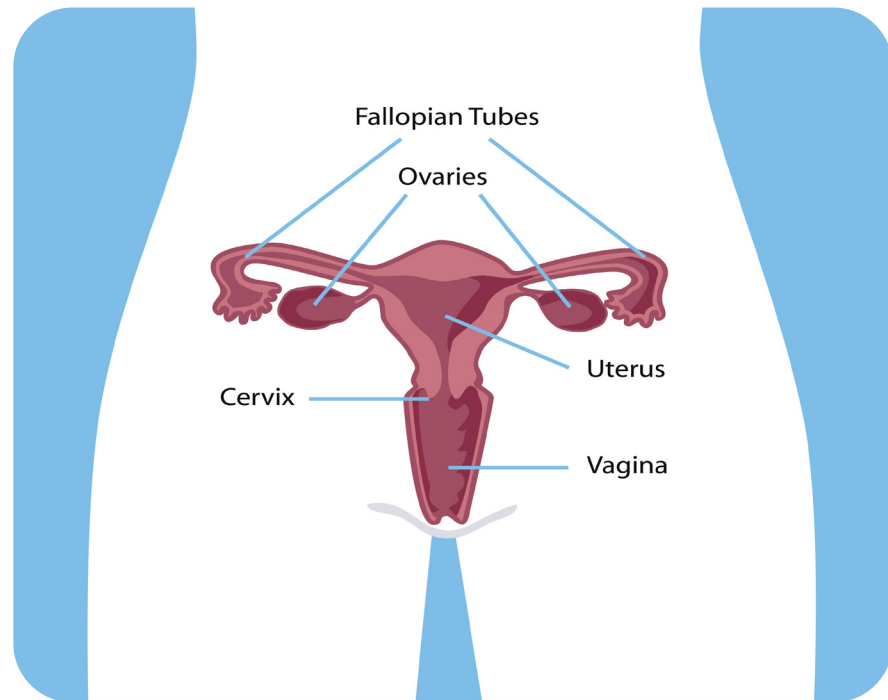


# Primary Ovarian Insufficiency

## What is primary ovarian insufficiency?

Normally, the ovaries produce hormones like estrogen and progesterone, and release eggs. When these eggs join with sperm, it can make a baby.

Primary ovarian insufficiency is a condition where the ovaries stop releasing eggs and hormones earlier than expected (or never start). The ovaries normally stop releasing hormones and eggs by about age 52. Primary ovarian insufficiency affects about 1% of young women in the United States.



## How is primary ovarian insufficiency different than primary ovarian failure?

Primary ovarian “insufficiency” is a more accurate term than “failure,” because in some cases, the ovaries may begin to function again on their own.

## What causes this condition?

In most cases, we do not know why primary ovarian insufficiency occurs. Some cases can be explained by genetic abnormalities, exposure to chemotherapy or radiation, surgery, or autoimmune disorders (when the body attacks its own tissues).

### To Learn More

- Adolescent Gynecology  
206-987-2028
- Ask your child’s healthcare provider
- [seattlechildrens.org](http://seattlechildrens.org)

### Free Interpreter Services

- In the hospital, ask your nurse.
- From outside the hospital, call the toll-free Family Interpreting Line, 1-866-583-1527. Tell the interpreter the name or extension you need.

### What are the symptoms?

The symptoms may include one or more of these:

- A girl who was previously menstruating may begin to have few or no periods
- A girl does not go through puberty (no breast development or periods)
- Hot flashes (temporary feelings of intense heat and sweating)
- Vaginal dryness
- Mood swings

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### How is it diagnosed?

The diagnosis is usually made with at least two sets of laboratory tests. If the first set of labs shows that the FSH (follicle stimulating hormone) is very high and estradiol (estrogen) is very low, a second set of labs is often done one month later.

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### What other tests are done?

If the cause is unknown, sometimes these other tests are ordered:

- Genetic tests to count the number of chromosomes (karyotype)
- Genetic tests for a condition called Fragile X
- Tests for problems with the adrenal glands (anti-adrenal and anti-21 hydroxylase antibodies)
- Tests for problems with the thyroid gland (TSH - thyroid stimulating hormone)
- Prolactin and pregnancy tests
- Bone scans. Because girls with primary ovarian insufficiency can have issues with their bone health, sometimes a bone density test called a DEXA scan is recommended.

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### Why is ovarian function important?

Estrogen is a hormone normally released from the ovary. It is very important for a woman's health, particularly for the health of the bones and heart. If her body is unable to produce the hormones, she will need to have them replaced with medicine.

When the ovaries are unable to release eggs, it leads to fertility problems (makes it hard to get pregnant). However, some women with primary ovarian insufficiency can become pregnant and give birth (sometimes with the help of reproductive technology). Some women choose to adopt or choose not to have children. Because ovarian function can return on its own, without warning, women with primary ovarian failure who do not want to become pregnant should still use some form of birth control to prevent pregnancy. Abstinence or condoms should also be used to help prevent sexually transmitted infections.

Technologies, such as in-vitro fertilization with donated eggs, may allow some women who have primary ovarian insufficiency to carry a pregnancy.

### How is it treated?

Because we want women to have the protective health factors estrogen provides, the main way to treat primary ovarian insufficiency is by replacing the hormones that would usually be produced by the ovary. Estrogen and progesterone are usually given by a pill or a patch or other combinations.

Bone health can be improved by taking calcium (1000-1500 mg per day), vitamin D (400-1000 IU per day) and doing some weight-bearing exercises, like walking or jogging. Diet and exercise are important in maintaining a healthy lifestyle. Use medicine, vitamins or supplements only if recommend by health care providers.

Check with your healthcare provider first before taking any type of medicine or vitamin supplement.

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### Can it be cured?

Depending on the cause of primary ovarian insufficiency, the ovaries may begin to function again on their own. However, the return of function may only be temporary.