A GUIDE TO UNDERSTANDING PITUITARY SURGERY



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If you or a loved one has been diagnosed with a pituitary tumour and surgery has been recommended, you probably have many questions and concerns. This fact sheet aims to provide you with clear information about pituitary surgery to help you feel more informed and prepared for your upcoming procedure.

Why would you need pituitary surgery?

Pituitary surgery is a common treatment for tumours that affect the pituitary gland. Surgery may be required if a tumour is causing problems with vision, hormone levels, or overall health.

What are the goals of pituitary surgery?

The aim of surgery is to remove as much of the tumour as possible, without damaging the nerves and blood vessels in the area, or the normal pituitary gland which may still be working. Surgery will also remove tumour to allow a diagnosis of what sort of pituitary tumour is present, and guide subsequent management.

If the tumour has been affecting eyesight, one of the main goals will be to improve vision. While some people may notice an improvement in their vision after surgery, some people may notice their vision improves over time. Other people may not notice any change.

How is the procedure performed?

Most pituitary surgery is done through the nostrils. This procedure is called a transsphenoidal surgery. Usually a team of surgeons, including a neurosurgeon and an otolaryngologist (Ear Nose Throat – ENT surgeon) work together to perform the operation. The operation will be done under general anaesthetic, which means you'll be asleep during the procedure.

This type of surgery is usually done using tiny instruments and a camera which allows surgeons to remove the tumour without needing to disturb surrounding areas. A small cut will be made inside the nose, and small surgical instruments will be used to open up the bony walls inside your nose. The surgeon uses an endoscope (thin tube with a video camera on the end) to look at the tumour and nearby structures, so they can remove it.

Because no part of the brain is touched during this type of procedure the chance of damaging the brain is low.

This minimally invasive technique usually means a shorter hospital stay and quicker recovery compared to an operation through the skull (craniotomy).

If parts of the tumour can't be reached through the nose, a craniotomy may be the best surgical option. This is usually done through an opening in the front of the skull. Risks with this type of surgery are higher than transsphenoidal surgery.

WHAT SHOULD I EXPECT AFTER SURGERY?

Immediately after surgery

When you first wake up after surgery, you'll be in the recovery area of the theatre. Shortly after, you'll be transferred to a ward where experienced nurses will monitor you. In particular they will be keeping a 'fluid balance chart' which means recording your urine output and volume of liquids that you drink. This is especially important in the first few days after surgery.

You probably won't be able to breathe through your nose straight away. This is normal. You may also have a sore nose, and you have may have gauze and packing in your nose. You may be prescribed medications to control nausea, pain and nasal congestion, along with antibiotics to help prevent infection. Over the following days, you'll have several blood tests to check your hormone levels. This will help the **endocrinologist** (hormone doctor) know whether you need medication to take home with you.

You're likely to be in hospital for a couple of days.

When you go home

It's normal to feel tired and congested for a couple of weeks after surgery. It's important to rest and avoid activities that could put pressure on your nose, like coughing, sneezing, blowing your nose, bending over or straining on the toilet. Crusts may form in your nose while you recover but nasal saline rinses can help remove these and promote healing.

Most people can return to their normal routines within 4-6 weeks. Your doctor will advise you on how much time you should take off work. Your doctor will also let you know when you should have follow-up appointments and what they will involve.

Recovery from a craniotomy will take longer than transsphenoidal surgery. Your doctor will tell you what to expect if you need that procedure.



ARE THERE ANY RISKS AND SIDE EFFECTS?

While pituitary surgery is generally safe, there are some risks to be aware of. These can include leaking of brain fluid, temporary or permanent changes in hormone production, and in rare cases, vision problems or infections. Your surgical team will work hard to minimise these risks and address any issues that arise.

Other complications and side effects include:

- bleeding
- reactions to the anaesthesia
- sinus headache and congestion for up to two weeks.

Your surgeon will go through the risks and side effects with you during consent. You should take this time as an opportunity to ask as many questions as you need to feel comfortable proceeding with surgery.

HOW CAN I PREPARE FOR MY SURGERY?

Your surgeon may request scans before surgery so they can learn as much as possible about the tumour, where it's located and how big it is. This will help them plan surgery.

To prepare for surgery, make sure to follow your doctor's instructions about medications, especially if you're taking blood thinners. It's usually necessary to fast before surgery, but your doctor will give you more details on this.

You'll need to arrange for someone to bring you home from hospital and help you at home while you recover.

If there's anything you're worried or concerned about, or if you have any questions, talk to your surgeon. Your medical team is there to support you through every step of the process. Being well-informed and prepared can help ease anxiety and contribute to a smoother recovery.

Remember, every patient's situation is unique, and your healthcare team is always the best source for specific medical advice.



MORE INFORMATION

The Australian Pituitary Foundation provides social support for patients and carers, and has published a range of patient resources on pituitary conditions and treatments.

For more information, please visit our website: www.pituitary.asn.au

Email: support@pituitary.asn.au

Phone: 1300 331 807

REFERENCES

- 1. The Pituitary Foundation, Surgery, https://www.pituitary.org.uk/information/surgery/
- 2. American Cancer Society, Surgery for Pituitary Tumors, https://www.cancer.org/cancer/types/pituitary-tumors/treating/surgery.html

Acknowledgement – We are grateful to the members of the Australian Pituitary Foundation for reviewing this information.

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