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AN INCORPORATED
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SINUS & NASAL AIRWAY SURGERY SURGICAL INSTRUCTIONS

INTRODUCTION

Your doctor has recommended sinus and nasal airway surgery for you. The following information is provided to help you prepare for your surgery, and to help you understand more clearly the associated benefits, risks, and complications. You are encouraged to ask your doctor any questions that you feel necessary to help you better understand the above procedure.

Nasal obstruction is usually caused by a deviated or crooked septum or enlarged tissues (turbinates) within the nose. A septoplasty is an operation to correct a deformity of the partition (the septum) between the two sides of the nose. A turbinectomy is the surgical removal of an abnormally enlarged turbinate from inside the nose to improve breathing. The goals of nasal airway surgery are to improve airflow through the nose, enhance visualization of the inside of the nose, relieve nasal headaches associated with swelling of the tissues inside the nose, and to promote drainage of the sinus cavities.

Sinus surgery involves the precise removal of diseased sinus tissue with the improvement in the natural drainage channels by the creation of a pathway for infected material to drain from the sinus cavities. In most situations, your doctor will employ endoscopic techniques which allows for better and precise visualization without the need for external incisions. As a result, there is less swelling, bleeding, and discomfort than with conventional external surgery, and a faster recovery.

Sinus surgery, unlike other types of surgery in which a diseased part or organ is removed, involves the re-routing of existing sinus pathways. It cannot be emphasized more strongly that postoperative care is as equally important as the surgery itself. One of the most common causes of failure of this procedure is poor postoperative care and follow-up. Your doctor can only do so much, it is up to you as the patient to share in the responsibility of caring for your chronic illness.

The following instructions are designed to help you recover from sinus and nasal airway surgery as easily as possible. Taking care of yourself can prevent complications. It is very important that you read these instructions and follow them carefully. We will be happy to answer any questions.

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RISKS AND COMPLICATIONS

Your surgery will be performed safely and with care in order to obtain the best possible results. You have the right to be informed that the surgery may involve risks of unsuccessful results, complications, or injury from both known and unforeseen causes. Because individuals vary in their tissue circulation and healing processes, as well as anesthetic reactions, ultimately there can be no guarantee made as to the results or potential complications. Furthermore, surgical outcomes may be dependent on preexisting or concurrent medical conditions.

The following complications have been reported in the medical literature. This list is not meant to be inclusive of every possible complication. They are listed here for your information only, not to frighten you, but to make you aware and more knowledgeable concerning this surgical procedure. Although many of these complications are rare, all have occurred at one time or another in the hands of experienced surgeons practicing the standard of community care. Anyone who is contemplating surgery must weigh the potential risks and complications against the potential benefits of the surgery, or any alternative to surgery.

1. Failure to resolve the sinus infections or recurrence of sinus problems and/or polyps, or need for further or more aggressive surgery.
2. Bleeding. In rare situations, a need for blood products or a blood transfusion. You have the right, should you choose, to have autologous or designated donor directed blood prepared in advance in case an emergency transfusion was necessary. You are encouraged to consult with your doctor if you are interested.
3. Chronic nasal drainage or excessive dryness or crusting of the nose or sinuses.
4. Need for allergy evaluation, treatments, or environmental controls. Surgery is not a cure for nor a substitute for good allergy control or treatment.
5. Failure to improve or resolve concurrent respiratory illness such as, but not limited to asthma, bronchitis, or cough.
6. Failure to resolve associated "sinus or nasal" headaches. The exact cause of headaches can be difficult to determine or be multifactorial. You may require consultation with another specialist such as a neurologist.
7. Damage to the eye and its associated structures, or damage to the skull base with resulting meningitis, brain abscess, or leakage of spinal fluid (rare). Sometimes chronic or acute infection of the sinuses can lead to these complications as well.
8. Permanent numbness of the upper teeth, palate, or face.
9. Nasal obstruction due to failure to straighten the septum or control infection, or recurrence of polyps and the re-growth or swelling of the turbinates.
10. Prolonged pain, impaired healing, and the need for hospitalization.
11. Septal perforation, which is a permanent hole inside the nose between the two sides.
12. Failure to restore or worsening of the sense of smell or taste.

BEFORE SURGERY

In most situations, the surgery is performed as an outpatient at either the hospital or the surgicenter. In both facilities, quality care is provided without the expense and inconvenience of

an overnight stay. An anesthesiologist will monitor you throughout the procedure. Usually, the anesthesiologist will call the night before surgery to review the medical history. If he or she is unable to reach you the night before surgery, they will talk with you that morning. If your doctor has ordered preoperative laboratory studies, you should arrange to have these done several days in advance. Arrange for someone to pick you up from the surgical facility and to spend the first night after surgery with you.

After surgery, your doctor will usually like for you to start using saline irrigation. It is best to use a water pick for these irrigation's. You will need to either purchase or borrow a water pick to start using after the packs have been removed. Your doctor will instruct you on how and when to start using your water pick irrigator. He will also give you a special device to attach to the water pick to make it easier to use (extra charge).

You should not take aspirin, or any product containing aspirin, within 10 days of the date of your surgery. Non-steroidal anti-inflammatory medications (such as Advil) should not be taken within 7 days of the date of surgery. Many over-the-counter products contain aspirin or Advil type drugs so it is important to check all medications carefully. If there is any question please call the office or consult your Pharmacist. Tylenol is an acceptable pain reliever. Usually your doctor will give you your prescriptions at the preoperative visit. It is best to have these filled prior to the date of your surgery.

You must not eat or drink anything 6 hours prior to the time of surgery. This includes even water, candy, or chewing gum. Anything in the stomach increases the chances of an anesthetic complication. Smokers should make every effort to stop smoking, or at least reduce the number of cigarettes. This will help to reduce postoperative coughing and bleeding.

If you are sick or have a fever the day before surgery, call the office. If you wake up sick the day of surgery, still proceed to the surgical facility as planned. Your doctor will decide if it's safe to proceed with surgery.

THE DAY OF SURGERY

It is important that you know precisely what time you are to check in with the surgical facility, and that you allow sufficient preparation time. Bring all papers and forms with you including any preoperative orders and history sheets. You should wear comfortable loose fitting clothes which do not have to be pulled over your head. Leave all jewelry and valuables at home. Remove all make-up with a cleansing cream. Thoroughly wash your face with soap and water. Do not apply make-up or cream to your face.

Do not take any medication unless instructed by your doctor or the anesthesiologist. Usually in the pre-operative holding room, a nurse will start an intravenous infusion line (IV) and you may be given a medication to help you relax.

DURING SURGERY

In the operating room, the anesthesiologist will usually use a mixture of a gas and an

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intravenous medication to put you to sleep and to maintain your anesthetic at a safe and comfortable level. During the procedure, you will be continuously monitored including pulse oximeter (oxygen saturation) and cardiac rhythm (EKG). The surgical team is prepared for any emergency. In addition to the surgeon and the anesthesiologist, there will be a nurse and a surgical technician in the room. The whole procedure usually takes several hours. Your doctor will come to the waiting room to talk with any family or friends once you are safely to the recovery room.

AFTER SURGERY

After surgery, you will be taken to the recovery room where a nurse will monitor you. You will be able to go home the same day as the surgery once you have fully recovered from the anesthetic. This usually takes several hours. You will need a friend or family member to pick you up from the surgical facility to take you home. They should spend the first night after surgery with you.

When you arrive home from the surgical facility, you should go to bed and rest with your head elevated on 2-3 pillows. By keeping your head elevated above your heart, you can minimize edema and swelling. You may get out of bed with assistance to use the bathroom. Avoid straining, if you are constipated, take a stool softener or a gentle laxative.

You may have some swelling of your nose, upper lip, cheeks, or around your eyes for several days after surgery. This swelling will gradually go away and is normal. You can help reduce it by keeping ice on your face, bridge of the nose, and eyes as much as tolerated. This will also help with postoperative edema and pain. Some patients have found frozen vegetable in packages (for example bags of frozen peas) to be a convenient ice pack which is more likely to conform to the face.

Moderate bleeding from the nose is normal, and will gradually decrease. The gauze dressing ("mustache dressing") will collect blood and should be changed only when saturated. It is not unusual to change these dressing every hour during the first 24 hours after surgery. After a few days you will probably not need to use the dressing any longer. Do not take aspirin, aspirin-containing medications, or non-steroidal anti-inflammatory medications (Advil) for 3 weeks following surgery.

It is best to eat a light, soft, and cool diet as tolerated once you have recovered fully from the anesthetic. Avoid hot liquids for several days. Even though you may be hungry immediately after surgery, it is best to go slowly to prevent postoperative nausea and vomiting. Occasionally, you may vomit one or two times immediately after surgery; if it persists, your doctor may prescribe medication to settle the stomach. It is important to remember that a good overall diet with ample rest promotes healing.

You will be prescribed antibiotics after surgery, and should finish all the pills that have been ordered. Some form of a narcotic will also be prescribed (usually vicodin), and is to be taken as needed. If you require narcotics you are cautioned not to drive. In some situations

your doctor may give you steroids to be taken either preoperatively and/or postoperatively. It is very important that you take this medication as prescribed, and not discontinue it prematurely. If you have nausea or vomiting postoperatively, you may be prescribed anti-emesis medications such as phenergan. If you have any questions or you feel that you are developing a reaction to any of these medications, you should consult your doctor. You should not take any other medication, either prescribed or over-the-counter, unless you have discussed it with your doctor.

GENERAL INSTRUCTIONS AND FOLLOW-UP CARE

In most situations, packs will have been placed in your nose to control postoperative bleeding. Your doctor will tell you when you are expected to return to the office to have these removed. You need to call the office to schedule this postoperative appointment. Please arrange for someone to drive you to and from the office for this first visit. You should eat a light meal before coming, and avoid taking excessive pain medications. You will also have several subsequent office visits to assess healing, remove crusts, and insure a speedy recovery. Your nose will probably be tender after surgery, so we will spray your nose with a special numbing medication before removing crusts.

After the packing has been removed, you may breathe through your nose, but do not blow or sneeze through it for 7-10 days. If you must sneeze, open your mouth. Expect some light blood-tinged drainage from the nose for several days. If bleeding becomes excessive, apply ice and rest quietly with head elevated while holding your nose. If bleeding continues, call the office.

One of the most important things you can do after surgery is nasal irrigation. Immediately after the nasal packs are removed you should use a saline nasal spray such as "Ocean Spray" several times per day to prevent crusts from forming in your nose. We will also have you start using a water pick irrigator during the first week of surgery. You are to continue using the water pick irrigator until we tell you to stop. Many patients will use it indefinitely or when they have an upper respiratory infection. Failure to irrigate will likely cause the surgery to fail!!

You may go back to work or school only when your doctor says you can. Rest for the first week following surgery. Avoid excessive talking, smiling, hard chewing, strenuous activities, lifting heavy objects, bumping your nose, and bending over. Try not to rest your glasses on the bridge of your nose until soreness and swelling subsides. You may wear your contact lenses once eye swelling and any irritation has resolved. Alcohol and tobacco should be avoided because they may prolong swelling and healing. Smoke, dust, and fumes may irritate your nose and cause an infection. We discourage facial tanning for 6 months after surgery. If you must be in the sun you should use a number 15 or greater sun block. You may use your usual make-up anytime after surgery.

Lubricate your nostrils, as instructed, with a Q-tip and Vaseline to soften harden crusts. Peroxide helps to loosen crusts. After several days you may notice a few of the absorbable

sutures. Be gentle while brushing your upper teeth. They will often be tender for several weeks, and you may have some numbness of the teeth and palate for several months.

After 3 weeks, if you are not having problems with bleeding, you may resume exercise and swimming, but no diving for two months. You should plan to stay in town for 3 weeks to allow for postoperative care and in case you have bleeding.

NOTIFY YOUR DOCTOR IF YOU HAVE

1. A sudden increase in the amount of bleeding from the nose unrelieved by pressure, ice, and head elevation.
2. A fever greater than 101.5 degrees F which persistent despite increasing the amount of fluid you drink and tylenol. A person with a fever should try to drink approximately one cup of fluid each waking hour.
3. Persistent sharp pain or headache which is not relieved by the pain medication you were prescribed.
4. Increased swelling or redness of the nose or eyes.
5. Drainage of a thin, clear fluid in large quantities from usually only one side of the nose. This would be different from the clear, thicker mucus normally produced by the nose.

SELF-CARE AND PREVENTION

It is important for all patients with chronic sinus disease to understand that they have a chronic illness. Successful sinus surgery will only help control the complications and discomfort of chronic sinus disease. The following three areas of prevention should always be remembered.

1. Maximize Moisture. Patients should always remember to maximize moisture in their nose. Keeping your sinuses moist makes your mucus thinner, allowing your sinuses to drain better. This in turn, helps prevent infection. Use a humidifier, drink plenty of water, avoid drying substances such as alcohol and coffee, try to avoid smoke, which dries out sinus linings, and use plenty of saline irrigation.
2. Avoid Allergens. You may want to wear a mask when you clean or are exposed to dust. Avoid smoke and exposure to pollens during peak season, wash your bedding frequently, and keep an air-conditioner on during allergy season.
3. Prevent Colds. Avoid exposure to colds and flu whenever possible.

IMPORTANT PHONE NUMBERS

If you have any questions, do not hesitate to call the office at (949) 364-4361. At night or on the weekends, if you need is urgent and cannot wait until regular business hours, you may call our emergency number at (949) 580-2098. Our answering service will contact the doctor on call. If for some reason you cannot reach the doctor on call and your need is life threatening, go to the emergency room.

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ATTESTATION

I have received, read, and understood the information provided to me regarding my upcoming surgery (six pages). I have been given the opportunity to discuss freely with my doctor any concerns, alternative therapies, and have had my questions answered to my satisfaction. I understand my rights as a patient which includes the right to a second opinion, and have discussed and made clear my preferences with my doctor. I understand that unless time permits for designated donor blood to be prepared, and my doctors feel that blood must be given emergently, I will accept banked community blood products.

I acknowledge receipt of the above discussion of potential risks and complications, as well as patient information, regarding my surgery and pre & post operative care. I am comfortable with all aspects of the upcoming surgery including the uncertainty of outcomes and the acceptance of risks, and ask that we proceed with surgery as planned.

(Signature of patient or guardian)

(date)

Witnessed by_____

(date)

Revised December 2002: JKB.