

Eye Color Change Procedures: Safety & Clinical Comparison

An evidence-based evaluation of non-invasive versus surgical techniques

Clinical Parameter	MyLumineyes® 8G Protocol (Physician-Led)	Standard Laser Eye Color Change (Generic)	Keratopigmentation (Corneal Tattooing)
Mechanism of Action	Non-invasive superficial stromal depigmentation via selective, low-fluence 8G laser pulses.	Generic thermal laser application attempting melanin destruction.	Surgical creation of a corneal tunnel using a femtosecond laser, followed by injection of synthetic dyes.
Invasiveness & Incisions	100% Non-Surgical. Zero incisions, zero cutting.	Non-Surgical (but often uses inappropriate energy levels).	Invasive Surgery. Mechanical cutting of corneal tissue required.
Foreign Materials	None. Stimulates natural pigment clearance.	None.	Yes. Synthetic, opaque dyes injected into the cornea.
Intraocular Pressure (IOP) & Glaucoma Risk	Minimal to Zero (0% Chronic). Staged sessions allow trabecular meshwork to drain pigment naturally.	Moderate to High. Aggressive energy can overload the drainage angle,	Low (Does not release internal pigment, but carries other severe risks).

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		risking pigmentary glaucoma.	
Tissue Preservation	Preserves corneal endothelial cell density and anterior chamber anatomy.	High risk of thermal damage to iris tissue and pupillary sphincter.	Permanent Corneal Alteration. Destroys stromal collagen layers; limits future vision surgeries (e.g., cataracts).
Infection & Blindness Risk	Negligible. No physical entry into the eye.	Low infection risk, but thermal damage can cause severe uveitis.	High. Risks include severe corneal infection (keratitis), corneal thinning, photophobia, and potential blindness.
Aesthetic Outcome	Natural biological colors (blue, green, hazel) derived from the patient's own genetics.	Unpredictable; often patchy or incomplete pigment removal.	Artificial, "painted" appearance with a fixed, opaque pupil zone that limits natural light reactivity.

Note: This table is for comparative medical reference. Only specialized, low-fluence laser protocols (like MyLumineyes®) possess long-term clinical data verifying ocular safety.