

Cervical Cancer

What Is Cervical Cancer?

Cervical cancer develops in the cells of the cervix, the lower part of the uterus that connects to the vagina, also referred to as the neck of the womb. Over 95% of cervical cancer cases are caused by persistent infection with high-risk types of human papillomavirus (HPV). While HPV is very common, only certain strains lead to cervical cancer, which may take 20 years or longer to develop following infection.

Causes And Risk Factors

The primary cause of cervical cancer is persistent infection with high-risk HPV types, which are transmitted through sexual contact. However, not everyone with HPV will develop cervical cancer. Risk factors include:

- **HPV infection:** Especially with high-risk types like HPV 16 and 18.
- **Smoking:** Increases the risk of cervical cancer in women with HPV.
- **Weakened immune system:** Women with weakened immune systems, such as those with HIV, are at higher risk.
- **Multiple sexual partners:** Having multiple sexual partners or a partner with many previous partners increases the likelihood of HPV infection.
- **Long-term use of oral contraceptives:** Some studies suggest an increased risk with prolonged use.

Screening And Prevention

Regular cervical screening (smear tests) is the most effective way to detect abnormal cells in the cervix before they develop into cancer. Screening can identify the presence of high-risk HPV types and cell changes early, allowing for timely treatment.

- **HPV vaccination:** The HPV vaccine protects against the most common high-risk types of HPV. It is offered to girls and boys aged 12 to 13 years as part of the NHS vaccination program and is a key preventive measure.
- **Routine screening:** Women aged 25-64 are invited for cervical screening every 3 to 5 years in the UK. Regular screening significantly reduces the risk of cervical cancer.

Symptoms Of Cervical Cancer

In its early stages, cervical cancer often does not cause noticeable symptoms, which is why regular screening is so important. As the cancer progresses, symptoms may include:

- Abnormal vaginal bleeding (such as after sex, between periods, or after menopause)

- Unusual vaginal discharge – may be watery, bloody, heavy and have a foul odour
- Pain during intercourse
- Pelvic pain

If you experience any of these symptoms, it's important to seek medical advice promptly.

Diagnosis

If cervical cancer is suspected, your gynaecologist will perform a thorough examination of the cervix with a special magnifying instrument (colposcopy) to check for abnormal cells.

Colposcopy

During colposcopy, samples of cervical cells are taken for a biopsy:

- **Punch biopsy:** Using a sharp tool to pinch off small samples of cervical tissue.

or

- **Endocervical curettage:** A small, spoon-shaped instrument (curet) or a thin brush to scrape a tissue sample from the cervix.

After a colposcopy, you may have some mild pain, similar to period pain, for a few days. Taking a painkiller such as paracetamol can help. You are also likely to have some bleeding and discharge from your vagina for a few days.

If the punch biopsy or endocervical curettage is worrisome, the surgeon may perform one of the following tests:

- **LLETZ (Large loop excision of the transformation zone):** The most common way to remove abnormal cells. LLETZ is often done at the same time as a colposcopy.
- **Cone biopsy:** This procedure allows the gynaecologist to obtain deeper layers of cervical cells for laboratory testing. A cone biopsy may be done in a hospital under general anaesthesia.

Staging

If cervical cancer is confirmed, further tests are carried out to determine the extent (stage) of the cancer.

Staging tests include:

- **Imaging tests:** X-ray, CT, MRI, and positron emission tomography (PET) help the gynaecologist

determine whether the cancer has spread beyond the cervix.

- **Visual examination of the bladder and rectum:** The consultant may use special scopes to see inside the bladder and rectum.

Stages Of Cervical Cancer

Staging refers to the size of the cancer and whether it has spread beyond the cervix. Knowing the extent of the cancer helps your gynaecologist decide on the most appropriate treatment. Cervical cancer is divided into four main stages, each stage with further sub-divisions:

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- **Cervical cancer stage 1:** Cancer cells are confined to the cervix.
 - Stage 1A: The cancer can only be seen with a microscope or colposcope.
 - Stage 1A1: The cancer is less than 3mm deep.
 - Stage 1A2: The cancer is between 3 and 5mm deep.
 - Stage 1B: The cancer is 5mm or more deep but still confined to the cervix.
 - Stage 1B1: The cancer is no larger than 2cm wide.
 - Stage 1B2: The cancer is between 2 and 4cm wide.
 - Stage 1B3: The cancer is 4cm or more wide.
- **Cervical cancer stage 2:** The cancer has spread into the upper part of the vagina or the tissues next to the cervix.
 - Stage 2A: The cancer has spread into the upper part of the vagina.
 - Stage 2A1: The cancer is no larger than 4cm.
 - Stage 2A2: The cancer is larger than 4cm.
 - Stage 2B: The cancer has spread into the tissues next to the cervix.
- **Cervical cancer stage 3:** The cancer has spread to the lower part of the vagina, or to the tissues at the sides of the pelvic area (pelvic wall), or to nearby lymph nodes.
 - Stage 3A: The cancer has spread into the lower part of the vagina.
 - Stage 3B: The cancer has spread to the pelvic wall or is pressing on the tubes that carry urine from the kidneys to the bladder (ureters). If the tumour is pressing on a ureter, urine may build up in the kidney.

- Stage 3C: The cancer has spread to nearby lymph nodes.
 - Stage 3C1: The cancer has spread to lymph nodes in the pelvis.
 - Stage 3C2: The cancer has spread to lymph nodes above the pelvis, called the para-aortic lymph nodes.

- **Cervical cancer stage 4:** The cancer has spread to the bladder or bowel or beyond the pelvic area.
 - Stage 4A: The cancer has spread to nearby organs, such as the bladder and bowel.
 - Stage 4B: The cancer has spread to organs further from the cervix, such as the lungs, liver, or bone.

The following terms are often used by gynaecologists to describe the stage of the cancer:

- **Early-stage cervical cancer**- this usually includes stages 1A to 1B1.
- **Locally advanced cervical cancer** - this usually includes stages 1B2 to 4A.
- **Advanced-stage or metastatic cervical cancer** - this usually means stage 4B.

Treatment

Treatment for cervical cancer depends on several factors, such as the stage of the cancer and any other health problems. Surgery, radiation, chemotherapy or a combination of the three may be used.

Surgery

Early-stage cervical cancer is typically treated with surgery. Which operation is best for you will depend on the size of your cancer, its stage and whether you would like to consider becoming pregnant in the future:

Conization

In the early stages, a cone biopsy may remove the affected tissue. This procedure involves removing a cone-shaped section of cervical tissue while preserving the rest of the cervix. This approach may allow you to consider future pregnancy.

Trachelectomy

For women wishing to preserve fertility, a trachelectomy may be an option for treating early-stage cervical cancer. A simple trachelectomy involves removing only the cervix, while a radical trachelectomy removes the cervix, the upper part of the vagina, and surrounding tissue. The uterus remains intact after this procedure, so becoming pregnant may still be possible if you choose to do so.

Hysterectomy

Most early-stage cervical cancers are treated with a radical hysterectomy operation, which involves removing the cervix, uterus, part of the vagina and nearby lymph nodes. A hysterectomy can cure early-stage cervical cancer and prevent recurrence. But removing the uterus makes it impossible to become pregnant.

Laparoscopic and robot-assisted hysterectomy

Minimally invasive hysterectomy, which involves making several small incisions in the abdomen rather than one large incision, may be an option for early-stage cervical cancer. Women who undergo minimally invasive surgery tend to recover more quickly and spend less time in the hospital. But some research has found minimally invasive hysterectomy may be less effective than traditional hysterectomy. If you're considering minimally invasive surgery, discuss the benefits and risks of this approach with your surgeon.

Radiotherapy

Radiotherapy uses high energy radiation, usually X-rays, to target and kill cancer cells. It is the primary treatment for locally advanced cervical cancers and is often combined with chemotherapy for greater effectiveness. It can also be used after surgery if there is an increased risk that the cancer will come back. Radiotherapy can be delivered from outside (external radiotherapy) or inside the body (internal radiotherapy):

- **External beam radiotherapy (EBRT):** External high-energy rays are directed at the affected area of the body (external beam radiation therapy)
- **Brachytherapy:** Involves placing a radioactive source in the vagina, close to the cervix, usually for only a few minutes, allowing high doses of radiation to target the cancer while minimising exposure to surrounding tissues.
- A combination of **EBRT and brachytherapy** may be used

Chemotherapy

May be used to treat cervical cancer, particularly if it has spread beyond the cervix. Often used in combination with radiotherapy, chemotherapy involves drugs that kill or slow the growth of cancer cells. It may also be used to shrink the tumour before surgery or to treat advanced cancer that has spread to other parts of the body

Targeted therapy and immunotherapy

For advanced cervical cancer, targeted therapy drugs that attack specific cancer cells or immunotherapy that boosts the body's immune system to fight cancer may be recommended.

Supportive (palliative) care

Palliative care is specialized medical care designed to relieve pain and symptoms associated with serious illnesses. It provides an additional layer of support that enhances ongoing treatments, helping people with cancer to feel better and potentially live longer. Delivered by a team of doctors, nurses, and trained professionals, palliative care aims to improve the quality of life for both patients and their families.

Possible Effects Of Treatment

- **Fertility:** For women of childbearing age, we offer fertility-sparing treatment options and counselling. If you wish to have children in the future, it's important to discuss this with your care team before starting treatment.
- **Menopause:** If you haven't started menopause yet, chemotherapy and radiotherapy may cause menopause. If the ovaries are removed during the hysterectomy (oophorectomy), you will enter menopause immediately, regardless of your age. Hormone replacement therapy (HRT) may be recommended to manage symptoms of menopause.

Prognosis And Follow-Up

The prognosis for cervical cancer depends on how early it is detected and treated. When caught early, cervical cancer is highly treatable, and many women go on to live healthy lives. After treatment, regular follow-up appointments are essential to monitor for any signs of recurrence and to manage any side effects of treatment. Follow-up care may include:

- **Physical exams and imaging:** To monitor for any new symptoms or signs of cancer returning.
- **Cervical sampling (smear tests) or HPV Tests:** Even after treatment, these tests help ensure that any remaining abnormal cells are detected early.
- **Supportive care:** Managing side effects from treatment, such as fatigue, bladder issues, or emotional well-being, is a crucial part of your recovery.

Why Choose Birmingham Gynaecology Clinic

At Birmingham Gynaecology Clinic, we specialise in expert care for women concerned about or diagnosed with cervical cancer. Our team provides comprehensive screening, diagnosis, and treatment services. Your care is managed by a multidisciplinary team (MDT) of specialists, including gynaecological oncologists, radiologists, pathologists, and specialist nurses, ensuring a tailored treatment plan that offers comprehensive and coordinated care.

Contact Us

We are dedicated to offering compassionate, expert care for women undergoing cervical cancer treatment. If you have any questions about your treatment options or wish to discuss your care plan, please reach out to us today. Our team is here to support you every step of the way