

Prostate cancer

The prostate is a gland, about the size of walnut, found only in men. It is located just below the bladder and surrounds the tube known as the urethra that carries urine from the bladder and out through the penis. The function of the prostate is to manufacture the liquid component of semen, which allows the sperm to move freely.

Normally cells grow and multiply only when the body needs them to. Prostate cancer develops as a result of a breakdown in this normal process leading to cells growing in an uncontrolled way. The mass of excess cells forms a tumour, which may be benign or malignant. The tumour is described as "malignant" if it is able to invade other healthy tissue. The peripheral (outer) zone of the prostate is the area most susceptible to developing cancer.

Prostate cancer is rare in men under 50. However, the risk increases steadily with age and by the time they are 80, more than half of all men will have some cancerous growth, mostly without noticing it. Prostate cancer is usually slow growing and often is not the cause of death.

Symptoms

Frequently, prostate cancer produces no symptoms. Sometimes, even when symptoms are present, men do not seek medical attention. If prostate cancer is detected early then there is a good chance that the disease can be cured.

The symptoms are similar to those produced by another common disease of the prostate, benign prostatic hypertrophy (BPH), and include:

- difficulty in starting to pass urine
- weak, sometimes intermittent flow
- dribbling of urine before and after urination
- frequent need to pass urine
- urgent need to pass urine
- need to get up several times in the night to urinate
- feeling that the bladder is not completely empty
- rarely, blood in the urine

Diagnosis

If you develop any symptoms mentioned above, you should consult your GP. You may be then be referred to a hospital specialist (a urologist).

There are several tests that you may undergo as part of the diagnostic process. Some of these tests may also be performed as part of a routine health screening.

Urine test

A simple urine test will be carried out to look for blood or infection.

PSA blood test

Testing a blood sample to determine the amount of prostate-specific antigen (PSA) is central to the early detection of prostate cancer. If an abnormally high level of PSA is detected in the blood then prostate cancer is a possibility. However, a high PSA level does not necessarily indicate cancer. It can be caused by other prostate diseases such as BPH or prostatitis (inflamed prostate).

Digital rectal examination (DRE)

Your urologist will certainly carry out an examination of your prostate by inserting a finger into your rectum. Although this can be uncomfortable, it is not painful, and tumours can often be felt by this method. Many men find this procedure embarrassing but it should be remembered that urologists do this as an everyday procedure and it may save your life.

Biopsy

If cancer is suspected, the urologist may perform a prostatic biopsy (removal of a small piece of tissue). A biopsy involves passing an ultrasound probe into the rectum to give an accurate view of the prostate. Samples of the prostate are collected using a needle. Biopsies can be uncomfortable but urologists will often give you a mild sedative, or a local anaesthetic. The tissue is then sent to a pathologist who will examine it under the microscope and check whether or not the tissue sample is cancerous.

If cancer is found, the pathologist will 'grade' it, according to the rate of growth. The grading system goes from 1-10, one being the mildest and 10 being the most aggressive. This will give the doctor an idea of how quickly your cancer is likely to progress.

Scans

In order to ascertain whether the cancer has spread (metastasised) to other parts of your body you may have a bone scan. Another technique is an MRI scan which can look at the body in sections using a strong magnetic field and radio signals. CT scanning is similar to a MRI scan but uses X-rays to build up a picture. These scans usually look for the spread of cancer to lymph nodes in the pelvis. This helps the doctor to decide how far the cancer has spread, if at all and therefore what is the best course of treatment. This process is known as 'staging' the cancer.

Treatment

The most appropriate treatment for you will depend on several factors: how aggressive your cancer is and whether it has spread; your age; your general health.

Watchful waiting

Sometimes it is a better option, particularly for slow growing tumours, if no treatment is undertaken. Your condition will be monitored closely with routine check-ups. Some people, however, find this approach causes too much anxiety and will prefer to have active treatment.

Surgery - radical prostatectomy

Surgery is the main treatment for most prostate cancer. A radical prostatectomy is the most common operation performed and involves removing the prostate, seminal vesicles and nearby lymph nodes. As it is a major operation, it is most suitable for otherwise healthy men (usually under 70) whose cancer appears not to have spread. The procedure takes place under a general anaesthetic.

About 80% of men who have this operation are still alive 10 years afterwards. Possible side-effects of this procedure include some degree of urinary incontinence, sterility and erectile dysfunction (impotence), although modern surgical techniques can minimise this.

Hormone therapy

Hormone therapy successfully reduces the size of prostate tumours in 80% of men but it does not kill cancer cells. It is sometimes used prior to radiotherapy to reduce the size of the tumour. For many men hormone therapy will be recommended in addition to surgery.

Testosterone, the male hormone produced by the testicles, stimulates cancer growth. Hormone therapy is based on controlling the level of testosterone.

This is done either by 'switching off' the production of testosterone or damping down the levels that circulate in the bloodstream. This can be achieved by medicines, such as finasteride (Proscar) that block the conversion of a natural chemical into active testosterone. Alternatively orchidectomy, which involves surgical removal of both testicles, stops the production of testosterone.

Radiotherapy

Radiotherapy is an alternative to radical prostatectomy. Currently there is no conclusive evidence to show that one method is more effective than the other. The treatment involves radiation being applied to the affected area to destroy the cancer cells. This is usually done as an out-patient procedure. The main side-effects are bladder irritation and diarrhoea. Some men will become impotent as a result.

New therapies

Brachytherapy

This is a relatively new procedure which involves the implantation of radioactive pellets into the prostate where they gradually lose their radioactivity over the following months. The pellets are inserted under general or spinal anaesthetic. Brachytherapy is not recommended for men whose cancer has spread to other parts of the body.

Cryosurgery, gene therapy and vaccines are other new therapies currently under investigation.

Prevention

The reason why some men develop prostate cancer is unknown, although some risk factors have been identified. The most important risk factor is advancing age. Other factors include family history. If a close relative - father, brother, uncle - has developed the disease then your own risk is likely to be increased. Ethnic origin also seems to play a part. Afro-Caribbean men seem to be at highest risk and men of Far Eastern descent the least.

You may be able to reduce your risk by limiting the amount of fat in your diet, through cutting down on dairy produce and red meat.

Further information

Hong Kong Cancer Fund

Tel: (852) 2868 0780
Fax: (852) 2524 9023
<http://www.cancer-fund.org>

The HK Anti-Cancer Society

Tel: (852) 2814 0950 / 2814 1232 / 2814 0702
Fax: (852) 2873 1405
<http://www.hkacs.org.hk/main.html>

CANSURVIVE (English Speaking Support Group)

Tel: (852) 2868 0780 Fax: (852) 2524 9023
Hotline: (852) 2328 2202

The Prostate Cancer Charity

<http://www.prostate-cancer.org.uk>

American Prostate Society

<http://www.ameripros.org/prostate.html>

National Cancer Institute

http://www.cancer.gov/cancer_information/cancer_type/prostate/

American Cancer Society

<http://www.cancer.org/docroot/home/index.asp>

CancerBACUP

<http://www.cancerbacup.org>

The Cancer Council Victoria

<http://www.accv.org.au>

Healthwise (Health Information Resource Centre)

Tel: (852) 2849 2400
Fax: (852) 2849 2900
Email: info@healthwise.org.hk
Homepage: www.healthwise.org.hk

This leaflet is for information only. For a detailed opinion or personal advice, please consult your own doctor.

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