

Introduction To Laser Trabeculoplasty (LT)

In most open angle glaucomas the aqueous fluid is unable to pass through the Trabecular Meshwork (drainage grate inside the eye) as easily as it should.^[1] Partly due to this knowledge, most surgical treatments of glaucoma have focused on improving passage of fluid across this meshwork or simply bypassing the meshwork altogether.

Laser Trabeculoplasty. A Quick History.

Laser trabeculoplasty attempts to improve flow of fluid across the trabecular meshwork by focusing wavelengths of light onto the trabecular meshwork. The concept of using light energy to open up the trabecular meshwork dates back to 1961.^[2] Lasers were not yet available for clinical research as they had only been invented the year prior to that. Rather, a xenon-arc photocoagulator was used on the trabecular meshwork of animals resulting in a reduction in intraocular pressure (IOP).

It was not until the early 1970s that lasers were used in an attempt to punch holes through the trabecular meshwork.^[3] These microscopic holes, however, closed down with time. Ironically, in 1975 it was reported that application of laser energy in an attempt to coagulate (or melt) the trabecular meshwork could be used to experimentally create glaucoma in monkeys.^[4]

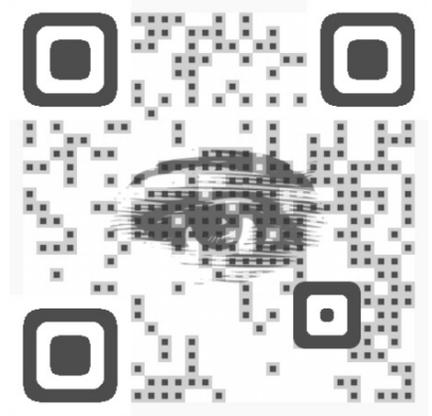
In a twist that is typical of scientific discovery, another set of scientists discovered that some of these monkeys ended up with long-term lowering of their IOP.^[5] **By 1979 what we think of as Laser Trabeculoplasty (LT) was introduced in humans.**^[6] Essentially, 50-100+ very short laser pulses are used to gently irradiate the trabecular meshwork. No holes are created, but for reasons that are not entirely understood, this allows fluid to more easily leave the eye.^[7]

CONTINUE READING...



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Don't delay getting checked for glaucoma. Make an appointment with an eye doctor in your area now. If you live in the greater Los Angeles area and would like [Dr. Richardson](#) to evaluate your eyes for glaucoma call [626-289-7856](tel:626-289-7856) now. Same day or next day appointments are available Tuesday through Saturday.



References:

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