

A safer alternative to laser eye surgery?

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A new type of procedure for correcting short-sightedness could be safer than laser eye surgery, according to a new Cochrane Systematic Review. The study also shows that patients prefer the new procedure, despite there being little difference between the two in terms of improving vision.

Myopia or short-sightedness is a condition where the eye focuses images in front of the [retina](#) instead of directly on it. [Myopia](#) affects around a quarter of the population in Western countries and is becoming more common. In recent years, the preferred corrective procedure for people wanting to avoid wearing glasses or [contact lenses](#) has been excimer laser refractive surgery, but a new alternative is the insertion of phakic intraocular lenses (IOLs). Both procedures work by changing the path of the light entering the eye and bringing images into focus in the right place. [Laser surgery](#) does this by removing parts of the cornea, whereas the new procedure uses a synthetic lens inserted in front of the natural lens.

Until now, there has been no systematic review comparing the accuracy and safety of the two procedures and insertion of phakic IOLs has only been practiced in more severely short-sighted patients. However, the new study suggests the procedure could be more widely used.

"Our findings suggest phakic IOLs are safer than excimer laser surgery for correcting moderate to high levels of short-sightedness," says lead author Allon Barsam of the Moorfields Eye Hospital NHS Foundation Trust in London, UK. "Although it's not currently standard clinical

practice, it could be worth considering phakic IOL treatment over the more common laser surgery for patients with moderate short-sightedness."

The researchers reviewed data from three trials comparing the two types of surgery, which together included surgeries performed on 228 eyes in 132 patients. A year after surgery, the percentage of eyes with 20/20 vision without spectacles was the same for both procedures, but patients undergoing phakic IOL treatment had clearer spectacle corrected vision and better contrast sensitivity. Patients also scored the phakic IOL procedure more highly in patient satisfaction questionnaires.

Phakic IOL treatment carries a slightly increased risk of cataract, but further investigation of long term adverse effects is needed, according to the researchers. "There may be more long term risks unique to patients with phakic IOLs that are not apparent after one year of follow-up," says Barsam.

Provided by Wiley

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