

McGuire™

The McGuire™ Keratoconus System

Trial Sets

There are three trial set designs, early (regular), moderate (steep) and advanced (nipple). Each is categorised by the rate of flattening of the peripheral areas and the relevant diameters.

- The early set has a significantly lower rate of peripheral flattening to cater for the relationship between the radii of the cone and the adjoining areas of the cornea in early coning.
- The moderate set would be used where the differences between the radii of the cone and peripheral areas are indicative of moderate coning.
- The advanced set would be used where the difference between the radii of the cone and peripheral areas are indicative of advanced coning.

Fitting Guidelines

In fitting McGuire™ Keratoconus lenses, the following should be considered.

- The diameter and severity of the cone
- The curvatures of the cone as best established by keratometry or topography.

The initial trial lens selection from the appropriate trial set is decided after estimating the mean keratometer reading.

For example, keratometer readings 6.30 / 5.70 = mean K 6.00mm

The 6.00mm trial lens should be placed on the cornea and evaluated with fluorescein. The ideal fluorescein pattern should exhibit a 'doughnut' appearance with 2mm of light touch at the apex of the cornea.

Typically, an advanced Keratoconic has an area of rapid flattening at the base of the cone, and due to this topography, bubbles may appear behind the lens around the base of the cone in the paracentral region of the cornea. These bubbles must be eliminated by either flattening the base curve of the lens or by decreasing the back optic zone diameter.

If the central fit is satisfactory, careful consideration should then be given to the peripheral area of the lens. It is essential that there is a good tear exchange in this area to achieve a successful fitting.

In summary, it is important to evaluate three aspects of the trial lens in relation to the cornea.

1. The relationship between the cone diameter and the back optic diameter of the trial lens
2. Adjustment of the back curve to allow 2mm of light apical touch as evaluated by fluorescein.
3. The relationship between the peripheral curves of the lens and the peripheral cornea as evaluated by fluorescein.

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