

Abstract

Astigmatism is the most common refractive error in the world. It affects people of all ages and ethnic groups. Medical missions attempt to provide prescription glasses to those in remote places and the underprivileged in the world who lack adequate availability to eye care services. Most often, we do the best we can to provide glasses that most closely match the refractive error of those seeking clearer vision.

This is usually accomplished by sorting through used glasses which have been donated for the cause. Exact prescription matching is seldom achieved using this method. Another method currently being used is to provide spherical lenses that are snapped into a frame on site. However, again this method is lacking as it only provides for myopia and hyperopia, not astigmatism.

We would much rather have more exact prescription lenses available to snap into a frame on site to fit these patients. There are currently different groups who provide on site snap-in lenses to correct myopia and hyperopia, but no such system is currently being implemented to correct the most common refractive error, that being astigmatism. It is our sincere belief that such a system to correct all forms of refractive error would be extremely beneficial to those we serve, especially children, whose proper intellectual development is greatly dependent upon visual health.

Goal: To provide a system of glasses prescriptions which can be implemented on site to properly correct refractive error, including astigmatism. Currently, there is no method available to provide glasses on site which correct astigmatism. Most either provide donated glasses to attempt to match a Rx or frames with lenses that are snapped in. However, the snap-in lenses are only for spherical errors, not astigmatic errors.

A system which would provide on site correction for refractive error, including astigmatism at all axes, would be very beneficial for underserved countries.

We are currently researching cost effective methods for providing the lenses and frames and refining a system which would provide on site correction for refractive error, including astigmatism at all axes, would be very beneficial for underserved countries.

—Johnny Bowman, O.D.