

## **Can people who are visually impaired wear contact lenses?**

When I suggest contact lenses as the first step in providing low vision rehabilitation, many low vision patients wonder how they could possibly wear contact lenses successfully.

Contact lenses are often ignored as a component of low vision rehabilitation, though they can be a viable treatment modality for many ocular diseases that result in visual impairment. This is in spite of clear implications that optical theory predicts improved best-corrected visual acuity in high prescriptions versus glasses and therefore, probable enhancement of the individual's functional vision.

Contact lenses should be an important consideration for best-corrected visual acuity (BCVA) for high refractive errors and/or ocular disease manifestations as a component of low vision rehabilitation for visually impaired patients. This is even more important with infants who have significant prescriptions due to complications of retinopathy of prematurity or aphakia (where the lens is removed in their eye) due to resultant surgical management and treatment. In my career, I have prescribed contact lenses for patients as young as 11 weeks of age with extremely high prescriptions, with excellent outcomes in visual acuity and comfort decades later. Therefore, in my opinion, age is not a factor.

My preference is for soft contact lenses for the ocular disease manifestations of cone retinal dystrophy, albinism and nystagmus (involuntary eye movement) where the eye is almost never looking through the critical location in glasses. Prosthetic soft contact lenses are also implemented for aniridia (born without the iris or colored part of the eye) creating an artificial pupil and iris. Soft contact lenses are also the lenses of choice for high refractive error due to ease of adaptation, performing activities of daily living and participation in sports.

Patients with disorders of cone photoreceptors often have debilitating photophobia, over and above their decreased visual acuity. This prevents them from optimal visual functioning in the daytime and even in ordinary indoor illumination. Patients often need to wear a baseball cap or visor in addition to light-absorbing glasses, even indoors. Therefore, contact lenses, with the ease of adding tints and

the availability of high astigmatic corrections, may be the answer.

In a paper published in the American Journal of Ophthalmology (2004), Janet Sunness and I reported marked improvement in symptoms and in effective visual function using red contact lenses in 23 patients with cone disorders. One other important benefit of the lenses is in affording some of these patients the opportunity to drive based on significant improvement in visual acuity. Nine patients (39 percent) became legally eligible for driver's licenses in Michigan or Maryland.

While the answer to this question has been, for the most part, directed to the pediatric population, throughout my career, literally hundreds of patients of mine were fit in their mid 20s to 50s, when they could have experienced dramatic changes in their life (employment, avocations and quality of life) much earlier due to wearing contact lenses as opposed to glasses. Unfortunately, many of those persons were already compromised in areas of life discussed above. For this reason, contacts should be the first step to improving visual function for many patients with low vision.