

Astigmatism



Astigmatism occurs when the curvature of the cornea is greater in one dimension than the other. If you think of the difference in shape between a football and a basketball, you will understand astigmatism. A basketball has the same curvature in every dimension. A basketball is like an eye without astigmatism. A football has a much greater curvature in one dimension than another. A football is like an eye with astigmatism.

Unlike nearsightedness, in which you may be able to see well close up, astigmatism causes blurring of vision at all distances. This is because the eye focuses light differently in different dimensions. Images are never completely in focus at any distance.

Astigmatism can be treated with glasses or contact lenses. Side effects of treating astigmatism with glasses and contacts include distortion.

During cataract surgery, you have the unique opportunity to reduce your astigmatism once and for all using advanced technology. For higher levels of astigmatism, you can elect to have an **astigmatic correcting intraocular lens** (toric intraocular lens). This is optically superior to glasses because the treatment for astigmatism actually becomes part of the inside of the eye.

Lower levels of astigmatism can be treated with the **femtosecond laser** during your cataract surgery. This technique uses an ultra high technology laser to refine the curvature of the cornea.

If your astigmatism is very low, you will not benefit from astigmatic correction.

Femtosecond laser technology is complementary to toric lens technology. The greatest potential level of refractive refinement can be achieved by combining toric lens technology with femtosecond laser technology. When these two advanced technologies are combined, the femtosecond laser is also used to optimize other important steps in the surgical procedure.

Astigmatic correction is an elective upgrade that is not covered under any insurance plan. Femtosecond laser and toric lens technology are paid for separately.