



ReLex SMILE from ZEISS

The first minimally invasive
laser vision correction solution



**Transforming your practice with technology
that is easy on the eyes.**

ZEISS ReLEx SMILE

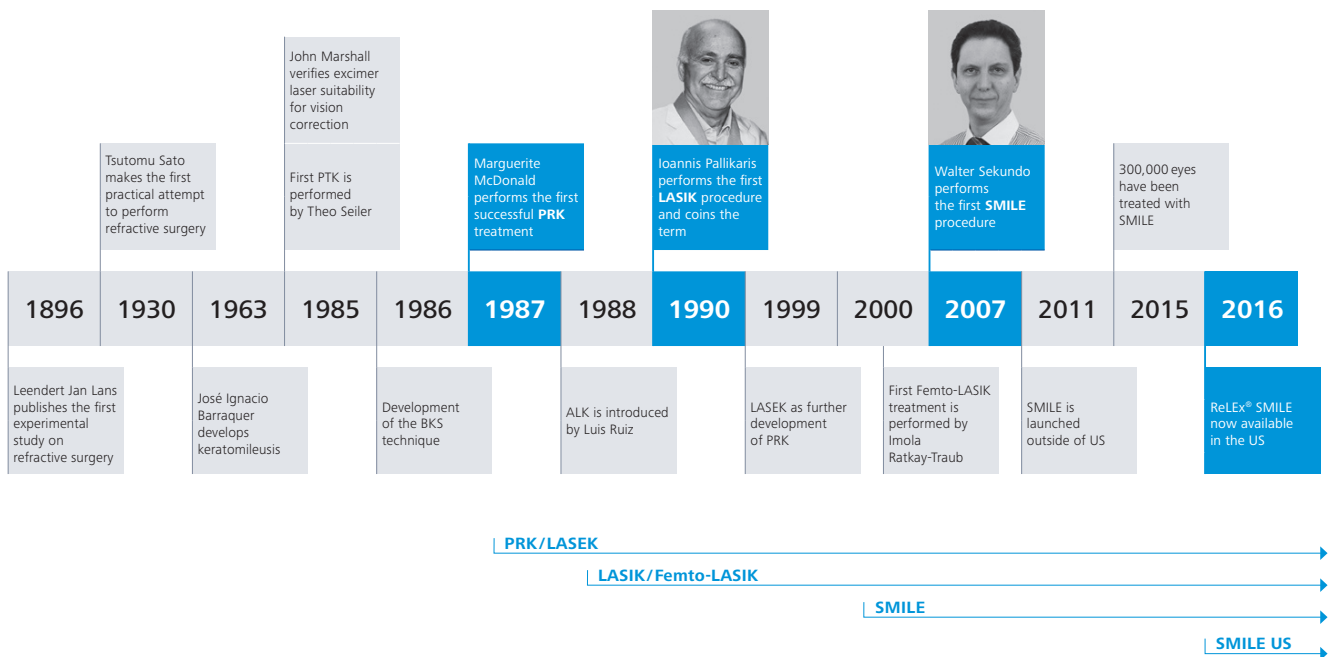


// INNOVATION
MADE BY ZEISS

The brief history of laser vision correction

Corneal refractive laser surgery is a widely used option for correcting vision impairment, one that has evolved within a relatively brief span of only 30 years. As in other areas of life, advancements were largely driven by a desire for continuous improvement. Laser vision correction has never been more advanced, tissue-preserving and gentle.

Milestones in corneal refractive surgery



Complete your LVC portfolio

With ReLex SMILE from ZEISS

SMILE (Small Incision Lenticule Extraction) is redefining refractive surgery as we know it. A unique, minimally invasive laser vision correction procedure, ReLex® SMILE is an innovative approach to myopia correction that is only available on the VisuMax® femtosecond laser and only from ZEISS. Now FDA-approved in the United States.

LASIK
Flap side-cut of
approx. 20 mm



Up to 80% smaller side-cut

From flap to minimally invasive surgery: LASIK requires a side-cut of roughly 20 mm. With ReLex SMILE, a small incision of < 6 mm is sufficient. The majority of the upper corneal layers remain untouched.

Up to 30% smaller cap incision area

The lamellar incision area is roughly $\frac{1}{3}$ smaller compared to Femto-LASIK.

Indication range

ReLex SMILE is approved for use in the reduction or elimination of myopia -1.00 D to -8.00, with ≤ -0.50 D cylinder and MRSE -8.25 D in the eye. To be treated in patients who are 22 years of age or older with documentation of stable manifest refraction over the past year.

Note: This diagram is based on an optical zone of 6.5 mm.

**Minimally invasive**

ReLEx SMILE is based on the premise of extracting a femtosecond laser-created refractive lenticule through a small < 6 mm incision, while leaving a majority of the upper cornea intact. The preservation of the upper corneal layers and the possibility for fewer transected nerves may potentially provide biomechanical stability and may reduce incidence of dry eye.

All-femto

Precision, predictability and perfection are the hallmarks of ReLEx SMILE. Performed entirely with femtosecond technology, no complex nomograms or fluence tests are required. The VisuMax is used to create a precalculated lenticule and incision with utmost accuracy and dependability every time.

Single-step

With ReLEx SMILE, the refractive correction is performed with one treatment plan and on a single laser. Moreover, the lenticule inside the intact cornea and the access incision are created in a single step.

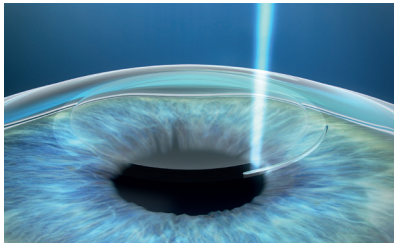
Minimally invasive laser vision correction

The revolutionary ReLEx SMILE from ZEISS

ReLEx SMILE makes minimally invasive laser vision correction possible for the first time. Utilizing the highly precise VisuMax femtosecond laser, ReLEx SMILE performs vision correction in a single treatment process.

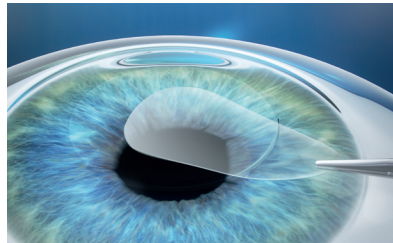
ReLEx SMILE

The three steps of small incision lenticule extraction



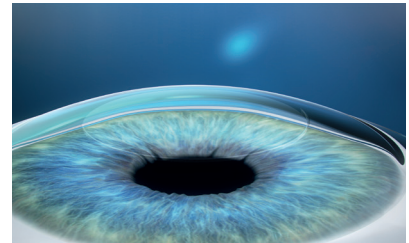
Step 1

A refractive lenticule and small incision of less than 6 mm are created inside the intact cornea – all in one step.



Step 2

The lenticule is subsequently removed through this small incision, leaving the remainder of the superficial cornea intact.



Step 3

The removal of the lenticule changes the shape of the cornea, thereby achieving the desired refractive correction.

“Anyone not offering SMILE in the future will simply not survive in highly competitive markets.”

Dr. Sri Ganesh

Nethradhama, Bangalore, India, ESCRS 2015 Istanbul

VisuMax from ZEISS

Defining new trends in modern corneal surgery

ReLEx SMILE can be performed only on the VisuMax, a groundbreaking femtosecond laser system that is significantly reshaping the world of refractive surgery. Incorporating superior ZEISS technology, it ensures excellent reproducibility and predictability, even with severe corrections. Its outstanding cutting precision, exceptional speed and gentle treatment approach make it an ideal platform for advanced corneal surgery applications such as SMILE.



A contact glass as uniquely designed as the cornea

Like the surface of the human cornea, VisuMax contact glasses are curved to optimally fit the anatomy of the eye. The cornea can largely retain its natural physiological shape. Not only is this more comfortable for the patient, but it helps prevent unnecessarily raised IOP or temporary loss of vision and trauma during the procedure.



Maximum cutting accuracy

Legendary ZEISS optics, combined with high-performance femtosecond (500,000 Hz) technology, result in high-precision flaps and corneal incisions – even curved, three-dimensional incisions, at precisely the desired depth in the cornea.



Brilliant visual control

The integrated high-quality ZEISS surgical microscope ensures precise and complete visual control throughout the treatment. It includes a digital video camera for recording surgical procedures right on the spot.





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