

CERVICAL CANCER SCREENING



A Pap smear test is a screening procedure for cervical cancer. It is a method of detecting abnormal cells on the cervix. The cervix is the lower, narrow end of the womb that opens into the vagina. The aim of cervical cancer screening test is to find the cervical cancer in the early pre-cancer stages when it can be effectively treated and thus reduce the number of deaths from cervical cancer. It is possible for women of all ages to develop cervical cancer, although the condition mainly affects sexually active women aged 30 to 50.

At the very early stages of cervical cancer, there are usually no symptoms or signs. As the cancer progresses, symptoms can include abnormal vaginal bleeding which can occur between periods, after sexual intercourse or after menopause. Please contact your doctor immediately if you have any abnormal vaginal bleeding.

Cervical cancer risk factors

Majority of cervical cancer is caused by the human papillomavirus (HPV). There are over 100 different types of HPV, some of which can infect the human genital tract. HPV infection is extremely common. At least 80 per cent of women are exposed to HPV virus during their lifetime. HPV is also very common in men, and often has no symptoms. HPV is spread by direct skin-to-skin contact including sexual intercourse, oral and anal sex. Condoms can lower the risk of acquiring HPV infection but they are not 100% effective.

Most of the time, the body's immune system will get rid of the virus before it does any harm. However, when the HPV infection becomes chronic, they can cause pre-cancerous changes in the cells that line the cervix.

The HPV viruses are classified into low-risk types (causing genital warts, common warts and verrucas) and high-risk types (HPV-16 and HPV-18 are considered to be the highest risk for cervical cancer. It accounts for over 70% of cervical cancer) HPV can also cause cancers in other areas of the body including penis, anal area, vulva, vagina, and oral cavity.

How does HPV cause cervical cancer?

High risks HPV can lead to cancer because they can produce pre-cancerous changes in the cells of the cervix. Fortunately, most cervical pre-cancers grow very slowly so it can take many years for HPV infection to cause cervical cancer. That is why it is important to have your Pap smear tests at regular intervals so that all abnormalities can be picked up before the pre-cancerous cells have a chance to progress to cancer. After cancer has developed, it spreads within the cervix and eventually to surrounding tissues and finally distant areas.

Other risk factors for cervical cancer

These include:

- Sexually active women
- Having multiple sexual partners
- Smoking
- Long-term use of oral contraceptive pills
- Having HIV or a weakened immune system

Cervical cancer screening tests

1) Pap smear test – during a Pap smear procedure, cells from the cervix is gently scraped away and then examined under the microscope to look for any early cell changes.

2) HPV testing – testing for the genetic material (DNA) of the HPV can also be done in addition to the Pap smear test. Like a Pap smear test, the sample for the HPV test is obtained during the pelvic examination. This test identifies the high-risk forms of HPV that are associated with cancer. The HPV test has become increasingly important as majority of cervical cancer is caused by HPV. If the HPV test is negative, the chances of getting cervical cancer are very small. This is also the reason why, in certain countries, school-aged girls are vaccinated against HPV.

Who needs a Pap smear test?

It is recommended that cervical cancer screening start at the age of 21. All sexually active women, including those who are not currently sexually active but have been in the past, should be screened for cervical cancer.

Screening before age 21 in girls and women who are sexually active is not recommended because of the high risk of false positive results (ie. results are positive but do not have pre-cancerous conditions). Many HPV infections in this age group are temporary and will resolve spontaneously without any treatment. Also, the incidence of cervical cancer is extremely rare in women below 21 years of age.

Preparing for your Pap smear test

If possible, do try and book the appointment for your Pap smear test around mid-cycle (usually 14 days from the start of your last period) This will ensure that better sample of cells are taken.

Avoid having sexual intercourse, douching, using spermicidal or lubricant products 24 hours before the test because these may interfere with your results.

The Pap smear procedure will go more smoothly if you are nice and relax, so stay calm and take deep breaths during the procedure.

Pap smear procedure

During the procedure, you will be asked to remove your clothing and underwear from the waist down. You will lie down on your back on the examination couch. You should bend your knees, place your heels together in the middle and let your knees fall open. Your doctor will gently insert an instrument called a speculum into your vagina. The speculum will be gently opened. This will keep the vaginal walls open and allow the doctor to view the cervix clearly. The doctor will use a brush to scrape a small sample of cells from your cervix. The cells that are obtained will be sent away to be examined in the laboratory. The HPV test can also be done at the same time.

Some women may find the insertion and opening of the speculum device a bit uncomfortable but the more relax you are, the easier the procedure will be.

You may also experience very light vaginal bleeding/spotting but this is part of the Pap smear procedure and the bleeding should settle down very quickly.

Results of your Pap smear test

Pap smear results may be reported as:

Normal results – there are no abnormal, pre-cancerous or cancerous cells seen. The report will be labeled as “Negative for intraepithelial lesion or malignancy”

Do return on time for your next Pap smear test. Skipping your Pap smear tests increases the risk of cervical cancer.

Abnormal results – this doesn't mean you have cancer. It simply means that there are some abnormal cells noted. Abnormal cells could result from a cervical infection or there may be pre-cancerous present. Depending on the results of the Pap smear test, your doctor may recommend repeating the Pap smear test at a shorter time interval or they may wish to get a closer look at the tissues in the cervix with a procedure called colposcopy.

What is colposcopy?

Colposcopy is a more detailed examination of the cervix. The colposcope is an instrument with a magnifying glass and lights that can obtain a better view of the cervix. A speculum is gently inserted into the vagina just like when taking a Pap smear. A liquid is used to paint the cervix, which shows up abnormal cells. It is a relatively painless procedure that takes about 10-15 minutes. Sometimes, a small biopsy (sample of tissues) may have to be taken from the cervix for further evaluation. Your doctor will advise the best treatment for you, depending on the results of the biopsy.

Results of your HPV test

The results will be reported as:

Negative – there are no high-risk HPV strains present

Positive – there are high-risk HPV strains present

Depending on which high-risk HPV strains are present and also the results of your Pap smear test, your doctor will advise you either to repeat co-testing at an earlier interval or refer you for colposcopy.

Cervical cancer vaccine

Vaccines are available to prevent infection with the high-risk HPV strains most likely to cause cancer. Therefore, the HPV vaccination helps to reduce the chances of getting cervical cancer. These are given as three injections over a six month time period.

Who should get the HPV vaccine?

The vaccines do not treat existing HPV infection but they can prevent pre-existing HPV strains. For best result, they should be given before the individual becomes sexually active where HPV exposure occurs. The vaccines are recommended for girls aged 9 to 26 years old.

Females who are sexually active may still benefit from the vaccine, as they may not be exposed to the HPV sub-types covered by the vaccines. Please speak to your doctor to determine if you are suitable for the vaccination.

Should my son go for the HPV vaccination?

The HPV vaccine has been approved for use for boys and men aged 9 to 26 years old to reduce the risk of penile, anal and throat cancers as well as genital warts. Please speak to your doctor to find out more about the benefits and limitations of vaccinating your son against HPV.

Are HPV vaccines 100% effective in preventing cervical cancer?

As with any vaccination, HPV helps reduce the chances of cervical cancer – but vaccination do not provide protection against ALL cancer-causing HPV sub-types.

HPV vaccination does not substitute for routine cervical cancer screening – all women who receive HPV vaccination are advised to continue with their regular Pap smear test once every three years or as advised by your own doctor.

Screening frequency

Women should have a Pap smear test every 3 years starting from age 21. From age 30-65, women can go up to five years between Pap smear tests if both the Pap smear test was normal and the HPV test was negative for any high risk HPV strains. If you are at a higher risk or have had previous changes in your Pap smear tests, you will need to be screened for frequently.

Even if you have received the HPV vaccine, you will still need regular Pap smear tests because the vaccine does not protect against all the HPV strains that can cause cancer. Remember, skipping Pap smear tests increases your risk of cervical cancer.

Who can consider stopping Pap smear testing?

Older age - most experts agree that women 65 years and over can stop having cervical cancer screening providing she has had screening tests on a regular basis in the past and that her last three Pap smear tests were normal in a row.

After a total hysterectomy (surgical operation to remove the uterus and the cervix) If your hysterectomy was performed for non-cancerous conditions eg. fibroids, then you may be able to discontinue routine Pap smears. But if your hysterectomy was performed for precancerous or cancerous condition of the cervix, your doctor may recommend continuing routine Pap testing.

Pregnancy – if your routine cervical screening test is due whilst you are pregnant, this should be postponed until after the baby is born. It is advisable to wait at least 12 weeks after the baby is born before going for your Pap smear test. This gives the cervix adequate time to recover from the pregnancy and childbirth. Tests performed earlier are more likely to be inadequate.

Please speak to your doctor if you are unsure or have any further queries regarding Pap smear and HPV testing.