Endonasal Surgery

This Health Fact describes surgery that is done through the nose, for a problem at the base of the brain, such as a tumor. One example is a pituitary tumor.

What is the pituitary gland?
The pituitary gland, a pea-sized gland with two lobes, controls how hormones are made in your body. Found at the base of the brain (behind the sphenoid sinus of the nose), this gland is also near the optic nerves. This causes many of those with pituitary tumors to have problems with vision.

What happens during surgery?
The pituitary gland is often reached through one of your nostrils. If this cannot be done, an incision may be made in your upper gum, under your top lip. Your surgeon then uses an endoscope to get to the tumor.

A small piece of bone is removed to expose the pituitary gland and the tumor. Using a microscope to guide the way, the surgeon removes the tumor. If it is too large or stuck to important structures, the entire tumor may not be removed.

Fat from the lower abdomen is sometimes used to close and seal the open area. This will leave a small incision where the fat was removed.

Samples of the tumor are sent to the pathology lab to decide the tumor type. These tumors are almost always free of cancer and very slow growing. A final report will be ready in five working days, and you will be told when your doctor will share this with you.

After the Surgery
You will remain in the recovery room one to two hours until fully awake. You then will be taken to the Neurosurgery Intensive care unit.

How long you stay depends on the surgery you had. During this time, nurses and doctors will be checking your arm and leg strength, pupil size, and level of alertness. They will be keeping track of the amount of fluid going into and out of your body.

After surgery you will have:
- A catheter to drain your bladder
- An IV in your arm until you can take enough fluids by mouth
- Leg wraps to prevent clots

A cerebral spinal fluid (CSF) leak may occur. To treat this, we insert a small tube (lumbar drain) into your lower back to drain the fluid into a bag. This drain will decrease the spinal fluid pressure and allow the area to heal.
Pain
You may feel pressure in your head or have a headache. Pain medicine will be ordered and ready if this happens.

Nasal Spray
You may have a stuffy nose for a few weeks. A gentle nasal wash with sterile saline may help to clear out blood and mucus. You can buy sterile saline at your local pharmacy.

Activity
We will have you get out of bed the same day or the day after, and slowly increase your activity so you can walk the halls before discharge. Walking is the best exercise.

For 6 weeks avoid:
- Bending from your waist
- Straining to lift something
- Coughing
- Blowing your nose
- Sneezing
- Drinking with a straw
- Straining while having a bowel movement.

These things increase pressure in your head and may lead to a CSF leak. If you need to sneeze, keep your mouth open to avoid pressure. To prevent straining during bowel movements, eat foods with fiber, drink at least eight 8-ounce glasses of fluid each day, and use stool softeners as needed.

Diet
Start with clear liquids, going slowly to a normal diet as you are able to take solid food. If you have an oral incision, soft foods may be best. Rinsing your mouth gently after eating will keep the incision clean. You should not brush this area with a toothbrush.

Going Home
Plan to take 2-4 weeks off work. Have someone help with housework for a few days. The amount of time you need to heal depends on how you are feeling and your level of fatigue.

Follow-Up
An MRI is scheduled for the same day of your visit. Some patients are scheduled for an MRI and a blood test before seeing the surgeon.

Because this surgery may disturb your hormone levels, you may need to take hormones. You may also need to see an eye doctor and an endocrine doctor.

When to Call
- Increased nasal drainage
- Fever greater than 100.5°F
- Foul taste in your mouth
- Signs of a CSF leak (often made worse with movement)
  - Constant drainage down the back of your throat
  - Clear fluid draining from your nose
  - Headache
  - Nausea or vomiting
- Signs of sinus infection (in a few weeks or months)
  - Green nasal drainage
  - Headache
  - Fatigue
  - Increased nasal stuffiness
- Signs of a low blood sodium level
  - Nausea
  - Weakness
  - Headache
Who to Call
For questions or concerns once you are home, call the Neurosurgery clinic, Monday – Friday 8 am-5 pm at: (608) 263-7502.

After hours, this phone number will reach the paging operator.