# Archery Fitness

# What to Expect From an Eye Exam

Eye exams are important because they allow the doctor to evaluate not only your vision but the overall health of your eyes. There is generally no way for a patient to tell when there might be a problem because there is no real way to feel pain in the eye. Externally, an injury can be felt but with internal diseases like glaucoma or retinal disease there is no pain, just the possibility of permanent loss of vision. Routine and regular eye exams can help to discover these problems and treatment may be had long before they become problematic. The reason for an exam should not be based on how you think you see right now. It should be treated like "preventative maintenance" for your vision.

Generally it's recommended that an eye exam be performed once a year for most people. In some cases the time frame is extended to two years but the general consensus is that annually is an optimum time frame to allow your doctor to monitor the internal heath of your eyes as well as refractive errors. I also recommend that once you start a relationship with one doctor to stay with that practitioner so that a history is developed. It's not required that you get glasses or contacts from that office but at least the medical side is consistent.

To get an eye exam you have to see either an Ophthalmologist or an Optometrist. In some states an Optician has the qualifications to do refraction testing, but not exams regarding the heath of the eye or to treat disease.

## Who Does What?

Ophthalmologists are medical doctors (MDs). Not only can they test refraction but they can diagnose and treat eye disease and structural or physical problems, and they can perform corrective surgeries, etc. If you choose to see an Ophthalmologist, I recommend a smaller practice where the work is predominantly done by the doctors themselves. I've never been a fan of the high patient volume or "technician" route. In this scenario, the patient is run through a battery of machines run by techs that will perform much of the diagnostic work and then have the MD review and finalize the findings. Ultimately it can be accurate and most of the time it is sufficient, but in archery and the demanding nature of our vision requirements, I prefer the "one on one" route where the patient can make a solid decision and the doctor can make solid assessments based on personal patient interaction.

Optometrists (ODs) are also doctors but cannot do surgeries. They can perform many of the same tasks as an MD such as refraction testing, fitting of contacts and spectacles, as well as diagnosis and treatment of certain eye diseases. Generally an OD will be involved in co-management care or post-operative care for many surgeries including LASIK, cataracts,

implants etc. In the rare case of the OD discovering something significant the patient would be referred out to an MD for treatment. In my opinion, optometrists generally are recognized as better at refractions due to the nature of their specialty. This point might be argued by the MD but MDs are generally recognized as being better at the medical aspect, so call it even.

Ultimately my opinion boils it down to this: if I need a really, really good refraction I want to see an optometrist in a smaller office setting who will have time to deal with me directly for 20-30 minutes with the full exam and refraction done personally by the OD. If I need surgery or have something significant to deal with then I'm off to the MD.

Opticians will use the refraction tests provided during the exam to fabricate a pair of glasses. Occasionally the optician can fit contacts as well, but most often that is reserved for the doctor. Opticians should ask several "lifestyle" questions to determine how you use your eyes on a day to day basis. This will include questions about hobbies and sports and work-related questions about how you "see." This information helps them determine what style of frame and lens you should be using for each activity. Oftentimes this might mean multiple pairs of glasses for best performance.

## The Exam

An eye exam is a series of tests to determine several things about your eyes. The good news is that it doesn't hurt and you don't have to study for it. During the initial portion of the exam you and the doctor or his assistant will discuss basic history and what, if any, your visual complaints are.

This will lead to a quick look at the eye with a light to make sure the basic external functions are all working properly, and then a check of your visual acuity with and without the current glasses.

They may start with a visual fields test. This test determines your blind spots or how big your field of view is. If you were to have a problem in your peripheral vision or an exaggerated blind spot it may be an indicator of a problem in the eye. This test can be as simple as following a pen or light from side to side or as advanced as using specialized equipment to actually map how your eyes see light.

From there the exam moves forward in great detail. It will include visual acuity and refraction aspects where the doctor will use various methods to

This is your RECEIPT for this. determine how well you are seeing. The primary method is retinoscopy. This is a hand held bright light used by the doctor to determine refractive error; sometimes an auto refractor machine is u s e instead. Then, by showing you a series of trial lenses dialed in a phoropter they will fine tune and determine the new correction. This is typically where you get the "Which is better, 1 or 2?" kind of questions. The really important part from the patient perspective here is to not cheat. No squinting and no "guessing." Every answer you give to the doctor has a specific reaction. If you cheat, the answer is you can expect to have problems with your glasses. No matter how good the refractionist is, bad answers get bad results. Although this portion of the prescription is a blend of objective and subjective information gleaned during the process. Generally, a really good examination will uncover inconsistent responses, but it still might not lead to the best possible result.

You should also expect a slit lamp exam. This is a type of microscope tool the doctor will use to look into the eye for abnormalities internally as well as on the cornea. It has a very bright light that can be shown in different colors. Using an orange dye eyedrop they can see if there are any surface problems like scarring or infections.

The doctor will also do a retinal exam. During this procedure the doctor is looking at the back structures of the eye. Specifically they look at the retina, the optic disc, and the blood vessels that feed the eyeball. Depending on the in-depth nature of the exam the doctor may also dilate the pupil to get a better look at the structures especially in the case of stronger corrections or if there is a history of ocular disease. The dilation is not always mandatory, but it certainly is helpful. Tonometry is a very important part of an eye exam as well. It is a determination of internal pressure in the eye. An elevated pressure would indicate

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glaucoma. It can be treated with medication, but left untreated elevated pressures can lead to blindness.

There are other tests that the doctor may do during the exam to help answer more complex questions that may come up or to deal with specific eye health history issues, but for the most part these are the basic aspects that you should expect during an exam.

# My Top 10 Tips

One of the most important parts of an exam is who is doing it. This is probably the most difficult part of the whole thing. The following is just a guideline and there are always exceptions to the rule but in my experience I recommend some of the following tips.

- #1 Don't choose a provider based solely on your insurance provider. If you feel like one of a herd of cattle to get an exam, then trust your gut. It's not a tire shop; it's an eye exam. You should feel comfortable, confident, and relaxed about the whole event. An ultra high volume office is not the place that will normally cater to the specific and finicky visual needs of an archer.
- #2 Ask your friends, ask fellow archers in the area, and ask people who do gun sports. Often they have done their homework or at least been through some of the bad choices and you can benefit from their experience.
- #3 Don't be afraid to visit the office on a random day like a recon mission. It's easy to get the feel and vibe of the practice and the people working there. In a medical type setting it might be a little tougher but usually they are so busy you can just slip in and find a seat in the waiting room, read a magazine for a few minutes and listen. If it's a retail setting where exams and glasses are done then browse, listen, even ask some light questions to get a feel for their experience, their attitude, and their abilities.
- #4 Never forget that this is totally your decision. Generally you are going to spend several hundred dollars on a few pair of glasses so you have lot of buying power. The practice does want your business, especially if it's long term. Exams should not be done based on price alone. That said, the most expensive isn't always the best either.
- #5 "Buy one, get one free" or other fantastic offers almost never work out right.
- #6 Most chains pay their staff heavy commissions, most private offices do not. Keep this in mind.
- #7 Ask the staff about licenses. Or at least look for

- them on the wall. Most states require certification or licensure. Since this is not a "summer job" make sure you're dealing with experienced professionals who are committed to the craft. Technicians should be certified by the state if they are in the exam room helping. These certifications will be hanging on the wall and listed on their name tag.
- #8 There are no "stupid questions" when dealing with your eyes or your glasses. The more questions you ask, the better educated you become. An educated consumer is great to deal with. You're less likely to get something that doesn't work. You wind up getting what you want and what you need and are therefore more likely to be a returning customer.
- #9 Don't feel rushed or pressured to do anything. Additional tests can be done at a later time with planning, especially if it's for an extra fee. Make a well-planned and well thought out decision. Do your homework like mentioned above or online.

#10 Be specific in your expectations.

Now, once you have the correction in hand it's off to the Optician for a set of glasses. That will be the next installment.

Chuck Cooley is a NYS Licensed Optician with almost 20 years in the industry. He is also a Fellow Member of the OAA and NAO. He holds National Certification in Opticianry from the ABO. In archery he is the Vice-president and co-Founder of Feather Visions. He has ten years of competitive archery to his back-



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