

## Types of lenses for cataract surgery

**Q** Should I go for cataract surgery if I have only mild cataracts in both eyes? I am short-sighted with myopia of 625 degrees in my left eye and 575 degrees in my right. I also have “lau hua yan” (presbyopia in Mandarin).

**Also, is it better to get a monofocal rather than a multifocal implant?**

**A** You mentioned that you have mild cataract, a condition where the natural lens inside the eye becomes cloudy.

It is responsible for up to 50 per cent of blindness worldwide, although it is easily treatable. The condition can develop in only one eye and is usually not symmetrical in both eyes.

Cataract usually occurs as we age due to natural changes in the lens fibre. However, it can also be caused by trauma or systemic conditions such as diabetes. Long-term use of steroid medication has also been linked to cataract formation.

The natural lens helps to focus light onto the retina, allowing us to see. Having a cataract would therefore affect how light passes into

the eye to the retina. This causes blurring of vision, changes in colour perception, double vision and a sudden change in spectacle prescription. As a result, some people with cataracts might find their daily activities compromised.

If you have any of the above issues, then yes, cataract surgery will help you.

During the surgery, a small ultrasound probe is inserted in the cornea through a small incision, measuring 2mm to 3mm, to break the cataract up into small fragments.

These fragments are then sucked out through the same probe.

An artificial intra-ocular lens implant is then delivered through an injector into the transparent lens bag that is left intact in the eye.

As you have moderately high myopia, the current technology allows doctors to precisely determine the parameters for the lens implant to help treat your myopia at the same time, such that you need no longer have to depend on spectacles to view

objects at far distances.

You have correctly stated that the two main ways of solving your myopia and “lau hua yan” are by using either one of two types of lens implant – multifocal and monofocal.

Multifocal lens implants allow each of your eyes to view objects at far and near distances at the same time. It is not true that the chances of good near vision with multifocal implants are slim.

However, the downside is that these lenses might cause glare and halos at night and a slight loss of contrast.

These lenses offer very good near vision under good lighting conditions.

But they are unsuitable for patients with underlying eye conditions like age-related macular degeneration.

A monofocal lens implant allows doctors to adjust each eye's focus point to the desired distance.

Typically, the dominant eye will be adjusted to see far objects (0 degrees). The non-dominant eye

will then be adjusted to see near objects by targeting this eye to have low myopia of about 125 degrees.

This is what we call monovision, which tends to be the choice of patients who are afraid of the side effects of multifocal implants.

It allows the patient to be free of spectacles for most daily activities, including reading under good lighting conditions and daytime driving.

However, spectacles may be required for reading fine print, prolonged reading or night driving.



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The gift of sight is precious. It not only connects us to our loved ones but allows us to appreciate the beauty of the world around. With procedures for myopia, cataract, presbyopia and other eye diseases, Mount Alvernia Hospital is committed to help our patients preserve this gift of sight.



To understand more about your eye conditions, you can reach out to our panel of doctors at the clinics listed below at Mount Alvernia Hospital

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