

CATARACTS: What they are, How to Prevent them, and How to Choose a Cataract Surgeon

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Introduction:

“You have cataracts, Mrs. Jones.” These words are, for many, quite scary. For many folks, cataract surgery is the first surgery that they will have had in their otherwise pretty healthy lives.

But you needn't be scared. For one thing, you are far from alone!

Every day in America, 3000 patients like yourself are told these same words. Each day, another 3000 patients a day undergo cataract surgery, the great majority of them safely, without any complications.

Indeed, besides being the most common type of surgery performed in the US, cataract surgery is also the safest and most successful. So you needn't be afraid! The purpose of this short booklet (or, should I say, e-booklet?) is to provide concise, easy-to-understand information about cataracts and cataract surgery to the layperson. You may be someone who has just been told for the first time you have cataracts. You may have known that you had cataracts for some time, and are now ready to have them removed. Or you may be a son or daughter of a parent with cataracts, and want to know how to best help your loved one get through this process.

This booklet is designed to answer all your questions about cataracts, and to help you prepare for cataract surgery, including how to choose the right surgeon

for you. It also gives tips on how to prepare for surgery, and what to do afterwards so that you will have the best possible outcome!

I also wanted to harness the power of the Internet to create an interactive e-book, so that any remaining questions you might have can be answered. For this reason, besides a list of traditional resources, a list of Internet resources and e-links is provided. As a purchaser of this e-book on cataracts, you can even E-mail your questions to me, and I will answer them, free of charge!

So, read on! You are well on your way to understanding about cataracts and how to treat them. Thus armed with this knowledge, you will be able to best ensure a great-seeing future, for the rest of your life!

1. What is a Cataract?

A cataract is a clouding of the lens inside your eye. This lens, like the lens in your camera, is normally clear. With time, however, this lens may get cloudy, and lose its normal transparency. Often it turns yellowish-brown, instead of clear. It can also become hard, like a rock (unlike the lens in children, which is rather soft).

This “hardness” or your once soft lens is one reason why, when you get older, you start to need reading glasses. A “hard” lens cannot be bent, or deformed, by your eye muscles (the ciliary muscles) as easily as the soft lens of a young person. This causes the eye to lose its ability to focus, or accommodate. Your eye becomes like a camera with a single-focus lens, rather than a “zoom” lens. The final result is that you start to need reading glasses or bifocals as you enter your 40’s in order to help you focus on images and words that are close-up (like when reading a book).

All these changes are not surprising. As you age (and gain in wisdom), your body loses its resiliency. Bones may get brittle, and the arteries “harden.” Why should your eye be any different?

You will be relieved to know that, given enough time, everyone develops cataracts. Indeed, it’s almost “normal” for people over the age of sixty to show early signs of cataract formation.

This is why you shouldn’t worry too much if your doctor says, “You are developing a cataract.” I tell my patients, “Getting a cataract is like that old saw about aging: it’s not something to be happy about, unless you consider the alternative.”

The incidence of cataracts in the American population is approximately to one’s age. For example, approximately 60% of all 60-year-olds have some early form of cataract in their eyes. Fully 80% of eighty-year-olds will have some cataract. This means that it is almost a “normal” part of aging for one to develop a cataract, if you live long enough.

2. What Symptoms Do Cataracts Cause?

Cataracts can cause a variety of symptoms in different people. The most common symptom is blurred vision. Usually, the vision becomes slowly worse over several years. Most people with cataracts say, “My vision hasn’t been what it was for the last few years.”

More specifically, many people with cataracts report a halo around lights, or glare at night, particularly from oncoming headlights while driving. Often this is the symptom that prompts people to come see their doctor, because they are no longer able to drive well at night.

Cataracts may cause difficulty seeing far away, such as watching television or reading street signs. This is because cataracts may actually cause you to become more nearsighted (this is known as “myopic shift” to eye doctors). In other people, cataracts mostly cause problems when they are doing close work, such as sewing, needlepoint, or working on models or fine handicrafts.

Because a cataract is a yellowing of the normally clear lens, cataracts often cause a change in a person’s color perception. Things may take on a yellowish or brownish cast. Colors do not appear as vivid as they did once. Indeed, whole texts in both the medical and lay literature have been written on how color shifts from cataracts have caused famous artists in history to paint differently in their later careers! If you’re an art buff, these stories make for fascinating reading.

Cataracts cause different problems in different people, because each person is special, and has his or her own needs for sharp vision. In the lingo, we call these needs “Activities of Daily Living,” or ADLs. I always make the effort to ask my patients what these requirements are, to make sure cataracts are the cause, and make sure my patients have realistic expectations before their surgery. To illustrate, I’ve had the following conversation with several patients:

“Tell me. Is there anything you’d like to do with you eyes that you aren’t able to anymore?”

“Yes, Doc. There is something that I’m just not able to see anymore. And it’s just driving me crazy. I mean, I’m really disabled.

“So, what seems to be the problem? Night driving? Difficulty seeing street signs. . .”

“No, not that. Well, it’s true I don’t see that great at night anymore. But I’ve just come to limit that kind of driving for when I have to.”

“So, what is the problem?”

“It’s that damn golf ball. . . I can’t follow my drives anymore! You know how frustrating it is hit a perfect, 200 yard drive off a 3-wood, and not be able to see where it lands?”

Well, I have operated on several patients whose greatest visual demands, and greatest area of difficulty, came with their recreational activities. This may be particularly true in older or retired folks. Almost all of them did great, and were back on the fairways in no time. Some of them even thanked me for cutting off a few strokes from their game!

3. How are Cataracts Detected?

An ophthalmologist can detect early cataracts using a special microscope (called a “slit lamp”) in his office. This is one reason why it is a good idea for all adults to see an ophthalmologist (or optometrist) for a complete yearly eye exam. This exam is painless, and is covered by most insurance plans.

Optometrists can also detect cataracts, but are not as knowledgeable as ophthalmologists about cataracts or any other eye disease potentially requiring either laser or real surgery, as optometrists are not physicians, never graduated from medical school, and are not trained to treat eye problems surgically. Therefore, while it is reasonable to get your routine eye care from an optometrist if your eyes are basically healthy, once you have a “real” medical condition

affecting your eyes, such as cataracts, glaucoma, diabetes, or macular degeneration, you really should be seeing an ophthalmologist regularly.

The “test” for cataracts is totally non-invasive. Your ophthalmologist will simply look into your eyes with a lighted vertical microscope called a slit-lamp, and see if the lens in your eye has become cloudy.

Cataracts are commonly graded on a subjective scale, with trace meaning barely any cataract, 1+ meaning mild or early cataracts, 2+ meaning moderate, and 3+ meaning significant or severe cataracts. Usually we reserve 4+ for brunescient or dark cataracts, which are not commonly seen in the US, since people usually don't let their cataracts get this bad before they are surgically removed.

As a Resident at Harvard, I did an elective in India, at the Aravind Eye Hospital in Madurai. This is the largest and most famous eye hospital in India, and supplies almost all the intraocular lenses to that part of the world. The eye surgeons at Aravind are extremely gifted and dedicated, and each perform more surgeries every year than any eye surgeon in the US, out of necessity, since cataracts are still the most common cause of blindness in India. Aravind Eye Hospital itself actually performs far more operations than even Massachusetts Eye & Ear Infirmary in Boston, the main eye hospital of Harvard University, where I did my residency.

I have actually diagnosed and removed 4+ cataracts on several patients in the US, usually elderly people with little support who did not receive good health care maintenance. I remember in particular a case where an elderly gentleman came in, and was blind from bilateral 4+ brunescient cataracts. He could only see light and shadows, not even a hand held one inch in front of his face. We could not even see through his dense cataract, and had to perform a B-scan ultrasound to determine if his retina was attached before we proceeded.

The surgery went well, and the next day, my resident removed the patch and shield from the man's eye. He was silent for a long moment, then tears started to stream down his face.

"What's wrong?" my resident asked. "Does something hurt?"

"No," the man replied, wiping his tears. "This is the first time I have seen my granddaughter's face!"

A touching story. You can support such miracles by contacting the institutions listed at the end of this book ("Traditional Resources for Further Questions").

4. Who Gets Cataracts?

Cataracts are usually seen in older people. Of course, in our "politically correct" times, I hesitate to define the term "older." Let's just say that in my office, if I see the signs of early cataract formation in a patient over age 50, I am neither worried nor surprised. (On the other hand, if I examine a 85-year old and see no signs of cataract at all, then I am surprised, because most octogenarians have some cataract.)

Cataracts can form in younger people if they get hit in the eye--these are called traumatic cataracts, and are often difficult to treat, because of associated damage to other eye structures.

Cataracts can also form if a patient is taking steroids, either orally or rarely in an inhaler for asthma. The type of cataract in these cases is often a posterior subcapsular (PSC) cataract, and can become symptomatic quite early, before other types of cataracts.

Rarely, children are born with cataracts. These are called congenital cataracts. Congenital cataracts may also be part of certain syndromes, where they are associated with other birth defects.

But cataracts in children are different in those in adults, and cause different problems (such as amblyopia, or lazy eye). If for some reason you think your child has a cataract, you should bring him or her directly to an ophthalmologist to be checked.

Unfortunately, I have seen several cases of children who were not seen by an ophthalmologist, and whose parents were told they would “outgrow” their problem. In some cases, these children wound up legally blind, because of irreversible amblyopia.

Cataracts also often form at an earlier age than normal in patients with diabetes, either insulin-dependent or insulin-independent diabetes. Diabetic cataracts are also often posterior subcapsular (PSC) cataracts, and often cause early symptoms. The good news is that PSC cataracts are usually quite “soft” and easy to remove by the surgeon, using a technique called phacoemulsification (“phaco”).

In summary, children and young adults can also get cataracts, but these are uncommon, and often of a kind different than the kind older adults get (“nuclear sclerotic” cataracts). In any case, the diagnosis is quite straightforward in most cases, as is the therapy--cataract surgery, or removing the cataract from the eye and replacing it with a tiny prosthetic intraocular lens (“IOL”).

5. What Causes Cataracts?

Nobody knows for sure exactly what causes cataracts. Undoubtedly, there are natural “aging” changes in the lens. Just as one day, we all must die, so, too, must the millions of cells that make up our body also age and die. (For you computer nerds out there, biologists call this “pre-programmed” cell death apoptosis, which is now a “hot topic” in science).

But many studies have identified several environmental factors that can either worsen existing cataracts or cause cataracts to form at an earlier age. One of these is sunlight. Ultraviolet light, or UV light, has been shown over long periods to be cataractogenic, or to cause cataracts. Indeed, a very large, landmark study showed that fishermen who spent long days on the water without sunglasses were more likely to develop cataracts than those who did not fish for as many hours, or those who wore sunglasses.

Another environmental factor that can cause cataracts or hasten their progression is smoking. The hundreds of toxins in cigarette smoke are absorbed by the body and cause chemical reactions that are like a domino effect within your body. Chemists call these dominos “reactive intermediaries.” Eventually, one of these dominos falls over in your eye and causes damage.

Perhaps you’ve heard something recently, either at the health club or a vitamin store, about taking special vitamins that are “free radical scavengers.” Often, the people hyping these products have no idea what a “free radical” is (that is, if it doesn’t have anything to do with Berkeley or Woodstock!). They just throw around the term because like the terms “the Web,” or “virtual reality,” it’s trendy. If you can understand the following analogy, you will understand more than 99% of the people who have actually had the word “free radical” leave their lips.

People think of oxygen as good and pure, the giver of life. One of the reasons oxygen is so good is because it is always paired (this is why chemists use the

symbol "O₂") -- as everyone knows, a long-term couple is always more stable than an unpaired single. However, many chemical relatives of oxygen are unpaired, and are not as well behaved as oxygen. Chemists call these chemical relatives "free radicals" -- "free" because they are unpaired, and "radical" because they have a lot of energy (yes, it's true). These "free radicals" go places and do things that can sometimes be bad for the body, like mess up enzymes or cause cataracts. A "free radical scavenger" is something, like vitamin C, which can put these free radicals out of commission.

Which is a long way of saying that smoking (by making "free radicals") can cause cataracts. Yet another good reason to kick a bad and deadly habit!

6. How Can I Prevent Cataracts?

There are three things that one can do that may help prevent progression or early formation of cataracts. While none of these is "proven" or guaranteed, they are good "common-sense" suggestions that most doctors would agree with.

The first is to avoid unnecessary UV exposure, or to wear a good pair of sunglasses when on the beach, while snow skiing, or in a similar sunny environment. A good pair of sunglasses does not have to cost an arm and a leg. In fact, I have seen cheap sunglasses available at the drugstore for ten dollars that offer the same protection as a designer pair. The important thing is to look for a label advertising good UV block. A good pair will block 99% of UV-B rays. Some pairs will block a significant portion of the related UV-A rays, which at one time were thought to be harmless, but may not be.

The second recommendation is never to smoke, or to quit smoking if you are a current smoker. I could write volumes (and have) on the myriad health hazards of cigarettes (which are the only consumer product legally sold which, when used

as directed, have a good chance of eventually killing you). The relevant point is this: one more good reason not to smoke is to help prevent cataracts.

The third recommendation is to eat a good, healthy, balanced diet, including plenty of fruits and vegetables. I don't get crazy with a particular fad diet or regimen. Nature has developed a perfectly easy way of ensuring a balance of nutrients -- simply eat a wide variety of colors! By this, I mean eat some green leafy vegetables, some orange carrots, some golden apples, some red beets, some yellow cauliflower, etc. Isn't this easy?

Similarly, I don't go for the latest and most hyped nutritional supplements. In the past, the overuse or abuse of supposedly "safe" and "organic" (although the two words are by no means equivalent) supplements have caused blindness, Lou Gehrig's-like disease, or even death. I usually tell my patients it can't hurt to take a once a day multivitamin and an occasional vitamin C pill. That's what I do.

There are many "eye vitamins" on the market. These special formulations are claimed by the manufacturers to help prevent cataracts and/or macular degeneration, or to slow these diseases' progression. Many of these preparations contain zinc, a mineral that has been implicated in some studies as beneficial. These pills also commonly contain anti-oxidants, such as vitamins A and C, or beta-carotene, etc. In general, I feel that, while these specialty combinations will not harm you, if taken in reasonable and recommended doses, they are not a "magic bullet" that will cure you of your problems.

So, in summary, wear glasses with UV protection, avoid too much sunlight, eat right, don't smoke, and perhaps take a multivitamin or other supplement. This is the best you can do to reduce your chances of getting a visually-significant cataract in your lifetime, and to slow down the progression of your cataract, if you are told by your ophthalmologist that you have an early cataract developing.

7. Do Cataracts Always Get Worse?

Cataracts usually get slowly worse. Often, this progression takes place over years, rather than months. It is very rare for most kinds of cataracts to improve by themselves.

The good news is that many cataracts remain stable and do not get any worse for many years. Many cataracts never cause any visual problems, or only cause minor difficulties (such as needing brighter lights to read) that don't get any worse with time. This is why many people with cataracts never have to get them removed. Not everyone with a cataract needs cataract surgery.

Many people have heard that a cataract needs to be "ripe" before it is operated on. Nothing today could be further from the truth.

Modern cataract surgery involves phacoemulsification, a technique whereby gentle ultrasound waves are used to liquefy, or emulsify, your cataract. The cataract can then be sucked out from a very small incision, as small as 3 mm across! This advance, pioneered by the New York ophthalmologist, Charles Kelman, MD, is the main reason why cataract surgery today is so much easier than it was years ago.

Before phacoemulsification, or "phaco," the cataract was removed in one big piece, in a technique called extracapsular (ECCE) cataract surgery. Because the cataract was actually physically pushed or pulled out of the eye in one big piece, it was necessary by this old technique for the cataract to be "mature," or hard enough to remove without it breaking into many little segments.

With today's phaco techniques, it is actually easier for eye surgeons like myself to remove your cataract if you do not let it get too "mature," "ripe," or "hard." Therefore, be cautious if any eye doctor tells you your cataract isn't "ripe." Either he or she is using old terminology, or, more dangerously, perhaps he or she is not an expert in phaco, and is using the old ECCE technique.

The bottom line is that, yes, cataracts do always (slowly) get worse, in general. And your symptoms from your cataract will get slowly worse, as well.

A rule of thumb for the appropriately-conservative and ethical eye surgeon is to wait until the patient tells you that he or she wants or needs the cataract out. By this time the cataract has compromised the patient's activities of daily living, or ADLs. Perhaps they can't read, drive at night, or watch TV.

At this point, the risk-benefit ratio for having cataract surgery is acceptable, and the risks of not having surgery (e.g., getting into a car accident, tripping over a curb, falling down the stairs) may be higher than for having the surgery itself. In addition, there is something to be said for having the surgery before the lens gets too hard, which would make it more difficult to remove. It is also a good idea to have your cataract surgery while you are still in good general health, before any more serious medical conditions arise which may interfere with or complicate your good outcome.

8. Can I Have My Cataract Fixed?

The only way to have a cataract "fixed" is to have it surgically removed. The bad news is that you cannot avoid surgery if you want a bad cataract taken care of. The good news is that cataract surgery is both the most common, and the most successful surgical procedure performed in the United States.

Each year, over 1.5 million people have cataract surgery in the US. In good hands, over 90% of these patients can expect to see better shortly after their surgery.

A common misconception is that ophthalmologists use “lasers” to remove cataracts. This is not true. We usually use a very fine ultrasound probe, similar in shape to a pencil, to break up the cataract into small pieces and remove it. This advance was pioneered by Charlie Kelman, MD, who has told me that he came up with the breakthrough idea while having his teeth cleaned at the dentist’s office. I guess that’s what the altered state of local anesthesia can do for some geniuses!

As we mentioned, a cataract is a clouding in the lens of your eye. The lens of your eye is like that in a camera, without which your eye cannot form a focused image. Therefore, when we eye surgeons remove your cataractous lens, we have to replace it with a fake, or prosthetic lens.

These prosthetic intraocular lenses, or IOLs, are very tiny, less than a quarter of an inch across. They are commonly made of a special plastic, called PMMA. Newer lenses are made of solid silicone (not the liquid kind that the popular media has over-hyped as causing problems in breast implants) or acrylic. The advantages of these newer materials is that they are flexible, and allow eye surgeons to actually fold the lens in half so it may be inserted in an even smaller surgical wound!

The smaller the surgical wound, the smaller the potential induced astigmatism, the quicker the operation, and the more rapid the recovery for you, the patient! Using foldable IOLs, surgeons like myself today can make wounds so small that they are self-sealing, and do not even require a single suture or stitch!

Don't worry about what material the lens is made of--your cataract surgeon, if properly qualified, will choose the right one for your particular eye. For example, if you are diabetic, it is not a good idea to put a silicone IOL in your eye, as you may need retinal laser or surgery later, which may be made more difficult if a silicone IOL is in place.

In summary, if you have a visually significant cataract interfering with your activities of daily living, it should be fixed by removing it and replacing it with an IOL.

One important point to discuss with your eye MD is "monovision." With this technique, by properly choosing the power of the IOL in each eye, your ophthalmologist can actually help you both see far away and read well--all without glasses. Newer IOLs may also incorporate bifocal technology to achieve the same goal (although both techniques come at the sacrifice of some contrast sensitivity). Discuss these options with your eye doctor before your surgery to ensure your best possible result!

9. Can I Afford Cataract Surgery?

If you are a U.S. citizen and over age 65, cataract surgery is covered by Medicare. Almost all private insurers cover cataract surgery if it reasonably needs to be done.

If you do not have medical insurance of any kind, cataract surgery can be somewhat expensive. The bulk of your expense will probably not go to your ophthalmologist; the surgeon's fee is usually a fraction of the total bill, which includes preoperative testing, facility fees, anesthesiology fees, postoperative medications, and other expenses. While it is not possible to quote an exact dollar amount, you should anticipate a total bill for several thousand dollars. Reduced

fees for those in need and scheduled payment plans may be available, as is assistance from various charitable organizations.

Unfortunately, most hospitals in the US are losing money every year. This fact is not commonly known by the American public. The only way US hospitals stay open is by receiving subsidies from the government or from private foundations and individual donations.

The losses by hospitals have become worse in recent years, as Medicare and Medicaid reimbursements to both hospitals and physicians have dropped to levels well below those necessary to even keep up with inflation. The recent dominance of HMOs has only made this trend worse.

Therefore, there is little “wiggle room” for hospitals to waive fees, even for the most indigent patients. In the 1990’s, when I was a resident, it was common for Massachusetts Eye & Ear to waive all fees for indigent patients who could not otherwise afford necessary eye surgery. Today, such altruistic and admirable practices have become understandably rare, as hospitals themselves are threatened with their very own extinction.

On occasion, I have waived my own surgeon’s fee for eye surgery, if the patient was poor and had no insurance. However, this did not always solve the problem, as only if the hospital and anesthesiologist were also willing to waive their fees could we perform the surgery.

Today, if you think you might need cataract surgery, the wisest thing to do is to obtain health insurance. If you are over 65, you probably are eligible for Medicare, and should see a government agency to apply for this. If you are indigent, you may qualify for Medicaid, and should similarly apply. For others, you should obtain health insurance, even from a cheap HMO. Then, after your

surgery, you can always elect to drop the plan (although I would not advise this short-sighted approach).

The cost for routine cataract surgery with IOL implantation, including facility fees and anesthesiologist's fees and surgeon's fees, can run into several thousand dollars (typically about \$3000 US in 2000). It is worth seeing a social worker, either at a government agency, a private agency, or at a hospital, to apply for whatever insurance you are eligible.

The US is the richest nation in the world, and in history. Nobody in the US should have to suffer from blindness due to cataract surgery. Some day, we will have universal, single-payer health insurance, like every other industrialized country-- and hopefully a system that is fair to patients and doctors, alike!

10. When Should I Have My Cataract Removed?

As we mentioned above, a common misconception people often have is that cataracts need to "get ripe" before they are removed. This fallacy probably comes from the old days (meaning ten years ago, because cataract surgery has progressed so rapidly), when surgeons were removing cataracts as one big piece (this procedure is called "extracapsular," or "ECCE").

One of my surgeon friends tells his patients, "No, a cataract is not like fruit on a vine. It does not need to ripen." In fact, the most recent method of cataract extraction, called phacoemulsification, or "phaco" for short, is sometimes easier if the cataract, or lens, does not age too much and get too hard. (More on this below.)

The final answer to the question "should I have my cataract removed" is another question. Does the cataract bother you enough to cause you to be unable to

work or pursue leisure activities that are important to you? Are you no longer able to drive at night, or read like you used to? Have you had to reduce your “activities of daily living” because your vision is no longer what it used to be?

The decision to undergo cataract surgery is a joint decision, made between the patient and the physician. Gone are the days when a doctor would declare to a patient, “It’s time to take out your cataracts!” Only you know what kind of vision you need. And what’s right for you may often be wrong for the next person! You may be more or less active than a person your age, and may or may not have other serious medical problems. All these factors will affect the decision on when to operate.

As an eye surgeon, I never tell my patients they must have cataract surgery now. After all, cataract surgery is elective surgery -- it’s not like an emergency appendectomy or cardiac bypass graft.

Indeed, it has been my observation (and I’m sure that many others will agree) that wise surgeons never “force” (or too-vigorously persuade) their patients to undergo any type of surgery. Between surgeons, there is an unspoken understanding that patients often “know” if it’s time to operate or if things are better left alone. It’s as if some patients have an “inner knowledge” about their own bodies that years of medical training cannot compete with. Every experienced surgeon can tell you of a case that he “pushed for” when he or she was young and brash, only to see a “complication” and the patient “do poorly.” This is part of the maturation process that all surgeons must go through to gain the necessary humility that they are not infallible, and all their cases will not be perfect.

That said, there is no reason to worry too much about having cataract surgery. As mentioned above, cataract surgery is the single most successful operation in

the United States, with thousands performed every day. Cataract surgery, like all surgery, should never be undertaken lightly. But, if you need it, having your cataract removed will probably greatly improve your life in many ways!

Discuss all of these issues with your ophthalmologist, and make sure he or she takes the time to answer all your questions. This way, when the time comes for cataract surgery, both you and your doctor will be in agreement, and comfortable with your joint decision.

11. How Do I Choose a Cataract Surgeon?

As a minimum, a cataract surgeon should be an ophthalmologist who is board-certified by the American Academy of Ophthalmology. Being board-certified means the ophthalmologist had completed an approved “training,” or residency, and has passed a national written and oral exam. Most practicing ophthalmologists in the country are “board-certified” -- this is like a minimum competency requirement.

Patients often look at the diplomas hanging on the wall of their doctor’s office to give them clues about their expertise. If the doctor went to a famous medical school, or completed their internship, residency, or fellowship at a “name” institution, the patients surmise that their doctor must be a “good” one. In fact, this way of judging is imprecise, at best. One doctor may have graduated first at a lesser known school, and another last at a well-known school. Which reminds me of an old joke, “What do you call the person who graduates last in his medical class?” Answer: “Doctor.”

Patients also sometimes choose doctors based on their affiliation with a well-regarded medical school or hospital. Some patients will only go to the nearest large medical center, for their presumed expertise. Others will only go to “private”

doctors because they fear being subjected to “students” at medical schools. Both generalities are wrong; excellent physicians may be found in either setting.

What then, is the most important factor in choosing a cataract surgeon? In my opinion, the most important factor in choosing a surgeon is his surgical experience. Makes sense, right? It’s like that Wheaties commercial with Matt Barr, the long-time professional football place-kicker: “Do one thing over and over, and you’ll get good at it.”

Your cataract surgeon should have had significant experience removing cataracts in the past, and be comfortable with the most up-to-date instruments and techniques. The latest technique is called phacoemulsification, which is just a fancy word describing how the surgeon breaks the lens into pieces to remove it through a tiny incision (phaco means “lens,” and emulsification means “to break up”).

You may have heard friends who have had cataract surgery, or ads by eye surgeons mentioning “small incision” or “no stitch surgery.” What is this? These are merely terms describing the length of surgical wound made by the eye surgeon. A smaller wound heals faster than a larger one, thereby allowing for quicker visual recovery. In the “small incision, sutureless” style of surgery, the total length of the incision may be less than 3 millimeters -- less than the height of this letter “I” -- and not even require a single suture. Amazing, isn’t it? Often, patients with this type of surgery see very well right after surgery, or as soon as the next day.

As with anything, though, do not get carried away with the latest hype or marketing ploys. What is latest or slickest is not always best.

While I am loathe to provide a check list for choosing a surgeon, because I think this promotes a “cook-book” mentality, I have done so here because of

overwhelming demand. But, please, keep in mind that the following is only a very rough guideline, to be modified by the surgeon's "reputation" and other factors in the physician-patient relationship.

12. Checklist for Choosing a cataract surgeon:

1. Board-certified? (this is a necessity)
2. Education: medical school, residency? ("name" institutions are often a sign of competency)
3. Affiliation: medical school faculty or hospital staff? (look for reputable institutions)
4. Experience: how many cataracts total (should be >100)
how many cataracts per year (should be >50, more may be better)
5. Routinely uses phacoemulsification? (this is MANDATORY)
6. Uses foldable (silicone or acrylic) intraocular lenses (IOLs)? (allows for smaller incisions)
7. Performs small-incision, clear-cornea cataract surgery (< 3 mm)? (quicker recovery time)
8. Uses topical or sub-Tenon's anesthesia? (not necessarily always, but knows how to)
9. Will see you personally for both the preop. and postop. (not just an assistant)
10. Will personally perform your surgery (not primarily a resident or other assistant)

13. Am I too Old or Sick to have Cataract Surgery?

Many people ask if their age or medical problems will allow them to have cataract surgery. In the great majority of cases, medical problems can be successfully managed by the internist, anesthesiologist, and other specialists before and

during surgery.

Before surgery, you will probably have to undergo some medical tests such as a blood profile and an electrocardiogram (EKG). You will need a physical exam and medical clearance, either by your own physician or somebody affiliated with the surgery center.

If you are taking aspirin for your heart, ibuprofen (Motrin) or a similar product for your arthritis, or a blood thinner, you may be asked to stop several days before surgery to prevent excessive bleeding, although this is not always necessary. Modern, clear-cornea cataract surgery with topical anesthesia does not require any injections around the eye for anesthesia, so with this technique it is often not necessary to stop any anticoagulants.

You will have to go for “Pre-surgical Testing,” or PST. This is an appointment to get the necessary blood tests before your surgery, so the anesthesiologist knows that you are basically healthy enough to go through with the procedure. The specific blood tests you will need will depend on your age and medical conditions. For a routine patient without any serious medical problems, PST tests often consist of a CBC, or Complete Blood Count and a Chem-7 or SMAC, which is a chemistry profile.

It is important to realize that your blood tests and your medical clearance need to be performed close to the date of your surgery. At the hospitals where I operate, the medical clearance only lasts 1 month, and the blood tests 2 weeks before they “expire” and need to be repeated. This policy may make more sense for serious operations such as a cardiac bypass, or CABG, but, unfortunately for both cataract patient and surgeon alike, hospitals often have one, inflexible standard for all types of operations.

The entire process of getting “cleared” for cataract surgery is quite complex, and you may even find it a bit tedious. By keeping in mind that these procedures and processes are in place so that only appropriate patients are brought to surgery, and that all their medical conditions are known and addressed beforehand, it will make the entire process more bearable!

As for age, I have personally operated on patients well into their nineties, who did great! With modern cataract surgery, there is no upper age limit! I have known surgeons who have operated on patients who were over 100 years of age, without any problems! More important than age is that the patient’s overall medical condition is good or at least stable before surgery.

In fact, one of the arguments for having cataract surgery earlier, rather than waiting until your cataracts get really bad, is to have the surgery while you are still relatively healthy, and before you might develop another condition which would make your surgery more risky, or even impossible.

14. What should I Expect during Cataract Surgery?

Long gone are the days of three-day hospital stays and having to sleep on sandbags to prevent your head from moving! Modern cataract surgery is almost always an outpatient procedure. The surgery typically lasts under one hour, although you should probably expect to be at the surgery center for half a day.

Cataract surgery is usually performed under local, rather than general anesthesia. This means that you will not “knocked out” for the surgery, but will be awake. This does not mean that you will not be given sedation to make you sleepy if necessary, or that you will feel any pain. You will receive a local anesthetic either injected around your eye or applied in eye drop form to prevent you from feeling any pain. Indeed, cataract surgery is usually so comfortable and

painless that many patients drift off into a relaxed sleep during the case, even without any sedation!

Depending on the type of local anesthesia given, you may or may not be able to see some lights or other objects through the eye that is being operated on. No patient has ever told me that they found this to be scary or uncomfortable, only “interesting.” Indeed, sometimes patients are so curious and engaged in what we are doing that they keep a running conversation with us during the case! (which we sometimes have to discourage, since when you talk your head always moves a little).

To help you relax, some surgery centers and surgeons let you bring in an audio tape or CD to be played in the OR during your case. I sometimes let my patients do this, although sometimes, I must confess, I cannot tolerate their musical selections, and have to ask the nurse to switch music! In the same vein, although I prefer rock music myself, I often ask the nurse to put on classical music, which the older patients often find more soothing.

It is normal to feel some sensation during your cataract surgery. At times, you may feel a slight pressure, or the surgeon may ask you to look a certain direction. If at any time you feel any pain, simply tell your surgeon this, and he or she will stop momentarily and ask the anesthesiologist for additional sedation to help you relax.

During modern cataract surgery by phacoemulsification, you may hear funny noises that sound like those coming from a video game. These are the sounds coming from the phacoemulsification machine which tell the surgeon the settings and what levels of ultrasound power, aspiration, and irrigation are being used throughout the case. It's an ingenious way that manufacturers and surgeons

have devised so that the machine can “talk” to the surgeon, giving non-verbal feedback throughout the case.

After surgery, you will probably have a bandage or shield placed on your operated eye, and told to come in the next day and begin eye drops then. Sometimes no patch is used, and drops are started the same day. There is usually very little discomfort after cataract surgery; the most people need afterwards may be an over-the-counter pain medication, such as Tylenol.

15. The Recovery Period after Cataract Surgery

As discussed above, with modern cataract surgery many people see well (and even better than they did before surgery) as soon as the next day. In general, you can expect to see reasonably well within a few days if the surgery was uncomplicated, although it may take weeks for your vision to improve fully. Immediately after cataract surgery, you will probably be given either an eye shield, patch, or merely protective glasses to wear. You may be instructed to leave the shield or patch on until the next day, when you will see your surgeon for the postoperative check.

At the one-day postop., your eye patch or shield, if any, will be removed. Your surgeon will examine your eyes, to make sure things are going well. It is normal for your vision to still be blurry at this time, and to gradually clear over the next few days and weeks.

You will probably be given one or two eye drops to use a few times a day for several weeks after the surgery. You may be told to put an ointment in your operated eye at night, and to cover your eye with a protective shield when you sleep so you don't accidentally poke yourself. During the day, you may be asked to wear regular glasses or sunglasses for protection.

You should not get dirty water in your eyes for several weeks after your surgery. When you bathe, make sure that you keep your eyes closed, so water does not get into your eye.

Most ophthalmologists allow their uncomplicated cataract patients to resume their normal activities soon after their surgery. Often, people are able to go back to work within a few days, and to drive or begin light exercise the following week. The exact schedule of recovery is, of course, variable, depending on the actual surgery and healing characteristics of the patient.

Your vision will slowly sharpen every day. Many of my cataract patients see 20/20 by the first week check-up. Some actually see 20/20 the very next day, although this is not the rule. And, of course, some patients need a month or more to recover their best vision. Each patient is different, and their recovery also depends on their visual potential and other eye problems before their surgery.

A few weeks after surgery you will have a final check-up, where you will be given new glasses for the operated eye. Although you may see perfectly at distance, you will probably need glasses to help you read. If you have a cataract in your other eye, you may not be given glasses until that eye is done. Medicare pays for one set of glasses after cataract surgery if you are over 65; it's included in the package.

If you are having cataract surgery in both your eyes, you may want to ask your surgeon for monovision, where one of your eyes is left a bit nearsighted, to help you read without reading glasses.

Soon, you may see things more clearly and vividly than you have in many years! Enjoy this miracle of modern science!

16. Summary: How to Get the Best Vision after Cataract Surgery

Congratulations! You now should have a much better understanding of what cataracts are, and how they are treated. I am confident that, with this knowledge, you will have an even better chance at an excellent visual outcome after your cataract surgery!

In summary, to get the best results after cataract surgery, follow these steps:

1. Decide whether your vision is not as good as it needs to be, and if cataract surgery is necessary.
2. Choose a well-qualified cataract surgeon, using the guidelines on page 14.
3. Get proper medical and laboratory surgery close to your surgical date.
4. Talk with your surgeon about the use of monovision or bifocal IOLs to help you read afterwards.
5. Keep all your scheduled appointments after your surgery.
6. Take your eye drops as prescribed after your surgery.
7. If your vision worsens or the eye gets more red or painful, call your surgeon immediately.
8. Use the resources in Appendix 1 and 2 to answer your remaining questions!

Remember, cataract surgery is the most common, safest, and most successful surgical procedure in the US today! By utilizing these resources, and by following the above guidelines, there is every reason in the world to expect improved, excellent vision after your cataract surgery for the rest of your life!