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Form "PO-G"
Guidelines after surgery inside the nose

(such as sinus surgery, septoplasty, turbinate surgery)

Disclaimer: This is not medical advice unless your surgeon has specifically given this to you as an active patient.

THIS FORM ONLINE: SCAN QR & SELECT FORM "PO-G"

Wound care, bleeding management, pain control, nausea/vomiting, breathing, urinary retention, and driving are the main factors in recovery from internal nose surgery.

Wound care instructions:

Starting the day after surgery, begin using a salt water mist spray, available over the counter under the names of Ocean, Ayr, Saline Mist, and ENT Sol. If you cannot find these, ask the pharmacist to assist in finding an equivalent product. Use 4-5 sprays in each nostril at least three times a day. This will help maintain some airway by reducing build up of dry scabs and crusts.

After 3-4 days, you may begin using a salt water irrigation such as with a Neti-Pot or a Neil Med irrigation kit at least twice a day. Do this gently.

If you sneeze, let the pressure out freely with an open mouth.

Bleeding:

If a doctor has prescribed a medicine to "thin" the blood to treat or prevent a problem such as a blood clot, pulmonary embolism, atrial fibrillation, or a mechanical heart valve, you are in a special category requiring a specific plan of balanced risk for your situation, and a coordinated plan among this prescribing doctor, your surgeon, and you needs to be in place for when to stop and when to resume this medicine. Contact your surgeon in advance of your procedure for further instructions.

Bleeding during and after surgery adds risk to the operation. For most major operations, a patient must avoid using medications or supplements that promote bleeding. Medicines to avoid include common pain medications (see Table 1, below), blood "thinners" (see Table 2, below), and certain dietary supplements and herbal remedies

(see Table 3, below). If a prescribing physician considers your risk of clotting too high to stop taking blood "thinners" according to table 2, he or she may arrange a "bridge" with a short acting blood thinner. If even this cannot be accomplished, then undertaking surgery should be reconsidered.

Table 1: Common NSAIDs (non-steroidal anti-inflammatory drugs):

Name	Omit (do not take) timeframe	Common **resume** date
aspirin	1 week before surgery	2 weeks after surgery
Motrin (ibuprofen)	1 week before surgery	2 weeks after surgery
Advil (ibuprofen)	1 week before surgery	2 weeks after surgery
Aleve (naproxen)	1 week before surgery	2 weeks after surgery
Voltaren (diclofenac)	1 week before surgery	2 weeks after surgery
Naprosyn (naproxen)	1 week before surgery	2 weeks after surgery
Mobic (meloxicam)	1 week before surgery	2 weeks after surgery
Indocin (indomethacin)	1 week before surgery	2 weeks after surgery
(many others)	1 week before surgery	2 weeks after surgery

Table 2: Common drugs to "thin" the blood:

Name	Omit (do not take) timeframe
Plavix® (clopidogrel)	5-**7** days before surgery
Warfarin™ (coumadin)	5 days before surgery
Pradaxa™ (dabigatran)	
normal-mild kidney dysfunction (CrCl > 50)	2-**4** days before surgery
moderate kidney dysfunction (CrCl 30-49)	4-**6** days before surgery
Xarelto™ (rivaroxaban),	
normal-mild kidney dysfunction (CrCl > 60)	2-**4** days before surgery
moderate kidney dysfunction (CrCl 30-59)	3-**5** days before surgery
severe kidney dysfunction (CrCl 15-29)	5-**7** days before surgery
Eliquis™ (apixiban)	
normal-mild kidney dysfunction (CrCl > 60)	2-**4** days before surgery
moderate kidney dysfunction (CrCl 30-59)	3-**5** days before surgery
severe kidney dysfunction (CrCl 15-29)	5-**7** days before surgery
Saveysa™ (edoxaban)	4-**5** days before surgery
Arixtra™ (fondaparinux)	
normal-mild kidney dysfunction	5 days before surgery
Lovenox™ (enoxaparin)	2 days before surgery
Fragmin™ (dalteparin)	2 days before surgery

These medications are commonly resumed 7-10 days after surgery, as determined by the surgeon's assessment of bleeding risk.

Table 3: Dietary Supplements and herbal remedies that "thin" the blood:

Name	Omit (do not take) timeframe	Common **resume** date
Vitamin E	2 weeks before surgery	At least 2 weeks after surgery
Fish oil (including omega-3-fatty acids)	2 weeks before surgery	At least 2 weeks after surgery
Ginko biloba	2 weeks before surgery	At least 2 weeks after surgery
Ginger	2 weeks before surgery	At least 2 weeks after surgery
Garlic	2 weeks before surgery	At least 2 weeks after surgery

Table 4: Drugs for erectile dysfunction:

Name	Omit (do not take) timeframe:
sildenafil (Viagra®)	24 hours before surgery
tadalafil (Cialis®)	24 hours before surgery
vardenafil (Levitra®)	24 hours before surgery

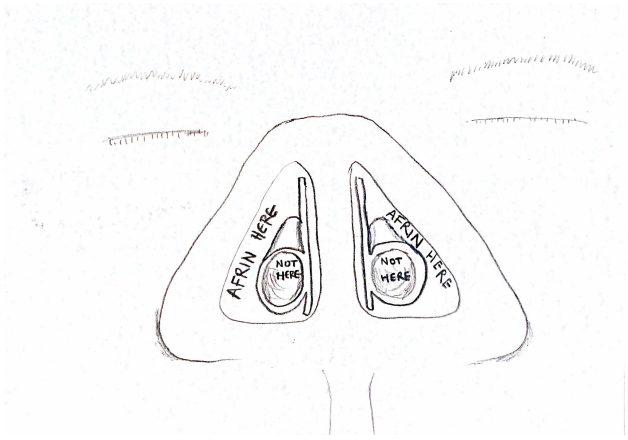
These erectile dysfunction medications may be resumed two weeks after surgery.

Treating a nose bleed:

Bleeding can be stopped (or significantly slowed) by taking the following measures:

- Sit down, try your best to relax, and allow your blood pressure to lower.
- Spray Afrin (oxymetazoline) in your nose. This spray is available over-the-counter. To do this, first blow your nose to unblock the nasal passage a bit. Then spray Afrin in the nose while sniffing. You may use up to four sprays on each side.
- If you have silicone splints in your nose, the right target for your Afrin use is between the nostril and the silicone. Do not spray the Afrin into the circular tube of the splint.

NASAL SPLINTS



TO STOP A NOSE BLEED, SPRAY AFRIN BETWEEN THE NOSTRIL AND THE SPLINT, NOT IN THE TUNNEL OF THE SPLINT.

• Then gently pinch the nostrils, try to relax, and wait five full minutes. If the bleeding has not slowed significantly at that time, call your doctor.

Pain Control:

Pain after nose surgery is usually moderate initially, and gradually subsides to a mild level over a day or two. Pressure in the face, upper teeth, and ears is also common, as is a numbness on the roof of the mouth, feeling like it was burnt on hot pizza. These get better. Any trauma to the nose, however, will be quite painful, so avoid dogs and young kids, both of which tend to jump up unpredictably.

Narcotic pain medicines must be respected and used sparingly. Note that some pain medicines are combinations of narcotic and Tylenol (acetaminophen). Plain Tylenol (acetaminophen) may be used for mild to moderate pain, but the total amount of Tylenol (acetaminophen) from all sources must be less than 3 g (3000 mg) per day for an adult. Non-steroidal anti-inflammatory drugs (NSAIDs) should be avoided for two weeks after surgery because they promote bleeding. Ice may be used gently, but heat should be avoided for the first week after surgery.

Do not try to attain a pain-free state, since this would require too much pain medicine, and risk dangerous side effects such as not breathing enough. On the other hand, do not try to just suffer through your pain since doing so will make your blood pressure higher and put you at risk for a nose bleed. The ideal degree of pain is low enough to be able to get some sleep a few hours at a time.

Narcotic pain medicines should be taken with food.

Nausea/Vomiting:

Nausea and vomiting can occur after surgery for several reasons, including the anesthetic medicines, any swallowed blood, and use of narcotic pain medicine. Trying to avoid a nosebleed and swallowed blood, and trying to minimize or avoid narcotic pain medicines will help.

Your doctor may prescribe medicine to treat nausea or vomiting. Be aware that some of these, such as compazine, phenergan, and scopolamine can cause sleepiness, and combined with other medicines, may create too much sedation for safety. Ondansetron (Zofran) is non-sedating, as is metaclopramide (Reglan).

Fever:

A fever is a temperature greater than 101.5 F. Notify your surgeon for a persistent fever or a temperature greater than 103 F, as these raise suspicion for infection.

Breathing:

You may or may not be able to breathe through your nose during the first week of recovery from surgery. If you have sleep apnea, be sure to discuss the plan for a safe airway during sleep after surgery. If you are advised to use a CPAP device for sleep apnea, it is important that you use it after nasal surgery. A mask that fits over the nose and the mouth is needed, and you may need to obtain one from your CPAP device store.

In general, people tend to breathe more easily after nasal surgery with their head elevated, such as in a recliner chair or with several pillows creating an incline at the head of the bed.

If you use a CPAP machine for obstructive sleep apnea, it is important to continue to use CPAP during sleep starting immediately after surgery. A mask that fits over the nose and mouth may be needed since the nasal airway might be blocked. You can obtain such a "full face" mask from your CPAP device supplier. If you have obstructive sleep apnea but find you cannot tolerate CPAP after your nose surgery, sleep with your head elevated and avoid over sedation with pain medications. Discuss this with your surgeon.

You may be able to maintain a decent nasal airway with use of salt water in your nose, described above under "Wound Care Instructions."

Urinary Retention:

The inability to urinate despite having a full bladder can sometimes occur after a procedure under general or spinal anesthetic. This is more common among men above the age of 60 and when the anesthetic duration is longer than two hours. Symptoms of urinary retention include the following:

- Feeling like you need to urinate but being unable to urinate
- Feeling like you cannot fully empty your bladder after urinating
- Feeling pain in the low abdomen

Typically, if one is able to urinate normally once after surgery, the risk of urinary retention thereafter is low. Tricks to try to facilitate flow of urine include turning on some flowing water from the sink and putting a hand in warm water while trying to urinate. If symptoms of urinary retention develop, you may need to present to an Emergency Room where a bladder scan to verify urinary retention and possibly catheterization to empty your bladder may be performed. If one waits too long to get a bladder drained, the bladder may temporarily lose ability to contract, leading to needing a urinary catheter for several days while it recovers, or in extreme cases, bladder rupture.

Return to Driving and Other Activities Requiring Alertness:

General anesthetic can affect your memory, concentration and reflexes for a day or two, so it's important for a responsible adult to stay with the patient for at least 24 hours after your operation. You are also advised to take extra precautions against falling while walking, and to avoid driving, operating machinery, drinking alcohol and signing any legal documents for 24 to 48 hours. Do not drive for at 24 - 48 hours after your anesthesia. A traffic violation while affected by anesthesia may result in a Driving Under the Influence citation.

An adult may drive when ALL of these conditions are met:

1. Greater than 24 - 48 hours since surgery have passed,
2. You have had NOT taken narcotic pain medicine for at least 8 hours, and
3. The judgement of you and your family members is that you are safe to drive.

Physical Activity:

For 2 weeks after surgery, avoid strenuous activity (such as running, jogging, sports, sexual activity, lifting more than 15 pounds, and gardening). (See Table 4.) You should be active with walking regularly during this time.

Notify your doctor at (309) 663-4368 or or present to the Carle BroMenn Emergency Room if you experience any of the following:

Double vision,
Eye pain,
Uncontrolled nosebleed,
Or, if you have any unanswered questions or concerns.