



## Endometrial Cancer

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### What is endometrial cancer?

**Endometrial cancer** is cancer of the **endometrium**, which is the lining of the **uterus**. It is the most common type of cancer that affects the female reproductive organs. The most common type of endometrial cancer (type 1) grows slowly. It most often is found only inside the uterus. Type 2 is less common. It grows more rapidly and tends to spread to other parts of the body.

### How does endometrial cancer occur?

Endometrial cancer occurs when the cells of the endometrium start to grow too rapidly. The lining of the uterus may thicken in certain places. These areas of thickness may form a mass of tissue called a **tumor**. Cancer cells also can spread (**metastasize**) to other areas of the body.

### What is endometrial intraepithelial neoplasia (EIN)?

**Endometrial intraepithelial neoplasia (EIN)** is a condition that may lead to type 1 endometrial cancer. In EIN, areas of the endometrium grow too thick and show changes that look like cancer. **Abnormal uterine bleeding** is a common sign of EIN. Diagnosis and treatment of EIN can prevent it from becoming cancer.

### What are the risk factors for endometrial cancer?

Some of the risk factors for endometrial cancer include the following:

- Age—Most cases of endometrial cancer are diagnosed in women who are past **menopause** and are in their mid-60s.
- Levels of **hormones**—The levels of **estrogen** and **progesterone** in a woman's body can affect her risk of endometrial cancer. When estrogen is present without enough progesterone, it can cause the endometrium to become too thick. This condition can occur in women with irregular menstrual periods, during **perimenopause** and menopause, and with certain medical disorders, such as **polycystic ovary syndrome (PCOS)**. It also can occur in women who have a uterus who use estrogen-only therapy to treat menopause symptoms.
- Being overweight—Having a **body mass index (BMI)** of 25 or greater is a major risk factor for endometrial cancer. As BMI increases, so does the risk of cancer.
- Genetics—**Lynch syndrome** is an inherited condition that increases the risk of colon cancer, ovarian cancer, endometrial cancer, and other types of cancer. It is caused by a change or **mutation** in a **gene** that is passed down in families.

## What are the symptoms of endometrial cancer?

Most women with endometrial cancer have early symptoms. The most common symptom of endometrial cancer is abnormal uterine bleeding. For women who are premenopausal, this includes irregular menstrual bleeding, spotting, and bleeding between menstrual periods. For women who are postmenopausal, any bleeding is abnormal. Symptoms of advanced endometrial cancer include abdominal or pelvic pain, bloating, feeling full quickly when eating, and changes in bowel or bladder habits.

## How is endometrial cancer diagnosed?

There are no screening tests to detect endometrial cancer in women with no symptoms. If you are postmenopausal, any abnormal bleeding needs to be checked. You may first have a **transvaginal ultrasound** exam. During this exam, the thickness of the endometrium and the size of the uterus are measured. A thickened endometrium (more than 4 mm) means that more testing is needed.

The standard way that endometrial cancer is diagnosed is with an **endometrial biopsy**. In this procedure, a sample of the endometrium is removed and looked at under a microscope. This test may be performed in your gynecologist's office. Another way the endometrium can be sampled is with **dilation and curettage (D&C)**. A lighted instrument with a camera called a **hysteroscope** may be used to help guide this procedure. **Anesthesia** is given to make you more comfortable.

If you are premenopausal, your gynecologist will consider your signs and symptoms, age, and other medical factors to decide whether a biopsy is needed. An ultrasound exam is not helpful if you are premenopausal in diagnosing endometrial cancer.

## How is endometrial cancer treated?

Endometrial cancer usually is treated with surgery. During surgery, the cervix and uterus are removed (total **hysterectomy**), as well as both **ovaries** and **fallopian tubes (salpingo-oophorectomy)**. **Lymph nodes** and other tissue may be removed and tested to find out if they contain cancer.

After surgery, the **stage** of disease is determined. Staging helps your doctor decide if additional treatment, such as **chemotherapy** or **radiation therapy**, is needed. Stages of cancer range from I to IV. Stage IV is the most advanced. The stage of cancer affects the treatment and outcome.

## How is hormone therapy used to treat endometrial cancer?

Treatment with **progestin** is an option for women who want to have more children or for women who cannot have surgery because of other medical reasons. This option usually is only recommended for women who

- have slower-growing cancer that has not reached the muscle layer of the uterus
- do not have cancer outside of the uterus
- are in general good health and are able to take progestin
- understand that information about future outcomes is limited

For some women, it may be possible to keep the ovaries at the time of surgery. Keeping your ovaries means that you may be able to use your own eggs for **in vitro fertilization**. This choice is not for everyone and is best made in consultation with your health care team.

## What happens after treatment for endometrial cancer?

You will need to have regular health care visits after treatment for endometrial cancer. The purpose of these visits is to make sure that you stay healthy. However, with stage I disease, 90% of women will have no sign of cancer 5 or more years after treatment.

A healthy lifestyle is recommended after cancer treatment. Several studies have found that obesity, high blood pressure, and diabetes can contribute to long-term health risks for women with type 1 endometrial cancer. A healthy diet and regular exercise can help lower these risks.

## Glossary

**Abnormal Uterine Bleeding:** Bleeding from the uterus that differs in frequency, regularity, duration, or amount from normal uterine bleeding in the absence of pregnancy.

**Anesthesia:** Relief of pain by loss of sensation.

**Body Mass Index (BMI):** A number calculated from height and weight that is used to determine whether a person is underweight, normal weight, overweight, or obese.

**Chemotherapy:** Treatment of cancer with drugs.

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

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

**Endometrial Cancer:** Cancer of the lining of the uterus.

**Endometrial Intraepithelial Neoplasia (EIN):** A precancerous condition in which areas of the lining of the uterus grow too thick.

**Endometrium:** The lining of the uterus.

**Estrogen:** A female hormone produced in the ovaries.

**Fallopian Tubes:** Tubes through which an egg travels from the ovary to the uterus.

**Gene:** A segment of DNA that contains instructions for the development of a person's physical traits and control of the processes in the body. Genes are the basic units of heredity and can be passed down from parent to offspring.

**Hormones:** Substances made in the body by cells or organs that control the function of cells or organs. An example is estrogen, which controls the function of female reproductive organs.

**Hysterectomy:** Removal of the uterus.

**Hysteroscope:** A device that is used to look inside the uterus and to do procedures.

**In Vitro Fertilization:** A procedure in which an egg is removed from a woman's ovary, fertilized in a laboratory with the man's sperm, and then transferred to the woman's uterus to achieve a pregnancy.

**Lymph Nodes:** Small clusters of special tissue located throughout the body that filter lymph, a nearly colorless liquid that bathes body cells. Lymph nodes are connected to each other by lymph vessels. Together, these structures make up the lymphatic system.

**Lynch Syndrome:** A genetic condition that increases a person's risk of several types of cancer, including colon cancer, ovarian cancer, and endometrial cancer.

**Menopause:** The time in a woman's life when menstruation stops; defined as the absence of menstrual periods for 1 year.

**Metastasize:** Spreading of cancer to other parts of the body.

**Mutation:** A permanent change in a gene that can be passed on from parent to child.

**Ovaries:** The paired organs in the female reproductive system that contain the eggs released at ovulation and produce hormones.

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

**Polycystic Ovary Syndrome (PCOS):** A condition characterized by two of the following three features: the presence of growths called cysts on the ovaries, irregular menstrual periods, and an increase in the levels of certain hormones.

**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.

**Radiation Therapy:** Treatment with high-energy radiation.

**Salpingo-oophorectomy:** Removal of the ovary and fallopian tube; a bilateral salpingo-oophorectomy is removal of both ovaries and fallopian tubes.

**Stage:** Stage can refer to the size of a tumor and the extent (if any) to which the disease has spread.

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

**Tumor:** Growth or lump made up of cells.

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

### **If you have further questions, contact your obstetrician–gynecologist.**

**FAQ097:** Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information 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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