

# Advances in Don't Wait 'Till it is Too Late Treatment of Cataract

by Dr Leonard Ang

**M**r Chow, a 58 year old man, noticed blurring of vision in both eyes for a month. He saw Dr Leonard Ang, Medical Director and Senior Consultant Ophthalmologist at Eye Max Centre who found that his vision was poor and he had very dense cataracts in both eyes. Based on its severity, the cataracts were present for at least 5 years, but Mr Chow was unaware of it. He also had myopia (shortsightedness), astigmatism and presbyopia. Dr Ang performed right and left cataract surgery by phacoemulsification of the cataract with intraocular lens implantation. After surgery, he achieved excellent vision within a few days of surgery. In addition, his refractive errors were corrected and he was able to see far and near without the need for spectacles.

It was only after his surgery when he could see very well that Mr Chow realised for the first time how severe his cataracts were and how long he had been surviving with poor vision.

Mr Chow was so happy after surgery that he said that he regretted not doing the surgery much earlier. He could not believe that the surgery was so painless and so fast and that the recovery period was so short.

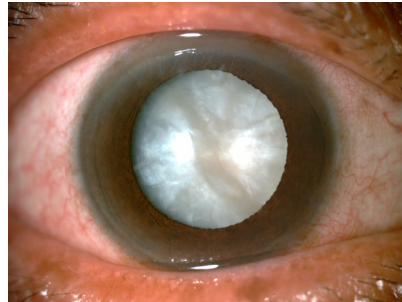
## What is cataract?

Cataract is the most common cause of blindness in the world **[Figure 1]**. Cataract is a condition in which the natural clear lens of the eye becomes cloudy and reduces the amount of light entering the eye.

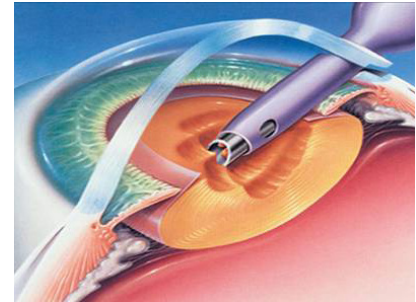
In Singapore, more than 30% of people above 45 years of age have some degree of cataract, and by the time they reach 60 years of age, 80% of people have cataracts.

## Many people with cataracts do not realise it is in the early stage

Cataract results in a gradual, progressive blurring of vision. The vision tends to be worse at night, and there may be glare and haloes around lights.



**Figure 1. Eye with a cataract**



**Figure 2. phacoemulsification of the cataract**

The patient experiences difficulty with both distant vision and near vision and things appear less bright. A continued change in spectacle power may signify the progression of the cataract.

Because the symptoms progress very gradually and it is painless, many people do not realise they have cataracts until it is very advanced. As such, many end up undergoing cataract surgery when it is too late.

## When the cataract is left until it is too severe, complications can happen and surgery is more difficult

When the cataract is very advanced, complications may develop such as glaucoma, inflammation and the lens can be more unstable. Surgery when complications arise significantly increases the risk of complications and reduces the success rate. The recovery is much longer and the visual result is likely to be poorer.

We advise that patients should not to wait until the cataract is very advanced before removing it.

## Modern cataract surgery is very safe and the recovery is fast

Cataract surgery is usually recommended if the cataract is impairing vision and affecting one's daily activities. Cataracts may also need to be removed if it is very dense and is likely to cause complications such as glaucoma.

In the hands of an experienced surgeon, modern cataract surgery is very safe and effective, and the recovery is very fast.

With modern cataract surgery it is no longer necessary to wait for cataracts to “ripen” or for the vision to be very bad before performing surgery.

Cataract surgery can correct all forms of refractive error, so it is also a refractive surgical procedure so that patients remove or reduce the need to wear glasses.

### Treatment of cataract

Surgery is the only method of treating cataracts.

Cataract surgery is now very advanced and can be performed safely and effectively. It is performed as a day surgery procedure and usually takes less than 30 minutes to complete.

The modern method of removing a cataract is by phacoemulsification [Figure 2]. Phacoemulsification involves making a small 2-mm incision at the edge of the cornea. The cataract is softened and removed using a phacoemulsification probe. An artificial lens is implanted immediately following the cataract removal and the wound often seals on its own without the need for stitches. The patient can return home after the surgery.

### Post-operative care and recovery

With modern cataract surgery, there is minimal discomfort after surgery. The eye is not red. The recovery is relatively fast and patients can resume most of their regular activities within a few weeks of the surgery. Within one month, the patient can have a pair of glasses prescribed for them, if necessary.

### Advances in Cataract Surgery

#### Bladeless /Laser-assisted cataract surgery

The use of femtosecond lasers may help in the initial parts of the cataract surgery, such as 1) making the cornea incisions, 2) creating an opening in the capsule which holds the lens, and 3) helping to make cracks in the cataract to make it easier to remove. The laser could more precisely make these incisions and create the central opening which could lead to improved visual outcomes.

However, because the laser can only make incisions and cannot remove the cataract, the cataract removal, which is the main component of the cataract surgery, is still done ultimately by phacoemulsification, which is the use of an ultrasound machine. Phacoemulsification surgery itself can achieve excellent results in the hands of a good surgeon.

#### New and improved intraocular lenses achieve better vision

Newer intraocular lens technology allow improved visual outcomes to suit each patient’s individual needs. All forms of refractive error in the eye can be corrected, including myopia (shortsightedness), astigmatism and presbyopia. This includes lenses that can give patients

better vision, better quality of life and greater convenience without the need for spectacles.

Multifocal lenses [Figure 3] have given patients greater convenience without spectacles. Although newer lenses are available, the final choice of the lens is dependent on many factors, including the condition of the eye and any pre-existing disease, among others.

It is therefore important that the patient consults an experienced doctor to assess the suitability of the eye for the various lenses, and to determine which type of lens is most suitable for that patient.

### Summary

Advances in cataract surgery enable patients to enjoy better vision and better quality of life. It can help to correct all forms of refractive error, including myopia, astigmatism and presbyopia (lao hua).

In modern cataract surgery, patients need not wait for cataracts to be very severe or the vision very bad before doing surgery. In fact, the more advanced the cataract, the higher the risk for surgery and the longer the recovery.

Advances in cataract surgery have made the surgery extremely safe and effective, in the hands of a good surgeon. Patients are able to enjoy better vision and better quality of life. It can help to correct all forms of refractive error, including myopia, astigmatism and presbyopia (lao hua). Ultimately, what is most important is for the patient to seek the advice from a very experienced surgeon, who can best advise what is the most appropriate treatment for him/her.

In addition, because many people do not realise they have cataracts until it is very late, it would be wise to undergo an eye screening with an eye specialist for those above 45 years of age. This can help to pick up cataract as well as other potentially blinding eye conditions earlier, so that treatment can be instituted earlier to prevent visual loss. **MG**



**Figure 3. Multifocal lens**



*Dr Leonard Ang is the Medical Director and Senior Consultant Ophthalmologist at Eye Max Centre located at Mount Elizabeth Novena Hospital. He has won more than 30 international and local scientific awards, including the Singapore National Academy of Science Young Scientist Award and the Singapore Clinician Investigator Award, and has written more than 90 scientific publications and book chapters. Visit [www.eyemax.sg](http://www.eyemax.sg) for more information.*