

# Pituitary Tumors: What You Need to Know

**Pituitary tumors are an abnormal growth of cells in the pituitary gland. In this handout, you will learn about the different types of pituitary tumors, and common symptoms seen with these tumors. You will also learn how doctors test for and diagnose pituitary tumors.**

## WHAT IS A PITUITARY TUMOR?

A **pituitary tumor** is an abnormal growth of cells in the pituitary gland. The **pituitary gland** is a pea-sized gland located at the base of the brain behind your nose. It controls many other glands in your body and the amount of hormones that these glands make.

## WHAT ARE THE DIFFERENT TYPES OF PITUITARY TUMORS?

- **Microadenomas** are smaller than 1 cm (1/2 inch) in size.
- **Macroadenomas** are larger than 1 cm (1/2 inch) in size.
- **Carcinomas** are cancerous tumors. These are very rare and can be of different sizes.

Pituitary tumors can be either **functioning** (that release hormones) or **non-functioning** (that do not release hormones). Functioning pituitary tumors make too much of one or more hormones usually made by the pituitary gland. These include prolactin, growth hormone, ACTH and thyroid stimulating hormone.

## WHAT ARE COMMON SYMPTOMS OF PITUITARY TUMORS?

Symptoms depend on the size and type of tumor your child has, and the hormone (if any) that the tumor makes. If the tumor makes a certain hormone, the symptoms are related to having too much of that hormone.

## WHAT ARE COMMON SYMPTOMS OF PITUITARY TUMORS? (CONTINUED)

Smaller tumors sometimes do not have any symptoms. Larger tumors are more likely to cause headaches, nausea and vision problems. Large tumors may also press against pituitary cells that make other hormones. This causes a deficiency of these hormones.

Possible symptoms, depending on the type of tumor, include:

- Headache
- Nausea
- Vision loss
- Changes in periods (in girls)
- Milky discharge from the breasts
- Fatigue (feeling very tired)
- Dizziness
- Weight loss or weight gain
- Poor growth or excessive growth (for height)
- Trouble sleeping
- High blood pressure
- High blood sugar
- Mood changes, like anxiety or depression
- Constipation
- Dull and dry skin
- Hair loss

### ***Did you know...?***

The word tumor does not always mean cancer. Most pituitary tumors are **benign** (non-cancerous).

## HOW DO DOCTORS DIAGNOSE AND TEST OR PITUITARY TUMORS?

The endocrinologist (hormone doctor) will go over your child's medical history and do a physical exam. He may also do one or more of the following tests:

- Blood tests
- Vision tests
- X-rays
- Other imaging tests (usually an MRI)
- Biopsy (looking at a sample of the tumor)

## HOW DO DOCTORS TREAT PITUITARY TUMORS?

Treatment depends on the size and type of your child's tumor. Sometimes no treatment is needed. The endocrinologist will talk with you about the best treatment for your child.

If your child does need treatment, it is best to start early. Pituitary tumors and symptoms get better faster and easier with early treatment.

Some treatments include:

- Medication
- Surgery
- Radiation that targets the pituitary tumor
- Chemotherapy

## WHAT IS THE OUTCOME FOR CHILDREN WITH PITUITARY TUMORS?

Your child's outcome depends on the size, type and location of the tumor. Most tumors get better with early treatment and most have a very good outcome. Your doctor will talk to you about the typical outcome for your child's kind of tumor.

## WHAT ARE THE DIFFERENT TYPES OF PITUITARY TUMOR SURGERY?

**Transsphenoidal tumor resection** is a procedure in which the surgeon extracts the tumor through the nose. In endoscopic transsphenoidal surgery, an instrument called an **endoscope** is inserted through the nose and allows the neurosurgeon to see a high-resolution image of the tumor. The surgery is called "transsphenoidal" because the surgeon accesses the pituitary gland by going through the **sphenoid sinus** (located underneath the pituitary gland).

A minimally invasive craniotomy may be necessary if the pituitary tumor cannot be properly accessed with a transsphenoidal approach. A craniotomy is performed by making a small incision in the skull in order to access the skull-base. This type of pituitary surgery is much less common than endoscopic transsphenoidal surgery.

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