Rathke's Cleft Cyst

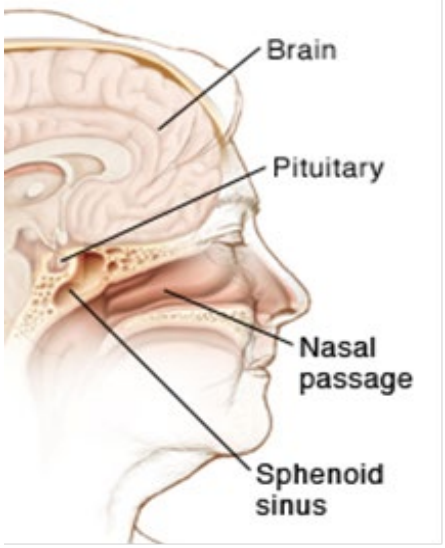
Symptoms and treatment

This handout explains a Rathke's cleft cyst, its symptoms, and how it is treated.

What is a Rathke's cleft cyst (RCC)?

Rathke's cleft cyst (RCC) is a sac filled with fluid that forms between the parts of the pituitary gland at the base of the brain. This area is called *Rathke's pouch*.

Most times, Rathke's pouch closes while a fetus is in the womb. If it does not close, there is a *cleft* (opening). An RCC forms inside this cleft.



The pituitary gland sits at the base of the brain, behind the nose and sinuses.

What are the symptoms of an RCC?

When it is small, an RCC may not cause any symptoms. As the cyst grows, it may cause:

- **Vision loss** if the cyst grows up into the brain cavity and presses on the optic *chiasm* (the space around the optic nerve).
- ***Bitemporal hemianopsia***, which is loss of the *peripheral* (side) vision. When severe, a person can only see what is right in front of them. Many people are not aware of this problem until it is severe.
- **Other problems** can include:
  - Blurry vision if the cyst starts to press on an optic nerve
  - Colors do not appear as bright as usual
  - Headaches
- **Pituitary insufficiency** because of pressure from the cyst on the pituitary gland. This limits the amount of hormones the pituitary can produce. The symptoms depend on which hormone is affected.

Pituitary Insufficiency

The pituitary gland produces different hormones that help the body work. When an RCC affects the pituitary, it can cause:

- *Adrenal* insufficiency, when levels of *adrenocorticotropic* hormone (ACTH) are too low. This hormone is produced and secreted by the anterior pituitary gland.

  When the condition is severe, it can cause death. Symptoms include:
  - *Fatigue* (feeling very tired)
  - Low blood pressure
  - Muscle spasms, weakness, twitching, or convulsions caused by imbalance of *electrolytes* (nutrients in the body)

Scan for a digital copy of this handout.

Pituitary Program / Neurosurgery Clinic | Box 356165
1959 N.E. Pacific St., Seattle, WA 98195 | 206.598.5637

- *Growth hormone* (GH) insufficiency, when levels of GH are too low. Symptoms include:
  - Stunted growth and late puberty (in children)
  - Overall fatigue, loss of muscle mass and tone (in adults)
- *Hypothyroidism*, when levels of *thyroid-stimulating hormone* (TSH) are too low. Symptoms include:
  - Loss of appetite
  - Weight gain
  - Fatigue
  - Confusion or problems with memory
- Higher levels of *prolactin*, if the pituitary stalk is affected and the brain cannot control hormone production. Symptoms include:
  - Changes in menstrual periods or breast milk production (*galactorrhea*).
  - Lower sex hormones, *luteinizing hormone* (LH), and *follicle-stimulating hormone* (FSH). In those assigned male at birth, this can lead to a low testosterone level, causing decreased sexual drive and impotence, and sometimes loss of body and facial hair. In those assigned female at birth, this can lead to infertility.

How is RCC diagnosed?

Most doctors advise having a *magnetic resonance imaging* (MRI) scan of the pituitary gland. An MRI will show clearly if a Rathke's cleft cyst is the cause of your symptoms.

How is an RCC treated?

Your doctor may advise you to have surgery. Most times, the surgery is done through the nasal passages. This is called *endoscopic transnasal transphenoidal surgery* (ETSS). It is a *minimally invasive* procedure.

During the procedure, your surgeon will use an endoscope (a thin tube with a light and a camera on one end) to *marsupialize* the cyst. This means your surgeon will make a large opening at the bottom of the cyst so that the fluid can drain.

What risks are involved in ETSS?

You may develop pituitary insufficiency (see pages 1–2) after this surgery.

Follow-up

There is about 20% risk of Rathke's cleft cyst refilling with fluid after it is drained. This means that it refills in 20 out of 100 patients after ETSS.

Your doctor will advise you to have more MRIs or other imaging studies to see if the cyst is refilling.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Pituitary Program / Neurosurgery Clinic: 206.598.5637

© University of Washington Medical Center
Document ID: PE1444
Published PFES: 2018, 2026
Clinician Review: 09/2026
Reprints on Health Online: healthonline.washington.edu

Pituitary Program / Neurosurgery Clinic | Box 356165
1959 N.E. Pacific St., Seattle, WA 98195 | 206.598.5637