Cataract surgery is one of the most common procedures performed, with more than 15 million procedures performed worldwide every year. Modern cataract surgery is one of the most successful surgeries in all of medicine for improving a patient’s quality of life. Expected outcomes today include reduced trauma from smaller incisions, improved intraoperative ocular stability, and advanced optical performance capabilities of intraocular lenses (IOLs).

Ophthalmic surgeons are continually seeking to refine techniques and instrumentation that can increase safety and improve patient outcomes. Some of us have seen the progression of cataract surgery from intracapsular cataract extraction to extracapsular cataract extraction and then to phacoemulsification. The advent of the femtosecond laser for use in cataract surgery heralds another momentous leap in technological and surgical advancement for the field of ophthalmology.

Femtosecond Laser Technology

Lasers (light amplification by stimulated emission of radiation) are used in many areas of ophthalmology and differ according to their specific wavelength,