How the Femtosecond Laser is Improving Cataract Surgery

For people over the age of 40, cataracts are the most common cause of vision loss in the world. This clouding of the eye's natural lens, lying behind the iris and the pupil, affects more than 20 million Americans age 40 and older. Furthermore, over 50% of those 80 and older have cataracts. For some, cataracts can be hard to detect, as humans are able to adapt to them. If left untreated, the cataracts can become worse and lead to blindness – which makes surgery and treatment needed. Fortunately, cataracts are very treatable and the femtosecond laser makes the surgery more precise and effective than ever.

**Diagnosing Cataracts**

Since cataracts are an age-related condition – an estimated 60% of Americans will develop one in their lifetime – it's important to have eye exams as you age. Symptoms of cataracts include blurred vision, sensitivity to light, loss of depth perception, and change of color in the pupil. However, you'll need an eye doctor to officially diagnose you with cataracts through a comprehensive eye exam. TLC Eyecare & Laser Centers use a visual activity test with the letter eye chart at various distances, a pupil dilation test, and a tonometry test to measure the fluid pressure within the eye. If a cataract is diagnosed, a determination of what kind of surgery and treatment is needed. This is based on your level of astigmatism. “My goal as a surgeon, when indicated, is to reduce levels of astigmatism,” says Dr. Paul Ernest, founder of TLC Eyecare & Laser Centers.

**The Femtosecond Laser**

There are varying options of treating cataracts. Early on, glasses and contact lenses can make do. As the cataracts progress and worsen, surgery is needed. Revolutionary technology behind the femtosecond laser has made cataract surgery more precise and effective than ever. “No matter how good the surgeons are at making circular openings by hand, it can’t beat the laser,” says Dr. Ernest. When performing the surgery, a circular opening needs to be made to remove the capsule surrounding the lens for cleaning. The laser is able to make a precise 4.7-millimeter opening. The laser is also able to get inside the lens while the capsule is still intact to break it up into 48 small pieces. This makes the surgeon expend less energy to go and clean out the cataract. Using less energy means less swelling. The patient is better off the more the cataract is pretreated with the laser. Furthermore, the precise accuracy of the femtosecond laser renders superior decreases in astigmatism. The technology behind the laser is similar to what is used in Lasik surgery and its adaption to be used in cataract surgery occurred in 2010. Thanks to this technology, the operation is more precise than ever.

Contact TLC Eyecare & Laser Centers for more information or to schedule your appointment.