

Cervical Cancer

Cervical Cancer is the most common form of cancer in women under the age of 35 in the UK. However, it is becoming increasingly easy to avoid potential cases thanks to screening programmes that detect pre-cancerous changes. For more information on cervical screening, please consult our factsheet 'Cervical Screening'. The recent introduction of a vaccine against the virus HPV, which causes almost all cervical cancers, will also help to lower the rates of cervical cancer.

Cervical cancer affects the cells in the lining of the cervix, in the passage between the uterus (womb) and the vagina. The cancer can take years to develop, and is preceded by slight abnormalities in the cells caused by the very common sexually-transmitted virus, human papilloma virus (HPV). If an HPV infection is allowed to persist, it can lead to a long phase of pre-cancerous disease called Cervical Intraepithelial Neoplasia, or CIN. The danger of CIN is graded according to the thickness of affected cells. While most 'low-grade' CIN are easy to treat and cause little harm, high grade CIN are much more likely to develop into cancer. For more information on these viruses and the introduction of vaccines, see our related factsheet 'Human Papilloma Virus'.

Symptoms

The symptoms caused by cervical cancer can also be the result of many other infections, and so they do not provide a diagnosis in themselves. Further tests are required for this. The most common symptom is irregular vaginal bleeding in between periods, during or after sex, or at any time following the menopause. Other symptoms include discomfort or pain during sex, and a vaginal discharge with an unpleasant odour.

If these symptoms are caused by cervical cancer, they will only occur once the harmful cells have become 'invasive', that is, when they have advanced into the deeper layers of tissue and threaten to spread to other parts of the body.

They will not be apparent in the phases of infection that lead to cervical cancer (HPV and CIN). This is why it is so important that women make the most of cervical screening opportunities so that any possibility of cancer can be found at an early stage, before any symptoms occur.

Diagnosis

If you have cervical cancer, the affected cells will first be noticed during a cervical screening test, and this will be followed by a **colposcopy**, in which the doctor looks at the cervix with a microscope to find out exactly where the abnormal cells are. A sample of these cells will be taken to look for signs of the abnormal cells spreading: this is called a biopsy. If the **biopsy** does detect **invasive** cancer cells (cells advancing more deeply into the tissue), further tests will be required to see how far the cancer has developed and to decide upon the most appropriate method of treatment. Such tests can include pelvic examination, scans, blood tests and x-rays.

A pelvic examination aims to find out whether the cancer has spread to the womb, the rectum or the bladder. This is carried out under general anaesthetic to prevent any discomfort, although no risks are involved. If any abnormalities are observed, biopsies will be taken and sent off for assessment.

Scans are used to measure the progress of a cancer. Two types of scan may be used: MRI (Magnetic Resource Imaging) which uses magnetism to construct an image of the body, and CT (Computerised Tomography) which uses multiple x-rays which are then processed by a computer to give a detailed 'whole picture'. Both scans are painless, although slight discomfort may be experienced (due to claustrophobia or noise levels).

Blood tests and x-rays (particularly of the chest) will also be performed as part of regular health checks to assess whether all the organs are functioning properly.



Waiting for test results can be a great source of anxiety. It can help to talk it over with family and friends, or to see a counsellor.

Stages of Cervical Cancer and respective treatments

The progress of cancer is usually referred to in numbered stages, from 0 to 4, where grade 4 indicates the most advanced cancers. Grade 0 means that cancerous cells have been found in the cervix but have not spread into deeper tissues. Grade 0 cells can be removed in the same way as a **lesion** of pre-cancerous cells. For more information on the removal of pre-cancerous cells, see our related factsheet on 'Human Papilloma Virus'.

Grades 1 to 4 refer to the size of the cancerous area and to where it can be found. The treatments most commonly prescribed include surgery, radiotherapy and chemotherapy, and sometimes a combination of all three treatments is recommended.

Surgery

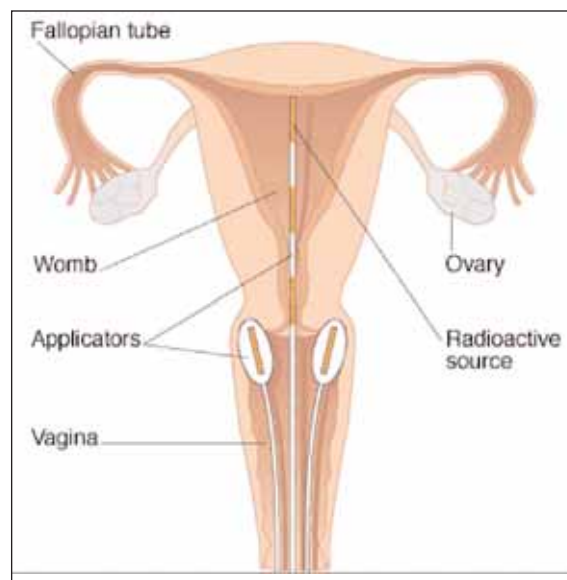
When cervical cancer is detected at a relatively early stage, a hysterectomy is usually recommended. This involves the removal of the cervix and the womb. In very early cases, it is possible to remove just the cervix so that future pregnancy is still possible, although the baby would need to be born by **caesarean section**.

If a full hysterectomy is needed, the womb is also removed, including the surrounding lymph nodes and the tissues that hold it in place. If the cancer is very advanced, other organs may need to be removed, such as the bowel, rectum or bladder. Although a hysterectomy may be life-saving, it can also be distressing. Counselling should be made available to you. For more information please see our fact-sheet 'Hysterectomy'.

Radiotherapy

Radiotherapy uses radiation to control the spread of malignant tumours. Radiotherapy can be carried out externally and internally. In external radiotherapy, radioactive beams are directed onto your body from a machine. The beams come from a number of different angles, and aim to cross each other at the location of the malignant cells, so that the surrounding tissues only come into contact with relatively weak beams. Radiotherapy will be carefully planned to make sure you receive the right dose at regular intervals. The treatment is usually given over a five-day week with a rest at weekends. When you are following a course of external radiotherapy you do not become radioactive, and it is perfectly safe for you to come into contact with other people.

Internal radiotherapy places a source of radiation within the womb itself. This can be administered constantly for up to five days, during which the patient remains in a solitary ward, or in short treatments with overnight stays in hospital. A machine called a Selectron can be used that automatically retracts the radioactive sources when someone enters your room, ensuring the safety of visitors. This diagram shows the positioning of radioactive sources in the cervix and womb:



Source: Cancer Research UK

Radiotherapy itself is painless, but side effects can occur, such as damage to surrounding tissues resulting in swelling or soreness. Radiotherapy is often used in conjunction with chemotherapy, and the combined treatment is called 'chemoradiation'. Research has shown that both radiotherapy and chemotherapy (see below) are more effective when they are used together.

Chemotherapy

Chemotherapy administers drugs that destroy the growth of cancer cells. These are called 'cytotoxic' drugs. Chemotherapy can reduce the effect of advanced cervical cancer and relieve any related symptoms. Chemotherapy drugs can be given as an injection (intravenously) or in tablet form. The usual pattern is for the drugs to be administered over 3-4 days, following which there is a rest period of up to 4 weeks. Side effects related to chemotherapy will depend on which drug you are taking. Common side effects include a drop in the number of blood cells, diarrhoea, nausea, hair loss or thinning, feeling tired, and a sore mouth.

This factsheet has been produced by Women's Health Concern and reviewed by members of our Medical Advisory Panel.

It is for your information and advice and should be used in consultation with your own medical practitioner. **Review date: November 2007.**

Living with Cervical Cancer

The diagnosis of cancer is frightening, raising many questions about the future and interrupting your daily routine to enable treatment. The therapies you receive may mean that you need more rest and to adjust your diet to boost energy levels. It is important to make the most of the support your friends and family can offer you, and you may want to speak to a trained counsellor. Many cancer support groups exist to help you and your family cope:

Useful contacts

Jo's Trust

Tel: 01327 341965

Website: www.jotrust.co.uk

Macmillan Cancer Relief

Tel: 0808 808 2020

Website: www.macmillan.org.uk

Cancer Backup

Tel: 0808 800 1234

Website: www.cancerbackup.org.uk

Glossary

Biopsy A minor procedure in which a sample of cells about the size of a match-head is taken from the affected tissue for further examination. This is usually performed under local anaesthetic.

Caesarean Section A form of childbirth in which the baby is delivered through an incision made to the mother's abdomen and womb.

Cancer The uncontrolled growth of cells due to damage to DNA. A tendency to develop tumours can also be inherited.

Cervical Screening A health-check of the cells in the cervix, in which a few cells are lifted onto a brush or spatula and transferred to a slide for microscopic examination.

Chemotherapy The use of chemical substances to destroy cancerous cells. They are administered either orally (in tablet form) or intravenously (injected into the vein).

Colposcopy A visual examination of the cervix using a non-penetrative microscope.

Hysterectomy An operation to remove the womb and/or cervix.

Invasive Cancer Cancer is referred to as 'invasive' when the malignant cells advance from the initial lesion into deeper layers of tissue, and threaten to spread to other parts of the body.

Lesion A formation of pre-invasive abnormal cells.

Malignant Tumour A formation of cancerous cells that has the capacity to spread to other parts of the body.

Radiotherapy A palliative treatment in which radiation is used to control the spread of cancerous cells.

Sources

International Agency for Research on Cancer (IARC)

www.iarc.fr [accessed March 2007]

Cancer Backup

www.cancerbackup.org.uk [accessed March 2007]

Cancer Research UK

www.cancerresearchuk.org [accessed March 2007]

NHS direct

www.nhsdirect.nhs.uk [accessed March 2007]

This factsheet has been produced by Women's Health Concern and reviewed by members of our Medical Advisory Panel.

It is for your information and advice and should be used in consultation with your own medical practitioner. **Review date: November 2007.**