

[Liu XW](#), [Pang GX](#), [Liu XP](#), [Jiang RX](#), [Jin YM](#), [Sun YM](#), [Wang ZH](#).

[Static and dynamic contrast sensitivity of myopic eyes before and after laser in situ keratomileusis]

[Zhongguo Yi Xue Ke Xue Yuan Xue Bao](#). 2003 Oct;25(5):585-9.

[Article in Chinese]

Eye Research Center of CAMS, Department of Ophthalmology, PUMC Hospital, CAMS and PUMC, Beijing 100730, China.

OBJECTIVE: To evaluate the static and dynamic contrast sensitivity changes in myopic patients before and after laser in situ keratomileusis (LASIK).

METHODS: Seventy-three eyes in 37 patients with myopia (with or without astigmatism) who received LASIK were tested for static and dynamic contrast sensitivities using the METRO VISION MON ELEC I system at 0.7, 1.4, 2.7, 5.5, 11, and 22 cpd and cps prior to LASIK, and at one-, three-, and six-month intervals after LASIK.

RESULTS: All eyes gained naked visual acuity of more than 0.5 after LASIK. The contrast sensitivity was depressed at all frequencies 1 month after LASIK, as compared to one week prior to LASIK. The depression at 2.7, 5.5, 11 (P < 0.01) and 22 cpd (P < 0.05) was statistically significant for static contrast sensitivity, and also at 5.5 (P < 0.01) and 11 cps (P < 0.05) for dynamic contrast sensitivity. Myopic eyes between 6.25 D and 14.0 D, and astigmatic eyes 2 DC and more, suffered more static and dynamic contrast sensitivity depression than the myopic eyes between 1.25 D and 6.00 D and astigmatic eyes less than 2 DC. Contrast sensitivities were improved and exceeded preoperative levels 3 months after LASIK, and improved even more 6 months after LASIK. All sequences were statistically significant for static contrast sensitivity (P < 0.01), while only 2.7, 5.5, and 11 cps were statistically significant for dynamic contrast sensitivity (P < 0.01). The astigmatic eyes 2 DC and more showed less improvement, even below the preoperative level at 1.4 cps of dynamic contrast sensitivity.

CONCLUSIONS: While temporary depression of contrast sensitivity for myopic eyes after LASIK was seen, contrast sensitivity soon returned to exceed preoperative levels at 3 months after LASIK, while improving even more 6 months after LASIK.