



Hyperprolactinemia

WHAT IS HYPERPROLACTINEMIA?

Hyperprolactinemia is a condition in which a person has higher-than-normal levels of the hormone prolactin in the blood. The main function of prolactin is to stimulate breast milk production after childbirth, so high prolactin levels are normal in pregnancy. Prolactin also affects the levels of sex hormones (estrogen and testosterone) in both women and men. Prolactin is made by the pituitary gland, a pea-sized organ found at the base of the brain.

DID YOU KNOW?

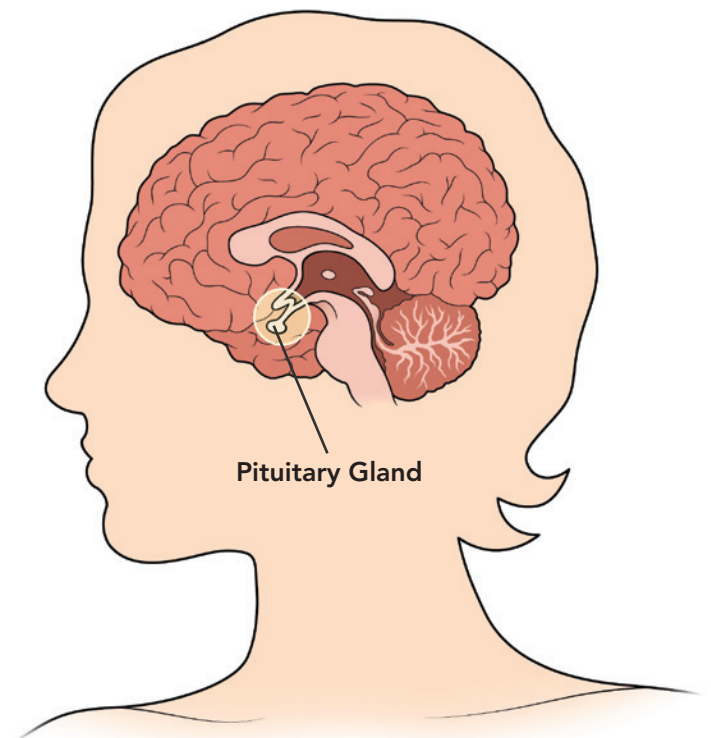
The pituitary gland is called the master gland because it makes hormones that control levels of other hormones. Normal functioning of the pituitary gland is needed for good health.

WHAT CAUSES HYPERPROLACTINEMIA?

One common cause of hyperprolactinemia is a growth or tumor on the pituitary gland called a prolactinoma. The tumor produces high levels of prolactin. These tumors can be large or small and are usually benign, meaning they are not cancerous. Large tumors can also cause headaches, vision problems, or both. Prolactinomas are more common in women than in men and rarely occur in children.

Certain prescription medicines can also increase prolactin levels. These include medicines for

- High blood pressure (such as calcium-channel blockers and methyldopa)
- Depression (tricyclic and SSRI antidepressants)
- Ulcers (H2 antagonists)
- Heartburn and gastroesophageal reflux disease (metoclopramide)
- Pain (opiates—drugs derived from opium)
- Serious mental health disorders (antipsychotics such as risperdal and haloperidol)
- Menopausal symptoms (estrogen)



- Hypothyroidism or underactive thyroid—meaning the thyroid gland does not produce enough thyroid hormone
- Chest-wall injuries or other conditions that affect the chest wall, such as shingles
- Other tumors and diseases affecting the pituitary gland, or radiation treatment for tumors on or near the pituitary
- Chronic liver and kidney diseases

Sometimes, no cause for hyperprolactinemia can be found.

WHAT ARE THE SIGNS AND SYMPTOMS OF HYPERPROLACTINEMIA?

Both men and women may have infertility, decreased sex drive, and bone loss. In addition, women may have

- Vaginal dryness, leading to pain during intercourse
- Problems with menstruation—having no periods or irregular periods
- Production of breast milk when not pregnant or nursing

Men may also have

- Erectile dysfunction—trouble getting or keeping an erection
- Breast enlargement, called gynecomastia
- Decreased muscle mass and body hair

HOW IS HYPERPROLACTINEMIA DIAGNOSED?

A blood test is used to detect excess prolactin. If prolactin levels are high, more tests are usually done to check blood levels of thyroid hormone. Normal thyroid hormone levels rule out hypothyroidism as a cause of hyperprolactinemia. Doctors will also ask about other conditions and medication use, and rule out pregnancy.

If a prolactinoma is suspected, an MRI (magnetic resonance imaging) of the brain and pituitary is often the next step. Using a special machine that creates images of body tissues, an MRI can reveal a pituitary tumor and show its size.

WHAT IS THE TREATMENT FOR HYPERPROLACTINEMIA?

Treatment is based on the cause. Some people with high prolactin levels, but few or no signs and symptoms, do not need any treatment. Options for treating tumors include

- Prescription medicines. Bromocriptine and cabergoline decrease prolactin production. Medicines work well for most people with prolactinomas.
- Surgery to remove a tumor. Surgery may be used if medicines have not been effective. Surgery is sometimes needed if the tumor is affecting vision.
- Radiation. Rarely, if medicines and surgery have not been effective, radiation is used to shrink the tumor.

Bromocriptine and cabergoline are also used to treat hyperprolactinemia with no known cause. Hypothyroidism is treated with synthetic thyroid hormone, which should bring prolactin levels back to normal. If high prolactin levels are caused by prescription medications, other types of medications can be explored.

Questions to ask your doctor

- What caused my hyperprolactinemia?
- What tests do I need?
- What are my options for treatment?
- What are the advantages and disadvantages of each treatment option?
- Will I have long-term side effects from my condition?
- Should I see an endocrinologist?

RESOURCES

- Find-an-Endocrinologist: www.hormone.org or call 1-800-HORMONE (1-800-467-6663)
- Hormone Health Network information about pituitary disorders: www.hormone.org/Pituitary/overview.cfm
- National Endocrine and Metabolic Diseases Information Service (National Institutes of Health): www.endocrine.niddk.nih.gov/pubs/prolact/prolact.htm
- Mayo Clinic: www.mayoclinic.com/health/prolactinoma/DS00532/DSECTION=symptoms
- The Pituitary Society: www.pituitarysociety.org

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The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society (www.endo-society.org). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at www.hormone.org/Spanish.

