

SMILE Offers New Refractive Surgery Opportunities

Tips on helping new patient candidates benefit from minimally invasive laser refractive surgery.

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Continuing economic improvement, rising rates of myopia in developed countries, and technological advances are likely to spark

growth in demand for refractive surgery over the next 5 years, according to Market Scope.¹

One key technological advance is the VisuMax femtosecond laser (ZEISS), which gained FDA approval in 2016 for a minimally invasive approach to treating myopia: small incision lenticule extraction (SMILE). Last fall, the FDA approved expanded indications to encompass myopic astigmatism, opening the door to many more refractive surgery candidates, including those who may not have been eligible for, or who decided against, LASIK or PRK in the past.

This is also a new opportunity for optometrists, who are well positioned to educate patients about all of their refractive surgery options and to provide preoperative and postoperative care.

Brief Overview of SMILE

SMILE is approved to treat sphere from -1.00 D to -10.00 D and cylinder up to 3.00 D. In addition, the small cap incision size now can be reduced to 60° compared with 90° for the initial myopia-only indications.

When performing SMILE, the surgeon uses the VisuMax femtosecond laser to create a lenticule of a precise refractive error, which is then removed through the small incision, effectively flattening the too-steep cornea. In one step, with one laser, the surgeon performs a microinvasive refractive procedure that preserves Bowman's layer and most of the anterior stroma.

Importantly, SMILE with the VisuMax femtosecond laser has been found to be an effective, stable, and safe procedure for treating myopia and myopic astigmatism.²

Benefits That Patients Appreciate

As optometrists, our role is to guide patients who are considering laser vision correction through the decision-making process, while also ensuring a smooth transition for the patient between us and the refractive surgeon. A thorough assessment of a patient's ocular health, visual needs, and expectations is essential for an appropriate recommendation, and an appropriate recommendation builds confidence between optometrist and surgeon.

When discussing LASIK, PRK, and SMILE, we describe relevant differences in how the surgeries are performed, as well as preoperative and postoperative care, length of recovery, and expected outcomes. Given the popularity of LASIK, patients often know people who have had that surgery and they may have more specific questions, particularly in the context of a discussion that includes SMILE. This is an opportunity to offer more detailed information about what they can expect during the SMILE procedure and the postoperative benefits they will enjoy, including excellent vision on day 1.

We have found that patients value the safety, efficacy, and comfort of the SMILE procedure. While LASIK flap complications are rare, patients understand that a flap can wrinkle or be dislocated, and they appreciate that the SMILE procedure does not create a flap.

Clinical Insights for Comanaging Optometrists

Whether a patient decides on SMILE, LASIK, or PRK, the same diagnostic equipment is used. The most important parameters of the preoperative refractive analysis are the amount of sphere, the amount of astigmatism, and the location of the axis. A meticulous refraction helps ensure a great result. The old carpenter's rule applies: Measure twice, cut once.

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Patients recover quickly after SMILE. At postoperative day 1, you can expect them to be comfortable and happy with their functional vision. At the slit lamp, the cornea will likely appear as if nothing has happened to it. Make sure to lift the upper lid to examine the superior small incision.

On postoperative day 1, patients can resume normal activities, including exercise, if exercise is part of their usual routine, and they can start wearing eye makeup again, if they wish. We do emphasize the importance of adhering to the prescribed postoperative eye drop regimen, which is typically the same as for LASIK.

Conclusion

The flap-less alternative of SMILE is an exciting new technology that offers patients a laser refractive surgery with distinct advantages over LASIK and PRK. As interest and acceptance of the SMILE procedure increase, we should be prepared to include it in our discussions of all refractive options with our patients. Patients will likely have questions about this “new kid on the block.” By staying up to date with the indications and the reported results, we will be able to identify and refer good candidates and be involved in their preoperative and postoperative experiences. If you are looking to create an army of happy patients while growing the medical model of your practice, consider SMILE as an option for your patients. ■

ENHANCING COLLABORATIVE CARE

We have seen growth in the collaborative care model, as more optometrists are aware of the refractive surgery options that are available for their patients. We encourage all optometrists to rotate with their local refractive surgeons to learn the types of procedures they recommend for specific patients. Seeing these patients preoperatively and then seeing them postoperatively, smiling, is a rewarding experience.

1. Global demand for refractive surgery growing after economic rebound in major markets. eyewire.news. <https://eyewire.news/articles/global-demand-for-refractive-surgery-growing-after-economic-rebound-in-major-markets/>. Published January 8, 2019. Accessed May 9, 2019.

2. Blum M, Täubig K, Gruhn C, et al. Five-year results of small incision lenticule extraction (ReLEx SMILE). *Br J Ophthalmol*. 2016;100(9):1192-1195.

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