

ASK THE EXPERTS

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NOVENA Bladeless Cataract Surgery
& Eye Specialist Centre

New monofocal lens implants for cataract surgery

Q *I am planning to have my cataract surgery and am not suitable for multifocal implants. What are the latest and advanced monofocal lens implants available that I can consider?*

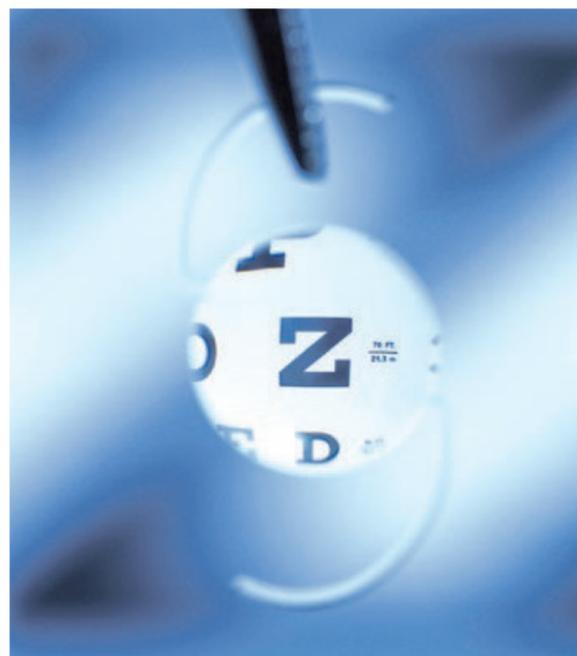
A In recent years, premium intraocular lenses (IOLs)—implants to replace the eye's natural lens when it is removed during cataract surgery—have been used for the correction of presbyopia, myopia and astigmatism. IOLs come in monofocals, monofocal plus and multifocals.

The final choice of lens implant is determined by your lifestyle and visual needs—such as screen time, reading time and sporting activities—after discussion with your surgeon. Surgeons can also help their patients achieve optimal spectacle-free vision through matching of available IOLs technologies with patients' visual needs by modifying their eyes' post-operative power.

Can I achieve spectacle freedom with standard monofocal IOLs that corrects vision for one distance (either near or far)?

Yes, through the use of monovision strategy.

A monovision strategy provides spectacle freedom by fully correcting the dominant eye to zero dioptres (D)



High-definition (HD) monofocal intraocular lens.

for distance, while the non-dominant eye is made -1.75D for reading. With monovision, patients can have good far and near vision without the need for spectacles. However, their intermediate vision may not be as good compared to patients who have opted for multifocal IOLs.

There are recent innovations, such as the new monofocal plus IOLs, which are monofocal IOLs that carry extra reading power to enhance the intermediate vision zone (66cm) of monovision patients. Monofocal plus IOLs have been shown to give better intermediate vision than standard monofocal IOLs—such as for desktop computer work, cooking and using the stairs—yet is without the glare and haloes associated with multifocal

IOLs.

When applying monovision strategy with monofocal plus IOLs, distance vision is also better than the standard monofocal IOLs with less loss of 3D and depth perception. Things or events in the distance such as stage performances are generally clearer with improved depth perception.

How can this procedure be done?

The bladeless femtosecond (FS) laser cataract surgery can be considered. FS laser replaces the manual process of cutting by hand using blades and sharp surgical instruments. The biggest advantage is that the computer-guided FS laser allows the IOLs to be perfectly positioned at the centre of the visual axis. 3D scans and laser precision create perfectly sized and perfectly circular capsule openings for IOLs. Capsulotomies created by FS laser have reproducible, uniformly circular and precise diameter, as compared with manually created ones, which improves refractive outcomes and maximises patients' chances of achieving total spectacle freedom.

Dr David Goh



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TREATMENT FOR PRESBYOPIA AND CATARACT

- 100% bladeless cataract surgery
- Computer-guided IOL implantation
- Monofocal, trifocal or multifocal IOLs