Introduction

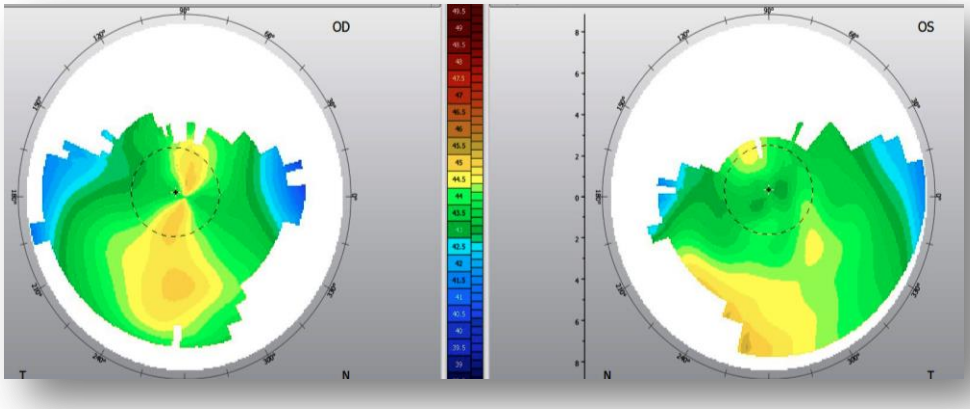
The increased use of computers and handheld electronic devices in the daily routine of our patients with presbyopia has created a need in the contact lens market. The presbyopes of today need a multifocal contact lens that can provide excellent visual performance at intermediate distances without degrading distance and near vision. For patients demanding acute vision at all distances, a translating gas permeable (GP) multifocal contact lens with alternating optics can be prescribed.

GP translating lenses provide superior vision quality compared to aspheric and concentric multifocal lens designs due to their optical design and lens positioning. Translating lenses utilize the lower eyelid to correctly position the lens in the patient's line of sight as the eye moves between working distances. The proper positioning of the lens allows for the patient to experience sharper vision by alternating between distance, intermediate and near optics, rather than utilizing simultaneous optics of aspheric and concentric lenses that can produce unwanted visual aberrations. Translating GP multifocal lenses are designed for crisp, all-around vision and can be a successful tool for our patients with high visual demands.

Case Report

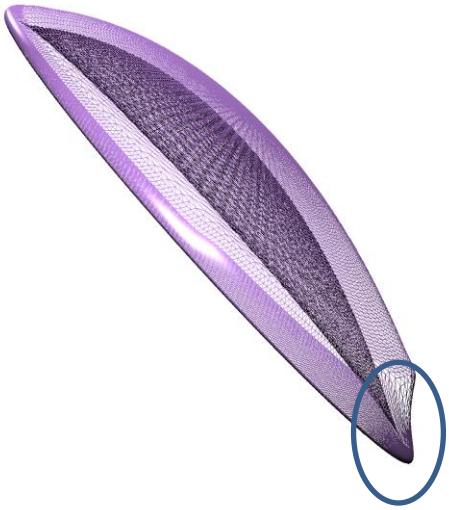
NH, a 59-year-old Caucasian male and new patient, presented to our office for a comprehensive eye examination and contact lens fitting. He was currently wearing a spherical, center-near multifocal lens design. NH is an aerospace engineer and uses several handheld electronic devices, along with a computer daily. His chief complaint was poor vision at all distances with his current contact lenses.

Entrance testing is normal with a refraction of -3.75-1.25x135 OD and -3.50-1.00x063 OS. Best-corrected visual acuity was 20/25 OD and 20/20 OS. Topography revealed slightly irregular with-the-rule corneal astigmatism in both eyes. Pupil size was 2.4mm OD and 2.3 mm OS.



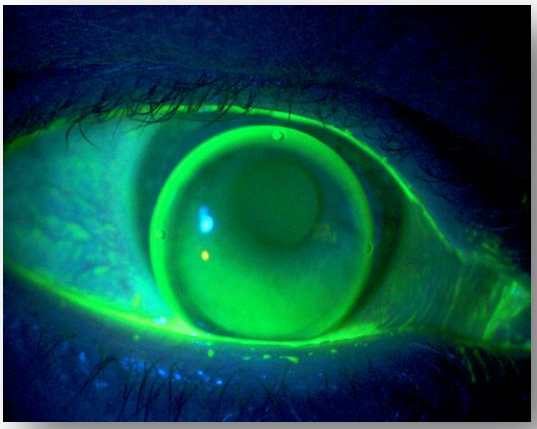
After discussing contact lens options, multifocal scleral lenses with an aspheric design were prescribed, because NH was an avid golfer and hoped for a stable lens design

with minimal ejection risk. Unfortunately, this option ultimately failed, as he was unhappy with the quality of his all-around vision, possibly due to his small pupil size.



The Expert Progressive GP multifocal was then selected to improve vision quality. As a translating lens, NH was able to take advantage of the alternating optics, and he instantly noted increased clarity in his all-around vision. He was especially impressed with his improved productivity because he was no longer struggling to read small graphs or charts on his computer. Since the optics of the Expert Progressive are designed similar to a progressive spectacle lens, NH was able to work efficiently doing all of his intermediate and near tasks without reading glasses, and experienced good vision while driving. As a habitual soft lens wearer, he did take the time to adapt to a gas permeable lenses. This lens was selected to promote his adaptation, because it utilizes slab-off to position the lens, which maintains an even edge thickness around the entire lens diameter, rather than a lens truncation that can make the inferior lens edge thick and uncomfortable.

Like the Expert Progressive, translating multifocal GP lenses should rest on the lower lid in primary gaze, and the lower pupil margin should be just above the midline of the lens. Patients with larger pupils can also be accommodated in translating lenses, as the optic zone and segment heights are customizable to ensure functional intermediate vision without interrupting distance clarity.



When our presbyopic patients' visual needs demand high quality optics at all working distances, consider a translating lens design to utilize alternating optics. Alternating optics can also improve the contact lens wearing experience for our patients with presbyopia that are unsatisfied with their vision in other multifocal lens designs. In this case, the Expert Progressive translating GP multifocal allowed a patient to maintain freedom from his spectacle lenses while maintaining good vision quality during his daily tasks.

Photo 1: NH topography showing slightly irregular with-the-rule astigmatism

Photo 2: The Expert Progressive utilizes inferior slab off to maintain a thin, consistent diameter to promote lens comfort
Photo 3: A well fitting Expert Progressive in primary gaze

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