This brochure provides information about cataract and its causes, signs and symptoms and treatment. It is designed to respond to questions most frequently asked by patients.
**What is cataract?**

Cataract is the clouding of the clear and transparent lens of the eye. This clouding is usually due to the aging process but can also be caused by heredity, diabetes, long standing inflammation, trauma and even some medications.

**The lens:**

The lens is a transparent, flexible structure near the front of the eyeball. It focuses light rays on the retina at the back of the eye. Light passes through it to produce a sharp image on the retina.

**Some symptoms of cataract:**

- Dimness or blurring of vision;
- Halos or glare around lights;
- Poor vision in bright light;
- Double vision;
- Colours appear less brilliant;
- Frequent need of changing or cleaning of glasses;
- Difficulty in driving or reading.

**How is cataract diagnosed?**

During an eye examination, a variety of instruments which illuminate and magnify the structure of the eye are used to determine the size, type and location of cataract.

**Is it possible to prevent cataract?**

There are no drugs or drops as yet that have been proven to be of value in preventing cataract.

**How is cataract treated?**

A cataract cannot be cleared by medication, eye drops or a change in diet. It is treated with surgery. Cataract is removed by the Phacoemulsification technique, and the cloudy lens is replaced with an intraocular lens (permanent lens inside the eye.)
Do I really need to have an intraocular lens?

Yes. It is more convenient than other methods of lens replacement such as contact lenses or very thick glasses.

Is it possible to just change my glasses to make me see better?

Glasses focus on light; they do not improve the transmission of light. If a window has dirt on it, we can't see clearly through it even with binoculars.

When should I have the operation?

Operation is advised based on ophthalmologist’s examination.

What is phacoemulsification?

Phacoemulsification or Phaco is a surgical technique which uses ultrasound waves. In Phaco, the cataract (clouded lens) is broken (emulsified) into microscopic particles and gently suctioned from the eye through an opening of about 3.2 mm or less. No suture is needed as the natural outward pressure within the eye seals the small opening. In comparison, traditional surgery techniques require the lens to be removed in one piece through a relatively large incision which needs stitches to close.

What are the advantages of phacoemulsification?

- Faster recovery of good vision
- Faster return to normal activities
- Good vision in a matter of days instead of weeks or even months
- Return home within hours of procedure (day care surgery)
- Reduce the chances of surgically induced astigmatism or ruptured sutures.

Are there any risks?

Similar to any surgical procedure, there are always risks but currently Phaco is one of the safest techniques all over the world with a success rate of 99%.
Is phaco laser?

No, it is not.

Recurrence rate is less than 1%.

Is there any pain?

Phacoemulsification is nearly painless, during and after the procedure. Most patients only experience some discomfort during the surgery, due to the instrument used to prevent the eye from moving or blinking. After the operation, you can feel some irritation.

Is it done under general anaesthesia?

No. Since cataract surgery takes minimal amount of time, local or topical anaesthesia is used. In local anaesthesia, an injection is given to numb the eye which also prevents the eye movement. In topical anaesthesia, drops are instilled to numb the eye but the patient has control over eye movement and has to look at one point for the surgeon to operate.

Will I use glasses after the operation?

Most patients do not need using distance glasses in daily activities although you will need reading glasses. However, some people will need to wear glasses for distance especially those with cylindrical refractive errors as the intraocular lens does not cater to this refractive error.

Can I wear my old glasses after the operation?

Yes but you must remember the glass on your operated eye is no longer suitable. The new prescription will be given four weeks after surgery. Till that time, you can use your old glasses.

Are both eyes operated at the same time?

It can be done for earlier cataracts although it is preferable to operate each eye a few days apart.

Will I get good vision after surgery?

If the cataracts were hard prior to surgery, it may take a week or more for the vision to get better.
Preoperative preparations:

Once you have been advised by your doctor to have the cataract surgery and you agree to it:

- The eye clinic staff will explain the procedure to you in detail;
- You can choose the day which is suitable for you to have the surgery;
- Your intraocular lens implant power will be calculated;
- Necessary paperwork will be done which comprises of filling up the accommodation form and signing the consent form;
- You will be given the prescription for preoperative eye drops;
- If you are taking warfarin, aspirin or any blood thinning medication, stop them five to seven days before surgery (in case of a doubt regarding discontinuing the medicine, please make sure that you inform your primary physician about it so that a combined decision could be taken);
- If you are a glaucoma patient and using xalatan, tavatan or any other prostaglandin analogues, stop these medicines for four weeks after surgery, till healing is complete. Make sure you inform your doctor regarding this so that a replacement can be given to you;
- Since the surgery is done under local anaesthesia, you can have light breakfast or brunch before surgery. It is imperative that you continue using all systematic medication especially for hypertension, diabetes, asthma;
- Do not apply any cosmetic in and around the eye.

How long I will be at the hospital?

Approximately four to six hours from admission till discharge.

What will happen on the day of surgery?

- Bring the forms you received from the eye clinic and the medication with you;
- Come to the Surgical Day Care Suite (SDC) at the time given;
• After registration and change of clothes, a nurse will do the initial assessment;

• Eye drops will be instilled by day care staff every 10-15 minutes to dilate the pupils;

• Once your pupil is dilated, you will be taken to surgical day care;

• The surgeon will give you local anaesthesia beneath the eye ball to prevent pain and movement during surgery. Alternatively day drops will be put in the eye for anaesthesia if topical method is used.

**After the surgery:**

• You will be observed for a short while to ensure safety and to review the post-operative instructions with you;

• The eye will be padded for two to four hours or more depending upon the doctor’s advice;

• You will be given a prescription / or eye drops specifying their timing. These are to be started as soon as the eye pad is removed;

• You will be given an appointment slip for the next day’s appointment with your doctor.

**First 24 hours after operation**

• Protect the eye from dust and pollution;

• Avoid rubbing or squeezing your eye;

• Wear sunglasses if the sunlight makes you uncomfortable;

• You should wash your face from the next day making sure that water does not enter the operated eye;

• You can take a bath and wash hair from the next day but avoid any water splashing into the eye;

• You can read and watch TV right after the operation;

• You can travel the same day using any means of transportation;

• You can go back to work from the next day with your doctor’s approval;

• You can bend down and say your prayers;
• There are no dietary restrictions and you may take your routine diet;

• Wear the protective eye shield at night for the first week to avoid accidental rubbing during sleep;

• Once the eye pad is removed, instill eye drops as prescribed.

**Medication:**

• Use the eye medicine as directed by your doctor;

• Wash your hands before instilling eye drops;

• Arrange for a fresh supply of eye drops before you run out of them;

• Give a gap of five minutes between the drops;

• Do not allow other people to use your eye drops;

• In case of mild pain, you can take mild analgesics (pain killer.)

**First post-op day instructions to be followed for next four weeks:**

• Follow your eye drops routine;

• Continue your routine life;

• Restart your aspirin or other blood thinning medication if the other eye doesn’t have to be operated soon;

• You can work in the kitchen, travel, say your prayers, read, go back to your work and watch TV;

• You can colour your hair;

• Avoid eye make up for four weeks;

• You can drive as soon as you feel visually comfortable. Be aware that distance judgment is often greatly changed and has to be relearned over many weeks.

• In case of pricking or foreign body sensation in the eye you can safely use artificial tears.
It is extremely important that you start washing your face including eyelids with eyes shut from the next day of surgery.

Close your eyes and use mild soap to rub onto lashes properly and then wash with copious amount of water. This will prevent the eye drop residue from accumulating on the lids which causes excessive oily discharge in the eye.

Do not get disappointed if you do not see well immediately after your operation. Vision may take few weeks to stabilise. Recovery will depend significantly on the stages of the cataract. The harder the cataract, the slower the recovery.

It is important to remember that cataract surgery will not correct poor vision caused by other eye problems such as macular degeneration, glaucoma and diabetes.

**Follow up visits:**

Normally, we check at one day and one month after the surgery. Temporary glasses can be prescribed after about two weeks. It is extremely important for you to keep your follow up appointment so that your doctor can check your progress and taper your eye drops.

**Normal symptom:**

The following symptoms are normal and are not a cause for alarm; slight redness; bruise around the eye; watering; slight pricking/foreign body sensation in the operated eye; seeing red or pink halo; double vision; bright colours with blue tinge; tingling or twitching sensation.

Your vision will be blurred for the first 8-10 hours due to the effect of the local anaesthetic as well as pupillary dilatation.

**Alarming symptoms:**

Contact immediately in case of excessive pain not relieved by normal analgesics, increased redness and discharge, high fever, nausea, vomiting, progressive or sudden decrease in vision or flashes of light in darkness from the operated eye.

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<th>Surgical Day Care</th>
<th>Emergency Ward</th>
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<tr>
<td>Mon. to Fri. 0800 - 1700 Hours</td>
<td>24 Hours</td>
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<tr>
<td>Phone: 34930051, Ext: 6456-6466</td>
<td>Aga Khan University Hospital</td>
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<tr>
<td>Eye Clinic</td>
<td>Karachi.</td>
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<tr>
<td>Phone: 3486-1019 or 3486-6424</td>
<td>Phone: 34930051, Ext: 1090-91</td>
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<tr>
<td>Aga Khan University Hospital Karachi.</td>
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