

# 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 is a surgical procedure that allows the surgeon to remove 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 that lies at the base (bottom) of your brain behind your eyes.

Your surgeon will use special tools to reach the area of the pituitary gland by going through your nose. They will move these tools through an air-filled structure called the sphenoid sinus. Your surgeon will also use an endoscope (a small tube-shaped tool) to see all of the important structures.

The technique using the endoscope during this surgery was developed by surgeons at UHN. It is now the preferred way to remove tumours, cysts or other abnormalities from the area around your 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 my pituitary gland do?**

Your pituitary gland is an important structure in the brain. It produces many different hormones (types of body chemicals) that are critical for survival.

These hormones are very important for your body's:

- growth
- development
- sexuality
- reproduction
- and metabolism (creating energy)

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

Pituitary tumours can cause a variety of symptoms. The common symptoms include vision problems or symptoms associated with hypo-secretion (too little production) of the pituitary hormones.

Another symptom can also be hyper-secretion (too much production) of one of the hormones. This can cause conditions such as acromegaly or Cushing's disease. Your surgeon will discuss your particular situation in detail with you.

## **Are there risks to 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. It is important to understand the risks and ask your surgeon questions if you have any concerns.

## **How do I prepare for the surgery?**

Your surgeon's office will contact you regarding 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. They may include:

- 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.

**Don't eat or drink anything after midnight on the day of your surgery.**

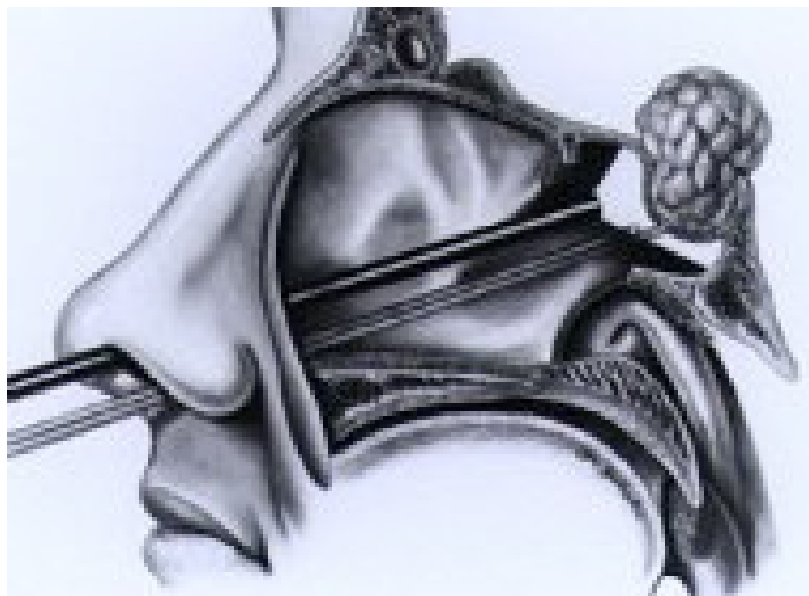
Your surgery will be cancelled if you do. You may be able to take some medicines the morning of your surgery. The pharmacist or nurse will talk with you about this at your pre-admission appointment.

**Please bring your health card (OHIP card) to your surgery appointment.**

## What happens during the surgery?

Here's what you can expect during surgery:

1. You will get an Intravenous (IV) that will allow the doctors to give you fluids and medicine through your vein during and after the surgery.
2. A doctor will give 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 will allow the doctors to carefully monitor your fluids and urine output.
4. Once you are asleep, your surgeon will insert the small tube (endoscope) into your nose through your sphenoid sinus to your pituitary gland. This will help them see a wider area around your gland.
5. Your surgeon will have to remove a small piece of thin bone at the base of your skull to reach the pituitary gland. They will then make a small incision (cut) to get to the tumour or cyst.
6. Using special instruments, your surgeon will try 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 will depend on:

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

## **What will happen after the surgery?**

Here's what you can expect after surgery:

- You will wake up in the operating room after the surgery and be taken to the PACU (post anesthetic recovery room). No visitors are allowed at this time.
- You will usually stay for 1 to 2 hours while the nurses monitor you. When you are stable, you will be taken to the Nursing Unit. Visitors are allowed in the Nursing Unit.
- Your fluid balance (what you drink and urine output) will be closely monitored through your catheter. This tube will be removed 1 to 2 days after your surgery.
- Your nurse will continue to check how much you are drinking and urinating. 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 and 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 drainage (fluid leaking) that can happen immediately after surgery.

Your doctor may have used nasal splints during surgery. These are plastic and used to prevent or reduce scarring. Most patients don't feel or see them. These nasal splints 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.

## 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.

Before you leave, you will get a discharge package. The package will include:

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

Your surgeon will want to 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 will be 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. It is important to 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 drug store.

### **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 will also reduce bad odours from your nose which sometimes can happen after this type of surgery.

If you have on-going bad odours from your nose and a lot of congestion (stuffy nose) one month after surgery, continue to use your nasal spray and talk with your ENT or your neurosurgeon.

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



## **What about food?**

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

## **What activities can I do at home?**

You should be able to slowly return to your normal activities once you get home. Going for walks and doing light activities around the house 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:**

- Try not to lift anything heavier than 10 pounds (5 kilograms)
- Try not to 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 team. You may be asked to wait 2 weeks after the surgery before re-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 optometrist or ophthalmologist.

If you plan to travel by airplane before your first post-operative clinic visit, please discuss this with your neurosurgeon first.

## **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 normal daily activities.



### **Go to 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. 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

**Please call your neurosurgeon or physician assistant/nurse practitioner to let us know that you have had these symptoms and have gone to the emergency department.**

## **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. Gentili, 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:

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MRI appointment:

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(The radiology department will call or mail you an appointment for your MRI.)

ENT appointment:

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## 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:

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Surgeon: \_\_\_\_\_

Endocrinologist: \_\_\_\_\_

ENT: \_\_\_\_\_

## Contact information

Address:

Krembil Neuroscience Program, [Pituitary Clinic](#)  
[Toronto Western Hospital](#)

West Wing – 4th floor

399 Bathurst Street

Toronto, ON M5T 2S8

Phone: 416 603 5463

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