

10th Conference on Health Care of the Chinese in North America



Laser Vision Correction for Myopia in Patients of Chinese Descent

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I Myopia

- A High prevalence among Chinese - 70% prevalence in Taiwan vs. 30% prevalence in U.S.
- B Increased incidence of more extreme degrees of myopia amongst Chinese
- C Astigmatism may also be present (torical curvature of the cornea vs. spherical cornea)

II Methods of Correction

- A Spectacles
- B Contact lenses
- C Orthokeratology - temporary curvature change induced by rigid contact lens molding. Of no proven lasting benefit.
- D Refractive surgery - increasingly popular option

III Laser Vision Correction

- A PRK (photorefractive keratectomy)
- B LASIK (laser in situ keratomileusis)
 - 1. Technique: make flap, apply laser sculpting
 - Can correct myopia and farsightedness, with or without astigmatism
 - Can correct extreme myopia (up to -15 diopters)
 - 2. Cost: \$1500 - \$2500/eye (not covered by insurance)
 - 3. Fast recovery of vision, minimal discomfort
 - 4. Complication rate
 - reduced quality of vision: 0.3%
 - serious corneal damage: 0.01%
 - 5. Accuracy rate (low to moderate myopia):
 - 20/40 or better 98%
 - 20/20 or 20/25 75%
 - 6. Retreatments possible - lift flap, do additional laser if initial result needs to be refined
 - 7. Side effects - dry eye, nighttime glare/haloes
 - 8. High level of patient satisfaction
 - 9. Excellent stability; no long-term/late side effects
 - 10. Special considerations in Asian patients

IV Alternative Methods

- A Clear plastic rings inserted into cornea in order to cause flattening of cornea.
Rings are removable (thus the effect of surgery can be reversed).
- B Cost: \$2000
- C Topical anesthesia
- D Not effective for treatment of higher degrees of myopia or of astigmatism