

Lasik technology

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The highest cause of blindness in the developing countries, especially in sub-Saharan Africa, is cataracts. Other causes of blindness include glaucoma. This is a condition that is caused by subjecting the eyes to a lot of pressure, hence damaging the nerves which connect the eyes to the brain. Lasik technology or the laser-in-Situ Keratomi is an innovative procedure, which uses computer controlled cool beams of light to gently reshape a damaged cornea in five to ten seconds. This paper is focused on discussing how Lasik technology has enhanced the functioning of the human eye. The paper will also consider the major social and cultural changes that have followed from this particular technologized amplification and correction of human vision (Matthew 7).

Lasik Technology Background

This technology was invented in 1950 by a Spanish ophthalmologist known as Jose Barraquer. While working in his clinic in Bogota, Colombia he developed the first microkeratome. He developed a technique which was used to make flaps in the cornea without altering its shape in a procedure known as keratomileusis. In addition to this Barraquer tried to answer the question on the amount of the cornea which was to remain unaltered. Other technologies were developed like radial Keratectomy, developed by Svyatoslav Fyodorov in the USSR in 1970, photorefractive keratectomy developed by Steven Trokel in 1983 who outlined the benefits of using the excimer laser which was patented in 1973 by Mani Lal Bhaumik in refractive surgeries; which is a procedure whereby the cornea is cut in radial using a diamond knife. This involved the changing of the patient's optical measurement by operation (eyes. com).

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Lasik technology was first introduced by a Columbian based Spanish ophthalmologist, at around 1950s. This happened in a Bogota clinic in Columbia. The first development was a microkeratome, which developed a technique of cutting thin flaps in the cornea and correct its shape in a clinical procedure called keratomileusis. Later he researched the portion of the cornea that had to be left unaltered in order to provide a stable and long term results.

Radial keratotomy was later developed in the USSR by Svyatoslav Fyodorov in the 1970s. Photorefractive keratotomy was then developed by Dr. Steven Trokel in 1983 at the Columbia University. Dr. Steven Trokel published an article in the American journal of ophthalmology that shed light on the importance of using the excimer laser that was experimented and protected ownership of in 1973 by Mani Lal Bhaumik. These are surgical procedures that involved the cutting of the corneal layer by the use of a micrometer diamond knife. Dr. Bhaumik with his associates, however, discovered laser that used carbon dioxide modification, followed this work that resulted to the development of excimer laser. This became the pillar of the eye surgery ever since the announcement of its breakthrough way back in 1973 (Lasikcomplications. com).

The development of routine surgical procedures of the eye stem from the development of ablative photodecomposition in 1980s by Rangaswamy Srinivasan in the IBM research lab. This involved the use of an ultra violet laser to etch living tissue in precise manner without any changes to the surrounding tissues. It aids in the correction of the eyes problems such as short sightedness, stigmatism and other eyes errors. It was first described by <https://assignbuster.com/lasik-technology/>

Trokel MD in the Columbia University. Way back in 1989 the first human eye treatment was performed by Dr. Marguerite McDonald by the use of VISX laser system. The VISX laser was developed by Dr. Charles Munnerlyn and associates in the VISX incorporated company. The surgical procedure involved cutting the flap of the eye to reach for the corneal bed. Trimming is done to the desired shape and later the flap is replaced.

The use of laser since its development has been applied in many countries. The first trial of the laser in the US was done in 1989 where it was meant to change the surface shape of the cornea.

The excimer laser was developed in 1968 by the University of California. This was the basis of the refractive eye surgery. This excimer laser was capable to etch living tissue of the cornea with no thermal damage to the surrounding area. LASIK was first performed in Greece in 1989 and was introduced to American surgeons in 1990 (LasicTechnology. com).

Today the faster lasers, flap incision, wave front-optimized, larger spot areas and guided techniques have greatly improved the reliability of the laser surgery as compared to those procedures which were done way back in 1991. Future researches may see Lasik being replaced by better technologies like femtosecond laser, intrastromal vision correction or other techniques which will ensure that permanent weakening of the cornea through incision is avoided and less energy is delivered to the surrounding tissues (eyes. com).