

EYEGGLASS BASICS

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When buying eyeglasses, most people are unaware of the lenses that are available to them. With evolving technology, lenses have become much more advanced and just as important as eyeglass frames. We've created this simple guide to educate and help you better understand the types of lenses and wide assortment of lens options that are available.

While reading this guide, you should ask yourself some questions like:

- Do I spend a lot of time outdoors?
- Do I play impact sports?
- Do I spend a lot of time driving in a car, particularly at night?
- Do my eyes become easily irritated by the sun?
- Do I spend a lot of time in front of a computer?
- Do I wear eyeglasses more than 2-3 hours per day?

The answers to these questions will help you determine what lenses will work best for you and your lifestyle.

Types of Lenses

After an eye exam, your provider will know your prescription and be able to recommend the type of lenses that you need. Most people require single vision lenses to correct nearsightedness or farsightedness or a multi-focal lens (i.e. bifocal, trifocal and progressive lenses) when there is more than one vision problem to correct. In rare cases, some people require lenticular lenses to treat serious eye conditions such as cataracts.

Progressive lenses are great lenses to have when a multi-focal lens is required to correct your vision. These lenses include a continuous band of progressive optical strengths that incorporate your prescription along a range of prescription strengths and allows for your eyes to adjust as it leaves focus of an object faraway and progress along the prescription field to focus on an object up close. Standard bifocal or trifocal lenses have distinct prescriptions in sections of the lens that are divided by a line to differentiate between prescriptions. An abundant amount of people have reported headaches, dizziness and eye fatigue when trying to focus on a new object with standard bifocal and trifocal lenses. Progressive lenses provide you with the ease of adjustment without the sudden change as your eyes adjust focus on a new object.



Lens Materials

Once you know what type of lenses you need, you and your eye care professional will need to decide what type of materials your lenses should be made of. It is best to have a list of questions to ask your doctor to ensure that your lenses are as functional as they are fashionable.

High-Index Lenses: These lenses are manufactured using a specialized plastic that refracts light better than normal plastic lenses. High-index lenses are thinner, lighter and more comfortable than traditional plastic lenses. These lenses are also revered by individuals with strong prescriptions because high-index lenses eliminate the appearance of magnified eyes.

Polycarbonate Lenses: These lenses are made of a hardened plastic that are more impact-resistant than standard plastic lenses and have ultra-violet (UV) protection manufactured directly in the lenses. Like high-index lenses, polycarbonate lenses are lighter and thinner than standard plastic lenses. These qualities make polycarbonate lenses the ideal choice for children, sports eyewear and safety eyeglasses.

Photochromic Lenses: Individuals with light eye pigment and sensitivity to the sun should consider photochromic lenses. Photochromic lenses will change from clear lenses into dark-colored lenses, similar in color to that of sunglasses, when exposed to the ultra-violet (UV) rays found in sunlight. These are great because you now will have the convenience of sunglasses and eyeglasses

in one frame, and eliminate the hassles of having to remember to bring your sunglasses or clip-on accessory.

Polarized Lenses: If you are an athlete or spend a lot of your time outdoors then polarized lenses are a must for you. Polarized lenses, which are often used in sunglasses, will eliminate glare that is caused when direct light is reflected from a horizontal surface like snow, ice, sand or water. By eliminating glare, UVA and UVB these lenses are also extremely helpful to people that have decreased vision from eye conditions such as cataracts and age-related macular degeneration (AMD).

Lens Coatings

There are a multitude of coatings available for lenses today. All of the coatings listed below can be added to lenses during the manufacturing of your eyeglasses. The type of coating(s) you and your provider may select will depend on your lifestyle and what is most beneficial to you.

Scratch-Resistant Coating: This type of coating is highly beneficial because it protects and extends the life of your lenses. When it is applied to the front and back of lenses, this hard-coating will make your lenses more resistant to scratching, which can happen if you accidentally drop your eyeglasses, clean the lenses with a paper towel, or even worse, your shirt. A scratch-resistant coating is a cost-effective investment in your eyeglasses. Once lenses become scratched, there is no way to fix them without purchasing new lenses.

Anti-Reflective (AR) Coating:

This type of coating reduces the amount of reflection on the lenses, which increases the amount of light that is able to pass through the lens. With AR coating, individuals find an increased quality of vision, especially during night-time driving, because of the decrease in glare caused by oncoming traffic. Since AR coating greatly reduces environment reflections, your lenses will appear thinner and transparent, improving your appearance by allowing people to see your eyes much clearer instead of reflections in your eyeglasses.

Ultra-Violet (UV) Coating: It is extremely important to protect yourself from the long-term damages of UV rays from sunlight. UV rays have been linked to the development of cataracts and even macular degeneration. UV coating will help block these harmful rays as light passes through your lenses. A lot of lenses (i.e. polycarbonate and photochromic lenses) already have a UV coating on them, so be sure to ask your eye care professional if UV coating is already included on your selected lenses.

Purchasing eyeglasses should be looked upon as an investment, so think about your lifestyle needs carefully when picking out lenses because you can achieve both functionality and fashion success with the right type of lenses and available coatings.

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