CONDITION

Endometrial cancer

Endometrial cancer begins in the inner lining of the uterus.

WHAT IT IS
Cancer beginning in the lining of the uterus

BODY SYSTEM
Reproductive system

MAIN SYMPTOMS
Postmenopausal bleeding, abnormal periods, watery discharge, pelvic pain

WHAT CAUSES IT
DNA changes, sometimes linked to estrogen or inherited syndromes

HOW IT IS DIAGNOSED
Endometrial biopsy or tissue removed during hysteroscopy

MAIN TREATMENT
Surgery, sometimes with radiation or medicine

CAN IT BE CURED?
Sometimes - often when found before spread

IS IT AN EMERGENCY?
Sometimes - severe bleeding with fainting or breathing difficulty

LONG-TERM OUTLOOK
Often favorable when found early; advanced cancer is harder to control

Overview

Endometrial cancer begins in the endometrium, the tissue lining the uterus. It is the most common cancer arising in the uterus. Less commonly, cancer starts in uterine muscle or supporting tissues; these cancers are called uterine sarcomas and are treated differently.

Abnormal vaginal bleeding is the main warning sign. Bleeding after menopause is never considered a normal part of aging, although many non-cancerous conditions can cause it. Bleeding between periods or a major change in periods also needs medical assessment.

Endometrial cancer often causes bleeding while still limited to the uterus, when treatment is frequently successful. The outlook is less favorable if it has grown into nearby organs or spread elsewhere.

Endometrioid carcinoma is the most common form. Other forms, including serous and clear

cell cancers, may behave more aggressively. Laboratory testing can also classify cancers by molecular changes that help guide treatment.

Symptoms

The most common symptom is unusual vaginal bleeding. Possible symptoms include:

Later symptoms may include persistent tiredness, unexplained weight loss, abdominal swelling, shortness of breath, or changes in bladder or bowel habits. These symptoms have many possible causes and do not by themselves mean cancer has spread.

A cervical screening test, or Pap test, does not screen for endometrial cancer. It may occasionally detect abnormal uterine cells, but a normal result does not rule out the condition.

- Any vaginal bleeding or spotting after menopause
- Bleeding between periods
- Periods that become much heavier, longer, or less predictable
- Pink, brown, clear, or blood-stained vaginal discharge
- Pelvic pain, pressure, or fullness
- Pain during sex

Causes and risk factors

Endometrial cancer develops when cells in the uterine lining acquire DNA changes that allow uncontrolled growth. Usually, there is no single identifiable cause.

Some cases are linked to prolonged estrogen stimulation without enough progesterone to balance its effect on the lining. Fat tissue can increase estrogen levels, particularly after menopause.

Factors associated with higher risk include:

Lynch syndrome is an inherited condition caused by changes in DNA-repair genes. It raises the risk of endometrial and several other cancers, particularly bowel cancer. Diagnosis at a younger age or a strong family history may lead to genetic counselling and testing.

Having risk factors does not mean you will develop cancer, and some people have no recognized risk factors.

- Increasing age, especially after menopause

- Obesity
- Infrequent ovulation, including with polycystic ovary syndrome
- Never having been pregnant
- Starting periods early or reaching menopause later
- Taking estrogen without progesterone while the uterus is present
- Treatment with tamoxifen
- Endometrial hyperplasia, an abnormal thickening of the uterine lining
- A family or personal history suggesting Lynch syndrome

Diagnosis

Assessment may include questions about bleeding, periods, medicines, pregnancies, and family cancer history. A pelvic examination can identify some other causes but cannot rule out endometrial cancer.

A transvaginal ultrasound uses a narrow probe placed in the vagina to measure the uterine lining and look for polyps, fibroids, or other changes. It can guide further testing but does not usually confirm cancer.

Confirmation requires an endometrial tissue sample. A biopsy can be taken through a thin tube passed through the cervix, often without an operation, although brief cramping may occur.

If the sample is insufficient or bleeding continues, hysteroscopy may be recommended. A small camera is passed through the cervix to inspect the uterus and remove tissue, sometimes with dilation and curettage, or D&C.

A pathologist identifies the cancer type and grade. Grade describes how abnormal the cells look and helps estimate how quickly they may grow. Tests for mismatch-repair proteins, microsatellite instability, and other molecular features may identify possible Lynch syndrome and guide treatment.

If cancer is confirmed, MRI, CT, or other scans may assess its extent. The stage describes how far it has grown or spread and may incorporate findings from surgery.

Treatment and management

Treatment depends on the stage, type, grade, molecular features, general health, preferences, menopause status, and future pregnancy plans.

Surgery is the main treatment for many people. It usually removes the uterus and cervix, called a hysterectomy, along with the fallopian tubes and ovaries. Nearby lymph nodes may be checked, often with a sentinel lymph node procedure targeting those most likely to contain cancer cells.

Some early, lower-risk cancers need no further treatment after surgery. Others need additional treatment to reduce recurrence risk.

Radiation destroys cancer cells with high-energy rays. Vaginal brachytherapy temporarily places a radiation source inside the vagina. External beam radiation directs radiation toward the pelvis from outside the body.

Chemotherapy is more often used for higher-risk, advanced, or recurrent cancer. Side effects vary but may include fatigue, nausea, infection risk, hair loss, or numbness in the hands and feet.

Hormone treatment may slow cancers that respond to progesterone or estrogen signals. Immunotherapy helps the immune system recognize cancer, while targeted medicines act on specific cancer-cell features. Suitability depends on laboratory findings and previous treatment.

For a carefully selected person with low-grade, early endometrioid cancer who wants to become pregnant, fertility-preserving hormone treatment may sometimes replace immediate hysterectomy. It requires specialist review, repeated biopsies, and close follow-up and is not safe for every type or stage.

Supportive care can help manage pain, nausea, fatigue, anemia, sexual concerns, and emotional distress at any stage.

Complications

Ongoing bleeding can cause iron-deficiency anemia, leading to tiredness, weakness, dizziness, or shortness of breath.

Cancer may grow into the cervix, ovaries, lymph nodes, bladder, or bowel, or spread to distant organs. Its effects depend on the areas involved.

Removing the uterus makes pregnancy impossible. Removing the ovaries before natural menopause causes menopause soon after surgery, potentially leading to hot flushes, sleep disturbance, vaginal dryness, and sexual discomfort.

Surgery can cause infection, blood clots, bladder problems, or leg swelling from lymph fluid, called lymphedema. Radiation may affect bladder, bowel, or vaginal tissues. Medicine-related

effects vary and are monitored by the cancer team.

Endometrial cancer can return locally, such as at the top of the vagina, or elsewhere. Further treatment may still control the cancer or relieve symptoms.

Prevention

Endometrial cancer cannot always be prevented. Age, inherited gene changes, and many cellular changes cannot be controlled.

Maintaining a weight that is healthy for you and exercising regularly may lower risk. Long gaps between periods should be discussed with a clinician because infrequent ovulation or endometrial hyperplasia may need treatment.

Some hormonal contraceptives are associated with a lower future risk, but they also have other benefits and risks and should not be started solely on general information.

If you use menopausal hormone therapy and still have a uterus, the hormone type matters because estrogen can stimulate the endometrium. Have treatment reviewed routinely rather than changing it without medical advice.

People with Lynch syndrome may be offered specialist review and discussion of risk-reducing surgery after completing pregnancy plans. Genetic counselling can explain implications for them and their relatives.

Living with it and what to expect

Life after treatment depends on the cancer's stage and type, treatment received, and previous health. Many people treated for cancer limited to the uterus return to usual activities, although recovery and treatment-related fatigue may take time.

Follow-up usually includes discussion of new symptoms and an examination when appropriate. Routine scans are not needed for everyone; they may be used when symptoms, examination findings, or the original cancer's risk indicate a need.

Between appointments, report new bleeding, pelvic pain, persistent cough, unexplained weight loss, abdominal swelling, or bladder or bowel changes. These symptoms do not necessarily mean the cancer has returned, but they require assessment.

Menopause and sexual-health effects may continue after treatment. Vaginal dryness, narrowing after radiation, reduced desire, or pain during sex can be discussed with the care team. Moisturizers, lubricants, rehabilitation, pelvic-floor support, or other treatments may

help.

Fertility loss and emotional reactions can be difficult and may change over time. Cancer support services, counselling, and peer groups can provide practical and emotional support.

Advanced or recurrent cancer may require ongoing treatment. Palliative care can be provided alongside cancer treatment to improve comfort, function, and quality of life; it is not limited to the final stage of life.

When to get medical help

Arrange a prompt medical appointment for:

These symptoms often have causes other than cancer, but they should not be ignored. If an initial test is reassuring but bleeding continues or returns, seek reassessment.

Seek urgent medical care for very heavy bleeding, especially if you feel weak, dizzy, or short of breath.

Call emergency services if bleeding occurs with fainting, severe breathing difficulty, chest pain, confusion, or signs of collapse. During cancer treatment, follow your care team's urgent instructions for fever, uncontrolled vomiting, sudden leg swelling, or new shortness of breath.

- Any bleeding or spotting after menopause
- Bleeding between periods or after sex
- Periods that become unusually heavy, prolonged, or unpredictable
- Persistent watery or blood-stained discharge
- Continuing pelvic pain, pressure, or abdominal swelling

Common questions

Does bleeding after menopause mean I have endometrial cancer?

No. Polyps, thinning vaginal tissues, medicines, and other conditions can cause bleeding. However, all postmenopausal bleeding needs assessment.

Can an ultrasound tell if I have endometrial cancer?

Ultrasound can show whether the uterine lining is thickened or irregular, but diagnosis usually requires endometrial tissue examined in a laboratory.

Is endometrial cancer the same as uterine cancer?

Endometrial cancer is a type of uterine cancer that starts in the inner lining. Uterine sarcoma starts in muscle or supporting tissue and is a different, less common cancer.

Can endometrial cancer be cured?

It can often be cured before it spreads beyond the uterus. Cure is less likely with advanced or recurrent cancer, although treatment may control it for a meaningful period.

Will I need chemotherapy?

Not everyone does. Some early, lower-risk cancers need surgery alone. Chemotherapy is more likely for cancer with higher-risk features or cancer that has spread or returned.

Can I get pregnant after treatment?

Pregnancy is not possible after hysterectomy. Fertility-preserving treatment may be available to a small, carefully selected group with early, low-grade cancer, but it requires specialist assessment and close monitoring.

Sources

- National Cancer Institute. Endometrial Cancer Treatment (PDQ®)-Patient Version
- American Cancer Society. Signs and Symptoms of Endometrial Cancer
- American College of Obstetricians and Gynecologists. The Role of Transvaginal Ultrasonography in Evaluating the Endometrium of Women With Postmenopausal Bleeding, Committee Opinion No. 734
- Concin N, Matias-Guiu X, Vergote I, et al. ESGO/ESTRO/ESP guidelines for the management of patients with endometrial carcinoma. International Journal of Gynecological Cancer. 2021;31:12-39
- National Cancer Institute. Genetics of Colorectal Cancer (PDQ®): Lynch syndrome and endometrial cancer