EyeSMILE
CLÍNICA REFRACTIVA

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SMILE PRO, PRESBY QUICK, TRANSPRK, FEMTOLASIK, RESTORE K Y NEWEYES: Laser Techniques

Within our laser treatments, we can distinguish six techniques:

- Smile Pro
- Pesby Quick
- TransPRK
- FemtoLASIK
- Restore K
- Neweyes

SMILE PRO

This is the most innovative technique in refractive surgery, combining many advantages of Femtolasik and TransPRK.

On one hand, it preserves the corneal surface, significantly reducing postoperative discomfort. On the other, it better preserves the outer corneal layers, helping maintain structural resistance where it is most needed and reducing the risk of ectasia.

The procedure is based on creating a micro-incision of only a few millimeters through which a thin, laser-designed corneal lenticule is extracted to achieve the desired optical correction.

However, this technique is not suitable for all cases. It can currently only be performed in patients with hyperopia or astigmatism. It also requires specific technology and a significant learning curve for the surgeon, as it is probably the most technically demanding procedure in refractive surgery.

PRESBY QUICK

This is an advanced technique for the treatment of presbyopia, aimed at providing a functional and personalized solution for age-related loss of near vision.

Technically, the procedure involves a customized corneal reshaping using an ablation profile specifically designed for each patient. Differential correction is programmed for each eye: one is optimized for near vision and the other for distance vision, creating an intermediate transition zone that enhances overall functionality. Planning is based on a thorough preoperative assessment, including refraction, ocular dominance, and detailed corneal analysis.

It is a precise and minimally invasive procedure with rapid visual recovery and a high level of safety when correctly indicated. Adaptation is usually progressive, as the brain naturally integrates information from both eyes.

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TRANSPRK

This technique is the oldest, yet it still offers numerous advantages in certain cases. It consists of applying the laser directly to the surface of the eye (the cornea) to modify its curvature. This allows the cornea to be flattened or steepened, enabling images to focus correctly on the retina.

The main drawback is that performing a direct surface ablation creates a wound approximately 8 mm in diameter, resulting in discomfort for about four days after the procedure. Full visual recovery can also be somewhat slower, typically ranging from one to six months.

As a positive aspect, the procedure does not penetrate deeply into corneal tissue; it could be considered the most conservative technique regarding structural preservation. Avoiding deeper tissue planes provides greater biomechanical stability, reduces the risk of unwanted deformities, and limits damage to the necessary nerve fibers. Temporary discomfort similar to dry eye may occur due to involvement of these nerve fibers.

FEMTOLASIK

It is one of the most widely used techniques in ophthalmology, mainly because it is painless and allows very rapid visual recovery.

The procedure involves creating and lifting a thin layer of the corneal surface, known as a flap. Once separated, the laser is applied to reshape the cornea, either flattening or steepening it according to the refractive error. Finally, the flap is repositioned, adhering naturally to the cornea, completing the procedure.

Although this technique is highly valued in terms of results and recovery, it requires an anatomically suitable cornea, as it works at greater depth. The creation of the flap itself involves penetrating the corneal tissue, in addition to the reshaping performed by the laser.

Historically, when proper diagnosis or patient selection was not performed, this technique has generated the most complications in refractive surgery, the most frequent being corneal ectasia (progressive deformation of the cornea) and nerve fiber alterations, which may cause dry eye sensations.

RESTORE K

This technique was developed by our team to correct or remove corneal pigment following prior keratopigmentation. It is indicated for patients who wish to reverse the implanted color, improve unsatisfactory aesthetic results, or address discomfort resulting from the previous procedure.

The procedure involves accessing the layer where the pigment is deposited and performing a controlled, gradual cleaning while preserving the structure and health of the cornea. Each case is individually planned, taking into account pigment depth and corneal stability to ensure maximum control and safety during the procedure
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It is a specialized technique that allows, in most cases, recovery of a more natural appearance of the eye or preparation of the cornea for future treatments. However, complete pigment removal is not always possible, and a residual peripheral ring often remains.

NEWEYES

This laser iridoplasty technique, exclusive to our clinic and pioneered globally by our team, was developed to progressively modify iris color in a non-invasive manner, without implants or artificial pigments.

The laser acts on the melanin within the iris stroma following a pattern individually planned for each eye. The distribution and density of pulses are adjusted according to melanin concentration, the initial iris color, and the

patient's desired outcome, targeting shades such as Navy Blue, Sky Blue, Honey, Green, or Silver. This approach enables gradual, uniform, and controlled lightening while preserving stromal architecture and the integrity of adjacent structures.

The procedure adapts to the specific response of each iris, adjusting the extent and intensity of the laser to optimize symmetry and color uniformity, ensuring a natural and stable long-term result.