new medical student taking on a lot of changes. However, if you recognize even a *small* interest in visual sciences (be it from your neurology courses or that one pathology lecture you had on the eye), act on it!
- (2) Do not reinvent the wheel: contact your school's alumni. Even though ophthalmology may not be a popular field to pursue from your home institution, you are likely not the first to do so. Ask the administrators of your school for the contact information of alumni in ophthalmology and reach out to them. Not only do they understand the complexities of your situation, they likely have local advice, resources/contacts to share, or opportunities to engage with the field (i.e, research, connections for away rotations, etc.).

- (3) Put feelers out in your immediate community (local ophthalmologists and other nearby medical schools). See if it is possible to shadow local ophthalmologists, perhaps between M1 and M2 years or on lecture half-days. It may be helpful to learn where these ophthalmologists went to residency and if they are still connected to these programs. Similarly, reach out to nearby medical schools that *do* have an ophthalmology program in my experience, faculty at these institutions were very willing to offer their mentorship and even included me in their school's ophthalmology interest group thread, which opened doors for information sessions and other opportunities.
- (4) Seek experiences to get involved and build your CV. Use your new connections (those aforementioned or your program's neurology or research departments) to identify how to get more involved in eye-related activities. This could look like research, community engagement, attending conferences, developing eye health resources for your local clinic, and so on.
- (5) Use elective time in your M3 year to shadow or complete rotations in ophthalmology. This may require prudent planning in order to establish where, particularly if your medical school doesn't have a frequently-available elective or an established elective at all, so plan early. Early electives/rotations such as this will help to elucidate your interest in the field and may connect you to more local engagements.

- (6) Consider a research year. This would offer a concentrated year of scientific analysis and writing (and hopefully publications!), clinical exposure, and letters of recommendation which may feel difficult to attain at your home institution. It's advised to take this between your M3 and M4 years so that your graduation year will be the same as the majority of the other applicants during your match cycle. For more information on this, refer to the section titled "Ophthalmology Related 'Extra Year'" (Page 46).
- (7) Be thinking about who will write your letters of recommendation. Because there is no built-in rotation option at your institution, be cognizant to get enough *early* clinical exposure to obtain a solid letter of recommendation. This is particularly crucial if you have not completed a research year.
- (8) Be on top of scheduling away rotations. This is imperative for students who do not have a home program because not only is it necessary to meet your "acting internship" requirement, but it's an avenue to hone your skills, meet others in academic ophthalmology, and perhaps acquire a letter of recommendation from a practicing ophthalmologist. Because of this, be deliberate in *where* you choose to do your aways and *how many* (for those without home programs, we advise 2-3). For more information on away rotation tips and beyond, check out the section "Away Rotations."

- (9) Identify the challenges of your circumstance as a display of your commitment to the field. Many without a home program are required to be creative or take initiative to have equal opportunity to those with a program in their backyard. If and when the opportunity arises, highlight your unique efforts as your dedication to the field of ophthalmology!
- (10) Some medical schools will be flexible in allowing you to create your own ophthalmology rotation. Although the rotation schedule as a M3/M4 may seem as if it is set in stone, it is not. Ask your medical school coordinators for help. You may be able to set up a rotation as long as your preceptor/mentor agrees to host you for 4-6 weeks. You can likely do this in state or out of state. Be creative! Just because you only see 'x' number of rotations available does not mean you cannot make your own that is suitable for your schedule and your goal of obtaining LORs!

In general, applying for ophthalmology from a medical school without a home program requires building your own ophthalmology network and being open to rejection. Although it may be an uphill battle, it is possible, and, if you love the field, absolutely worth it!

DO You Want to be an Eye Surgeon? – Advice for DO Applicants

The following is a collection of advice from the Alec Curtis who matched at University of South Carolina - Prisma Health for the SF Match 2023 cycle. Here is advice to fellow DO applicants in his own words:

I truly could not have done it without the many mentors in the field and those who had just gone through a match, especially as a DO. Many people want to know board scores, research, etc. I think it is helpful to have a general idea but remember there is always a wide range of matched applicants when you compare everyone. A bit of self-reported data is on the *ophtho SF Match excel sheet*. I recommend taking a **glance** at the information there but do NOT dwell over it all since there is a heavy self-reporting bias.

COMLEX/USMLE – Board Scores

Scores are very important for ophtho as a DO. You want every opportunity for an interview and Step 2 scores will likely be used as a filter, just as Step 1 has been. Many programs require the USMLE Step 1 as they use it as a screening tool even though it is P/F. So be sure to take both COMLEX and USMLE. Avg Step 1 for matched applicants was 247 in 2022 which is near the 75th percentile. That said, Step 1 is P/F now, but I highly recommend treating Step 1 as a scored exam as there is **significant** overlap between it and Step 2.

The exam that counts: Step 2. Data is not out (as of early 2023) on what the average Step 2 score is, but I would say getting a 75th percentile Step 2 score of approximately 257 would be safe.

P/F Step 1 makes it difficult to judge whether or not you are competitive enough for ophtho prior to your third year. My recommendation is to take scored Step 1 practice exams such as uworld and amboss and aim for a minimum of a 235 Step 1 (50th percentile) but to feel safe, I would shoot for 245+ Step 1 (71st percentile).

A side note: when it comes time to take both COMLEX and USMLE. I recommend taking the USMLE a couple of days prior to COMLEX and just cramming as much high-yield OMM in those few days. USMLE is more important for ophtho.

*Board scores matter a lot, but they are **not** everything. I personally had strong board scores and weak research. Play your strengths.

DO View on Away (aka Audition) Rotations

Audition rotations significantly increase the chance of obtaining an interview. Most DO schools allow or even require multiple aways, and if they limit your number, ask for more. Do note, residency training between MDs and DOs had different accreditation in the recent past, but now the ACGME oversees all of it as one, but there are still many programs out there that are all DOs as they used to be a DO only programs in the past.

I did 3 'MD aways' and 3 'DO aways'. MD programs are typically 4 weeks and historically DO programs are typically only 2 weeks. **Historically DO programs usually only interview applicants who did an away with them.** In my experience, they tend to really value personal interaction with residents and faculty and a tiny bit less about research and scores. Therefore, if you have some weaker areas, do as many DO away rotations as you can to play it safe, and maybe only 1-2 more academic/university programs.

Choosing where to do an away is tough. I highly valued surgical volume, location, and overall vibe. I wanted a program with a VA since you get a lot of independence there, but always there are pros and cons. I also did not want to drive to multiple locations. I did *not* want a super research-heavy program, but many people do!

When choosing an away, you may have heard to do it programs that have DOs; however, Dr. Harris Ahmed, who is well versed in the DO ophtho world, *highly* recommends against using DO presence at a program to gauge where to do away rotations. It makes sense, there are very few of us so it is impossible for all programs to have a DO, and also those who do will then be flooded with every other DO students application.

Overall, it is a very personal opinion on where you chose to do away rotations. I personally highly valued location and surgical volume, but you may be different.

Here is a list of historically DO programs:

- HCA Healthcare/USF Morsani College of Medicine (FL)
- Larkin Community Hospital Program (FL)
- Beaumont Heath (Taylor) Program (MI)
- Ascension Macomb-Oakland Hospital Program (MI)
- St. John's Episcopal Hospital-South Shore Program (NY)
- Kettering Health Network Program (OH)
- Philadelphia College of Osteopathic Medicine Program (PA)

When it comes to applying for aways, make an excel sheet to keep track of dates and where you apply. There is no magic number of how many aways to apply to, but I thought it was safe to apply for up to two programs over the same dates to ensure you get an away but also not deny too many programs. I highly recommend against outright canceling an away that has already been set up unless you are certain you would prefer the other program much more as this does not look good from the program's perspective. Lastly, however possible, try to have a safety program. Really get to know the nearest program to you and try to do research/network with them, treat it as if it was your home program since you most likely don't have one.

Networking as a DO

Conferences, away rotations, social media, reaching out to local ophthalmologists (huge for me), state societies, and attending local grand rounds at nearby ophthalmology departments (also huge for me, but note I did not start networking really until just prior to third year as it is when I committed to ophtho.)

I attended the YoungMDConnect conference which is geared towards networking and learning about various products from the industry. It is an extremely fun and engaging event where I met many other residents, medical students, and a couple of Program Directors. I highly recommend attending for at least 3rd year and for you to submit research for a scholarship. American Academy of Ophthalmology (AAO) is the other conference I attended early on in 4th year. It is the largest conference and a bit overwhelming at first, but in addition to learning a lot of ophtho, I met many residents, medical students, and Program Directors. I would hang out mostly at the Young Ophthalmologist events to maximize networking when I wasn't exploring the enormous main event space.

Some other popular conferences med students attend and present research at would be ARVO, ASCRS and a DO specific ophtho conference: AOCOOHNS. There are certainly more but these are the ones I hear most about.

Social Media as a DO

I created a "Med Twitter" early on in my third year. I am not sure what prompted me to do it, but it has been invaluable to me. Twitter is a place you can easily communicate with current residents and programs. You can find mentors there, research opportunities, and stay caught up on popular conferences. As a DO, it helped me find other DOs in ophtho residency programs. I reached out to many for advice on matching as a DO and I also made friends with many DO ophthalmologists which is fun and it likely could help you when it comes time for programs to make their ranks lists if current residents can personally speak firsthand of your wonderful personality and accomplishments. Quick reminder: don't choose away locations mainly based on DO presence.

Research as a DO

Everyone wants to know if research matters for ophtho, especially since the data on it is lacking compared to specialties in the NRMP Match. Does research matter? The answer is yes or somewhat.

It is **highly** program dependent. For some programs, it is essentially required, while others treat it more as a 'check the box' for some extra points. As a DO, it can be especially tough finding research since our medical schools don't usually have ophtho faculty. I would **highly** recommend doing some research throughout medical school to show you are capable of starting and finishing a project. If it is in ophtho, great!

But if not, you still can discuss the process of research which is what really matters. I did a number of non-ophtho case reports that I presented at local conferences and then one retrospective review study in ophthalmology that I was first author on, but I had only submitted it for publication the week before applications were due. That said, my SF Match application only said 'submitted for publication' opposed to published. Submitted for publication still conveys the completion of the project. I still ended up speaking about the project in almost every interview.

Research Year

Why I didn't: There are multiple reasons why I did not do a research year, even though my application was weakest when it came to research. The first is, I do not really enjoy research. The second is the opportunity cost, as I would lose a year's salary since I would be starting my career a year later than I would otherwise. Third, it was my backup plan. I knew if I had not matched then a research year would have been best for me since it was the weakest part of my application. I essentially was giving myself two tries. I am not sure what I would have done if I had not matched after doing a research year during medical school.

Keep in mind though, the decision is extremely circumstantial and personal and my decision and reasoning may not be right for you. Therefore, I have invited my friend, Ian Seddon, who matched as a DO student at Wake Forest to discuss the various reasons he chose to do a research year.

The following is additional advice from Ian Seddon who is an incoming internal medicine/ophthalmology resident at Wake Forest University.

The decision to take a research year is always unique and personal for each person – but ultimately it is grounded in a growing body of evidence that students who take research years often match at higher rates than those who do not. Some commonly cited reasons include: 1) Better letters of recommendation due to more longitudinal relationships, 2) More time to build your CV with research and ophtho-focused extracurriculars, and 3) Improved clinical experience and knowledge to bring into your audition rotations as an M4.

In terms of logistics, the best time to do a research year is BEFORE you apply for ophthalmology. Data from the SF match is normally bleak for DOs, (~20 per year match), but that is nothing compared to the match rate of reapplicants (especially DO reapplicants). Additionally, the post-graduation research year is a big time-crunch because you'll basically only have 6 months to be productive and build connections before applications are due for the next cycle. Not to mention that your student loans will finally begin accruing interest and you'll need to make payments as a graduate (often times without a real salary).

In my case, I decided to do a research year at the end of my M3 year after realizing that due to COVID restrictions, rotations would be limited to only 1 per student for that year's application cycle. I reached out to my ophthalmology network and was fortunate to find a retina specialist in my hometown who was well-known in the field and willing to take me on as a research fellow for the year. It ended up being the best decision I could have made because it gave me tons of clinical exposure that I was able to use to stand out on my audition rotations, additional

publications, as well as a really strong LOR from someone who I look up to professionally.

Having a mentor in the field who is willing to vouch for you to programs via email or phone is immensely important in an era where most programs spend less than 5 minutes per application as they choose who to interview.

To counter Alec's other points, I think the value of a research year is largely outside of just publications and doesn't necessarily require a love for research. You will have the freedom to make connections in the field, attend conferences, and have more time to strengthen any weaknesses in your application. In terms of opportunity costs, losing one year's salary pales in comparison to not matching. Additionally, matching at "higher ranked" residency programs thanks to a research year may make it easier for you to match into a higher paying fellowship down the line. So ultimately, it depends on your own interests and 5 to 10 year plan.

However, one major drawback of the research year is how to deal with your own financial situation for that year. My research year was unpaid and so I lived with family and relied on my student loans (which I had saved judiciously in preparation for traveling for away rotations and interviews). Some research positions at larger academic institutions will sometimes pay anywhere from 20-30k, but those positions are more competitive and need to be applied to during early Spring.

So, in summary: research years, while not imperative, can be valuable to improving your chances to match as a DO. Choosing the right mentor is key and you want an attending who seems like they would be willing to advocate for you and leverage their personal connections to help get your foot in the door. Best time to do it is probably after your M3 year and make sure to consider the finances before you fully commit."

Matching as a DO - Conclusion

Focus on doing well on boards, getting research asap, and finding a mentor in ophthalmology. Have at least a bit of volunteering and leadership during first and second year. Take careful consideration where to do your away rotations. Networking is extremely important, use social media, attend conferences (esp third year/early fourth), and excel on aways. Consider if you love research and would benefit from a research year now or after graduation as an if-needed backup plan. If you do not do well on boards, consider dual applying. Overall, you've got this, it is extremely possible. Try your best to enjoy the process and take care of yourself.

DO Year to Year Summary

OMS1 – Focus on doing well in classes, obtaining leadership positions, a bit of volunteering, shadowing various specialties if undecided, and research! Getting a mentor in ophthalmology would be ideal as you can work with them throughout med school, but not the end of the world if you don't.

OMS2 – Focus on doing well on boards, I mean learn everything from board review resources you can, treat Step 1 as scored, then learn what you need to for classes. Continue leadership positions, some volunteering, research, and start networking.

OMS3 – Try your best to obtain a rotation in ophthalmology, or at least spend some free time shadowing in a clinic or the OR. This is the year to really start networking, going to conferences, presenting research, and of course still crushing boards since Step 2 is the new Step 1. From rotations, you need to secure 3 letters of rec. You can only upload 3 to SF Match and one must be from an ophthalmologist.

Away rotations also need to be scheduled starting around March and thru May. Do multiple aways at places you would love to go and I suggest 1 or 2 'safer' programs.

OMS4 – Continue networking. Do great on your away rotations from July thru November (have some breaks added in there though if needed.) Prepare an incredible SF Match application and have friends, family, and mentors read over your essays. Give yourself months to write your personal statement. You will also have to choose 2 essay questions from 4 options (provided earlier in this guide)

Thank You

Special thanks to Dr. Harris Ahmed (<u>Twitter:</u> <u>@drharrislakers</u>) for first of all mentoring me through the process and helping edit this DO Match guide. He has spent an enormous amount of time mentoring DO students across the nation and led webinars each year.

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Special thanks of course to Dr. Matt Hirabayashi (<u>Twitter: @EyeFlyMD</u>) for encouraging me to write this match guide and helping me share it to the masses as he has done with his match guide and various other incredible pieces of educational content.

And an extra special thanks to these wonderful mentors: David Mittleman MD, Hunter Harrison DO, Logan Allee DO, Adam Lewis DO, Tyler Greenlee DO, Mark Siden DO, Sameen Meshkin MD, Michael Moussa MD, and many many more...

Non-US IMG

The following was written by **Sayena Jabbehdari MD/MPH**.

An International Medical Graduate (or non-US Medical Graduate) is defined as a physician (permanent residents, US citizens or under visa) who graduated from a medical school outside of the United States.

In my view, Passion, Teamwork, and Respect are three pillars of success for getting matched into residency no matter where you have done your medical school. Since most ophthalmology programs do not know about the non-US medical schools' reputation, grading system, and dean's letter, applying for research position by finding an established and active research center and working with a supportive mentor is essential. Find your interest field and try to email ophthalmology faculty members who are active in research. Never get disappointed by not receiving any answer. Everyone is busy, so never take it personally. The research position will help you to get familiar with the US system, having the opportunity to learn and publish papers, proving your capabilities to your mentor and having US letter of recommendation. The citations of published papers will also help to apply for green card through national interest waiver.

Shadowing and hands on training to know the US medical system, learning to work with electronic medical record system and having the opportunity to learn about ophthalmology in clinic along with spending time in operating room is crucial.

For ophthalmology application, you need to upload your work and research experiences, published, in press or even submitted papers, 3 letters of recommendation (all from US ophthalmologists is necessary for non- US medical graduates), USMLE boards scores, medical degree transcript, and Educational Commission for Foreign Medical Graduates (ECFMG) certification which is a certificate of completing all USMLE board exams.

Ophthalmology is spectacular and incredible field and no doubt the acceptance rate even for US medical graduates is low compared to other specialties. The rate of acceptance for the non-US medical graduates was less than 2.7% in 2022. So, it's wise to bring more on the table by doing another advanced degree, do research and publish more, doing observership in 2-3 ophthalmology departments and participating in ophthalmic conferences.

Follow your dreams of becoming an ophthalmologist, never give up your hope and curiosity and positivity along the way, look for advice from everyone, let everyone know that you are applying for ophthalmology, find mentor and sponsor early in your career, be a good mentee and be respectful and appreciative for the opportunity that your mentor gives you, and the most important advice is believe in yourself.

Final Advice/Wisdom

- Be yourself and don't try to appeal to what you think the admission committee is looking for. You want to end up where you fit in, and being genuine is the best method of guaranteeing this!
- Remember that the information on the online forums (Discord, GoogleSheet, etc.) typically carry a response bias. For example, those who have more interviews are more likely to report this, whereas those with no interviews are less likely to. Take this information with a grain of salt and, above else, protect your confidence throughout this process!
- Find a couple mentors you can trust and run your application by them.

Notes/Planning
The following section may be helpful for organizing your thoughts during the interview process.

"Check	kboxes
Re	esearch
Pa	ass Step 1
Pa	ass Step 2
LOR W	/riters
1.	
2.	
3.	
Away F	Rotations
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Top Priorities for Residency

e.g., location, surgical experience, prestige, etc.

1.		
2.		
3.		

Ten "Reach" Programs to Apply To

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

Ten "Safe" Programs to Apply To

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

Interview Notes			

Interview Notes			

Interview Notes			

Thank you for reading! We hope you found this helpful. If you would like to contribute in the future or have comments on any of the advice, any feedback can be submitted to matt@eyeflymd.com.

The Eye Guide: Matching

The purpose of this guide is to help others through the process of matching into ophthalmology. This guide has many contributors, many perspectives, and is not tied to any specific academic institution. I also has no financial interest with any group so the authors are in a unique position to be especially honest.

We include information written by recent and successful applicants from many different backgrounds including matching without a home program, matching as a DO student, matching as an IMG, and re-applying.

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