

Estradiol

Estradiol, also known as E2, is one of four types of estrogen that the ovaries chiefly produce. It is the primary sex hormone of childbearing women and is formed from developing ovarian follicles. Estradiol is responsible for female characteristics and sexual functioning, and is also important to women's bone health. Estradiol contributes to most gynecologic problems, including endometriosis, fibroids and even female cancers.

Measuring the circulating levels of estradiol is important for assessing the ovarian function and monitoring follicular development for assisted reproduction protocols. Estradiol plays an essential role throughout the menstrual cycle.

Why may estradiol levels be high or low in men and women?

Elevated estradiol levels in females may result from primary or secondary ovarian hyperfunction. Very high estradiol levels are found during the induction of ovulation for assisted reproduction therapy or in pregnancy. Decreased estradiol levels in females may result from either lack of ovarian synthesis (primary ovarian hypofunction and menopause) or a lesion in the hypothalamus-pituitary axis (secondary ovarian hypofunction). Elevated estradiol levels in males may be due to increased aromatization of androgens, resulting in gynecomastia (enlargement or swelling in breast tissue).

How do estradiol levels affect females?

Estradiol levels can affect how the reproductive system develops. Abnormally high or low levels can influence how the following parts of the body grow and work:

- Womb
- Breasts
- Vagina
- Sex drive
- Fallopian tubes

Why do I need an estradiol test?

A female may have an estradiol test if they experience:

- Abnormal menstrual periods
- Bloating/swelling of the abdomen
- Frequent urination
- Infertility
- Pain in the pelvic area
- Feeling full after eating a small amount of food
- Abnormal vaginal bleeding
- Weight loss

Other reasons may include:

- Pregnancy or on infertility treatments
- Monitoring levels for people undergoing transgender hormone therapy
- Pregnancy or on infertility treatments

What should I do if the results are abnormal?

It is always recommended you meet with a healthcare provider to determine what your laboratory test results mean to you. Your healthcare provider will review all of your test results and, combined with your health history, will be able to provide an accurate course of action.

What other resources are available to learn more about my health and laboratory tests?

- Centers for Disease Control and Prevention: cdc.gov
- Lab Tests Online: labtestsonline.org
- WebMD: webmd.com

DLO Direct offers direct access to laboratory testing for informational purposes. A DLO Direct lab test result is not a medical diagnosis and is not intended as medical advice. Only a healthcare provider can interpret lab results and diagnose a medical condition or disease.

Because tests have not been ordered by a healthcare provider, third party entities, including Medicare and Medicaid, will not reimburse for these tests.



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