

Patient Discharge Instructions: Transnasal/ Transsphenoidal Pituitary Surgery

Surgical Technique

The pituitary gland is a hormone-secreting gland at the base of the brain, just behind and between the eyes. There are several reasons that a surgeon would need to operate on this gland, but the most common is for pituitary adenomas. These are tumors within the pituitary gland that push on normal brain structures, including the optic nerves, and can cause a visual loss. Surgery is the primary treatment when the tumor cannot be controlled by medication. In order to access the pituitary, the surgeon will use minimally invasive techniques (an endoscopic or microsurgical approach is used or some combination of both) to go through the nose and open a small window in the skull base behind the sphenoid sinus and remove the tumor. The surgeon will use a combination of intraoperative X-rays, computer guidance, and sometime intraoperative MRI to help guide the surgery and ensure an optimal outcome.

Please visit www.olympiadoctors.com for more information.

Before Surgery

- Seven days prior to surgery, please do not take any anti-inflammatory NSAID medications (Celebrex, Ibuprofen, Aleve, Naprosyn, Advil, etc.) as this could prolong your bleeding time in surgery.
- If you are taking any blood-thinning medications (Plavix, Coumadin, etc.), please talk to the prescribing doctor about when you can safely stop that medication before surgery to reduce your risk of bleeding. Usually, these medications are stopped anywhere from 3 - 7 days before surgery.
- Increase your strength and improve your recovery by walking at least 30 minutes a day before your procedure. Exercising before surgery will help you recover after your surgery.
- At least one week before surgery, eat healthy foods rich in carbohydrates and protein to fuel your body with the nutrients that it will need during and after surgery.
- Be aware that nicotine users have a significantly higher risk of surgical wound complications, such as healing and infection, as well as increased surgical bleeding. Nicotine disrupts many normal body functions, including nutrients and blood supplies. It is advised that any nicotine use be discontinued at least 4 weeks before surgery.

Day of Surgery

- Do not eat or drink anything after midnight the day before surgery. This also means nothing to drink the morning of surgery, except you may take your prescribed medications (e.g., blood pressure medications) with a sip of water if needed. Consult your surgeon or primary care doctor regarding insulin if you take it. Some hospitals are now allowing clear fluids until a few hours before surgery – please follow the directions of the individual hospital protocols (if you do not follow the individual hospital guidelines this may result in your surgery being canceled).
- Be early or on-time to check-in on the day of surgery so that surgery is not delayed or canceled.
- Bring your hospital surgical folder and any related paperwork (consents, etc.) to surgery.
- Bring a copy of all relevant imaging studies (CT, MRI or x-rays) to surgery, even if your surgeon has already seen them in the clinic or may have a copy. Surgery may be canceled if your surgeon cannot view your radiographic images on the day of surgery.

After Surgery

- Most patients experience mild to moderate discomfort for several days after surgery. We will make every effort to minimize your discomfort.
- You will have swelling and bruising around the nose and face. This should subside within a few weeks.
- Nasal drainage: a small amount of bloody nasal drainage after surgery typically lasting 3 weeks. If you notice a constant faucet-like drip of fluid from the nose or a salty taste down the back of your throat, please call us immediately as this may be

- cerebrospinal fluid (CSF) leak.
- You may have a decreased sense of smell for a few weeks to a few months following surgery. Since your sense of taste is largely influenced by your sense of smell, this will also be affected during this time period.
- Numbness of the upper teeth is common in patients undergoing a transsphenoidal surgery and usually resolves within a few months.
- Sinus congestion, which may cause headaches for several days, should go away once the swelling subsides. Nasal sprays, such as Ocean Nasal Spray, can help relieve some of the crusting in the nasal passages and is recommended 5 times per day as needed to clear nasal passages after the packing is removed. Nasal washes help drain your sinuses and are advised to start 4 weeks after surgery. Ask your surgeon before taking antihistamines as they may cause excessive dryness. Do not insert anything else into your nose for 3 months.
- Visual changes: It is normal for your vision to wax and wane for 3 to 4 months after surgery. Contact your surgeon if you notice sudden changes such as blurry or double vision or diminished peripheral vision.
- Sleeping with your head elevated on pillows may help decrease headaches. Keep it elevated at least 30 degrees for 10 days after surgery if you were told there was a cerebrospinal fluid (CSF) leak after surgery.

Activity Level

- Walking is the best exercise after spine surgery because it strengthens the muscles, increases endurance, relieves stress, improves blood flow, keeps the bowels moving, and prevents fluid from building up in the lungs.
- Immediately after surgery, patients are encouraged to walk, starting with short and frequent walks and gradually increasing distances. The sooner patients can be active, the sooner he/she may be able to resume their routine.
- Ask your surgeon for specific limitations on weight lifting, swimming, and any other activity involving great physical exertion. Typically, you are asked to avoid lifting more than 5 - 10 lbs or bending past your waist for 12 weeks.
- Pressure on face/exertion: There is a small risk of developing a delayed CSF leak and meningitis following your surgery. To diminish this risk, try to avoid direct firm pressure on the face for at least 4 weeks; nose-blowing, drinking out of a straw, or sneezing with mouth closed for at least 12 weeks.

Bathing

- We recommend waiting to shower until the second day after surgery.
- Try to limit showers to no more than 5 - 7 minutes.
- Do not soak in a bathtub, hot tub, or pool until you are cleared to do so by your surgeon

Diet

- Narcotic pain medications can be very constipating. Be proactive with stool softeners and laxatives
- A high fiber diet is recommended.
- Avoid straining on the toilet. Keep stools soft with a high fiber diet and/or use of prune juice, Metamucil, Fiber One cereal, etc.
- Drink plenty of fluids, including Gatorade, or any kind of juice to stay adequately hydrated, prevent blood clots, and other problems.

Medications

- Ask your surgeon before taking medications that contain anticoagulant properties (blood thinning) such as ibuprofen or aspirin. Surgeon's preferences vary from waiting 10 days to 4 weeks after surgery. Please note that Vicodin and Percocet both contain acetaminophen (Tylenol). Do not take Tylenol while you are taking these medications because taking more than 4000 mg of Tylenol in a 24-hour period can lead to liver damage.
- ONI providers will NOT refill pain medications after hours: 5 pm on weekdays or anytime on the week-end.
- It is crucial to anticipate the need for medication refills so that they can be refilled with an adequate notification, which may take anywhere from 24 - 48 hours.

Follow-up

Please call Olympia Neurological Institute (ONI) office (833-940-3733) and schedule your routine post-surgical visit for 7-14 days after surgery (if it is not already scheduled). We generally follow patient for at least 2 years after surgery, often longer. Your final pathology will be discussed at a follow-up visit.

When to Call Your Doctor

Please call your physician's office immediately with any problems or go to the emergency room if:

- Ongoing nausea and/or vomiting
- A constant faucet-like drip of fluid from the nose or a salty taste down the back of your throat
- Sudden changes such as blurry or double vision or diminished peripheral vision
- Severe or worsening headaches or neck stiffness
- Confusion or changes in behavior
- Increased drowsiness

- Progressive difficulty seeing or speaking
- Fever greater than 101.4F
- Any new neurologic sensory or motor deficits (weakness, numbness)

Other FAQs

How long will I be in the hospital? We anticipate that you will be able to go home the day after surgery. On the morning after surgery, we will assess you to make sure it is safe for you to go home, and let you know if you will require an additional night or two in the hospital. We have found that patients generally prefer the comforts and support that home offers. The sooner you go home, the lower your risk of complications such as hospital-acquired wound infections, blood clots, and urinary tract infections.

How much time off from work? Most patients are able to return to full-time employment within 4 to 6 weeks after surgery. This time period will vary depending upon your age, general physical condition, and type of work that you do. On your first post-operative visit, we will discuss with you the likely date for which you can return to work

When can I resume driving? It is not recommended to drive until you stopped taking narcotic pain medications, experienced no visual problems that affect your ability to drive, and have complete awareness of your surroundings. We strongly advise against driving while on narcotics. Please do not drive until you are off all narcotics

What about pain and other medications? We will prescribe pain medications and other peri-operative medications on the day of surgery or prior to your discharge from the facility or hospital.

What kind of follow up is required? Patients return to our office for routine follow up appointments at intervals that are determined on a case-by-case basis. We typically see patients back in the office within 7 – 14 days following surgery and then increase this interval with subsequent visits. The follow-up schedule will be determined by your surgeon at each follow-up visit.

Do I need antibiotic prophylaxis for dental procedures? We recommend avoiding routine dental procedures for 3 months following surgeries. This includes any dental work. You should brush your teeth as you normally do. If you must have a dental procedure within 3 months, then it would be advisable to use antibiotic prophylaxis. We generally do not make recommendations about the choice of antibiotic when using it for prophylaxis and we usually defer this to your primary care physician or your dentist. After 3 months, prophylactic antibiotics are not recommended except for specific individuals with extenuating circumstances, such as patients who are at risk for infective endocarditis.