Understanding cervical cancer

MARCELLE RUTH
CANCER CENTRE & SPECIALIST HOSPITAL

The Marcelle Ruth Cancer Centre & Specialist Hospital is the first comprehensive healthcare centre of its kind in Nigeria and indeed West Africa.

> Our promise

In everything we do, we believe that compassion and care make all the difference.

With vast experience and understanding, our specialist team uses the very latest technology and treatments to deliver the best outcomes possible.

From screening and diagnosis to treatment and ongoing support, we are committed to providing outstanding care to those in need.

About this booklet

We understand it can be overwhelming for anyone to undergo cancer care, but we are here to provide you with help and support.

The focus of this leaflet is to help you and your family understand more about cervical cancer.

Cervical cancer

Cervical cancer develops in a woman's cervix (the entrance to the uterus from the vagina). In 2018, an estimated 570,000 women were diagnosed with cervical cancer worldwide and about 311,000 women died from the disease. With a comprehensive approach to prevent, screen and treat, cervical cancer can be eliminated as a public health problem within a generation. Cancer of the cervix can take many years to occur because it develops very slowly from abnormal cell changes in the cervix. Before it does, changes occur in the cells of the cervix. These changes are known as cervical intraepithelial neoplasia (CIN). The abnormal cells are not cancerous, but are referred to as 'pre-cancerous'. This means that the cells might develop into cancer in some women if they are not treated. But most women with CIN do not develop cancer, and if treatment is needed for CIN it's nearly always effective.

These changes do not cause any symptoms, but they may be found with cervical screening tests. If the tests show abnormal cell changes, treatment can prevent cancer developing. Human Papilloma Virus (HPV) has been found to be a major risk factor. Almost all cervical cancer cases (99%) are linked to infection with high-risk human papillomaviruses (HPV), an extremely common virus transmitted through sexual contact. Other risk factors include trauma to the cervix from multiple birth, multiple sexual partners, oral and anal sexual activities, immunosuppression, penile cancer in the partner, smoking and exposure to diethylstilbestrol (DES) in pregnancy.

There's more than one kind of cervical cancer.

Squamous cell carcinoma

This forms in the lining of your cervix. It's found in up to 90% of cases.

Adenocarcinoma

This forms in the cells that produce mucus.

Mixed carcinoma

This has features of the two other types.

Symptoms

Common symptoms of cervical cancer can include:

- heavier periods than you normally have
- vaginal bleeding between periods
- vaginal bleeding after sex
- vaginal bleeding after the menopause (after you have stopped having periods).

Other symptoms include:

- a smelly vaginal discharge
- urine infections that keep coming back
- pain in the lower tummy or back.

Diagnosis

If biopsy shows cancer, more tests can be done to see whether it's spread and how far.

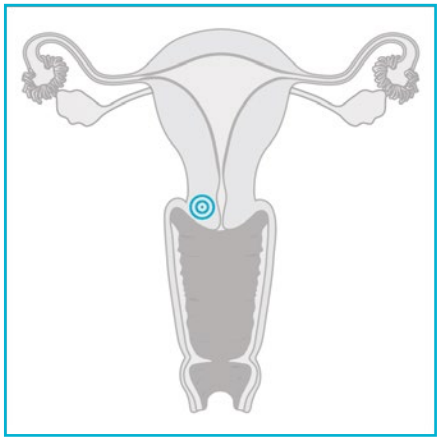
Tests can include:

- MRI or CT scan of the abdomen and pelvis to check the organs and lymph nodes that are within
- blood tests to see the effects in the blood
- CT scan of the chest or chest X-ray to check the lungs
- intravenous pyelogram (IVP) or CT scan to look at your urinary tract
- cystoscopy to check the bladder and urethra
- colposcopy to look at the vagina
- a proctosigmoidoscopy and barium enema to check the rectum
- PET scans of the body.

When diagnosed, cervical cancer is one of the most successfully treatable forms of cancer, as long as it is detected early and managed effectively. Cancers diagnosed in late stages can also be controlled with appropriate treatment and palliative care.

Stages of cervical cancer

Stage 1

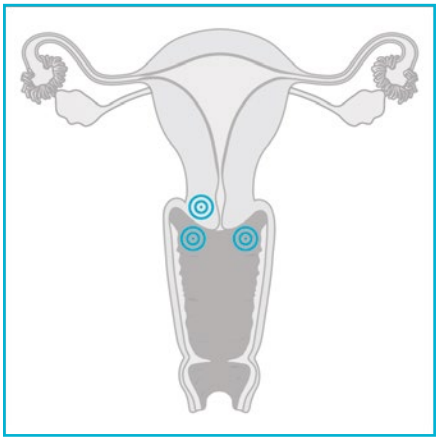


The cancer is only present in the neck of the womb. In stage 1A, the growth is so small doctors can only see it using a microscope or a slightly larger instrument, a colposcope. By stage 1B, the cancerous areas are slightly larger, but never bigger than 4cm across. This stage of the disease is further broken down into stages 1A1, 1A2, 1B1 and 1B2. These classifications refer to the size of the growth.

TREATMENT

Initially, surgery or radiation. First, a tiny piece of the affected area will be removed and examined. Tests will be run to see whether any cancer is left behind. If there is, a surgeon may recommend a hysterectomy. Some women might undergo a combination of chemotherapy and radiotherapy (known as chemoradiation) instead of opting for a hysterectomy.

Stage 2

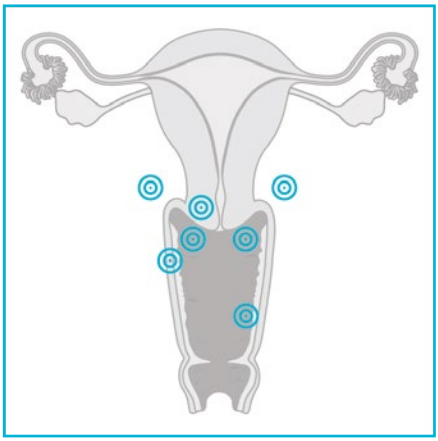


The cancer has started spreading into the tissues that surround the neck of the womb, but it is not yet present in the muscles or ligaments that line the pelvic wall. It has also not spread into the lower part of the vagina. In stage 2A, the cancer is present in the top of the vagina. In stage 2B, it has spread up into the tissues around the cervix.

TREATMENT

Stage 2A cervical cancer might be treated with surgery or a combination of chemotherapy and radiotherapy. Stage 2B cervical cancer is usually treated with chemoradiation. Research has shown that this combined treatment can improve survival rates for women with this type of cancer.

Stage 3

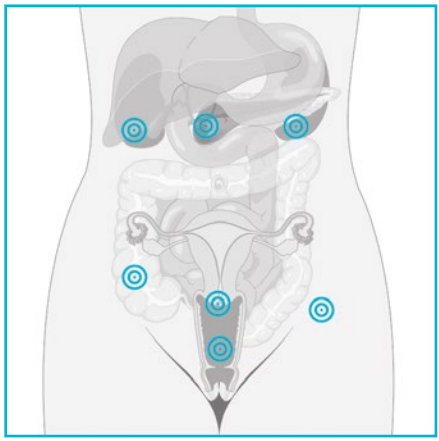


By now, the cancer has spread away from the cervix and into surrounding structures in the pelvic area. It may have grown down into the lower part of the vagina, and the muscles and ligaments that make up the pelvic wall. This is stage 3A. It may also have grown up to block the tubes that drain the kidneys. This only happens in stage 3B.

TREATMENT

Chemoradiation for both 3A and 3B

Stage 4



The cancer has spread to other organs outside the cervix and womb. In stage 4A, the bladder or rectum has been infected. By 4B, the cancer has spread into organs further away in the body, like the lungs

TREATMENT

Surgery, radiotherapy, chemotherapy or a combination of these.

Treatment

Low-grade precancerous lesions may be treated with LEEP conization, cold knife conization, cryosurgery (freezing), cauterisation (burning, also called diathermy) or laser surgery to destroy the precancerous area with little damage to nearby healthy tissue.

Cryocautery

In cryocautery, a steel tool that's cooled to subzero temperatures freezes cells on the surface of your cervix. They die and fall off, to be replaced by new cells.

Laser ablation

Laser ablation uses a laser beam to destroy cells in areas or layers of cervical tissue, leaving healthy cells in their place. Follow-up exam and Pap smear may be needed after cryocautery or laser ablation to make sure all the precancerous cells are gone.

Surgery and radiation therapy are the most common treatments for invasive cervical cancer. Others are chemotherapy and biological therapy.

Surgery

Surgery will be useful if cancerous cells have passed through the basement membrane or have invaded deeper layers of your cervix but hasn't spread to other parts of your body.

Radiation therapy

Radiation therapy (or radiotherapy) uses high-energy rays to damage cancer cells and stop their growth. As with surgery, the radiation affects cancer cells only in the treated area.

It can be external or internal radiotherapy. Patients can receive either or both during treatment of cervical cancer.

External radiation

External radiation comes from a large machine that radiates a beam of radiation and given daily until the treatment is over.

Internal radiation

Internal radiation (also called implant radiation or brachytherapy) comes from a capsule containing radioactive material, which is introduced into the cervix. The implant puts cancer-killing rays close to the tumour while sparing most of the healthy tissue around it.

Chemotherapy

Chemotherapy uses powerful drugs to kill cancer cells. It's often used for cervical cancer that's locally advanced or has spread to other parts of the body. It can also be combined with radiation. Chemotherapy happens in cycles of intensive treatment followed by recovery periods.

Biological therapy

Biological therapy or immunotherapy targets "checkpoints" in the immune cells that are turned on or off to set off an immune response. A medicine called pembrolizumab (Keytruda) is a good example and it blocks a protein on the cells to shrink tumours or slow their growth. It can be used when chemotherapy is not giving a good response.

Cervical cancer screening

Screening is testing of all women at risk of cervical cancer, most of whom will be without symptoms.

Screening aims to detect precancerous changes, which, if not treated, may lead to cancer.

Screening is only effective if there is a well-organised system for follow-up and treatment.

Women who are found to have abnormalities on screening need follow-up, diagnosis and possibly treatment, in order to prevent the development of cancer or to treat cancer at an early stage.

Several tests can be used in screening for cervical cancer. The Pap smear (cytology) is the only test that has been used in large populations and that has been shown to reduce cervical cancer incidence and mortality. Other tests such as HPV, VIA and the new LBC have shown good values

Regardless of the test used, the key to an effective programme is to reach the largest proportion of women at risk with quality screening and treatment.

Organised screening programmes designed and managed at the central level to reach most women at risk are preferable to opportunistic screening.

Cervical cancer prevention

The key to preventing invasive cervical cancer is to detect cell changes early, before they become cancerous. Regular pelvic exams and Pap tests are the best way to do this.

The following has been recommended:

- Pap test every 3 years once you're 21 or older.
- If you're 30 to 65, you can get both a Pap test and a human papillomavirus (HPV) test every 5 years. Beyond that age, you may be able to stop testing if you're at low risk.
- Women of any age don't need screening if they've had their cervix removed and have no history of cervical cancer or precancerous lesions.
- Women with high-grade CIN or positive HPV who have had their cervix removed should have an annual gynaecological examination.

Cervical cancer vaccination

HPV vaccines are vaccines that protect against infection with human papillomaviruses (HPV). HPV is a group of more than 200 related viruses, of which more than 40 are spread through direct sexual contact. Among these, two HPV types cause genital warts, and about a dozen HPV types can cause certain types of cancer – cervical, anal, oropharyngeal, penile, vulvar and vaginal.

Children and adults aged 9–26

HPV vaccination (Gardasil 9 is now the best option) is routinely recommended at age 11 or 12; vaccination can be started as early as age 9. HPV vaccination is recommended for all persons up to age 26 who were not adequately vaccinated earlier.

Adults aged 27–45

Although the HPV vaccine is FDA approved to be given up to age 45, HPV vaccination is not recommended for all adults ages 27–45. Instead, ACIP recommends that clinicians consider discussing with their patients in this age group who were not adequately vaccinated earlier whether HPV vaccination is right for them. HPV vaccination in this age range provides less benefit because more people have already been exposed to the virus.

Sources

University College London Hospitals/Macmillan Cancer Centre and patient information booklets

www.beatson.scot.nhs.uk

www.christie.nhs.uk

World Health Organization https://www.who.int/health-topics/cervical-cancer

Marcelle Ruth
Cancer Centre & Specialist Hospital
Plot 1192D, Olubosi Close
Victoria Island
Lagos
Nigeria

T: +234 906 200 0773
E: patientservices@marcelleruth.com
W: www.marcelleruth.com

MARCELLE RUTH
CANCER CENTRE & SPECIALIST HOSPITAL