

Transsphenoidal Surgery

Information for patients and families

Read this booklet to learn:

- What Transsphenoidal surgery is
- How to prepare for the surgery
- What you can expect
- How to care for yourself once you get home
- Who to call if you have any questions or concerns



What is transsphenoidal surgery?

Transsphenoidal surgery removes tumours, cysts or other abnormalities that can affect the pituitary gland and the area around it. Your pituitary gland is a small, bean-shaped structure at the bottom of your brain, behind the eyes.

Your surgeon uses special tools to reach the pituitary gland by going through the nose. The surgeon moves these tools through an air-filled space called the sphenoid sinus. Your surgeon also uses an endoscope (a small tube-shaped tool) to see all of the important structures in the area.

This way of doing transsphenoidal surgery was developed by surgeons at UHN. It is now the preferred way to remove tumours and cysts from the area around the gland. Doing the surgery in this way can help you have a shorter stay in the hospital and a quicker recovery.

Fortunately, most pituitary tumours are not cancerous.

What does the pituitary gland do?

The pituitary gland makes many different hormones (types of body chemicals) that humans need to survive. These hormones are very important for your body's:

- growth
- development
- sexuality
- reproduction
- metabolism (the process of changing food into energy)

Your pituitary gland stores the hormones and releases them at the right time. Tumours or cysts in or around the gland can affect how gland works. Tumours can also press against other structures like the optic (eye) nerves, which can affect your vision.

What are the symptoms of pituitary tumours?

Pituitary tumours can cause different symptoms. The common symptoms are:

- vision problems
- hypo-secretion (the body making too little of the pituitary hormones)
- hyper-secretion (the body making too much of one of the hormones)
Hyper-secretion can cause conditions such as acromegaly or Cushing's disease. Your surgeon will discuss your situation in detail with you.

What are there risks of this surgery?

Your doctor will discuss the risks of the surgery with you. While the risks of this type of surgery are low, they can include:

- a change in the way your pituitary gland works
- a leak of a fluid called cerebrospinal fluid (CSF) from your nose
- infection
- nose bleeds (this can happen early after surgery or later on)

These problems are very uncommon and often temporary. Only 2 or 3 out of 100 patients who have the surgery will have complications. Please ask your surgeon any questions if you have any concerns.

How do I prepare for the surgery?

Pre-Admission appointment

Your surgeon's office will contact you with a date for your surgery.

You will also be scheduled for an appointment at the **Pre-Admission Unit** at:

Toronto Western Hospital
Main Pavilion – 1st Floor (Room 406)
Phone: 416 603 5379

You can eat and drink as usual before this appointment. Your appointment may take **3 hours**.

You must bring:

- Your health card (OHIP card). If you do not have an OHIP card, please bring another form of government-issued photo ID.
- All the medicines you are taking or a list of your medicines. This list should include the name, the dose and how often to take it.

At this appointment you may see:

- a nurse
- an anesthesiologist
- an endocrinologist
- a pharmacist

They will check your health and review your medical history.

You may also have some tests done, such as:

- blood tests
- an x-ray
- an ECG (a test that measures the electrical activity in your heart)

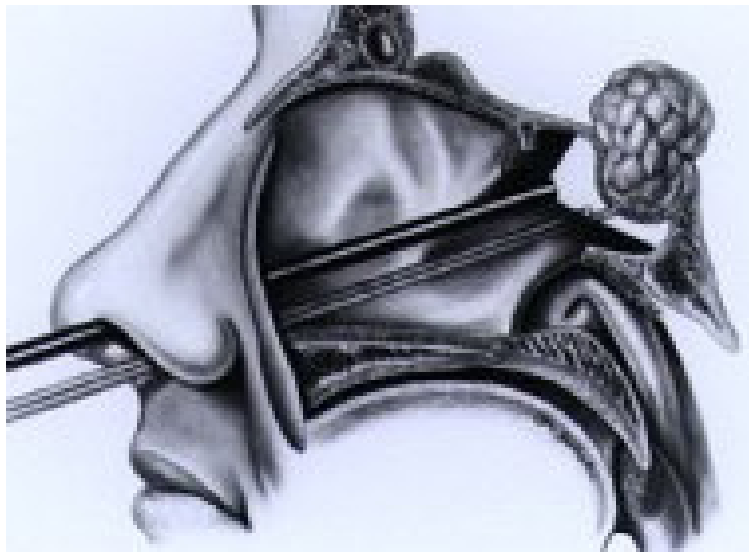
All of this is done to make sure you are ready for the surgery.

Day of surgery

- **Don't eat or drink anything after midnight on the day of your surgery.** Your surgery will be cancelled if you do. You may be able to take some medicines the morning of your surgery. The pharmacist or nurse will talk with you about this at your pre-admission appointment.
- **Please bring your health card (OHIP card) to your surgery appointment.**

What happens during the surgery?

1. You get an Intravenous (IV) line so the doctors can give you fluids and medicine through your vein during and after the surgery.
2. A doctor gives you a general anesthesia. This means that you will be asleep during the surgery.
3. You will probably have a catheter (tube) inserted into your bladder. This allows the doctors to carefully monitor your fluids and urine output.
4. Once you are asleep, your surgeon inserts the small tube (endoscope) into your nose through your sphenoid sinus to your pituitary gland. This helps them see a wider area around your gland.
5. Your surgeon removes a small piece of thin bone at the base of your skull to reach the pituitary gland. They make a small incision (cut) to get to the tumour or cyst.
6. Using special instruments, your surgeon tries to remove the tumour or cyst without disturbing the normal pituitary gland.



The surgery usually takes about 2 to 4 hours.

The length of the surgery depends on:

- the size of your tumour or cyst
- the area it covers
- how hard it is to remove

What happens after the surgery?

- You wake up in the operating room after the surgery and are taken to the PACU (post anesthetic recovery room). No visitors are allowed at this time.
- You usually stay for 1 to 2 hours while the nurses monitor you. When you are stable, you are taken to the Nursing Unit. Visitors are allowed in the Nursing Unit.
- Your fluid balance (how much you drink and pee) are closely monitored through your catheter. This tube is removed 1 to 2 days after your surgery.
- Your nurse continues to check how much you are drinking and peeing. They may ask you to keep a record of this.

How can I expect to feel after surgery?

Your nose may feel congested (stuffy) after surgery. You may find it difficult to breathe through your nose at first. You may find it easier to breathe through your mouth.

You may have gauze covering your nose for any fluid leaking that can happen right after surgery.

Your doctor may have used nasal splints during surgery. Nasal splints are used to prevent or reduce scarring. Most patients don't feel or see them. They will be removed 2 to 4 weeks after your surgery.

If you had nasal splints put in (ask about this before you leave), you will have an appointment to have them removed. You should have an appointment time scheduled before you leave the hospital.

If your discharge is on the weekend, we will contact you with an appointment in a few days. If you do not receive an appointment, please contact your doctor's office.

Try to avoid blowing your nose, sneezing, or coughing a lot or hard for 1 to 2 weeks. This will help the inside of your nose heal. It may also reduce your risk of nose bleeds.

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When can I leave the hospital?

Usually, you will be ready to go home about 2 to 3 days after your surgery. **The hospital discharge time is before 11:00 am.** You need to have a family member or friend take you home.

You will get a discharge package before you leave the hospital. The package includes:

- an information sheet
- follow-up appointments
- a prescription for medicine, if needed

Your surgeon will see you about 6 to 8 weeks after surgery in the Pituitary Clinic. Appointments with other specialists will also be scheduled, if needed.

How long will it take me to recover?

It usually takes about 2 to 6 weeks to recover from the surgery. But it can take up to 3 months for some people to feel like their normal self again. Everyone's recovery time is different.

How should I care for my nose when I get home?

There are some things you can do to help you heal and recover more quickly.

- Keep your nose clean and moist while you heal.
- Use only a normal saline nasal spray to moisten inside your nostrils.
Don't put any creams, ointments or objects into your nose.
You can buy saline nasal spray (like Salinex or Simply Saline) at your local pharmacy.

To clean your nostrils:

- **spray each nostril with the saline spray at least 5 times a day or more**
- **do this for at least 3 to 4 weeks**

Using saline spray keeps hard crusts from forming in your nose. These hard crusts can slow your healing and block your breathing. Using saline spray also reduces bad odours from your nose which can happen after this type of surgery.

If you have ongoing bad odours coming from your nose and a lot of congestion (stuffy nose) 1 month after surgery, continue to use your nasal spray and tell your ENT or neurosurgeon.

Your smell may be affected for the first few weeks after surgery. This is normal and will be temporary.

What can I eat and drink?

Once you get home, you can eat and drink normally. Avoid alcohol for 2 days after your surgery.

What activities are safe?

You should be able to slowly return to your normal activities once you get home. Going for walks and doing light activities is fine. You can shower, bathe and wash your hair as usual.

These are some activities you should NOT do:

For the first 2 weeks:

- Do not lift anything heavier than 10 pounds (5 kilograms)
- Do not bend forward or strain yourself.

For the first 4 to 6 weeks:

- Don't go to the gym or do your regular exercises
- Don't play contact sports (soccer, football, hockey)
- Don't swim. Talk to your doctor about when you can go swimming at your follow-up appointment.

If you use a CPAP machine for sleep apnea, please discuss this with your health care team. You may be asked to wait 2 weeks after the surgery before using your machine. Make sure your machine is clean before you start using it again.

When can I drive or travel again?

You can travel by car once you feel ready. This may take a couple of days. Having surgery may make you feel more tired than usual, so only drive short distances at first.

If you had vision problems before surgery, make sure your vision is checked before you drive. Follow up with your specialist.

When can I return to work or to my normal activities?

Most patients are ready to return to work in 4 to 8 weeks. As you feel better, slowly return to your usual daily activities.



Go to the nearest Emergency Department if:

- Your temperature rises above 38.5 °C or 101 °F and you feel chills
- You have a severe headache that does not go away
- Daylight causes intolerable pain in your eyes
- Your neck becomes very stiff and sore, making it painful to bend your head forward
- You are less alert
- You have a nose bleed that will not stop
- The amount of fluid from your nose doesn't decrease after 1 week. Or, you have clear watery fluid leaking from your nose that doesn't decrease. This may be caused by a CSF leak.
- You are losing too much fluid from your body. For example:
 - you are urinating (peeing) more than usual
 - you are getting up 3 to 4 times at night to urinate (pee)
 - you often feel very thirsty
- You feel very tired and have very low energy

When will I see my doctor again?

You will have a follow-up appointment scheduled in the Pituitary Clinic. At this appointment, you will see either Dr. Zadeh or Dr. Kalyvas and Dr. Ridout, our endocrinologist.

At this appointment:

- Your doctor will examine you and check your progress.
- You may have blood tests done to check how well your pituitary gland is working after surgery.
- You will get an appointment for an MRI. It may be before or after your first post-operative visit. This test will let your doctor see pictures of the area around the pituitary gland after surgery.
- You may get an appointment to see an ear, nose and throat (ENT) specialist, if needed.
- You may also get an appointment for an eye test. Your pituitary gland is close to your eye nerve. This test will check if your vision was affected by the surgery.
- You can talk to your doctor about any concerns or ask any questions you may have.

Follow-up appointment:

MRI appointment:

(The radiology department will call or mail you an appointment date and time)

ENT appointment:

Who can I call if I have any questions?

If you have any questions, please call the Krembil Neuroscience Program, Pituitary Clinic at **416 603 5463**.

Physician Assistant or Nurse Practitioner:

Surgeon: _____

Endocrinologist: _____

ENT: _____

Address:

Krembil Neuroscience Program, Pituitary Clinic

Toronto Western Hospital

West Wing – 4th floor

399 Bathurst Street Toronto, ON M5T 2S8

Phone: 416 603 5463

Website: https://www.uhn.ca/Krembil/Clinics/Pituitary_Clinic



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