

Telescopic Aides to Enhance Quality of Life

Improving reading abilities is one of the primary goals of patients seeking low vision rehabilitation. Low vision specialists meet this goal with high powered reading glasses, hand held magnifiers, enlarged print, or proper task lighting; strategies that are familiar to most. However, many patients with vision loss are also seeking options to enhance their distance vision. A study published in *Ophthalmology* in 2010 examined a population in Timor-Leste and determined that distance visual impairment had a greater impact on quality of life than that of near vision loss alone. Distance tasks tend to be more social in nature, such as recognizing faces, playing cards, watching television, reading signs, and various recreational or vocational needs. When a glasses prescription alone does not meet distance needs, telescopic aids can help obtain the patient's distance goals and ultimately improve quality of life.

Low vision telescopes are offered in both Galilean and Keplarian designs. From simplistic monocular hand held designs and focusable head borne options to more complex spectacle mounted designs, many patients find telescopes a viable option to meet their distance needs. Patients with conditions affecting central vision and visual acuities between 20/60 and 20/300 with visual goals corresponding to intermediate and distance tasks are

ideal candidates for telescopic aids. Minification telescopes are also available to aid in field expansion for patients with field constriction. Telescope selection is patient dependent and factors such as functional goals, dexterity, visual performance, and motivation all play a role in which aid is most appropriate. Additionally, cost is always a consideration as insurance typically does not cover low vision aids. Hand held and low powered focusable head borne options range from \$75-\$150 whereas spectacle mounted telescopes can range from \$500-\$2000.

Spectacle mounted telescopes were first introduced to the United States in 1958 and designs have greatly improved since then. With focusable telescopes or fixed focus designs with reading cap options, these low vision aids may offer a versatile solution for some patients. Additionally, lightweight designs and fields of view up to 15 degrees, many patients have been able to comfortably achieve their goals with spectacle mounted telescopic correction. These telescopes can be fit in a full field position which is ideal for stationary tasks such as using a computer, reading music, watching television, or playing cards. Alternately, bioptic positioning of the telescope is set above the line of sight and is ideal for distance spotting tasks such as reading menus and white boards. Additionally, in 39 states these

telescopes can be used for driving. In Kentucky, bioptic driving has been permitted for the past 16 years for drivers with 20/200 vision or better and fields consisting of 120 degrees horizontally and 80 degrees vertically. Before being permitted to drive, patients must have visual acuities of 20/60 though the telescope and undergo behind the wheel training and testing.

As with any low vision aid, recommendations are based primarily on patient goals as well as visual acuities, contrast and/or visual field loss, and ultimately visual performance and ability to adapt to the device. A low vision examination at the Kentucky Lions Eye Center can determine if a patient is a proper candidate for telescopic aids and allow them the opportunity to experience the telescope for themselves prior to purchase or spectacle mounted fitting. Additional training is available with a low vision occupational therapist to ensure that the patient is able to use the device optimally.

By: Andrea Smith, OD, FAAO

To schedule an appointment at the Kentucky Lions Eye Center, please call 502-588-0588.

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