MEDWIN PUBLISHERS
Committed to Create Value for Researchers

Open Access Journal of Ophthalmology
ISSN: 2578-465X

Why Freedom of Vision Should Not Cost the Freedom of Feeling - LASIK in the Climate of Change

Paulig S*

Director, Paulig Eye & Health, Germany

***Corresponding author:** Sylvia Paulig, Director, Paulig Eye and Health, 10117 Berlin, Germany, Tel: +49 (0) 3020144610; Email: info@paulig-eye-health.de

Opinion

Volume 10 Issue 2

Received Date: November 03, 2025

Published Date: November 13, 2025

DOI: 10.23880/oajo-16000345

Abstract

In a world of digital efficiency and pursuit of perfection, LASIK did become a symbol of progress since many years, promising freedom from glasses or contact lenses.

Keywords: Vision; Cornea; Dry Eye Syndrome

Abbreviations

LASIK: Laser-Assisted In Situ Keratomileusis; TransPRK: Transepithelial Photorefractive Keratectomy.

Introduction

Illusion of Visual Freedom

In a world of digital efficiency and pursuit of perfection, LASIK has become a symbol of progress for many years, promising freedom from glasses or contact lenses. The procedure embodies the modern ideal: fast, painless, precise. But is this truly the case?

The human cornea is not only an optical lens; it is one of the most highly innervated tissues in the body. It is a living sensor. Each nerve fiber contributes to tear production, wound healing, and ocular defense. When ophthalmic surgeons or lasers cut into this structure, they alter more than refractive power; they disturb the natural intelligence of the eye.

Celebration of visual freedom often initiates a subtle, unnoticed, but lasting physiological loss of corneal sensitivity; it may lead to chronic dryness, known as “Dry Eye Syndrome,” and sometimes neural dysfunction.

Architecture of Sensibility

The cornea’s subbasal nerve plexus forms a network of nerve ramifications that regulate epithelial integrity, tear secretion, and reflexes for corneal protection. During LASIK, the corneal flap creation severs these tiny fibers. Although partial regeneration occurs over years, the reconnected network is no longer as complex as the original cornea.

Our cornea connects vision to sensation and emotion. This disruption can lead to neurotrophic keratopathy, delayed epithelial healing, and dysregulated lacrimation, causing pain. Beyond discomfort, there is an immunologic imbalance. The sensory nerves release neuropeptides that maintain corneal metabolism and defense; when absent, chronic inflammation or desensitization may occur. So the eye may see but no longer feel, and without sensation,

protection is difficult.

Climate Change, Digital Strain, Vulnerable Eyes

Our physiology can adapt, but the global environment has changed faster. We now live in an atmosphere of extremes: urban heat, dry indoor air because of AC, fine particulate pollution, continuous exposure to digital screens. These factors collectively injure the stability of our tear film and accelerate oxidative stress on the ocular surface.

The post-LASIK eyes, which already possess reduced corneal innervation, amplify vulnerability. Environmental and surgical stress merge into a new pathology of our century — a neurotrophic, *environment-induced keratopathy*. What once was a rare complication now affects millions; the new term is "Dry Eye Disease."

Regenerative Alternatives: TransPRK and the Binovision™ Concept

The landscape of medicine evolves, so must refractive surgery. The next chapter must focus on regeneration and not on resection. TransPRK (transepithelial photorefractive keratectomy) represents this paradigm shift. Unlike LASIK, it is non-invasive, flapless, and does not touch the eye; it removes only the superficial epithelial layer while preserving the subbasal nerve plexus.

This makes complete epithelial regeneration possible and minimizes neurotrophic damage. Patients benefit from a more stable tear film, natural corneal biomechanics, and reduced risk of long-term sensitivity loss. In cases of presbyopia or cataract, regenerative surface techniques can be combined with precision lens exchange within the Binovision™ system, developed at Paulig Eye & Health. We perform lens exchange first, afterwards — fine tuning with TransPRK.

We work individually, offering customized solutions for every patient. This individualized approach balances near, intermediate, and distance vision, optimizing binocular performance while respecting the physiological harmony of the eye. Together, TransPRK and Binovision™ represent a return to ophthalmology's ethical roots: we heal with precision, but without aggression. It is not about "quick correction," but about conscious restoration — aligning modern technology with the natural intelligence of the human visual system — a procedure for endless and happy years.

Future: We Must See with Feeling

Innovation is often measured in speed and precision. But in medicine — and especially in vision — true progress is measured in preservation. Every generation of technology should bring us closer to the patient, not away. We must learn to really see our patients again, to listen to them, finding and developing solutions and caring about possible resulting problems.

The cornea is more than a transparent interface; it is a sensor of emotion, a barometer of environment, and a messenger of the nervous system. To heal vision responsibly, we must honor this complexity. With global climate transformation, sustainability must include biological sustainability. We need to address protecting the microstructures that connect us to light, temperature, and touch.

If we continue to cut what we do not fully understand or do so for business reasons, we risk losing more than sensitivity — we risk losing empathy in our science, in healthcare and healthy longevity; we risk losing trust. The future of ophthalmology will not belong to those who operate fastest, but to those who see deepest: who understand that seeing is not only optical, but emotional.

As the world faces environmental, technological, and psychological transitions, the eye will remain our most honest witness. It reminds us that clarity is not only what we perceive — it is also what we protect. When we learn not only to see with our eyes but to perceive with our hearts, the focus shifts away from business and back to what truly matters and defines our profession:

- Healing people
- Restoring vision
- Enabling patients to experience life with clarity, joy, and longevity.