



DR. YOMTOOB'S CATARACT SURGERY GUIDE

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WHAT IS A CATARACT?

When you were born the lens inside your eye was clear. For a number of reasons this lens became cloudy over time, and it is now called a cataract. Everyone gets a cataract, but not everyone needs cataract surgery. The cataract must be troublesome enough to cause vision changes that interfere with your activities of daily living. Examples of this include blurred vision that does not improve with glasses/contacts, glare and halos around lights when driving at night, trouble with reading, trouble with night vision and there are many others. The vision changes from cataracts are constant, so if your vision is blurring on and off throughout the day, you have another issue (most likely dry eye).

HOW ARE CATARACTS TREATED?

At first, you will probably not even notice that you have a cataract. This is because most of the time cataracts change quite slowly. Once in a while though, the onset can be quite rapid. It may help to wear sunglasses while outside, and there are a few small studies that show Vitamin C and Lutein could help slow the progress. I have not found this to be the case in my practice.

As the cataract thickens, people can become more nearsighted and the amount of astigmatism can change. At first, we give people a prescription for glasses or contacts, and sometimes as the cataract changes folks will not need glasses. However, once the cataract is causing trouble with vision, surgery is the only option.

In general, cataract surgery is not an emergency. It is an elective surgery that is done in an outpatient surgery center, not in the office or in the hospital. Very rarely, cataracts may cause glaucoma or severe eye inflammation if they become too large. This is not common though, and you should not be scared of having a cataract or of cataract surgery.

WHAT IS CATARACT SURGERY?

Cataract surgery is the most common surgery in the USA, and is one of the safest surgeries around. During this surgery a couple of small incisions are made in the cornea (the clear surface of your eye) and the cataract is removed from the capsule that it sits inside by phacoemulsification (a machine that uses ultrasound energy to breakup and vacuum the lens from the eye). A new lens is then placed into that capsule. I would encourage you to watch the video that we show in the office. Most people are afraid that they will see me coming at them with a sharp needle. I can assure you that it does not work that way. You will lay down in a bed



and there will be a surgical microscope over your eye. I will be sitting at your side, and pretty much all you will see are the microscope lights and reflections of the instruments that I use to remove your cataract.

WILL I BE ASLEEP DURING THE CATARACT SURGERY?

Because cataract surgery is a quick procedure, it is not usually a good idea to undergo the risk of general anesthesia. In general anesthesia, patients are intubated and a machine breathes for them. The risk of death with general anesthesia is 1 in 10,000 cases. Unless patients have severe claustrophobia, dementia or are just unable to sit still for surgery, I would not recommend general anesthesia.

For cataract surgery, you will have an IV placed and some light sedatives will be given. The vast majority of people are awake during the surgery, and the medicine given to them makes it such that they are very relaxed. Sometimes patients fall asleep during the surgery, but that can be dangerous if they wake up in the middle of the surgery and move! So, you will probably hear me trying to keep you awake and asking you not to move.

Prior to surgery, you will have many eyedrops so that your eye is well dilated and numb. It is uncommon for patients to experience pain during cataract surgery. Patients who have very long or very short eyes and those who do not dilate well tend to have a higher chance of experiencing some discomfort. So, we will place preservative free lidocaine inside the eye.

On a very rare occasion, patients will require an injection underneath and behind the eye to numb the whole eye and the muscles around the eye. This is usually necessary for patients who have very deep set eyes, very light sensitive or have an intense reflex to squeeze the eyes shut.

WHAT IS LASER CATARACT SURGERY?

A laser can be used perform some parts of the cataract surgery, such as opening the capsule the lens sits inside, cutting up the cataract into smaller pieces and making incisions on the cornea to reduce astigmatism. A phacoemulsification handpiece is still needed to further breakup the cataract and remove it from the eye.

The benefits of the laser are that it creates a nicer circular opening in the capsule and allows for less phacoemulsification energy to be used to remove the cataract. This results in less corneal swelling and probably a faster healing time for most patients. The laser is especially a good option for those people with very thick/advanced cataracts, but it may not be the right choice for every patient. At the present time, laser cataract surgery is not covered by insurance or Medicare.

WHAT LENS OPTIONS ARE AVAILABLE?



In my opinion, this is the most important question. The key is to remember that you may not be a good candidate for some lens options if you have certain eye conditions. This is why we dilate your eyes, and perform tests to determine the health of your eye. We need to determine the length of your eye, power of your cornea, dry eye status, amount of astigmatism, whether you have prism in glasses for double vision, whether you wear contact lenses and so on...

Before we get into the lens options, you should understand myopia, hyperopia, astigmatism and presbyopia

MYOPIA = NEARSIGHTEDNESS

Patients with myopia are able to see objects at near (close to the face) better than they are able to see at distance (TV or driving vision). These patients have a longer eyeball and the glasses or contact prescriptions are in the minus range, such as -2.00 diopters. The more minus the prescription, the closer these patients have to hold objects to their face to see. In extreme cases, myopia can lead to retinal detachments, macular issues, and less accuracy of the formulas we use to determine the power of the lens that goes into the eye.

HYPEROPIA = FARSIGHTEDNESS

To me this is a misnomer because most patients with hyperopia are unable to see objects well at far or near distances, unless they are just slightly hyperopic. These patients have a shorter eyeball and their glasses or contact prescriptions are in the plus range, such as +2.00 diopters. The closer to zero the prescription, the better these patients are able to see at distance, but they are unable to see at near (from your arm's length and in). In extreme cases, hyperopia can lead to angle closure glaucoma, choroidal effusions, and less accuracy of the formulas we use to determine the power of lens that goes into the eye.

ASTIGMATISM (FROM THE AMERICAN ACADEMY OF OPHTHALMOLOGY WEBSITE)

Astigmatism is an imperfection in the curvature of your eye's cornea or lens. It may be helpful to think of the normal eye as being shaped like a basketball. With astigmatism, it's shaped more like an American football.

Normally, the cornea and lens are smooth and curved equally in all directions. This helps to focus light rays sharply onto the retina at the back of your eye. If your cornea or lens isn't smooth and evenly curved, light rays aren't refracted (bent) properly. Doctors call this a refractive error.

When your cornea has a distorted shape, you have **corneal astigmatism**. When the shape of your lens is distorted, you have **lenticular astigmatism**. In either case, your vision for both near and far objects is blurry or distorted. It's almost like looking into a fun house mirror in which you can appear too tall, too short, too wide or too thin.



PRESBYOPIA (FROM THE AMERICAN ACADEMY OF OPHTHALMOLOGY WEBSITE)

Presbyopia is when your eyes gradually lose the ability to see things clearly up close. It is a normal part of aging. In fact, the term “presbyopia” comes from a Greek word which means “old eye.” You may start to notice presbyopia shortly after age 40. You will probably find that you hold reading materials farther away in order to see them clearly.

People with myopia do not notice presbyopia with their glasses off. Because their eyes are set for near vision, they will see best at near with their glasses off! Myopic patients do notice presbyopia with their glasses on, as they will need a bifocal to see up close.

LENS OPTIONS

All lenses are of equal and excellent quality, they just do different things.

- 1. STANDARD LENSES** correct for myopia or hyperopia, but not for astigmatism or presbyopia. **If you have astigmatism and choose this lens, you WILL need to wear BIFOCALS to help you correct your vision so that you can see for distance and near.** Please do not expect otherwise. These lenses ARE covered by insurance.
- 2. TORIC LENSES** are known as the astigmatism correcting lenses. In addition, they correct for myopia or hyperopia. This option is good for those patients who have a certain amount of astigmatism and would like to correct their eyes to see distance without glasses and wear cheaters to see up close OR for those patients who would like to correct their eyes to see near without glasses and wear prescription glasses to see at far. These lenses ARE NOT covered by insurance.
- 3. PRESBYOPIA CORRECTING LENSES** allow for patients to be less dependent on reading glasses or bifocals for seeing objects nearby. These lenses correct for myopia or hyperopia, astigmatism, and some levels of presbyopia. It is important to remember, I cannot give you the same vision as when you were 20 years old. At the present moment that is just not possible. People who choose these lenses will most likely still need readers to see small/fine print, newspaper print, see near objects in the dark, and to read for long periods of time. Please do not expect to never have to wear readers/glasses again, that is not a fair expectation, but it does happen for some folks! These lenses ARE NOT covered by insurance.
- 4. LIGHT ADJUSTABLE LENSES (LALs)** allow us to adjust the power of the lens placed into the eye after surgery is complete. These lenses are the lenses that I would choose for my family. It is the latest technology available to us. With the other lenses, some patients can achieve 20/20 vision but that may be only 50-60% of the time. With LALs, we are able to achieve 20/20 vision in 97% of patients. With these lenses, the postoperative course is longer because we will have to make a few



adjustments to the lens with UV light and you will need to wear UV blocking sunglasses (GIVEN TO YOU) until the final adjustment.

HOW WILL I SEE AFTER CATARACT SURGERY?

This depends on the lens type that you choose and the lens power that is placed into your eye. The choices are as follows:

- 1) **Glasses for Distance and for Reading**
 - a. Patients who select the standard lens and have a good amount of astigmatism would most likely need to wear glasses for distance and reading
- 2) **Distance Vision**
 - a. This means that you will be able to see better for distance activities such as driving
 - b. You will need glasses to read anything from your arm's length and closer
 - c. If you have little to no astigmatism, the standard lens will give you good distance vision without needing glasses
 - d. If you have more than a little astigmatism, you will need a Toric lens to correct the astigmatism to see better for distance
 - e. People who do not like to wear glasses for distance, but do not mind wearing reading glasses select this option
- 3) **Near Vision**
 - a. This means that you will not need glasses to see at a set distance from you face
 - b. This means that you will need glasses to see anything not at that set distance
 - c. Nearsighted folks who like to wear glasses for distance and take their glasses off to read usually select this option
 - d. If you have higher than a mild amount of astigmatism, a Toric lens would be necessary. Otherwise, the standard lens would be ok.
- 4) **Mono vision**
 - a. This means that we will set your dominant eye for distance and your nondominant eye for near
 - b. This is usually reserved for those patients who employed this method of vision in the past with contact lenses
 - c. It is probably not a good idea to try this option unless you have done it in the past
 - d. The advantage is that you will not need glasses for most occasions
 - e. The disadvantage is that many patients have less depth perception (3D vision) and will need to wear glasses to drive at night
 - f. Sometimes, wearing glasses in this case can be uncomfortable because the prescription between the eyes will be very large. This can cause headaches, dizziness or double vision.
 - g. The key here is to nail the distance vision, so keeping the astigmatism low in the dominant eye is extremely important. A Toric lens is likely needed for the dominant eye unless the astigmatism is quite low. The reading eye can tolerate a

bit more astigmatism than the distance eye. Sometimes a Toric lens is needed for the reading eye, but not as often. It just depends on the amount of astigmatism in your cornea.

5) Distance and Intermediate Vision – Extended Depth of Focus (EDOF) Lenses

- a. This type of presbyopia correcting lens that will give each eye the ability to see very well at distance and for intermediate range, such as your computer
- b. The reading for this lens would be approximately at 16-20 inches from you face
- c. This lens is not meant for you to be able to read fine print, the newspaper or books
- d. In fact, if you want to read for long periods of time, you will be more comfortable in the over-the-counter reading glasses
- e. For my parents, I would make their dominant eye good for distance and intermediate. I would then make their nondominant eye just a little nearsighted. This gives a little bit of extra reading for closer ranges. Now the nondominant eye was a bit worse for distance, but most of us live with both eyes open and so they would have a nice range of vision.

6) Distance and Near Vision – Multifocal or Trifocal Lenses

- a. There is called a multifocal lens that gives you good distance, good intermediate and good near at around 12-14 inches from you face
 1. The trade off with this lens is that your distance vision would be worse than a standard, Toric or Distance and Intermediate option, but the reading is better
- b. You can also expect to have increase glare and halos around lights, especially at night, with this lens

7) Mini-Mono Vision with the Light Adjustable Lenses

- a. With the LAL option, we will make your dominant eye for distance and your non-dominant eye for nearby. The hope is to make the prescription in the dominant eye as close to zero as possible and the non-dominant slightly nearsighted to give you up-close vision.
- b. These lenses are the best for all patients, but those who have very long/short eyes or have undergone laser vision correction should really consider this lens. It is their best option for getting the clearest vision possible.

IMPORTANT KEY POINTS

1. YOU MAY NOT ACHIEVE 20/20 VISION WITH CATARACT SURGERY. I WILL TRY MY BEST TO GET YOU THERE, BUT SOME PEOPLE STILL NEED A WEAK PAIR OF GLASSES.
2. YOU MAY NOT BE A GOOD CANDIDATE FOR THE DISTANCE AND NEAR LENSES IF YOU HAVE CERTAIN EYE DISEASES.

3. **DO NOT EXPECT TO SEE PERFECTLY THE FIRST DAY AFTER SURGERY. IN FACT, EXPECT THINGS TO BE BLURRY AND TO HAVE GLARE AND HALOS FOR A WHILE. THIS IS NORMAL AND YOUR EYE CAN TAKE UP TO A MONTH TO HEAL AND SETTLE. IT IS JUST NOT REALISTIC TO BE FULLY HEALTED THE DAY AFTER YOUR SURGERY.**
4. **SOME PATIENTS SEE GREAT THE FIRST DAY AND SOME DO NOT, THIS IS NORMAL.**
5. **YOUR FIRST DAY POSTOP CHECK IS TO MONITOR THE PRESSURE IN YOUR EYE, I'M NOT TOO CONCERNED WITH THE VISION THE FIRST DAY.**
6. **IF YOU HAD LASIK, PRK, CK, RK OR ANY OTHER VISION CORRECTION PROCEDURE, THE RESULTS OF YOUR CATARACT SURGERY MAY NOT BE AS ACCURATE AS SOMEONE WHO DID NOT HAVE PRIOR SURGERY. THESE PROCEDURES ALTER THE CORNEA AND MAKE OUR LENS CALCULATIONS LESS ACCURATE. FOR THIS REASON, THERE IS A HIGHER LIKELIHOOD THAT YOU MAY NEED FURTHER VISION CORRECTIVE PROCEDURES, SUCH AS LASIK OR PRK TO HELP CORRECT THE VISION. ON A RARE OCCASION, SOMETIMES WE WILL NEED TO EXCHANGE THE LENS FOR ANOTHER. YOU SHOULD GET THE LIGHT ADJUSTABLE LENSES IF POSSIBLE.**
7. **IF YOU ARE VERY FARSIGHTED OR VERY NEARSIGHTED, AND YOU HAVE CATARACT SURGERY DONE ON ONE EYE, YOU WILL END UP WITH ONE EYE BEING VERY DIFFERENT FROM THE OTHER. WITH A LARGE DIFFERENCE BETWEEN THE PRESCRIPTION IN YOUR EYES. GLASSES MOST LIKELY WILL NOT WORK AS THEY MAY CAUSE YOU TO FEEL DIZZY OR SEE DOUBLE. THE SOLUTION IS TO EITHER HAVE CATARACT SURGERY IN THE OTHER EYE OR TO WEAR A CONTACT LENS.**
 - a. **SO, MOST FOLKS WITH HIGH PRESCRIPTIONS WHO ARE NOT ABLE TO WEAR CONTACTS USUALLY DO THEIR CATARACT SURGERIES 1-2 WEEKS APART.**
8. **VERY RARELY, I WILL NOT BE ABLE TO PLACE A TORIC OR PRESBYOPIA CORRECTING LENS IN A PATIENT'S EYE DESPITE IT BEING OUR PLAN.**
9. **IF YOU HAVE ANY QUESTIONS OR PROBLEMS PLEASE LET ME KNOW AS I WANT TO MAKE SURE YOU RECEIVE THE BEST POSSIBLE CARE AND OUTCOME.**

DRY EYE AND CATARACT SURGERY

One of the most important issues I check for at your preop and postop visits is dry eye. Some patients do not even know that their eyes are dry, and yet others do not believe their eyes are dry because they are watering. Signs of dry eye include fluctuating vision, burning, stinging, feeling

like there is something in the eye, pain, headache, blurry vision and watery eye. When the eye is too dry, the eye tends to water as a reflex.

Dry eye causes irregular astigmatism on the cornea, and leads poor measurements on your eye during your preop testing. Poor measurements could lead to a less accurate lens choice for your eye causing your outcome not to be as good as we would have liked. So, a key to a good outcome is treating the dry eye aggressively before surgery. If I noticed that your eyes were dry and gave you drops to use, please use them!! Sometimes patient's eyes are way too dry for surgery and I will ask them to delay a bit until we have better control of the dryness. Do not be discouraged by this process as it can take some time to fix the dry eye. Remember that I have your best interest in mind and want to give you the best possible vision for the rest of your life, so if we have to wait a bit please hang in there with me. Some patients develop severe dry eye after cataract surgery, and we will need to treat this with multiple therapies. This usually improves after 6 months, but some patients are left with dryness.

CATARACT SURGERY POST-OP INSTRUCTIONS:

- 1) Do not bend, lift or strain for 2 weeks after surgery
 - a. **Bending means that you should not bend over and allow your head to go below your chest**
 - b. You may bend your neck and look down or brush your teeth
 - c. Do not lift more than 15 pounds
 - d. The reason for this is so that you do not have a **suprachoroidal hemorrhage**, which is something we **DO NOT** want to happen.
- 2) Do not allow water into your eye for 2 weeks after surgery
 - a. It is ok to take a shower the next day after surgery, just keep your eye closed
- 3) Wear the eye shield anytime you sleep for 2 weeks after the surgery
- 4) When you leave the surgery center, keep the sunglasses on for the whole day of the surgery, then put on the eye shield on at bedtime
 - a. If you do not like the sunglasses or do not want to wear them inside, just put on the eye shield
 - b. The key is to have your surgical eye well protected the day of the surgery. After that, just wear the shield anytime you sleep!
 - c. You may want to wear the sunglasses when you go outside for protection and to help with the light sensitivity
- 5) You may watch TV and use the computer after your surgery
- 6) You may cook after cataract surgery, the steam from cooking food does not damage the eye.
- 7) You may resume your normal diet after cataract surgery, though I would start with liquids and make sure you can tolerate this first

- 8) You may resume sexual activity one week after surgery. During the first week, I'm sure you can figure something else out...
- 9) If after your cataract surgery you notice that your significant other is not as good looking as you remembered, it's not my fault!
- 10) If there are any issues or problems, please let me know immediately by calling my office at 714-771-2020. I do not want you to wait it out and think it will improve on its own. You have to let me know, no matter the time.
- 11) Remember **RSVP** – if you have any of the below issues, I need to know about it
- a. **R = Redness**
 - i. You can expect the eye to be a bit red or sometimes blood red for a couple of days or a week, but if you get new redness or the redness is not improving, please let me know.
 - b. **S = Sensitivity to Light**
 - i. You can expect the “new eye” to be more light sensitive than before and you may need to wear sunglasses. But if you notice a sudden onset of new light sensitivity this could represent an issue so, please let me know.
 - c. **V = Vision**
 - i. Any loss of vision is urgent, so again call me.
 - d. **P = Pain**
 - i. It is uncommon to have pain after cataract surgery. Some folks will have a light headache or feel scratchiness in the eye and this is normal. Severe pain is never normal, and I need to know about it quickly. Also, if you get a pain over the brow in the eye that I operated on, this could be a sign of elevated eye pressure, so give me a call.
- 12) Some patients may notice lights or shadows in their vision, which are called dysphotopsias. In 99% of patients, these resolve within a period of 6 months. They occur because your brain is adjusting to the new lens, and as the brain neuro-adapts, these dysphotopsias resolve.
- a. Positive Dysphotopsias are described as flickering or shimmering lights that are noticed in the peripheral or side vision. These are just lights reflecting off the new lens and your brain is figuring out what to do with them. Glare and halos are another form of common positive dysphotopsias, and these will usually resolve as well.
 - b. Negative Dysphotopsias are described as shadows that patients sometimes notice in their peripheral or side vision. The reason for this is complex, but thankfully your brain will forget about it for you 99% of the time.
- 13) Glare/Halos/Starbursts
- a. **Any lens placed in your eye can cause glare, halos or starbursts in your vision. Even the standard lens can induce these.** This usually occurs because the lenses that we implant are man-made materials and they are not perfect. This can also occur because your cornea is not perfect and this may lead to aberrations.
 - b. If you just feel you cannot live with any sort of glare/halo/starburst/imperfections, then cataract surgery is not for you. The good thing is that the great majority of people do not notice these issues. Unfortunately, some patients do notice them and

the brain usually adapts to them after 6 months and they are no longer an issue. For some patients though, the glare and halos can be constant and they will not resolve. Sometimes a lens exchange will help.

- c. Multifocal lenses **WILL** give you glare/halos/starbursts, but at least 80% of the time, they go away after 6 months. If you cannot live with this risk, please do not choose this lens. The other lenses still can do this, but less so.
- 14) **FLASHES OF LIGHT** - If you experience a quick flash of light (like a lightning bolt or camera flash) in the peripheral or side vision that lasts a split second then this can be concerning. It is something you should call me about or let me know about quickly.
- 15) **FLOATERS** – unfortunately floaters in the vision are something we all have to live with, and they will occur at some point in a person’s lifetime. If you had floaters prior to cataract surgery, they will still be with you after the surgery. If you did not have floaters prior to cataract surgery, you will experience them at some point later on. **If after cataract surgery you experience a lot of new floaters or a sudden rush of floaters like cobwebs in your vision, let me know right away.**
- 16) Some Normal Things:
- a. Feeling as though there is something in the eye after surgery
 - b. Mild irritation
 - c. Slight headache that improves with over-the-counter pain meds like Tylenol
 - d. After cataract surgery, you better believe you will be more light sensitive than you were in the past. This is because your natural lens is yellow and cloudy thereby blocking light from getting into the eye. The new lens is crystal clear, and so you will have more light going into the eye allowing you to see better. If you tend to be a very light sensitive person, you will need to get used to wearing sunglasses.
 - e. Blurry vision - it takes a while for the vision to settle, don’t be concerned if your vision is blurry the first couple of days. Do be concerned if it gets worse though, and if that happens call me.
 - f. Nausea - some patients may have this reaction to the sedative used during the procedure, and it should improve over the day. If not, please let me know. If you have a brow ache and nausea together, it may be that the eye pressure has increased. If this occurs, call me.
- 17) **Postop Drops**
- a. There are 3 eyedrops that are important after surgery:
 - i. Antibiotic – Moxifloxacin is what I suggest
 - ii. Steroid
 - iii. NSAID (like Advil) – There are many options
 - 1. Brand names drops are once a day and do not sting, but are costly
 - 2. Generics are 4 times a day and sting, but are inexpensive
 - b. You have many options on the drops and you may want to do your homework to find out what your insurance covers and what the cost will be for you
 - c. There is a combination drug with all 3 medications in one bottle and it costs about \$50. It is made at a compounding pharmacy and seems to be very convenient for our patients. At times we will have it in the office or we may have to order it for you and have it shipped. Julie will most likely discuss this option with you.



d. Julie will give you a schedule for your drops, and please use the postop drops per that schedule!

18) IT IS NORMAL TO HAVE DIFFERENT EXPERIENCES REGARDING YOUR FIRST AND SECOND CATARACT SURGERY. MOST PATIENTS SAY: “I DON’T REMEMBER THIS HAPPENING DURING THE FIRST SURGERY”. THIS OCCURS BECAUSE FOLKS ARE SO NERVOUS DURING THE FIRST SURGERY THAT THEY DO NOT RECALL MANY THINGS. THE SECOND TIME AROUND, YOU ARE LESS NERVOUS AND MORE AWARE OF YOUR SURROUNDINGS. IT’S SIMILAR TO WATCHING A MOVIE OR READING A BOOK TWICE. YOU NOTICE A LOT MORE THE SECOND TIME AROUND. AGAIN, THIS IS A NORMAL THING, SO PLEASE KEEP THAT IN MIND DURING YOUR SECOND SURGERY AND TRY NOT TO MENTION IT WHILE I AM OPERATING ON YOUR EYE. THE SMALLEST MOVEMENTS YOU MAKE WITH ANY PART OF THE BODY CAN LEAD TO TROUBLES DURING YOUR SURGERY.

PLEASE SIGN BELOW THAT YOU HAVE READ AND UNDERSTAND THIS GUIDE

PATIENT NAME _____ DATE _____

SIGNATURE _____