Contact lens options for the correction of presbyopia have expanded tremendously over the past decade. We have more daily disposable options than ever, and we have seen substantial innovation in the field. A multifocal contact lens with astigmatic correction is now available as a standard option within a diagnostic fitting set in our offices.

Although the designs of multifocal contact lenses vary, there are certain underlying principles that will help optimize your chances of successfully fitting and prescribing these lenses for your presbyopic patients. In this article I describe five key considerations to optimize your presbyopic contact lens fittings.

**STEP NO. 1: OFFER MULTIFOCAL CONTACT LENSES TO ALL CANDIDATES**

This first point may seem obvious. But, often, patients are simply unaware that they are candidates for multifocal contact lenses. Just as it is crucial to discuss contact lenses with all patients who are candidates for them, it is equally important to discuss contact lenses with all presbyopes. This includes patients who are currently contact lens wearers as well as those who don’t wear contact lenses but may be candidates. Only a small percentage of presbyopes responding to a survey last year reported receiving a recommendation for multifocal contact lenses from their eye care providers.¹

There are several reasons why practitioners may be hesitant to fit multifocal lenses. One reason is the perception that simultaneous vision may not deliver optimized vision for their patients. When multifocals are fit appropriately, most patients do well with simultaneous vision designs.
Additionally, there may be concerns about new presbyopes’ comfort perception of wearing lenses, and concerns about appropriate training on insertion and removal of lenses. Fortunately, these patients are often highly motivated and pleasantly surprised with the comfort of the lenses when they are placed on the eyes. And, because of their high level of motivation, they are often easily trained for insertion and removal. Pay attention to the next four steps in order to optimize your chances of fitting success.

**STEP NO. 2: OPTIMIZE OCULAR SURFACE HEALTH**

The number-one reason patients drop out of contact lens wear, regardless of age, is discomfort. As such, it is critical to optimize our patients’ success with contact lens wear by optimizing their ocular surface health. Whether the patient is a contact lens wearer or is new to contact lenses, a healthy ocular surface is the best chance to ensure their comfort.

You must have appropriate protocols in place to identify an abnormal ocular surface and to create a treatment plan to improve it. Your plans will often be dictated by the technologies you have in your practice. Diagnostic steps that can be implemented immediately include high-magnification examination of the lid margins looking for collarettes; assessment of the meibomian gland orifices; assessment of meibomian gland function; and the use of vital dyes to assess tear breakup time, corneal and conjunctival staining, lid wiper area, and the line of Marx (Figure 1). In addition to these basics, you can assess inflammation level, osmolarity level, and meibomian gland structure with advanced technologies. After identifying the cause of an ocular surface abnormality, you can choose a treatment plan to appropriately prepare the ocular surface for lens wear.

Just as important as preparing the ocular surface is selecting a comfortable lens design and material. Daily disposable lenses often provide patients the best chance of achieving this goal. If the patient’s prescription is not available in daily disposable lenses, or if you feel that a non–daily disposable lens is the best choice, be sure to recommend the most appropriate cleaning and disinfection solution to optimize the patient’s wearing experience.

**STEP NO. 3: FOLLOW THE FITTING GUIDE**

We often have preconceived notions about how a multifocal contact lens should be fit. We may feel that there are generalities about power selection for the various multifocal contact lenses that are intuitive. However, each multifocal design has unique properties. Because of this, you must not make generalizations about the power that

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**AT A GLANCE**

- Because many patients are simply unaware that they are candidates for multifocal contact lenses, it’s important to discuss the option with all patients who are candidates for them.
- The number-one reason patients drop out of contact lens wear is discomfort; thus it is critical to improve their success by optimizing their ocular surface health.
- Don’t try to convert the powers from one multifocal design to another. Just start from the beginning of the fitting guide specific to the multifocal lens that you are working with.
- Line of sight has become an increasingly important variable to consider in fitting patients with multifocal contact lenses. It is important to understand and take this into consideration, as misalignment can be the cause of contact lens failure in presbyopes.
you think a particular patient needs to achieve success with multifocals. Do not simply try to convert the powers from one multifocal design to another. More often than not, they are not interchangeable. Make certain that you start from the beginning of the fitting guide specific to the multifocal lens that you are working with.

There are some components consistent to all multifocal fittings. Be sure to have an updated spectacle prescription. Determine ocular dominance by placing a plus lens alternately in front of each eye while the patient is looking in the distance with both eyes open. When the patient feels his or her vision is best, the eye without the lens in front of it is the dominant eye. For most fitting guides, you either need to know ocular dominance when selecting the initial lens or, if required, determine it in the troubleshooting section.

**STEP NO. 4: UNDERSTAND LINE OF SIGHT**

Line of sight has become an increasingly important variable to consider in fitting patients with multifocal contact lenses. We may make certain assumptions about line of sight. For example, the patient’s line of sight is in the center of the pupil, and the pupil is in the center of the horizontal visible iris diameter. For most patients, neither of these assumptions is true. In most individuals, in fact, the line of sight is nasally displaced to the center of the horizontal visible iris diameter, and so is the pupil (Figure 2).

Lampa et al demonstrated that when a multifocal contact lens was placed on the eye, the center of the lens was not lined up with the patient’s line of sight. Although the multifocal lens was centered on the eye, the patient’s line of sight was located nasal to the center of the optical zones on the lens.³

Our office recently looked at a sample of 120 patients. We measured the nasal decentration of each patient’s line of sight with respect to the center of the horizontal visible iris diameter in right and left eyes. We found an average nasal offset of 0.3275 mm. The largest offset measured in this sample was 0.99 mm (unpublished data).

It is important to understand and take this into consideration, as misalignment can be the cause of contact lens failure in presbyopes. With a small amount of line-of-sight offset, standard multifocal lenses are likely to function well for most presbyopes. For moderate levels of offset, it is best to select a lens with a wide optical zone that may be able to compensate for the offset. For patients with large levels of offset, specific lens designs can be chosen to offset the lens optics nasally. These include OptiSync Technology (SpecialEyes), Zenlens (Alden Optical/Bausch + Lomb), and Ampleye, (Art Optical).

**STEP NO. 5: ALWAYS FOLLOW UP**

Following up with multifocal contact lens wearers is crucial to optimize their chances of success. Whenever I fit a patient with any type of contact lens, I always let them know when I want to see them again for follow-up, and I tell them that they will have a chance to wear the lenses in their real environment. I also let them know that I’m going to want to know what they like and don’t like about the lenses.

The follow-up visit provides an opportunity for an additional over-refraction with trial frame lenses. The over-refraction with multifocal lenses must be performed with both of the patient’s eyes open while trial lenses are held over each eye separately. It’s interesting to note that during over-refraction, adding plus power to the distance prescription often improves both distance and near vision for patients.

**BEST CHANCE OF SUCCESS**

Multifocal contact lenses can provide presbyopes with the opportunity to function independent of spectacles. For the best chance of success with these lenses, take into consideration the points discussed in this article.

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**Figure 2.** The line of sight is displaced nasally in most individuals.