What is the cervix?

The cervix is the lower part of the womb (uterus) and is often called the neck of the womb. The womb is a muscular, pear-shaped organ at the top of the vagina. The lining of the womb is shed each month, and results in bleeding called a period. These periods stop temporarily during pregnancy and will normally continue until a woman has the ‘change of life’ or menopause. Close to the cervix is a collection of lymph nodes.

Source: www.cancerbacup.org.uk

What is cervical cancer?

It is important to be clear about what is and what is not cervical cancer. Women should have a cervical smear test, often known as a Pap smear test, performed on a regular basis in order to detect the cell changes that come before cancer.

It takes many years for the early cell changes that can be detected on a cervical smear to become cancer and in many cases the changes can go away by themselves.

The vast majority of abnormal smear test results do not indicate that the woman has cancer. It is by diagnosing and treating these pre-cancerous changes (also called CIN) that the development of actual cancer can be prevented.

Cancer of the cervix is a life-threatening condition of which there are two types called squamous cell cancer and adenocarcinoma. Cervical smear tests aim to detect the early changes of squamous cell cancer.

If it is detected in the early stages, cervical cancer can be treated and cured with surgery or radiotherapy.

Source: www.netdoctor.co.uk

Types of cancer of the cervix

There are two main types of cervical cancer. The most common is called squamous cell carcinoma: this develops from the flat cells which cover the outer surface of the cervix at the top of the vagina.

The other type is called adenocarcinoma: this type develops from the glandular cells which line the cervical canal (endocervix). As adenocarcinoma starts in the cervical canal it can be more difficult to detect with cervical screening tests.

There are other, less common types of cancer of the cervix known as adenosquamous carcinoma, clear-cell and small-cell carcinomas.

Source: www.cancerbacup.org.uk

What causes cervical cancer?

Nearly all cases of cervical cancer are linked with the Human Papilloma Virus (HPV). HPV is a common viral infection that is passed on during sexual intercourse. Most women who have had sex will get HPV at some point in their life, but the immune system usually gets rid of the virus without you realising you had it.

There are many different types of HPV. Some can cause genital warts, and some can cause changes in the cells of the cervix, called cervical intra-epithelial neoplasia (CIN). It is CIN that may develop into cancer if it is not treated.

Having a lot of sexual partners will increase your risk of getting HPV. The more sexual partners you have, the greater your chance of being exposed to the virus. Other factors that can increase your chance of getting the condition include, smoking heavily, getting pregnant at an early age, or having three or more pregnancies.

Source: www.nhsdirect.nhs.uk, WCISU

What are the symptoms of cervical cancer?

The most common symptom of cervical cancer is abnormal bleeding, such as between periods or after intercourse. Often there is also a bad-smelling vaginal discharge, and discomfort during intercourse. Women who have had their menopause (who are no longer having periods) may have some new bleeding. Of course, there are many other conditions that can also cause these symptoms, but it is important that you see your doctor or practice nurse about them. It can be embarrassing to talk about these symptoms, but the sooner you see your doctor and a diagnosis is made, the better the chance of treatment being successful.

Source: www.cancerbacup.org.uk
How is cancer of the cervix diagnosed?

Early diagnosis of cervical cancer is essential for successful treatment of the condition. Your GP will arrange any tests that are necessary, and refer you to a specialist who will be able to give you gynaecological treatment and advice.

Cervical screening is a test to look for abnormal changes in the cells of the cervix. Some cell changes may, if left untreated, go on to develop into cancer. However, cervical screening does not diagnose cancer itself, and further tests are needed to make a diagnosis.

These include:

- a physical examination under anaesthetic, during which a biopsy (sample) of the womb lining is often taken,
- colposcopy - an examination using a small light and microscope,
- biopsy – a cervical tissue sample is taken for analysis, and
- cone biopsy – a larger tissue sample is taken. This may remove the abnormal area if it is small (microinvasive), or be used for diagnosis.

If cancer of the cervix is diagnosed, further tests will be conducted including:

- blood tests,
- X-ray,
- ultrasound of the pelvic area,
- computerised tomography scan (CT scan), and
- magnetic resonance imaging (MRI scan).

Staging and grading of cervical cancer

Staging

The stage of a cancer describes its size and whether it has spread beyond its original site. Knowing the extent of the cancer and the grade helps the doctors to decide on the most appropriate treatment.

The stages of cervical cancer are described below:

**Stage 1** The cancer cells are only within the cervix.

**Stage 2** The tumour has spread into surrounding structures such as the upper part of the vagina or tissues next to the cervix.

**Stage 3** The tumour has spread to surrounding structures such as the lower part of the vagina, nearby lymph nodes, or tissues at the sides of the pelvic area. Sometimes a tumour that has spread to the pelvis may press on one of the ureters (the tubes through which urine passes from the kidneys to the bladder). If the tumour is causing pressure on a ureter there may be a build up of urine in the kidney.

Stage 2 or 3 tumours are called **locally advanced** cervical cancer.

**Stage 4** The tumour has spread to the bladder or bowel or beyond the pelvic area. This stage includes tumours that have spread into the lungs, liver or bone, although this is not common.

If the cancer comes back after initial treatment this is known as **recurrent cancer**.

Grading

The grade of a cancer gives an idea of how quickly it may develop. To find the grade of your cancer, your doctors will look at a sample of the cancer (a biopsy) under the microscope.

It may be graded as:

- **Grade 1** (well differentiated) – the cancer cells tend to be slow growing, look quite similar to normal cells and are less likely to spread than higher grades.
- **Grade 2** (moderately differentiated) – the cells look more abnormal and are slightly faster-growing.
- **Grade 3** (poorly differentiated) – the cancer cells tend to be more quickly growing, look very abnormal and are more likely to spread than low-grade cancers.

Source: www.nhsdirect.nhs.uk

Source: www.cancerbacup.org.uk, WCISU
**Treatment**

Cervical cancer can be treated using surgery, radiotherapy, chemotherapy, or a combination of these. The form of treatment that is used will depend on the stage of the cancer and whether it has spread at the time of diagnosis. Early-stage cancer that is confined to the cervix, offers an excellent outlook, with a success rate of over 85%. However, if the cancer has spread to the vagina, surrounding tissues and pelvic area, or elsewhere, the outlook is less positive.

**Early-stage cancer**

Treatment for the earliest stage is offered in a colposcopy clinic. For early-stage cancer that is confined to the cervix, surgery is often used. Radiotherapy can also be used, although the risks of side effects are higher. However, it may be used after surgery if there is a risk that some cancer cells may be left behind, or to reduce the risk of cancerous cells returning. Before surgery, chemotherapy is sometimes used to shrink the cancer in order to make the operation easier.

**Advanced cancer**

If cervical cancer has spread beyond the cervix, and cannot be treated using surgery, radiotherapy is usually used, and may be given in combination with chemotherapy.

Most hospitals have a team of specialists who will work together to decide which treatment is best for you. The team will often consist of a specialist cancer surgeon, a clinical oncologist (radiotherapy and chemotherapy specialist), plus a number of other healthcare professionals including, a specialist nurse, dietician, physiotherapist, occupational therapist, and a radiologist.

Your doctor will be able to advise you on the best treatment plan for you, depending on factors such as your age, general health, the type and size of tumour, and whether it has spread beyond the cervix.

**Follow-up after treatment for cervical cancer**

After your treatment has finished you will need to have regular check-ups and possibly x-rays or scans. These will often go on for several years. If you have any problems or ongoing side effects from the treatment, or notice any new symptoms between these times, let your doctor know as soon as possible.

**What is the prognosis (outlook)?**

The outlook is best in those who are diagnosed when the cancer is confined to the cervix and has not spread. Surgery or radiotherapy in this situation gives a good chance of cure. For women who are diagnosed when the cancer has already spread, a cure is less likely but still possible. Even if a cure is not possible, treatment can often slow down the progression of the cancer.

The treatment of cancer is a developing area of medicine. New treatments continue to be developed and the information on outlook above is very general. The specialist who knows your case can give more accurate information about your particular outlook, and how well your type and stage of cancer is likely to respond to treatment.

**Prevention**

Regular cervical screening tests are the best way to identify abnormal changes in cells of the cervix early on. Women aged 20-64 are invited for screening every three years. It is important to make sure your GP surgery has your up-to-date contact details so that you carry on getting screening invitations.

If you have been treated for abnormal cervical cell changes, you will be invited for screening more frequently for some years following treatment. How regularly you need to go depends on how severe the cell change is.

There is a strong link between certain types of Human Papilloma Virus (HPV), and the development of cervical abnormalities, which may develop into cancer. HPV is spread through unprotected sex, so the best way to prevent it is to use a condom. Before sleeping with a new partner, it is also a good idea for you both to get tested for any sexually transmitted infections at a sexual health (GUM) clinic, but it should be noted that HPV is not routinely tested for. All tests are free and confidential. You can find your nearest sexual health clinic on the Department of Health Playing Safely web site or by phoning NHS Direct on 0845 46 46 47.
### How treatment for cervical cancer may affect your sex life

The treatments for cervical cancer may affect your sex life, but many of these effects can be prevented or treated.

#### Menopausal symptoms

If you have had a hysterectomy and your ovaries have also been removed, or if you have had radiotherapy to the pelvis, you will have an early menopause (if you have not yet had the menopause).

The symptoms of the menopause can include:

- hot flushes
- dry skin
- dryness of the vagina
- Feeling low or anxious
- Being less interested in sex for a time.

Many of these effects can be eased by hormone creams, skin patches or tablets, prescribed by your doctor. These replace the hormones that are normally produced by the ovaries.

#### Vaginal care

Radiotherapy to the pelvis can make the vagina become narrower and this can make sex difficult or uncomfortable. The key to overcoming this problem is to keep the muscles in the vagina as supple as possible. Hormone creams applied to the vagina can help, and are available on prescription from your doctor. Using vaginal dilators or having regular penetrative sex are often the best ways to keep the vagina supple.

Vaginal dilators are usually made of plastic and your nurses or doctor can give a set to you. (Dilators usually come in sets of graduated sizes). A dilator needs to be gently and regularly inserted into the vagina to stretch it gradually and prevent narrowing. The nurses or your doctor can show you how to use the dilators and can answer any questions. They are very used to discussing these issues, so you don’t need to feel embarrassed.

Many women find dilators very useful in improving the supleness of the vagina after radiotherapy, even if they have a regular sexual partner. Dilators can also be useful for women who may have temporarily lost interest in sex due to menopausal symptoms, or who feel nervous about having sex soon after treatment, or who do not have a regular sexual partner.

#### Sex

Many women feel nervous about having sex soon after treatment for cancer, but it is perfectly safe. Sex won’t make the cancer come back and your partner can’t catch cancer from you. Women often find that they need to take more time over sex to help the vagina relax. It may also be easier if your partner is gentle at first so that the vagina can stretch slowly. Regular gentle sex will help the vagina become more supple again and you should be able to go back to your usual sex life a few weeks after the radiotherapy.

If sex is difficult, you and your partner might find it helps to discuss things with one of your treatment team. Although it might feel embarrassing at first, it can really help to talk things through. Your nurse or doctor will have experience in this area and can advise you about what might help.

#### Fertility

Pelvic radiotherapy will stop you from being able to have children. This can feel devastating. Infertility is very hard to come to terms with, especially if you were planning to have children in the future or to have more children to complete your family. The sense of loss can be very painful and distressing for people of all ages. Sometimes it can feel as though you have actually lost a part of yourself. You may feel less feminine because you can’t have children.

#### Emotional effects

People react differently to the risk of infertility. Some women may come to terms with it more quickly and feel that dealing with the cancer is more important. Others may find that they accept the news calmly when they start treatment, and find that they don’t feel the full impact until the treatment is over and they are sorting out their lives again.

There is no right or wrong way to react. Your partner will also need special consideration in any discussions about fertility and future plans. You may both need to speak to a professional counsellor or therapist specialising in fertility problems. They can help you to come to terms with your situation.

Source: www.cancerbacup.org.uk
**Summary**

Over the period 1992-2006 there is a decreasing trend in incidence cases of cancers of the cervix. Unlike most cancers, cancer of the cervix is more common in younger women and the highest frequencies of cases are found in those aged between 30 and 49. The percentage annual change in the European Age Standardised Rate for incidence at -2.2% was statistically significant at the 1% level. Also statistically significant at the 1% level was the European Age Standardised Rate for mortality at -4.2%.

**Incidence**

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**Prevalence Statistics (at 31st December 2006) in Wales**

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