# TRANSSPHENOIDAL SURGERY FOR TUMOUR REMOVAL

# **DEFINITION**

- The pituitary gland is a gland located at the base of the skull.
- Its role is to secrete different hormones which have effects on the entire body.
- Pituitary gland tumours are generally benign, meaning they are not cancerous.
- While it does not usually threaten peoples' lives, it can cause significant disruptions to those who have them.
- A tumour causes compression of the optical nerves, thus vision may be affected. Various symptoms may also be experienced due to excess or a lack of hormone production.



# **SURGERY FOR TUMOUR REMOVAL**

- The scheduled surgery is called: Transsphenoidal surgery (or by endonasal approach). It consists of removing the tumour through the nose. Thus, you will not have any visible wounds or scarring.
- This operation is performed under a general anaesthesia, meaning you will be asleep for the entire procedure. A neurosurgeon and an otorhinolaryngologist (ENT) jointly perform the surgery. The approach is performed through the nose, passing through the sphenoidal sinus to reach the tumour and remove it.
- A packing is positioned in the nasal cavity and will remain for 1 to 3 days following the surgery. It is removed
  during hospitalization and a bandage will then be applied. It will be changed as needed and removed before
  you go home.

## **BEFORE THE SURGERY**

- Make plans with someone to drive you home when discharged from the hospital.
- With relatives, organize how they can help with transport, groceries, household tasks, and other needs.

# **FOLLOWING THE SURGERY**

# **DOS AND DO NOTS**

- Do not blow your nose before having your physician's permission (generally, 28 days is required).
- Do rinse your nose at least 4–5 times per day with a salt water nasal solution (e.g. Hydrasense®, Salinex®).
- WARNING: Due to the COVID-19 pandemic, nasopharyngeal swabs (inserted into the nose to the pharynx) are sometimes required to detect the virus. After your operation and for the rest of your life, you must not have this type of testing.

Serious damage to the brain may be caused during insertion of the swab. Therefore, <u>prepare</u> for an <u>oropharyngeal swab</u> (back of the throat), around the nostrils, or by gargling only.

## HYDRATION AND NUTRITION

- The nurse will inform you about when you can eat and drink.
  - Begin gradually in order to reduce the risk of nausea or vomiting;
  - Drink as needed following the operation;
  - Do not use a straw.
- When swallowing, light pain may be experienced, which is generally due to the tube placed in your throat during the operation to help you breathe. This pain should diminish after a few days.
- For the initial days following the operation, the quantity of fluids you drink will be precisely measured (your urine will also be measured).

#### **HYGIENE**

- You can take a shower on the 2<sup>nd</sup> day after the operation, but you must avoid getting the wound wet to the alar crease as applicable.
- Do not tilt your head (forward or backward) to wash your hair.
- Sit on a bench to take the shower and have someone available to help if needed.

## **MOBILIZATION**

- The first postoperative waking will be with the nurse a few hours after returning to your room.
  - Move slowly to avoid feeling dizzy.
- For 1 month following your surgery, you must not tilt your head forward or backward at any time, especially when:
  - Washing your hair;
  - Rinsing your nose;
  - Picking something up off the floor.
- After that, movements will be at your own pace.
  - We strongly advise some activity (2 or 3 short walks in the hall, accompanied as needed);
  - At home, take 1 or 2 walks outside each day;
  - Listen to your body, increasing the frequency or duration accordingly over the weeks, and be accompanied
    if needed;
  - Avoid heavy loads for 2 months;
  - You will be tired, it's completely normal!

## **BREATHING SYSTEM**

- It is important to quickly start doing the breathing exercises to reduce the risk of lung complications.
- Take 3 to 4 inhalations of 3 seconds, exhale slowly and repeat this exercise every hour.
- Do not use a breathing spirometry device (e.g. Inspiron or Inspirex).



#### PAIN MANAGEMENT

- You might experience headaches or other pain. Do not wait until the pain is unmanageable, ask for a sedative.
- Combining acetaminophen (e.g. Tylenol®) and an analgesic generally improves pain relief.

## **RESUMING ACTIVITIES**

- Do not lift anything over 10 pounds (4.5 kg) for 2 months.
- Do not do any contact sports, swimming, or diving before your neurosurgeon has evaluated you during your follow-up.
- You can go up and down stairs and do your activities of daily living (e.g. cleaning, dusting, chores, etc.).
- Your sex life might be interrupted following the surgery. Your energy level is often the indicator for when you
  are ready for sexual relations. It is not contraindicated, in particular. Feel free to speak to a member of the
  treating team if you have any concerns.

## **DRIVING**

- Do not drive a vehicle for 2 months after your operation (or according to the return of your vision).
- However, this period may be extended (e.g. due to taking opioid analgesics, morphine, or Dilaudid®) by your surgeon, who will inform you (ask questions as needed).

# **DISCHARGE FROM HOSPITAL**

# WHAT TO LOOK OUT FOR

- It is normal to have pinkish nasal secretions for 3 to 4 weeks. However, a highly clear discharge, like rock water, accompanied by a salty taste in your throat is a concern. Go to the emergency department.
- A blocked nose is normal for several days.
- Immediately contact the nurse or go to the emergency department if one of the following symptoms is present:
  - Body temperature of over 38.5°C (101.3°F);
  - Nausea or vomiting;
  - Headache which changes (more frequent, increased intensity, different location, onset after waking);
  - Reduced awareness or confusion;
  - Change in behaviour;
  - Onset of balance issues;
  - Difficulty speaking;
  - Difficulty swallowing;
  - Change in vision;
  - Heavy nose bleed that persists after pinching using two fingers for 5 minutes;
  - Greenish or foul-smelling nasal discharge;
  - Excessive thirst and urine.

# **MEDICAL FOLLOW-UP**

NEUDOGUDOEON AND MO

NEUROSURGEON AND MRI	
Name of your neurosurgeon:	
Date of next appointment (2 months following surgery):	
Time: Location:	<u> </u>
OTORHINOLARYNGOLOGIST (ENT)	
Name of your otorhinolaryngologist:	
Date of next appointment (6 weeks following surgery):	
Time: Location:	
ENDOCRINOLOGIST	
Name of your endocrinologist:	_
Date of next appointment (4-6 weeks following operation):	
Time: Location:	<del></del>

A follow-up for a blood test is also needed following this operation. The test results will be sent directly to your endocrinologist. Blood tests may be taken in your location or in one of the test centres of the CIUSSS de l'Estrie — CHUS via the CLIC Santé portal.

# Authors

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# Editing and layout

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