



Cornea and Refractive Surgery

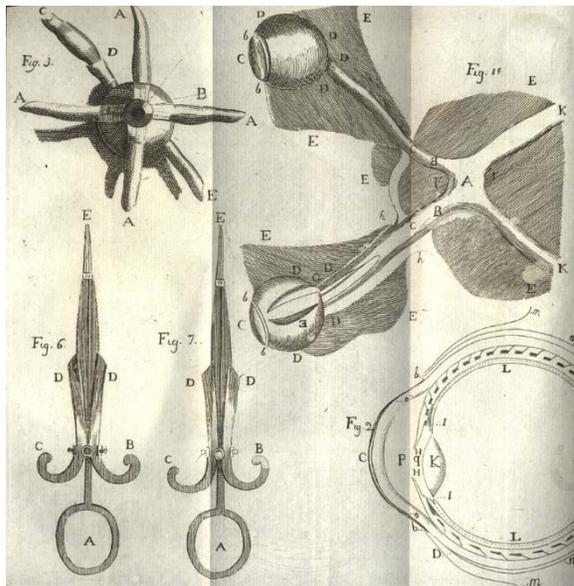
170 Claudius Galen (130-200 CE) writes about *abrasio corneae* or superficial keratectomy

Keratomes, c1920



1760 Erasmus Darwin (1731-1802) suggested trephining the cornea and removing the opaque portion, thinking that the cornea would then heal transparent

1789



Guillaume Pellier de Quengsy (d.1835) published a theory of keratoprosthesis

“*Precis Ou Cours D’Operations Sur La Chirurgie Des Yeux,*” 1789

1824 Franz Reisinger (1768-1855) first suggested that a scarred human cornea be replaced by animal cornea and coined the term “keratoplasty”

1833 Wilhelm Tohme (1809-?) attempted the first keratoplasty

1838 Richard Sharp Kissam attempted first animal corneal graft to a human eye

1841 T. Konigshofer experimented on animals with the lamellar graft and described using a double knife

1886 Arthur von Hippel (1841-1916) presented a patient at a meeting who had been given a full thickness rabbit corneal graft on a lamellar bed

Corneal graft forceps →



Henry Power (1829-1911) advocated that for consistent success, only human corneal tissue could be used for keratoplasty

1888 August Wagenmann (1862-1955) proved that full thickness corneal grafts could heal transparently in rabbits

1905 Eduard Zirm (1887-1944) performs first successful, full thickness corneal transplant on a human patient utilizing a human donor cornea from a recent enucleation

1931



Vladimir Filatov (1875-1956) performs first successful, full thickness corneal transplant using preserved human corneal tissue (cadaver donor)

← Postage stamp issued by Russia, 1962

1938 Ramon Castroviejo introduced his double knife at the Annual Meeting of the American Academy of Ophthalmology and began a campaign for people to will their corneas to science

Double-headed corneal knife, 1940-1955 →



1944 R. Townley Paton founded the first eye bank: The Eye Bank for Sight Restoration

1948



Jose I. Barraquer (1916-1998) invented a microkeratome and performed first myopic keratomileusis (MKM)

Barraquer Award medal, 1994



1950

Tsutomu Sato (1902-1960) invented a microkeratome and performed first radial keratotomy (RK) for myopia

1964

Jose I. Barraquer (1916-1998) introduced the lamellar keratectomy surgery method of cryolathe keratomileusis

1980

Herbert Kaufman and Theodore Werblin introduced aphakic epikeratoplasty

1987



Marguerite McDonald, MD first uses excimer laser to perform PRK on humans

Dr. McDonald



1990

LASIK surgery developed by Drs. Lucio Buratto and Ioannis Pallikaris

1996

Dimitri T. Azar, MD first performed a procedure he called "alcohol - assisted flap PRK" also known as LASEK

1999

Theo Seiler, MD performed the world's first wavefront-based laser treatment

Drs. Theo Seiler and Jose I. Barraquer, 1996

