

Title (en)
INTRASTROMAL PHOTO-REFRACTIVE KERATECTOMY

Title (de)
FOTO-REFRAKTIVE, INTRASTROMALE KERATEKTOMIE

Title (fr)
KERATOTOMIE PAR PHOTO-REFRACTION INTRASTROMALE

Publication
EP 0850089 A1 19980701 (EN)

Application
EP 96928030 A 19960730

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• US 51658195 A 19950817

Abstract (en)
[origin: WO9706856A1] A method for performing intrastromal photo-refractive keratectomy in the cornea (12) of an eye using a pulsed laser beam, includes the initial step of focusing the beam to a focal spot at a selected starting point in the stroma (22). The starting point is located at a predetermined distance behind the epithelium (18) of the cornea. While focused on the starting point, the laser beam is pulsed to disrupt a volume of stromal tissue (36) which is substantially equal to the volume of the focal spot. Subsequently, the beam is focused in a patterned sequence to focal spots at other discrete points in the stroma. At each point the stromal tissue is photo-disrupted. With this progressive pattern of photo-disruption, each spot is placed substantially adjacent a volume of previously disrupted tissue. The resultant photo-disrupted tissue creates a layer which is substantially centro-symmetrical around the optical axis. A plurality of layers can be removed to create a cavity in the stroma. When the cavity collapses, the corneal curvature is changed as desired.

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