

# Handling Unhappy Patients After Laser Vision Correction

More than 95% of patients are satisfied with their results, mainly due to advances in excimer and femtosecond laser technologies.

BY GUY SALLET, MD, FEBOPHTH

It has been a long journey since I started practicing laser vision correction (LVC) 20 years ago. Current laser systems, both excimer and femtosecond, help us to achieve excellent results with minimal risk for complications. Nevertheless, we all deal with unhappy patients occasionally.

A multitude of surgical factors and complications can lead to dissatisfaction after LVC, and listing each one would be beyond the scope of this short article. However, below I share five sources of patient dissatisfaction that one might encounter in clinical practice.

## FIVE SOURCES OF PATIENT DISSATISFACTION

**No. 1: Postoperative ametropia.** Despite the aim for emmetropia, slight under- or overcorrections do occur. This might render a patient unhappy. In our clinic, we are reluctant to offer patients enhancement procedures for less than 0.50 D of sphere or less than 0.75 D of residual astigmatism. If symptoms persist, we discuss

a wavefront-guided treatment for these subtle refractions in order to improve higher-order aberrations.

**No. 2: Glare and halos.** LVC is generally preferred for the correction of up to 8.00 D of myopia, whereas phakic IOLs are considered for myopic treatments of more than 8.00 D. The advent of femtosecond lasers and thin-flap LASIK has broadened our range of treatable myopia. Today, wavefront-optimized LASIK has diminished complaints of glare and halos, but it has not eliminated them (Figures 1 and 2).

In order to avoid these visual side effects, one must consider corneal thickness, corneal curvature, and pupil size when determining the best treatment for patients. What should be the minimum stromal bed thickness, and can we reduce the optical zone in order to save tissue without compromising visual quality? A patient with normal corneal thickness (ie, greater than 550  $\mu\text{m}$ ), high myopia (eg, 9.00 D), and a mesopic pupil size of more than 6.5 mm might have less glare with LASIK than with a phakic IOL. Today, phakic IOLs have an optic diameter between 4.9 and 6 mm,

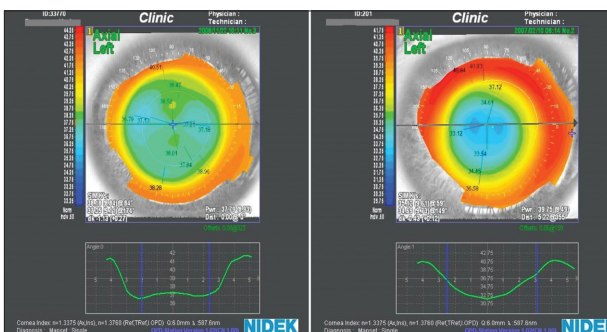


Figure 1. Comparison of wavefront-optimized treatment (right) and conventional excimer laser treatment (left) for two emmetropic eyes with a refractive error of -9.00 D. Note the differences in the functional optical zones.

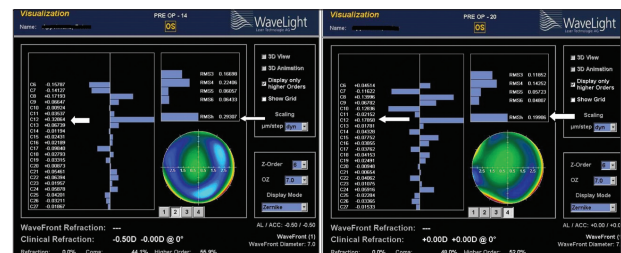


Figure 2. Higher-order aberrations before (left) and after (right) wavefront-guided enhancement procedure for -0.50 D of ametropia. Note the decrease of spherical aberrations and total higher-order aberrations.

which can cause considerable edge glare in eyes with larger pupils.

**No. 3: Dry eye.** Postoperative corneal staining due to lacrimal insufficiency can diminish optical quality and, as a result, patient satisfaction. Preoperative diagnosis of lacrimal function is imperative, as these problems must be addressed before surgery in order to optimize the corneal surface.

Common actions include treating blepharitis, placing punctal plugs, and increasing the patient's use of artificial tears or switching to autologous serum. Techniques such as thin-flap LASIK, customizing the flap diameter to the treatable optical zone, advanced surface ablation, and ReLEx small incision lenticule extraction

(SMILE; Carl Zeiss Meditec) have not only broadened surgical indications but also minimized these causes of patient dissatisfaction.

**No. 4: Flap folds.** Major flap folds are caused by flap dislocation and should be treated immediately by refloating and stretching the flap. Microstriae do not always cause visual side effects and often do not require treatment; however, larger wrinkles may affect vision. Management strategies include stretching the flap with application of perpendicular pressure at the slit lamp, refloating the flap, suturing the flap, and phototherapeutic keratectomy.

**No. 5: Transient light sensitivity syndrome.** Although most patients experience what has been called the *wow factor*, some still complain about intense sensitivity to bright light in the first few weeks after femtosecond LASIK. Activation of keratocytes in response to femtosecond laser energy causes a form of sterile keratitis with unusual photosensitivity despite normal visual acuity. Patients typically respond well to topical steroids, and the phenomenon fades after a couple of weeks. In our experience, reassuring patients that this is a transient minor problem that can be solved by extending the steroid treatment is helpful.

## Weigh in on this topic now!



<https://www.surveymonkey.com/s/CRSTE37>

1. Do you plan enhancement procedures for patients with 0.50 D or less of ametropia?
  - Yes, and I prefer flap relift
  - Yes, and I prefer surface ablation
  - Yes, but the procedure I select depends on the patient's characteristics
  - No, the chance for success is too little
2. What is your preferred treatment for a young patient (30 years) with a thick cornea (590  $\mu$ m), mesopic pupil size of 7 mm, and -9.00 D of myopia?
  - Phakic IOL
  - Thin-flap LASIK
  - I would not perform any treatment in this patient
3. What is your preferred treatment for patients with preoperative dry eye and moderate myopia (-3.00 D)?
  - Surface ablation
  - Thin-flap LASIK with placement of a punctal plug and intensified lubrication
  - Phakic IOL
  - ReLEx SMILE
  - Other
4. What is your preferred treatment for patients with subtle microstriae and minimal visual complaints on the first postoperative day?
  - Observation and reevaluation after a couple of weeks
  - Immediate refloating of the flap
  - Slit-lamp stretching
  - Flap suturing
  - Other

## CONCLUSION

I have highlighted five causes of patient dissatisfaction after LVC; however, the list of other possible sources is long. Today, more than 95% of patients are satisfied with their results, and this is in large part due to advances in excimer and femtosecond laser technologies. Addressing the unhappy patient and trying to achieve visual results that he or she can be happy with are crucial to the success of any practice.

The questions I pose are these:

1. Do you plan enhancement procedures for patients with 0.50 D or less of ametropia?
2. What is your preferred treatment for a young patient (30 years) with a thick cornea (590  $\mu$ m), mesopic pupil size of 7 mm, and -9.00 D of myopia?
3. What is your preferred treatment for patients with preoperative dry eye and moderate myopia (-3.00 D)?
4. What is your preferred treatment for patients with subtle microstriae and minimal visual complaints on the first postoperative day? ■

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