Cataracts and macular degeneration

A cataract is a clouding of the normally clear lens inside the eye. Over time, a cataract can significantly impact vision. Cataracts are very common in older people, but certain types can occasionally occur in younger people. Cataracts can occur in one or both eyes. Most cataracts can be effectively treated with surgery. Because they are both common conditions, macular degeneration and cataracts often occur at the same time.

What is a cataract? What are the symptoms?

The eye works by light passing through the cornea at the front of the eye, and being focused by the lens inside the eye onto the retina. The retina is a delicate tissue that lines the inside of the back of the eye. The retina converts the light into electrical signals that travel along the optic nerve to the brain. The brain interprets these signals to “see” the world around you.

In a healthy eye, the lens is transparent so that light can easily pass through it, producing a sharp image on the retina. As we get older, parts of the lens can become cloudy, producing a cataract, a painless eye condition resulting in the scattering or reduction of light reaching the retina. Symptoms of cataract include a loss of clarity or acuity, washed out colours, increased sensitivity to bright light, glare, haloes or rings appearing around lights.

With early cataract, there are often no symptoms nor any vision impairment, but as the cataract progresses, the symptoms become noticeable. Some people say that having significant cataracts is like looking through a thick fog.

Cataracts normally develop quite slowly (over many years) and you may not initially notice any reduction in vision. Sometimes however, they can develop more rapidly. Cataracts generally form in both eyes although not always at the same time or rate. Cataract formation is progressive and it will not get better on its own.
Risk factors for cataracts

Cataracts are very common, especially in people over the age of 60. In fact, by the age of 70, everyone has some degree of cataract. This is a normal part of ageing. Certain rare types of cataract can also occur in infants or younger people.

Cataracts can’t be prevented but progression may be delayed to a degree by:

- Stopping smoking
- If you have diabetes, keep it under careful control
- Protecting the eyes from the sun with sunglasses and a hat
- Eating a healthy diet with daily fruit and vegetables and 2-3 serves of fish per week

At this time, there is no evidence that any commercially available vitamin supplement or eye drops will reduce the risk of cataracts or reverse their formation.

How are cataracts treated?

The symptoms of early cataract may be improved with new glasses, brighter lighting, anti-glare sunglasses, or magnifying lenses. Despite these measures, if left untreated, cataracts will eventually result in significant loss of vision and possibly blindness.

In almost all cases, cataracts can be treated extremely effectively with surgery. Surgery involves the removal of the clouded lens from inside the eye which is then replaced with a tiny, clear, plastic, artificial intraocular lens (or IOL). In very rare circumstances, it may not be possible for an IOL to be inserted in the eye, or IOL insertion may take place at a later time.

If the person has cataracts in both eyes, each eye will usually be treated on separate days, often weeks apart.

Age is not a barrier to cataract surgery. A patient of 100 years or more can have cataract surgery and enjoy the benefits of improved vision.

Before surgery

A few weeks before the operation, the surgeon should provide clear written instructions about options available, risks, possible complications, expected outcomes, preparing for surgery, the different types of lenses that are available, the operation itself and arrangements for post-operative care. Information on the likely fees and out-of-pocket costs for the surgery should also be provided. You should also make a list of any questions you wish to ask your surgeon. If you do not understand or are not satisfied with the answers at the time of your consultation, you should ask for further clarification. Some people find taking a relative or friend to the consultation with the doctor to be very helpful. In some cases a second opinion may provide a further level of reassurance.

During surgery

Cataract surgery usually takes less than 30 minutes. Surgery is normally performed under local anaesthesia with some sedation. There should be little or no pain, although you may feel a little pressure on the eye. Recovery is usually quite rapid. Except in special cases (e.g. surgery in babies and young infants), general anaesthesia is usually not necessary.

Unless there are significant complications (which are rare) most people having cataract surgery can return home a few hours after the operation. Note that you will not be able to drive yourself home, so you will need to have someone else do this for you.
After surgery
Following surgery, it is quite normal to have some mild discomfort for a few days. **Any worsening or severe pain or sudden drop in vision should be reported to the surgeon immediately.** Vision should gradually improve over a few weeks, although it may take up to 8 weeks for healing to be complete. The surgeon will schedule follow-up appointments to check on your progress.

The new IOLs require no special care and in most cases, the lenses will last for the rest of your life. In some people, a build-up of cells can occur on the rear surface of the IOL some months or years following surgery, causing a significant reduction in vision. This is known as posterior capsular opacification or “PCO”. PCO is easily treated with painless laser performed in the eye surgeon’s rooms, and only takes a few minutes.

**Outcomes of cataract surgery**
Cataract surgery is one of the most effective operations performed. Well over 90% of people having cataract surgery notice a significant improvement in vision, and better quality of life. In general, the best outcomes are achieved when both eyes are treated.

**How urgent is cataract surgery?**
In almost all cases, cataract surgery is not urgent and can be safely delayed until vision loss starts to impact day-to-day activities, such as reading, driving or watching TV. It is usually elective surgery and there is no harm in delaying the surgery.

However, it is still important to keep having eye tests at least every 2 years, or more frequently if recommended by the eye care professional. This is because there are several other eye diseases such as wet macular degeneration or diabetic retinopathy which can cause similar symptoms to cataract but may need to be treated urgently. **Any sudden changes to vision must not be ignored and should be checked by an optometrist or ophthalmologist within a day or two.**

Sometimes a cataract should be removed even if it is not yet causing any problems with vision. For example, a cataract may be removed if it prevents examination or treatment of another eye problem, such as macular degeneration or diabetic retinopathy. Some eye operations, such as a vitrectomy, significantly accelerate the progression of an existing cataract or increase the likelihood of a new cataract forming. If a cataract has already started to form before the vitrectomy, the surgeon may suggest having the cataract removed and replaced with an IOL at the same time as the vitrectomy, as it will avoid the need for another operation soon afterwards.

If your eye care professional finds a cataract, you may not need cataract surgery for several years. In fact, you may never need cataract surgery. By having your vision tested regularly, you and your eye care professional can discuss if and when you might want treatment.

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**Cataracts and macular degeneration**
Cataracts and macular degeneration are common eye conditions that can affect older people at the same time. A common question is whether cataract surgery affects the development of macular degeneration. Some studies and anecdotal reports suggest that cataract surgery may accelerate the progression of macular degeneration. However, most major studies have shown no link. On balance, cataract surgery does not appear to contribute to worsening of macular degeneration.

In some people, dense cataracts can mask the symptoms of macular degeneration. When dense cataracts are removed and replaced with new IOLs, vision is usually much clearer meaning that the symptoms of macular degeneration such as distortion can become more obvious. Some people have mistakenly concluded that the surgery made the macular degeneration worse.
Cataract surgery is usually recommended when the vision becomes bad enough to impact daily activities. In some cases cataracts may affect the ophthalmologist’s ability to diagnose or monitor macular degeneration and cataract surgery may be recommended.

In people with severe macular degeneration, most central vision is lost and the person is very dependent on their peripheral (side) vision. If these people also have significant cataracts, cataract surgery can significantly improve the quality of peripheral vision. Several studies have shown that in people who have significant cataracts and severe macular degeneration, cataract surgery can produce major improvements in overall quality of life, even if central vision is not improved. In contrast, people with severe macular degeneration and mild cataracts do not usually benefit greatly from cataract surgery.

People with conditions such as wet macular degeneration or diabetic macular edema may be receiving regular injections of a drug to reduce the formation of unwanted new blood vessels and leakage under or within the retina. If these people also have significant cataracts, it is generally considered appropriate to delay cataract surgery until the new blood vessel formation and leakage has stabilised when elective surgery can then be safely undertaken. Delaying cataract surgery does not have any negative impact on the outcome of the surgery.

Summary

Cataract surgery is a highly effective treatment for a very common condition that will eventually affect most people. Cataracts normally develop quite slowly and surgery can usually be delayed until vision is impaired and daily activities are affected. Nonetheless, everyone over the age of 50 should continue to have regular eye tests (at least every 2 years) to check for other eye conditions that may need more urgent treatment.

If you have severe macular degeneration and significant cataracts, cataract surgery may provide a worthwhile improvement in peripheral vision. Cataract surgery does not appear to accelerate or worsen macular degeneration, although some central vision symptoms may be more obvious.

If you have any other questions about cataract surgery, don’t hesitate to speak to your ophthalmologist.