PATIENT EDUCATION

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

Gynecologic Problems • EP147

Endometrial Hyperplasia

*Endometrial hyperplasia occurs when the **endometrium**, the lining of the **uterus**, becomes too thick. It is not cancer, but in some cases, it can lead to cancer of the uterus. Early diagnosis and treatment are important. For some women who are at increased risk of hyperplasia, medication can be taken to decrease their risk.*

This pamphlet explains

- *normal changes in the endometrium*
- *causes of endometrial hyperplasia*
- *risk factors*
- *signs and symptoms*
- *diagnosis*
- *treatment and prevention*

The Endometrium

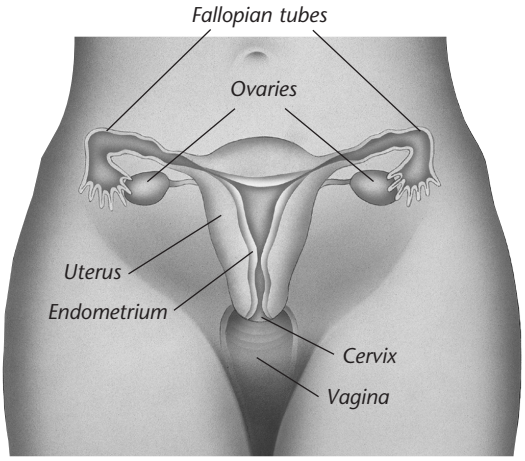
The endometrium changes throughout the menstrual cycle in response to ***hormones***. During the first part of the cycle, the hormone ***estrogen*** is made by the ovaries. Estrogen causes the lining to grow and thicken to prepare the uterus for pregnancy. In the middle of the cycle, an egg is released from one of the ovaries (***ovulation***). Following ovulation, levels of another hormone called ***progesterone*** begin to increase. Progesterone prepares the endometrium to receive and nourish a fertilized egg. If pregnancy does not occur, estrogen and progesterone levels decrease. The decrease in progesterone triggers ***menstruation***, or shedding of the lining. Once the lining is completely shed, a new menstrual cycle begins.

Causes

Endometrial hyperplasia most often is caused by excess estrogen without progesterone. If ovulation does not occur, progesterone is not made, and the lining is not shed. The endometrium may continue to grow in response to estrogen. The ***cells*** that make up the lining may crowd together and may become abnormal. This condition, called hyperplasia, may lead to cancer in some women.

Endometrial hyperplasia usually occurs after ***menopause***, when ovulation stops and progesterone is no longer made. It also can occur during ***perimenopause***, when ovulation may not occur regularly. Listed as follows are other situations in which women

Female Reproductive System



The lining of the uterus is called the endometrium. Endometrial hyperplasia occurs when the endometrium grows too thick.

may have high levels of estrogen and not enough progesterone:

- Use of medications that act like estrogen, such as tamoxifen (a drug used to treat some types of cancer)
- Long-term use of high doses of estrogen after menopause (in women who have not had a ***hysterectomy***)—Women who take ***hormone therapy*** to relieve symptoms of menopause and who still have a uterus should take progesterone or a progesterone-like hormone called ***progestin*** as well as estrogen to prevent endometrial hyperplasia.
- Irregular menstrual periods, especially associated with ***polycystic ovary syndrome*** or infertility—Women who have irregular menstrual periods or have infertility may not ovulate regularly. Their ovaries may make estrogen but not enough progesterone.
- Obesity—Women who are obese also may not ovulate regularly. They usually have higher levels of estrogen than women who are a normal weight.

Risk Factors

Endometrial hyperplasia is more likely to occur in women with certain risk factors. These risk factors include the following:

- Age older than 35 years
- White race
- Never having been pregnant
- Older age at menopause
- Early age when menstruation started
- Personal history of certain conditions (such as ***diabetes***, polycystic ovary syndrome, gallbladder disease, or thyroid disease)
- Obesity
- Cigarette smoking
- Family history of ovarian, colon, or uterine cancer

Types

Endometrial hyperplasia is classified as simple or complex. It also is classified by whether certain cell changes are present or absent. If abnormal changes are present, it is called atypical. The terms are combined to describe the exact kind of hyperplasia:

- Simple hyperplasia
- Complex hyperplasia
- Simple atypical hyperplasia
- Complex atypical hyperplasia

The risk that hyperplasia will progress to endometrial cancer is low with simple hyperplasia. The risk is higher with complex atypical hyperplasia. Cancer already may be present in about 4 out of 10 women with atypical hyperplasia. The risk is much lower with simple hyperplasia.

Signs and Symptoms

The most common sign of hyperplasia is abnormal uterine bleeding. If you have any of the following, you should see your health care provider:

- Bleeding during the menstrual period that is heavier or lasts longer than usual
- Menstrual cycles that are shorter than 21 days (counting from the first day of the menstrual period to the first day of the next menstrual period)
- Any bleeding after menopause

In most women with abnormal uterine bleeding, the cause is not cancer. However, if the cause is endometrial hyperplasia, treatment may be recommended to prevent cancer.

Diagnosis

There are many causes of abnormal uterine bleeding. If you have abnormal bleeding and you are 35 years or older, or if you are younger than 35 years and your abnormal bleeding has not been helped by medication, your health care provider may perform diagnostic tests for endometrial hyperplasia and cancer.

Transvaginal ultrasound may be done to measure the thickness of the endometrium. For this test, a small device is placed in your vagina. Sound waves from the device are converted into images of the pelvic organs. If the endometrium is thick, it may mean that endometrial hyperplasia is present.

The only way to tell for certain that cancer is present is to take a small sample of tissue from the endometrium and study it under a microscope. This can be done in a number of ways:

- ***Endometrial biopsy***—A biopsy of the endometrium can be done in a health care provider's office. A narrow tube is placed in the uterus. Tissue is taken from the lining. You may feel some cramping during the test. The cells that are collected are sent to a lab and checked under a microscope.
- ***Dilation and curettage (D&C)***—The opening of the cervix is enlarged (dilated). Tissue is gently scraped or suctioned from the uterine lining. The tissue is studied under a microscope. D&C may be done in an outpatient clinic, health care provider's office, or hospital. You may be given anesthesia to ease pain.
- ***Hysteroscopy***—A slender device like a telescope is placed in the uterus. With the hysteroscope, your health care provider can look for places in the lining that may be abnormal. Cells are removed and sent to a lab for testing.

Treatment

The type of treatment you receive depends on several factors: the type of hyperplasia, your desire to become pregnant, your age, and other risk factors. In many cases, endometrial hyperplasia can be treated with progestin. You and your health care provider will find a form of the hormone and a dosage that is right for you. Progestin is given orally, in a shot, in an ***intrauterine device***, or as a vaginal cream. How much and how long you take it depends on your age and the type of hyperplasia. Treatment with progestin may cause vaginal bleeding like a menstrual period.

After you have taken the hormone for a while, you may have another biopsy to see if the hyperplasia is responding to treatment. If it does not, more treatment may be needed. You may need a different kind of progestin or a different dosage.

If you have atypical hyperplasia, especially complex atypical hyperplasia, the risk of developing cancer is increased. Hysterectomy (removal of the uterus) usually is the best treatment option if you do not want to have any more children.

Protecting Against Endometrial Hyperplasia

You can take steps to reduce the risk of endometrial hyperplasia. These steps may protect you if you have risk factors for this condition. They also can help keep the condition from coming back:

- If you take estrogen after menopause, you also need to take progestin or progesterone. Women who use vaginal estrogen creams or tablets may not need to take progestin or progesterone because the amount of estrogen in these forms is lower than that in pills or patches.
- If your menstrual periods are irregular, birth control pills (oral contraceptives) may be recommended. They contain estrogen along with progestin. Other forms of progestin also may be taken.
- If you are overweight, losing weight may help. The risk of endometrial cancer increases with the degree of obesity.

Finally…

If you have abnormal bleeding, tell your health care provider. If the cause is endometrial hyperplasia, it can be treated. Women at risk of this condition also can take steps to protect against it.

Glossary

Cells: The smallest units of a structure in the body; the building blocks for all parts of the body.

Diabetes: A condition in which the levels of sugar in the blood are too high.

Dilation and Curettage (D&C): A procedure in which the cervix is opened and tissue is gently scraped or suctioned from the inside of the uterus.

Endometrial Biopsy: A test in which a small amount of the tissue lining the uterus is removed and examined under a microscope.

Endometrium: The lining of the uterus.

Estrogen: A female hormone produced in the ovaries that stimulates the growth of the lining of the uterus.

Hormone Therapy: Treatment in which estrogen, and often progestin, is taken to help relieve some of the symptoms caused by low levels of these hormones.

Hormones: Substances produced by the body to control the function of various organs.

Hysterectomy: Removal of the uterus.

Hysteroscopy: A surgical procedure in which a slender, light-transmitting telescope, the hysteroscope, is used to view the inside of the uterus or perform surgery.

Intrauterine Device: A small device that is inserted and left inside the uterus to prevent pregnancy.

Menopause: The time in a woman's life when the ovaries have stopped functioning; defined as the absence of menstrual periods for 1 year.

Menstruation: The monthly discharge of blood and tissue from the uterus that occurs in the absence of pregnancy.

Ovulation: The release of an egg from one of the ovaries.

Perimenopause: The period preceding menopause that usually extends from age 45 to 55 years.

Polycystic Ovary Syndrome: A condition in which levels of certain hormones are abnormal and small growths called cysts may be present on the ovaries. It is associated with infertility and may increase the risk of diabetes and heart disease.

Progesterone: A female hormone that is produced in the ovaries and that prepares the lining of the uterus for pregnancy.

Progestin: A synthetic form of progesterone that is similar to the hormone produced naturally by the body.

Transvaginal Ultrasound: A type of ultrasound in which a transducer specially designed to be placed in the vagina is used.

Uterus: A muscular organ located in the female pelvis that contains and nourishes the developing fetus during pregnancy.

This Patient Education Pamphlet was developed by the American College of Obstetricians and Gynecologists. Designed as an aid to patients, it sets forth current information and opinions on subjects related to women's health. The average readability level of the series, based on the Fry formula, is grade 6–8. The Suitability Assessment of Materials (SAM) instrument rates the pamphlets as "superior." To ensure the information is current and accurate, the pamphlets are reviewed every 18 months. The information in this pamphlet does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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