

# More Vision Per Diopter

The HD Bi-Aspheric optic provides Extended Depth of Vision (EDOV)<sup>2, 3, 4</sup>



**The Tetraflex HD lens with a Bi-Aspheric optic has demonstrated significant advantage when compared with a spherical IOL:**

- The Tetraflex HD showed improved distance, intermediate and near visual acuity.<sup>2</sup>
- A considerably better defocus curve profile was achieved over a range of 0.00D to -1.50D when compared to the Tetraflex IOL with a spherical optic.<sup>2</sup>

- Depth of field was significantly improved without any compromise in distance visual performance.<sup>2</sup>
- A greater percentage of distance-targeted patients may obtain good UCNVA with a Bi-Aspheric optic. Patients with shorter AL may be more likely to spontaneously achieve near vision spectacle independence.<sup>3</sup>
- Residual positive spherical aberration (from the cornea) combined with myopic defocus can actually improve vision quality with a Bi-Aspheric optic.<sup>4</sup>

# Improved Design

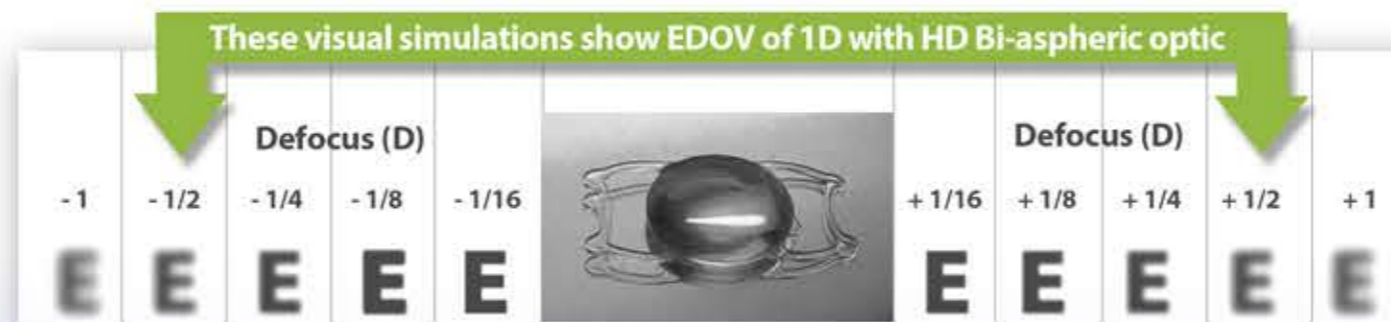
## Enhanced design to accommodate smaller eyes

- Several studies indicate the capsular bag reduces in size following cataract surgery, due to natural fibrosis.<sup>6, 7, 8, 9</sup> A sampling of eyes indicated that the bag shrunk from 10.53mm intraoperatively to 9.01mm at 6 months post-op.<sup>7</sup>
- Capsular bag size has been shown to strongly correlate to axial length.<sup>6, 7, 8, 9</sup> Patient with smaller than average capsular bags have shorter axial lengths.
- The implantation of an IOL which is too long can compromise final effective position.



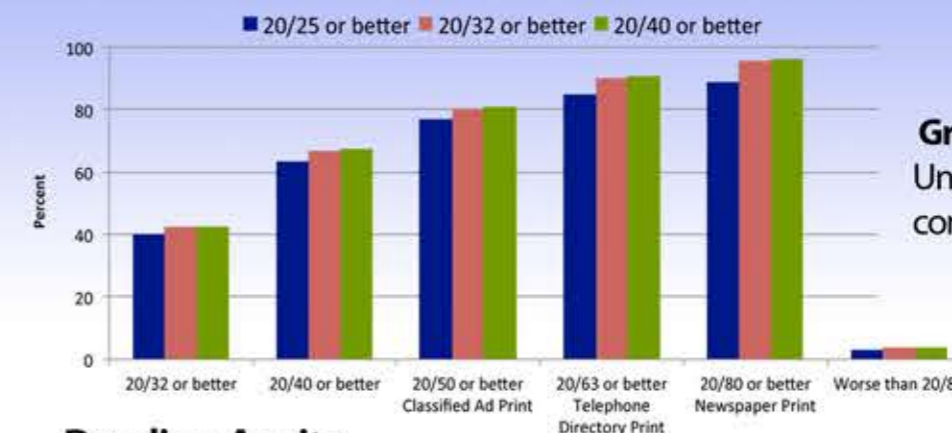
Shorter Length at 28D and above

## Extended Depth Of Vision (EDOV)



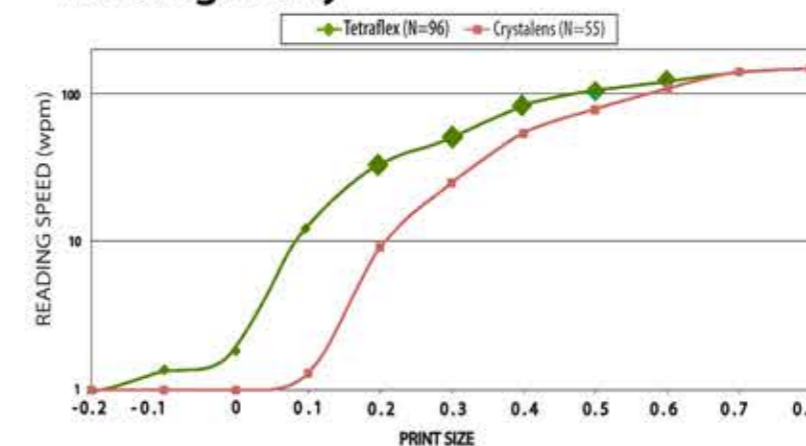
- Data collected in FDA study with the standard Tetraflex shows a mean 1.68D of accommodation at 2 years.<sup>12</sup>
- The extrapolated cumulative effect of adding 1D of EDOV would provide 2.68D of total accommodative effect with the enhanced Tetraflex HD.

# FDA & Peer Review Data



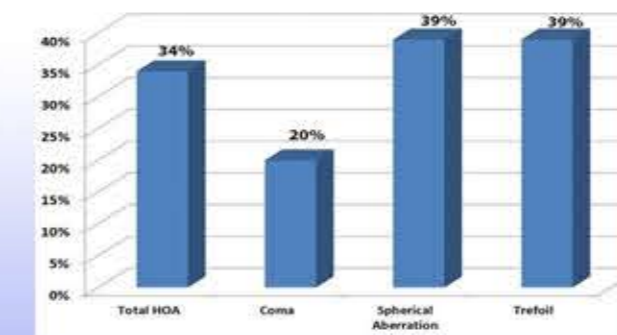
**Greater spectacle independence<sup>1</sup>**  
Uncorrected distance vision and concurrent uncorrected near vision.

## Reading Acuity



**Near reading ability was better with the Tetraflex IOL than with the Crystallens Accommodating IOL<sup>10</sup>**  
The proportion of cases reading at a speed of  $\geq 80$  words per minute was both clinically and statistically significantly better with the Tetraflex IOL than with the Crystallens ( $p=0.002$ ).<sup>10</sup>

## Tetraflex HD Mechanism of Action



% Increase in Higher Order Aberrations in Tetraflex compared to Control<sup>11</sup>

**Changes in optical aberrations because of the flexure of the IOL on accommodative effort<sup>11</sup>**  
Aberrations that appeared to be most commonly affected by the accommodative demand of the stimulus viewed were vertical primary and secondary astigmatism, vertical coma, horizontal and vertical primary and secondary trefoil, and spherical aberration.<sup>11</sup>