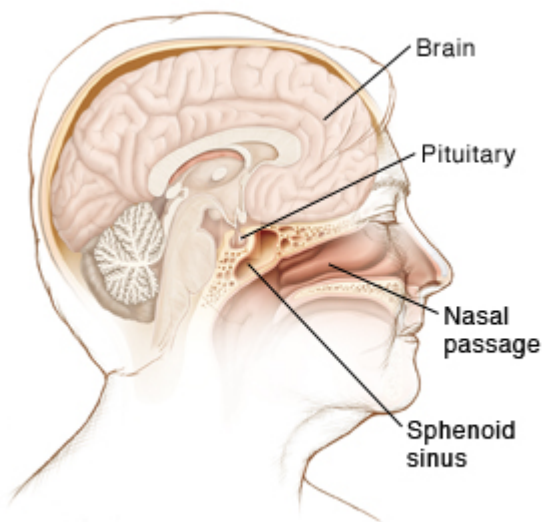

Pituitary Gland Surgery

Pituitary gland surgery is done to remove a growth (tumor) that forms in the pituitary gland. This is a small, pea-sized gland at the base of the brain, behind your nose and sinuses. It's referred to as the body's master gland because it controls the activity of most other hormone-secreting glands. It makes hormones that control growth, sexual function, and fluid balance. It also controls other glands in your body, such as the thyroid and adrenal glands.

Problems can occur when a tumor forms in the pituitary gland. These tumors are almost always not cancer (benign). But a tumor can cause the pituitary to make too much or too little of some hormones. This can lead to health problems. Or a tumor may press on the nerves to the eyes (optic nerves) or the nerves that control eye movements. This can cause headaches and vision loss.

Surgery to remove the tumor can ease such problems. In most cases, the surgery is done through the nasal passages. This leaves no scars or stitches that can be seen.



Getting ready for your surgery

Follow any instructions from your health care provider.

Tell your provider about any medicines you are taking. You may need to stop taking all or some of these before the surgery. This includes:

- All prescription medicines.
- Over-the-counter medicines, such as aspirin or ibuprofen.
- Illegal drugs.
- Herbs, vitamins, and other supplements.

Follow any directions from your provider about not eating or drinking before surgery.

The day of surgery

The surgery takes about 3 hours. Before the surgery begins:

- An I.V. (intravenous) line is put into a vein in your arm or hand. You will be given fluids and medicines through the I.V.
- To keep you pain-free during surgery, you're given general anesthesia. This medicine allows you to comfortably sleep during the surgery.
- Just before the surgery, a breathing tube (endotracheal tube) is placed into your throat through your mouth. The tube is often removed at the end of surgery or soon after.

During surgery

In most cases, surgery is done through the sphenoid sinus (transsphenoidal surgery). This is an air space behind the nose. For large or complex pituitary tumors, a craniotomy is done. For this, the surgeon goes in through the skull. During transsphenoidal surgery:

- The surgeon may use a surgical microscope to get a close-up view of the gland. In this case, a small cut (incision) is made in your nose or lip. This makes it possible to enter the sphenoid sinus and reach the tumor. Or a thin tube (endoscope) may be used. This tube has a light and tiny camera on one end. It's put in through your nostril and into the sphenoid space to reach the tumor.
- When the tumor has been reached, the surgeon will remove it. If the whole tumor can't be reached, the part that is left may need to be removed during a later surgery. Or it may be treated with radiation. If a large tumor is removed, the area may be filled with a small piece of fat taken from your belly (abdomen).
- At the end of surgery, any incisions are closed with stitches. These dissolve on their own in a few weeks. A spongy material (packing) and splints may be placed in your nose.

Recovering in the hospital

You will be taken to the postanesthesia care unit to be closely watched as you wake up from the anesthesia. Right after surgery, you'll have a dressing taped to your nose to absorb drainage. You will be given pain medicine as needed. Tell your health care provider if you're still in pain. You're then taken to a hospital room to stay for 1 to 2 nights. During your stay:

- You'll have a stuffy nose and a headache. (This may last a few days or up to a few weeks.)
- You may have gauze covering your nose for any leaking fluid that can happen right after surgery.
- Your health care provider may have used nasal splints during surgery. Nasal splints are used to prevent or reduce scarring. Most people don't feel or see them. They will be removed soon after your surgery.
- You may be given a steroid medicine. (This isn't the same as anabolic steroids used by some athletes.) This medicine helps control hormone levels. These levels can change as your body adjusts to your surgery. You will slowly take less and less of the steroid over a week.

- Your urine output will be watched closely for the first day or two. This is to check for a condition called diabetes insipidus. This is a common condition after pituitary gland surgery. It makes you feel thirsty and pee more than normal. It often goes away on its own in about 1 week. If not, a treatment is available to control the symptoms.

Recovering at home

When you are ready to go home, you will be released to an adult family member or friend. Plan to have someone stay with you for the next couple of days. They can help care for you as your healing begins. Follow all of your health care provider's instructions. During your recovery:

- Take all medicines as directed. This includes pain medicines, steroids, and other medicines you are prescribed. Don't stop taking steroids without talking with your provider first. Steroids should not be stopped suddenly.
- Use a salt nasal spray as directed. This keeps the lining of your nose moist and aids healing.
- Don't sneeze, cough, or blow your nose for at least 2 weeks after surgery. If you can't prevent sneezing, keep your mouth open.
- Don't bend, lift, or strain for 4 weeks after your surgery.
- Go back to your normal activities as advised. Try to do a little more each day.

Call 911

Call 911 if you have:

- Chest pain or trouble breathing.

When to call the doctor

Contact your health care provider or get medical care right away if you have:

- A fever of 100.4° F (38° C) or higher, or as advised by your provider.
- Symptoms of infection at the incision. These include increased redness or swelling, warmth, more pain, or bad-smelling drainage.
- Clear, watery drainage from your nose or down the back of your throat.
- Headaches or other pain not eased by prescribed medicines.
- Dizziness, stiff neck, or sensitivity to light.
- Loss of vision or double vision.
- Constant thirst that isn't relieved by drinking.
- Been peeing more often than before surgery.
- Lightheadedness or fainting.
- Pain or swelling in your legs.

Follow-up

During follow-up visits, your health care provider will check on your healing.

- If you have packing or splints that need to be removed, this may be done about 7 days after surgery.
- If some of the tumor was not removed, you may need more surgery or treatment. You will discuss this with your provider.
- About 3 months after your surgery, an eye test and MRI scan may be done. You will have more imaging tests over time. You will also have blood tests to check your hormone levels. These tests make sure that the tumor has not come back.
- Some hormone levels may not go back to normal after surgery. If so, you may be given medicines to control or supplement those hormones. Lifelong checking of the gland and your hormone levels is often needed after surgery. Have regular checkups as advised.

Risks and possible complications

Possible risks of pituitary gland surgery include:

- Leaking of the fluid around the brain and spinal cord (cerebrospinal fluid).
- Damage to the pituitary gland.
- Diabetes insipidus.
- Infection.
- Bleeding or blood clot in the brain.
- Scarring inside the nose, including a hole (perforation) in the nasal septum.
- Vision loss.
- Not being able to smell or taste.
- Injury to blood vessels.
- Risks of anesthesia.