

eye
CARE
center

of northern colorado, pc

To Our Patients:

In anticipation of your glaucoma surgery, you may feel anxious and have many questions. We hope that the attached information will answer your questions and help to ease your worries. Successful surgery requires a team effort, with a key member of that team being you.

Please read this carefully or have it read to you. Make notes of additional questions that come to mind, so that we can answer them for you during your pre-operative office visit before surgery. Please keep this material handy for ready reference.

We want your experience with surgery to be as comfortable and as pleasant as possible. Please rest assured that we intend to give you the best possible care.

The chances for successful glaucoma filtration surgery with a tube shunt are, in general, very good. Successful surgery results from careful attention to detail, by both the doctor and the patient. Please read the following advice and instructions so that together we can work to preserve your vision.

Sincerely,

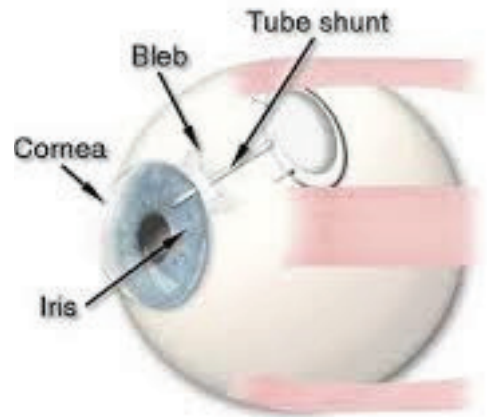
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WHAT IS A TUBE SHUNT?

The treatment for glaucoma is to lower the eye pressure. When medications and/or laser trabeculoplasty are unable to reduce the eye pressure enough, the best choice is to surgically make a new drain for the eye to allow the fluid that cannot get out through the natural drain and decrease the eye pressure.

A tube shunt device is implanted into the eye to provide an artificial drainage site for the fluid to exit the eye posteriorly where the body can absorb the fluid. It is usually placed under the upper outer eyelid, but sometimes in the lower inner portion of the eye if needed.

Glaucoma Tube Shunt Implantation



WHEN IS A TUBE SHUNT INDICATED?

There is more than one surgical option for glaucoma. Glaucoma tube shunt surgery is indicated when there has been a previous failed trabeculectomy surgery or in certain forms of glaucoma where a trabeculectomy would likely fail, as in neovascular glaucoma, corneal transplants, uveitic glaucoma, and contact lens wearers.

ARE THERE STITCHES?

Yes, there can be two types.

When we open the clear covering of the eye, or conjunctiva, and place the implant, we need to suture the plate and tube into place to secure it. These sutures can either dissolve or stay permanently in place depending on your surgeon's preference. There is also a dissolvable stitch that may be used to tie off the tube so that the eye has time to heal around the plate of the implant before it is fully functioning but will dissolve in 4-6 weeks' time or can be lasered if needed sooner. This can help to prevent complications during the early period right after surgery from the eye pressure going too low.

The second area where we will need to use a stitch is to close the thin clear covering on the eye, or conjunctiva. These "outer" stitches can be types that dissolve on its own or those that need removal after the eye has healed, again depending on surgeon preference. It is common to feel these stitches right after surgery, but as they melt and soften, they become more comfortable. It takes about 4-6 weeks for the stitches to dissolve.

WHAT IS THE SUCCESS RATE?

Overall success is 80-90% at 1 year. In most cases, this means that the eye pressure will be low enough to prevent more glaucoma damage. For the first one to two months after surgery, you will need to use eye drops to help with inflammation and occasionally continued glaucoma drops. In most cases, once the tube has opened you may not need to use all the glaucoma drops you once were on or use a reduced number of these drops, compared to what you had used before surgery. However, there are instances when the eye pressure stays elevated even after the tube is working and you will need to stay on glaucoma drops for a few weeks to months or need additional surgery.

WHAT SHOULD I EXPECT DURING and AFTER SURGERY?

The procedure can be done with “light” anesthesia or general anesthesia, depending on your medical conditions. This will be decided in consultation with your anesthesiologist. Often times you will be put into a light sleep for a few minutes to give you an anesthetic injection around the eye for pain control. During surgery, you will be lying flat on a bed, your eye will be cleaned and there will be a sterile drape covering over your face and body. Your eye will be held open with a clip, or lid speculum, to prevent blinking. You may hear your surgeon talking during the surgery. If you experience any pain or discomfort, it is important not to make sudden movements and to alert your surgeon so the anesthesiologist can provide medications through an IV in your arm. After the surgery you will have a patch and shield on your eye. This will be removed when you come see your surgeon the next day in the office.

WHAT ARE THE RISKS?

All surgery have known risks, however surgery is only done when the benefits of it outweigh the risks. Risks include:

- Bleeding- we stop all blood thinners, if your doctor allows it, to minimize the risk of bleeding and you should avoid straining to keep blood from backing up into the eye.
- Infection- we use antibiotic drops before and after surgery
- Cataract- if you have not had cataract surgery, any eye surgery, including tube shunt increases the rate that the cataract matures
- Discomfort- since we are placing stitches to close the eye and working near the muscles, this may cause some irritation from inflammation but as the eye heals and sutures dissolve this will resolve. Most do not feel pain, but it does feel different than before surgery.
- Very Low Eye Pressure (Hypotony) - This can happen if your tube shunt filters too much fluid from the eye. The eye pressure is then too low and can cause pockets of fluid inside the eye to form (Choroidals). If this causes a decrease in your vision, you may need additional surgery to drain the fluid.
- Diplopia- since we work near the muscles to place the implant, you may have double vision after the surgery. This usually resolves as the inflammation heals, but very rarely you may need another surgery to reposition the implant
- Tube shunt exposure- this happens very rarely, usually years after surgery, sometimes after trauma, the conjunctiva covering the tube can erode and leak eye fluid into the tears. This can increase the risk of infection and may need to be fixed if it does not heal on its own.
- Ptosis or droopy eyelid
- Vision loss or blindness
- Failure of the tube and need for additional surgery

Should you experience significant Redness, Sensitivity to light, Pain, or Vision loss (RSVP) that persists for more than a few hours, or other visual changes of concern in an eye that’s had a Tube Shunt surgery, please call us anytime. These could be early signs of infection or drop in eye pressure.

WILL SURGERY CURE MY GLAUCOMA?

No, there is currently no cure for Glaucoma. The goal of glaucoma surgery is to keep the eye pressure down and prevent worsening of glaucoma and visual field loss. There is still a chance that the eye pressure will not be low enough for your eye. Thus, it is important that you continue to see your glaucoma specialist to make sure your glaucoma is stable and not worsening at your current eye pressure.

DOES GLAUCOMA SURGERY AFFECT CATARACT SURGERY

If you have had glaucoma surgery, the reason to have cataract surgery remains the same, to improve the blurriness and glare affecting your vision, but there are a few special considerations in patients with glaucoma surgery. First, if you have lost some vision due to glaucoma, removing the cataract will not restore the glaucoma damage, but it is expected to improve the remaining areas not affected by glaucoma.

Usually, the risks of cataract surgery are similar in eyes with glaucoma surgery; however in eyes that have previously undergone glaucoma surgery, there may be adhesions that may limit the ability of the pupil to dilate that may need to be addressed during surgery. It is possible that your eye pressure may be higher after cataract surgery than before.

It is possible to do cataract surgery at the same time as glaucoma surgery to address both problems. Not every patient is a candidate for the combined procedure. If this is an option for you, we will discuss the advantages and disadvantages.

INFORMATION FOR PATIENTS WHO ARE CONSIDERING OUTPATIENT GLAUCOMA SURGERY

In general, the chances for successful glaucoma surgery are very good. Successful surgery results from careful attention to detail by all of us. Please read the following advice and instructions so that together we can restore your vision.

CONSIDERATIONS BEFORE YOUR SURGERY

1. Outpatient Surgery

We routinely perform outpatient (day) glaucoma surgery. It is well established that, for nearly all patients, outpatient surgery is at least as safe as inpatient surgery for most patients, and it is certainly less stressful. Most patients leave the surgery center less than one hour after surgery ends.

We prefer to perform outpatient ophthalmic surgery in our Ambulatory Surgical Center on the first floor because our team is experienced and specialized in eye surgery, but the location for your surgery may be dictated by your insurance company.

2. Planning Postoperative Care

Postoperative visits are usually scheduled at 1 day and 1 week. Typically, there will be more visits to closely monitor over the first 6-8 weeks and the first 3-4 months are critical periods for healing. The exact timing of these visits will depend upon how your eye is healing.

After surgery, you will use several eye drops in the operated eye during the critical healing period, beginning with 4-6 times a day and then, gradually tapering off. If this is difficult for you, please be sure to arrange for someone to help you use the eye drops at home to maximize the chances for successful surgical outcome.

3. General Medical Precautions

If you have medical problems that require the care of a physician, a recent written report from your physician would be helpful to us. In almost all cases, we use local anesthesia; that is, your eye will be anesthetized with drops or an injection.

If you are taking a “blood thinner” such as Coumadin, this will need to be stopped 5-7 days before surgery: please check with us and your medical doctor for exact instructions. If stopping the “blood thinner” poses an unacceptable medical risk for you, other alternatives will need to be worked out. Additionally, it is very important for you to stop other blood thinners such as aspirin, non-steroidal agents (ibuprofen, Motrin, Advil, Aleve, etc.) and vitamin E for at least 5-7 days prior to surgery. Generally, all blood thinners can be resumed after you are seen on the first day after surgery, but check with your surgeon to be sure. Bring a list of all medications that you are currently taking when you come for your pre-operative office visit before surgery.

If you experience fever or infection in any part of your body within 1-2 weeks of your scheduled date of surgery, it is likely that we will want to reschedule the surgery for a later date. If such an event occurs, check with your general medical doctor and/or this office for a decision about rescheduling.

4. Precautions for all contact lens wearers

If you currently ever wear any kind of contact lens on an eye that is to receive glaucoma surgery you should not wear it after surgery unless approved by your surgeon. This is necessary to protect the eye from infection. If you have concerns regarding wearing contact lenses after surgery, you will need to discuss with your surgeon

THE DAYS BEFORE SURGERY

1. Examination

You will have an appointment to see your surgeon before your planned glaucoma surgery. At the time of your office visit, your eyes will be evaluated and plans for surgery will be discussed. Your questions will be fully answered. There will be papers for you to read and sign that describe alternatives to and risks associated with surgery and that give permission for surgery.

2. Fees and Insurance

During the surgery scheduling process, you will be informed by our surgery coordinators of the co-pays and out of pocket deductibles that will be collected prior to surgery. We work with your insurance company to get the pre-authorizations needed for your surgery.

3. Accommodations for Out-of-Town Patients

There are several hotels within a mile of our offices. If you need any help or suggestions in making your accommodations, please let us know.

4 Preoperative Eye drops

In our office, during your pre-operative visit, we will provide you with prescriptions for eye drops that you will use before and after surgery. We ask that you administer one drop of each type in the eye scheduled for surgery, four times spread out through the day before surgery. Please wait at least five minutes between each of these drops and between any additional glaucoma drops. Also, please place one drop of each medicine in the eye on the morning of your surgery. Continue all glaucoma drops in both eyes as you normally would on the day before surgery.

5. At Home the Evening before Surgery

You may carry on normal evening activities. However, you are not to eat or drink anything after midnight the night before surgery, except medications with a small sip of water.

You should continue to take all important medications, such as those for heart conditions, lung conditions, high blood pressure, and so on. Do not be concerned if you do not sleep normally the night before surgery. This will not interfere with your surgery in any way.

THE DAY OF SURGERY

1. Take all of your important medications on the morning of surgery with a sip of water. Do not eat or drink anything else. Also, please remember to instill your eye drops.

2. Special note to diabetic patients: Do not take your insulin or oral diabetes medicines on the morning of surgery. If you use insulin, please bring it with you to the Ambulatory Surgery Center so that it can be administered following your surgery.

3. Please do not apply make-up on the morning of surgery.

4. Please arrive at the surgery facility on the morning of your surgery at your appointed time.

In the holding area, routine preparation for your surgery will occur. You will have an IV placed and speak with the Anesthesiologist regarding the type of sedation that is planned. Prior to going into the operating suite, your family can be with you by your side.

Once appropriate preparations have been made, you will be taken to the operative suite for surgery. Most surgery lasts 30 minutes to one hour, and depending on the circumstances and complexity, some surgery may last longer.

At the conclusion of surgery, your doctor will notify your family in the waiting room while you are taken to the recovery observation area following your surgery. You will stay there for

approximately another hour. You will leave the surgery facility wearing the eye shield or patch that was placed on your eye at the conclusion of surgery. You must have a responsible adult take you home.

5. At Home after Surgery

After surgery, most patients have little pain, but pain medication such as acetaminophen (Tylenol), regular or extra-strength, may be used if needed. Just leave the patch or shield in place. Sleep with the shield on that night.

Once you return home, you may feel like resting for the remainder of the day. If you feel like being up and around, that is fine. Eat lightly at first; do not immediately resume your normal full diet. You may watch TV and read. Avoid any heavy lifting until after you see your doctor on the next day.

FOLLOWING SURGERY

1. You will be scheduled to come in the day after surgery. Your doctor will examine your eye, and we will answer any questions that you might have. To be certain that we can answer your questions correctly, please bring all of your eye drops with you.

2. After surgery, you should wear the eye shield over the operated eye whenever you are sleeping for the first 3 weeks. At other times, it is important to be careful not to accidentally “bump” your eye. To minimize this risk, you should wear your glasses during the day. This can be any pair that you prefer – prescription or nonprescription, clear or tinted.

VISION AFTER SURGERY

Your vision will be blurry immediately after surgery and will gradually clear as your eye heals. Many patients see well on the day after surgery, whereas for others, recovery of vision takes longer. The process varies widely, and please do not be discouraged. Typically, the vision in the eye stabilizes by six to eight weeks after surgery. At this time, we will prescribe any change in glasses that might be required.

DISCOMFORT AFTER SURGERY

Mild discomfort is normal after surgery. This is mostly due to stitches in the eye and the surface changes that occur after surgery. Most stitches become more comfortable and will dissolve on their own in about 4 weeks. Additionally the surgery was performed to make a new drain for the eye- as a result, the surface of the eye is different than it was prior to surgery. Most do not have pain, but the eye often feels “different”. Using artificial tear eye drops generally helps this feeling.

INSTRUCTIONS FOR PATIENTS RECOVERING FROM GLAUCOMA SURGERY

1. Appointment

- * At the scheduled time on the day after surgery, you should come to our clinic to be seen by your surgeon.

2. Medications

- * **Please bring all of your eye drops including the eye drops before surgery, and the new drops prescribed for surgery.**
- * **We will instruct you on the use of your eye drops.**
- * **Use medications as instructed. The drops may be taken in any order, but wait at least five minutes between drops. Do not stop any of the drops until directed to do so.**
- * **Some of the drops must be shaken well before being used; this is indicated on their labels. The steroid drop sometimes causes a white strand to form in the corner of the eye. Also, patients sometimes accumulate some discharge in the eye or around the eyelids. To clean the discharge from your eyelids, you may gently wipe your eye with a sterile cotton gauze pad or clean, unused cotton cloth.**
- * **Extra-Strength Tylenol or a similar type of medication may be used to relieve pain or discomfort as needed. You may feel as if you have an eyelash in the eye or may have a deep intermittent pain for the first few days after surgery- This is normal and will go away.**
- * **After surgery, resume taking (as directed) any medications that were prescribed by your other doctors.**

3. Special Eye Care Precautions

- * **The white of the eye may be red for several weeks following surgery. This is normal.**
- * **NEVER try to remove any mucus from the eye with a cotton swab.**
- * **For three weeks after surgery: When sleeping, please tape the clear eye shield over the operated eye. During the daytime, you might consider wearing some type of glasses as extra protection against an accidental “bump” to the eye.**
- * **DO NOT RUB the operated eye hard at any time, now or in the future.**

4. Travel

- * **You may travel by air or surface transportation as soon as you wish after surgery.**
- * **Please check with us before you resume driving your car.**

5. Diet

- * **You may resume your usual diet.**

6. Bathing, Hair-Washing, and Makeup

- * **You may resume normal bathing and hair-washing two days after surgery. For the first week after surgery, avoid bending over or rubbing on the operated eye.**

- * **For the first week following surgery, please do not use mascara or any makeup that touches the edge of the eyelashes. You can resume normal use of makeup beginning one week after surgery. Take extra precaution when removing eye makeup.**

7. Activity

- * **First day after surgery: You may return to all normal, non-strenuous activities. Avoid hard straining or any activity that causes your face to turn red- straining, stooping, etc. If you are constipated, take an over-the-counter stool softener such as, Colace to avoid straining during bowel movements.**
- * **One month after surgery: You may resume all normal activities. You should always protect the operated eye from any direct trauma, such as might occur from a tennis ball, etc.**

8. Emergency Care

- * **In the vast majority of patients, recovery is uneventful.**
- * **Should you experience Redness, Sensitivity to light, Vision loss, Pain (RSVP) - that persist for two or more hours, or other visual change of concern in the operated eye, please call us immediately**

We hope that your surgery experience is as pleasant as possible and that your recovery is uneventful. We welcome your comments and suggestions concerning your experience with your surgery.