

# ENDOSCOPIC SINUS SURGERY

Department of Otolaryngology – Head and Neck Surgery VCU Health Systems

### I. Sinus Surgery Basics

Sinus surgery is performed to improve the normal function of the nose and sinuses. Sinusitis occurs when a sinus gets blocked, mucus backs up within the sinus, and bacterial overgrowth occurs. This can cause symptoms including headache, pressure in the face, nasal drainage, post-nasal drip, congestion, or decreased sense of smell. With sinus surgery, our goal is to enlarge the natural sinus openings, such that they are less prone to blockage and thus infection. Sinus surgery is also performed to remove polyps and other growths within the sinuses.

Endoscopic sinus surgery is usually performed under general anesthesia. The surgery is performed using a slender telescope and specialized instruments that are passed through the nostrils. There are no external incisions or scars. The natural sinus openings are enlarged by carefully breaking down the thin bony walls that separate the sinuses. In general this creates large passages from the sinuses into the nasal cavities, such that mucus can drain freely, making the sinuses less prone to blockage. In addition, any polyps present are removed. In some cases, severe inflammation in the sinuses may lead to significant bleeding during the procedure. In this case, gauze packing is placed in the nose at the end of the procedure to prevent bleeding postoperatively. This packing is typically removed later in the day, prior to discharge to home. Occasionally the packing will be left overnight or slightly longer. Depending on the extent of the procedure, surgical time is between one and four hours. Once the effects of the anesthesia have worn off, most patients are discharged to home later the same day.

### **II. Postoperative Issues**

#### 1. Pain

Most patients will experience the equivalent of a severe head cold, including congestion, nasal discharge, and headache, for 1-4 weeks after the surgery. Pain is usually mild to moderate; prescription pain medications may be needed for up to one week after the surgery. A prescription will be given at the time of surgery. Mild discomfort may be treated with Tylenol. Please avoid any ibuprofen-based pain medications (Motrin or Advil), as well as aspirin, as these can lead to postoperative bleeding.

#### 2. Antibiotics

Following surgery, the sinuses typically get backed up with blood and mucus. In order to prevent a significant infection, antibiotics are usually prescribed. All prescribed antibiotics should be taken as directed until completed.

### 3. Nasal Hygiene

Blood and mucus within the sinuses can solidify, blocking the nose and making breathing difficult, and also potentially leading to scar tissue which may limit the benefit of the surgery. To reduce this problem, an over-the-counter nasal saline spray (available in any drug store) should be used, three to four puffs to each side of the nose, every one to two hours during the daytime. This will help moisten the mucus crusts and promote drainage. In addition, the nose should be flushed with salt-water using a rubber bulb syringe, 1-3 times per day. Irrigation may initially return large amounts of blood and mucus crusts. This is normal, and should decrease in quantity with each day. Frequent irrigation will help keep the nasal breathing passages open and speed the healing process.

4. Diet

Some patients may have mild nausea and even occasional vomiting for one to two days following general anesthesia. Once this subsides, the patient can eat a normal diet. It is best to avoid any hot liquids for three to four days after the surgery, as this can increase the chance of bleeding.

5. Activities

It is best to avoid strenuous activities for approximately two weeks following surgery. Significant exertion will raise the blood pressure, again increasing the chance of bleeding. It is also best to avoid blowing the nose. In the event of nasal blockage or discharge, additional saline irrigation may be used. If one has to sneeze it is best to open the mouth rather than let the force of the sneeze to pass through the nose.

6. Bleeding

A small amount of bloody discharge is not uncommon for 1-2 weeks following sinus surgery. This may be either from the front of the nose, or down the back of the throat. Bleeding should not be profuse or continuous. Severe bleeding should always be reported to your doctor. It is often convenient to tape a folded gauze "drip pad" to the upper lip under the nose for several days following surgery. This will avoid the need to frequently wipe the nose to clear discharge. In the event of bleeding, it is best to squeeze the soft part of the nose closed, and tilt the head down (forward, not back) for 5-10 minutes. Application of a nasal decongestant spray such as oxymetazoline (Afrin) or Neo-Synephrine may also reduce such bleeding.

7. Fever

A low-grade temperature (100.5° or less) is not unusual following surgery. Higher temperatures may be treated with Tylenol. Again, avoid any ibuprofen-based medications (Advil or Motrin), as these may affect bleeding. High fevers (greater than 102.5°) should be reported to your physician.

8. Follow-up

Please call: Richmond Medical Commons/Stony Point Office (804) 323-0830

Downtown VCUHS Office – AD Williams Bldg (804) 628-4368

To schedule a follow up visit in \_\_\_\_\_

During this visit the nose and sinus cavities often require cleaning to remove built-up mucus and blood crusts. If possible, it is best to have a friend or family member drive you to this visit, as there may be discomfort associated with the sinus cleaning. It is also helpful to plan a dose of pain medication to be taken one to two hours prior to your scheduled visit time.

9. Contacts

During business hours (Monday through Friday, 8 am - 5 pm) please call the office at which you are usually seen: Richmond Medical Commons/Stony Point Office (804) 323-0830; Downtown VCUHS – AD Williams Building Office (804) 628-4368. Ask to talk to a nurse or your doctor. After business hours (5 pm - 8 am and weekends) please call the VCU Health Systems page operator at (804) 828-0951 and ask to speak to the otolaryngologist (Ear, Nose and Throat doctor) on call.

## NASAL SALINE IRRIGATION

Saline solution is used to flush the nose clean of accumulated debris, which commonly builds up following nasal surgery. Irrigation is easily performed with a rubber bulb syringe. These are available in most pharmacies. Saline solution can be purchased in liter bottles from most drug stores or can be prepared at home. This is best made from distilled water, which lacks some of the contaminants often found in tap water. Pure salts are available at many supermarkets in the spice section. Standard table salt is best avoided, as it contains a large number of additives including iodine, which may be irritating to the nose. The best salts for this purpose are "sea salt", canning, or pickling salt. These typically have fewer additives. Salt water can be made using a coffee cup full of the distilled water, to which is added one rounded teaspoon of salt. Water can be easily heated in a teapot or in a microwave. Prior to irrigating, the water should be lukewarm, but not hot.

Nasal irrigation is best performed standing over a sink. The bulb syringe is inserted into the front of the nose and directed toward the ear on the same side of the head as the nasal passage being irrigated. This directs the stream of saline toward the back and side of the nasal passage, where the sinus cavities are located. It is best not to make any efforts to actually inhale the saline, as this can lead to the saline or possibly mucus crusts going down the throat, and even into the lungs. One to two bulbs full of saline should be irrigated into each nasal passage at each application. Most patients find this a somewhat odd sensation at first, but eventually get a soothing feeling. Regular nasal irrigation will help keep the nasal passages from becoming blocked with dried mucus crusts, and reduce the need for cleaning in the office.