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| **Study, Year** | **Aims** | **Literature Searches** | **Patients/Trials** | **Interventions** | **Results** | **Conclusion** | **Quality** |
| Murray, 200587 | To systematically review the evidence for safety and efficacy of PRK, LASEK, and LASIK for the correction of myopia, hyperopia, and astigmatism | MEDLINE, MEDLINE Extra, EMBASE, BIOSIS, Science Citation Index, Cochrane Controlled Trials Register, National Research Register, Clinical Trials, Current Controlled Trials, FDA Premarket Approval (PMA) Database, Web of Science Proceedings, Conference Papers Index, Zetoc, Association for Research in Vision and Ophthalmology (ARVO) Abstracts Database, American Society of Cataract and Refractive Surgery-American Society of Ophthalmic Administrators (ASCRS-ASOA) Abstracts Database; 2000-2005 | LASIK: 64 studies (73 publications; 4 RCTs); LASEK: 26 studies (40 publications; 14 RCTs); PRK: 40 (9 RCTs) case series | Primary treatment with any type of excimer laser used to perform PRK, LASEK, and LASIK for refractive correction of myopia, hyperopia or astigmatism. | Uncorrected visual acuity of 20/20 or better in myopia: PRK 70%, LASEK 62%, LASIK 64% 20/40 or better: PRK 92%, LASEK 92% Efficacy LASIK 94% highly myopic eyes achieved High myopia at baseline, 20/20: PRK 14%, LASIK 44% Low myopia at baseline: PRK 76%, LASIK 81% Correction of myopia/myopic astigmatism, median across all 3 treatments: 68% to 75% of eyes achieving within 0.5 D of their intended correction; 86% to 92% of eyes achieved within 1.0 D Correction of hyperopia: 61% of eyes achieved within 0.5 D of intended correction after PRK and LASIK; 79% and 88% for PRK and LASIK respectively within 1.0 D Harms Ectasia (5 LASIK studies): median rate 0.2% (range 0% to 0.87%) Loss of ≥2 lines of BSCVA in myopia: PRK 0.5%, LASEK 0%, LASIK 0.6% Loss of ≥2 lines of BSCVA in hyperopia: PRK 7.0%, LASIK 3.5% | The safety and efficacy of photorefractive surgery should be considered against the alternative methods of correction; adverse events occur rarely from a statistical standpoint. | Good |

**Abbreviations:** BSCVA = best spectacle-corrected visual acuity; LASEK = laser assisted sub-epithelial keratomileusis; LASIK = laser assisted in situ keratomileusis; PRK = photorefractive keratectomy; RCT = randomized controlled trial.