

# Male Cancer

Awareness, diagnosis and treatment

Revised 2nd Edition

ORCHID   
FIGHTING MALE CANCER



**Every year in the UK over 43,000 men will be diagnosed with a male-specific cancer:- prostate, testicular or penile cancer.**

**Many of us will know someone who has been diagnosed with a male-specific cancer.**

This leaflet offers information on the three cancers – from signs and symptoms, risk factors and causes through to tests to determine a diagnosis and treatment option. A quick, simple visit to the GP to discuss worrying signs and symptoms can make a huge difference. The earlier the diagnosis and the sooner treatment can begin, the better the chance of survival.

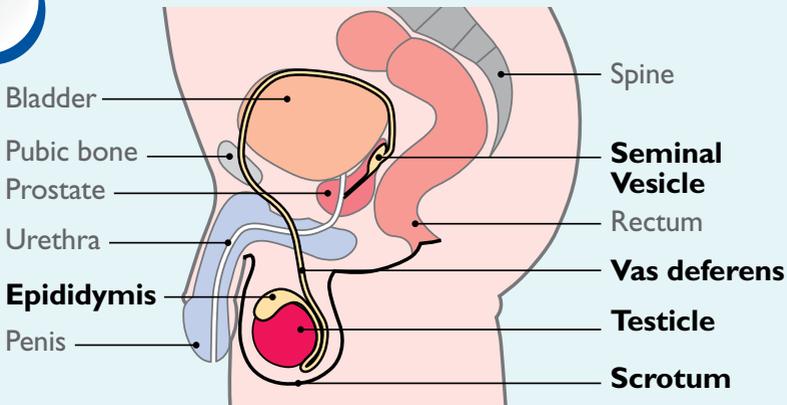
**[www.orchid-cancer.org.uk](http://www.orchid-cancer.org.uk)**

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# Testicular Cancer

Testicular cancer is the most common cancer in men aged 15-45. Every year over 2,200 men in the UK will be diagnosed with the disease.

Fortunately, testicular cancer is highly treatable. If caught early, 98% of men will make a full recovery, and even in the later stages of the disease, the cure rate is very high compared to other cancers with 96% of men diagnosed with testicular cancer being alive 10 years after treatment. For more information on testicular cancer please see [yourprivates.org.uk](http://yourprivates.org.uk)



The testicles are located inside the scrotum, the loose bag of skin that hangs below the penis. From the start of puberty, each testicle produces sperm. The testicles also produce the hormone testosterone.

## What is testicular cancer?

A testicular tumour is a lump created by the abnormal and uncontrolled growth of cells. They can occur in one or both testicles.

## What are the different types of testicular cancer?

There are a number of different types of testicular cancer. About 95% of testicular tumours arise from the germ cell epithelium which lines the testicular tubes and are known as germ cell tumours. The most common of these is called a seminoma and is made up of a single type of cell which is slow growing and tends to stay localised in the testicle for a long period of time. It tends to affect men over the age of 30. The remaining types, made up of more than one type of cell, are often grouped together and known as non-seminoma. They usually affect younger men and tend to be more aggressive. There are other types of cancer which can start in the testicles but these are rare.

## Self-examination and possible signs of testicular cancer

It is important for men to know the look and feel of their testicles and to recognise any changes. A simple, quick testicular cancer self-examination can be done on a regular basis, ideally after a warm bath or shower. Men should be aware of any changes and in particular the following:

- ▶ lumps in or on either testicle
- ▶ swelling or enlargement of the testicle
- ▶ an increase in firmness
- ▶ pain or discomfort in the testicle or scrotum
- ▶ an unusual difference between the testicles
- ▶ a sudden collection of fluid in the scrotum
- ▶ a feeling of heaviness in the scrotum
- ▶ a dull ache in the lower part of the abdomen, the scrotum or groin
- ▶ rarely, pain in the back, not relieved by painkillers due to enlarged lymph glands
- ▶ rarely, breast and nipple tenderness (gynaecomastia) associated with hormonal changes caused by testicular cancer.

It is important that further advice be sought as soon as possible but there is no need to panic - most lumps are not cancer and a pain in the testicle doesn't necessarily mean cancer; there can be many causes.

For more information on non cancerous conditions please see [yourprivates.org.uk](http://yourprivates.org.uk).

## Testicular Self Examination (TSE)

This is the easiest way to identify any potential testicular problems. It only takes a few minutes to perform and gives you a good excuse for feeling your nads (like you need one!). It's best performed monthly after you have had a bath or shower when your scrotum will be warm, relaxed and pleasant to touch.

1. Check each testicle separately using one or both of your hands (**Figure 1**).
2. Roll each testicle between the thumb and forefinger to check that the surface is free of lumps or bumps. Do not squeeze!
3. Get to know your balls; their size, texture, anatomy, magnificence. Identify the epididymis or sperm collecting tube, often mistaken for an abnormal lump that runs behind each testicle (**Figure 2**).
4. Encourage your partner to have a go as he or she may be more likely to identify a problem in the future and get you to do something about it.

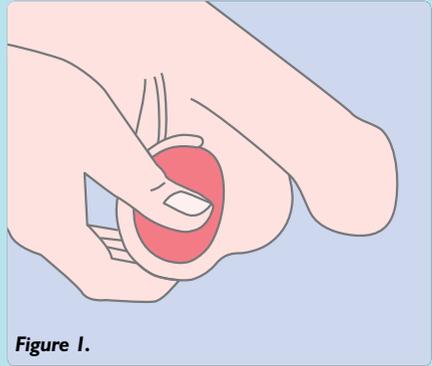


Figure 1.

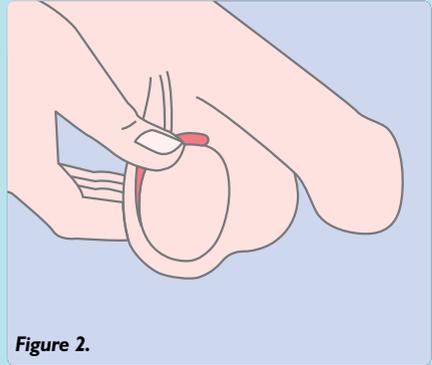


Figure 2.

## What are the likely causes of testicular cancer?

There is no single known cause of testicular cancer. However, research studies have shown the following may make testicular cancer more likely:

- ▶ An undescended testicle (cryptorchidism). Research has shown the risk of testicular cancer increases dramatically if this is not corrected by the age of 11
- ▶ A brother or father who has had testicular cancer
- ▶ A previous diagnosis of testicular cancer

- ▶ A sedentary lifestyle and repeated testicular knocks or trauma may increase the risk of testicular cancer
- ▶ Intratubular germ cell neoplasia (IGCN) means that there are abnormal cells in the testicle. If left untreated, it will develop into cancer in about half the men who have it (50%)
- ▶ Some research suggests that taller than average men may be at an increased risk.

Having a vasectomy, experiencing a single injury to the testicles or being sexually active does not cause testicular cancer.

## How is testicular cancer diagnosed?

If a man finds a lump in their testicle and is seen by their GP, an ultrasound scan of the testicles is usually arranged and a referral is made to a specialist called a urologist for assessment. If the scan shows that there is a possibility of testicular cancer then blood tests to look for substances produced by testicular cancer (tumour markers) and a CT scan are usually requested.

Understanding how far testicular cancer has spread is called staging. It is important to know at what stage the cancer is, in order for appropriate treatment to be given. This will depend on whether the cancer is confined to the testicle, or has spread to lymph nodes in the abdomen or chest.

## Treatment options: what are they?

Removing the affected testicle and tumour by surgery (orchidectomy) is the standard treatment for testicular cancer where the cancer has remained within the testicle(s). This is usually done quickly and within a two week period. It will not adversely affect someone's sexual performance and a prosthesis - or false testicle - can be inserted in place of the removed one. This can be performed a few months after the initial operation. Another option is surgery involving a lumpectomy where just the tumour is

removed, although this is only possible under specific conditions and is not considered standard treatment.

After surgery it may not be necessary to give any further treatment, providing the cancer has not spread beyond the testicle. This form of treatment is known as surveillance. However to reduce any possibility of the cancer returning in the future it may be recommended that a single dose of chemotherapy be given. If there is obvious evidence that the cancer has spread beyond the testicle then chemotherapy will usually be recommended.

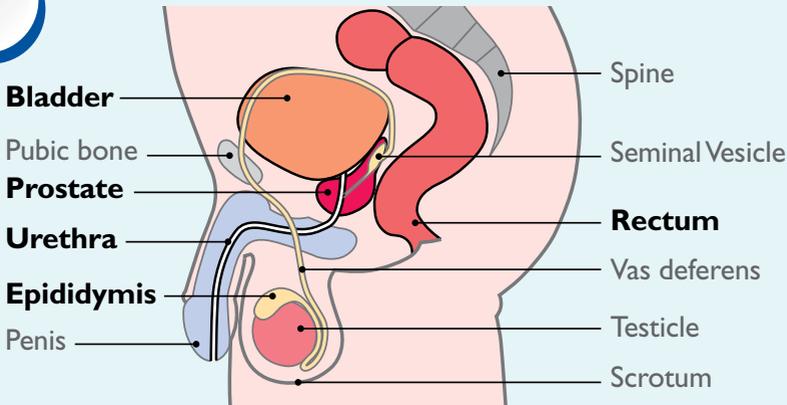
Chemotherapy in this situation is usually finished within 3 months and most men have made a complete recovery within 6 months. Once treatment has stopped men will be monitored on a regular basis for at least five years by their oncologist. CT scans will be performed to make sure the cancer has not come back.

## Sex and treatment

Whether someone decides to remain sexually active during cancer treatment or not is entirely a personal choice and the type of treatment will affect men in different ways. It is important to use appropriate contraception / protection during this time and there are issues about fertility which should be discussed with the specialist healthcare team.

# Prostate Cancer

Every year over 41,000 men in the UK will be diagnosed with prostate cancer. It is the most common cancer in men over the age of 55 years, and an estimated 1 in 8 men will develop the condition. Most men in their 80s will have evidence of prostate cancer but at this age it usually does not affect their life expectancy.



The prostate gland is located just below the bladder. It is only found in men and is responsible for helping to produce the fluid in semen. The gland is tiny at birth but grows in size after puberty due to rising levels of the male hormone, testosterone.

## What is prostate cancer?

Prostate cancer occurs when normal, healthy cells, which are carefully regulated in the body, begin to reproduce uncontrollably in the prostate gland. In most cases, the growth is slow and the cancer can go undetected for many years because it causes very few symptoms. In some cases, however, prostate cancer grows quickly and may spread to other parts of the body, such as the lymph nodes or bones.

## Possible signs of prostate cancer

There is no single symptom to indicate the presence of prostate cancer.

Many men will have no symptoms at all. Problems with the prostate are common; they may not necessarily be caused by cancer, and may result in slowly developing symptoms that can easily be confused with “getting older”. Because the prostate gland surrounds the tube known as the urethra, which passes urine from the bladder to the outside of the body, any prostate disease or growth (benign or malignant) is likely to cause problems with urination. Men should be aware of any changes and in particular the following:

- ▶ Slow or weak flow of urine
- ▶ Urinating more frequently or urgently than usual
- ▶ Difficulty starting to urinate
- ▶ Pain or burning sensation when urinating
- ▶ Difficulty getting or maintaining an erection or pain during ejaculation.

### **Less common symptoms include the following:**

- ▶ Unexplained urinary infection or pain in the groin, back or hips
- ▶ Blood in the urine or semen
- ▶ Impotence
- ▶ Constipation, altered bowel habit, or not feeling the bladder is completely empty.

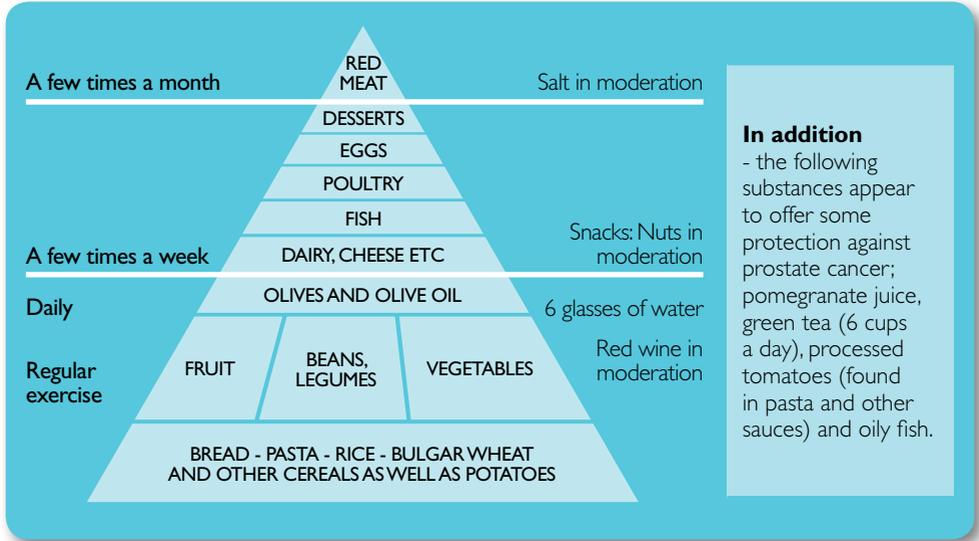
## What are the likely causes of prostate cancer?

There are a number of risk factors:

- ▶ **Age.** Prostate cancer mainly affects men over 65. It is rare in men under 50 years of age, but more than 1,000 men under 55 years of age are diagnosed with prostate cancer each year in the UK.
- ▶ **Ethnicity.** African Caribbean men are three times more likely to develop prostate cancer.
- ▶ **Family history of prostate cancer.** Having a brother or father with prostate cancer increases the risk compared to men with no family history of the disease. If a close member of the family was diagnosed with prostate cancer under the age of 60 the risk is much higher.
- ▶ **Family history of breast cancer.** The risk increases slightly in men who have a strong family history of female breast cancer and vice versa (National Cancer Institute). This is thought to be because two genes carried by both men and women (called BRCA1 and BRCA2) increase the risk of breast cancer in women and prostate cancer in men (Cancer Research UK).
- ▶ **Diet.** A diet high in saturated fats and red meat may lead to an increased risk of developing cancer including prostate cancer.

# Diet

A good all round diet such as the Mediterranean diet (illustrated below) combined with exercise appears to be generally beneficial to health.



## How is prostate cancer diagnosed?

Two tests are commonly used by the GP for the initial investigation of prostate-type symptoms:

A digital rectal examination (DRE), which is quick and simple to perform, and involves a GP inserting a gloved, lubricated finger into the rectum (back passage) to feel if the prostate gland is enlarged, or firm and irregular:

A PSA (Prostate Specific Antigen) blood test, which measures the level of a protein produced by the prostate and is usually elevated in prostate cancer: The PSA test is not a specific diagnostic

test for prostate cancer as levels can be high in people who do not have the condition. Having a PSA test can be very reassuring if it is normal and, importantly, can help find some cancers at an early stage. Unfortunately, the PSA test does miss some prostate cancers and it can lead to unnecessary worry and further tests in people who are found not to have cancer.

For more information on the PSA blood test please see our fact sheet **The PSA blood test**.

Prostate cancer can only be diagnosed definitively from samples of tissue removed from the prostate gland using a biopsy and examined under a microscope.

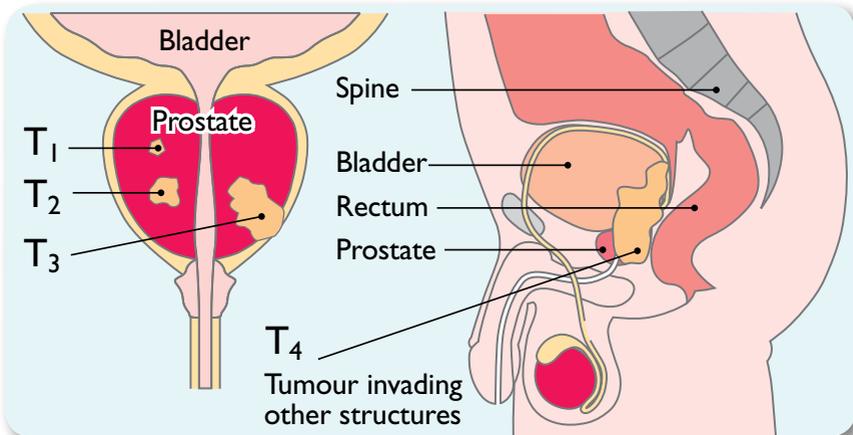
People with a strong family history of prostate cancer should be more aware of the disease especially as there may be no obvious urinary symptoms in early disease.

If someone is diagnosed with prostate cancer the specialist healthcare team may carry out additional tests and scans such as an MRI and bone scan to identify whether the cancer has spread beyond the prostate. The results of these scans and the results of the biopsy will be used to give the prostate cancer a T stage where T stands for tumour (see diagram below). This will help on deciding which treatment will be best for the extent of cancer present.



**Q.** What is meant by the “grade” and “stage” of prostate cancer?

**A.** If you are diagnosed with cancer, a specialist healthcare team will need to identify the “grade” or aggressiveness of your cancer and the “stage” or progression of your cancer in order to determine the best course of treatment. The “grade” of cancer is determined through the biopsy and the system used to measure the grade is called the Gleason grading system. If the cancer is slow growing, and non-aggressive, it will have a low “Gleason score”. If it is fast growing, at risk of spreading to other parts of the body and aggressive, it will have a high “Gleason score”. Most cancers will be scored somewhere between 6 and 10. The “stage” of your cancer determines how far, if at all, it has spread.



## Treatment options: what are they?

There are a number of treatment options currently available and the main ones include:

- ▶ Active surveillance and “watchful waiting”
- ▶ Surgery (open, keyhole or robotic surgery)
- ▶ Radiotherapy
- ▶ Hormone therapy
- ▶ Chemotherapy.

Choice of treatment will depend on a large number of factors, and every individual will be assessed carefully before any treatment decisions are made. A team of urologists, oncologists and other health professionals called a Multi Disciplinary Team (MDT) will discuss all of the available results at a special meeting and make a recommendation for a particular treatment(s) based on their knowledge and experience. This recommendation will then be discussed with the patient. The following tables contain a list of treatment options, when they are used and the drawbacks that may occur when having specific treatments.

Treatment option	When it's used	Drawbacks
<b>Active surveillance</b>	Often used for men with low-risk or slow-growing cancers. It involves close monitoring with regular check-ups with PSA tests, DREs and usually further biopsies after a year or eighteen months. Curative treatment can be commenced if there is any sign of the cancer progressing or a patient were to change their mind and opt for treatment. Active surveillance prevents men rushing into treatment for their cancer which may cause unwanted side effects when the cancer may not progress or cause any problems for some time.	Can lead to anxiety while waiting to see if cancer will progress.
<b>“watchful waiting”</b>	This is used for older men or men who may not be fit enough for particular treatment and have no obvious symptoms.	
<b>Surgery</b>	Can be used when cancer remains localised. It will involve the removal of the whole prostate and seminal vesicles and occasionally lymph nodes. There are many types of surgery including “open”, keyhole (laparoscopic) and robotic. No type of surgery has been proved to be better than the others with regard to possible side effects although recovery time will be quicker with laparoscopic or robotic surgery.	Can cause erection problems or urinary incontinence.

Treatment option	When it's used	Drawbacks
<b>Radiotherapy</b>	Is used as an alternative to surgery. Can be either external (where an external beam is directed at the cancer) or internal (where radioactive seeds are placed into or near the cancer – this is known as “brachytherapy”). Brachytherapy is usually used if the cancer is confined to the prostate gland whereas external beam and a newer type of radiotherapy treatment Intensity Modulated Radiotherapy (IMRT) can be used to treat early spread of cancer beyond the prostate.	Can cause erection and urinary problems and sometimes minor bowel damage.
<b>Hormone therapy</b>	Used to slow cancer growth and reduce tumour size. Usually used when cancer has spread beyond the prostate to other organs or the bones. It works by removing or blocking the male hormone, testosterone, which can encourage growth of prostate cancers. It is usually very effective at regressing and controlling prostate cancer but does not cure the disease.  Also used before external beam radiotherapy for localised disease and sometimes for several years after radiotherapy if cancer has spread onto the surface of the prostate or into the seminal vesicles.	Can cause hot flushes, loss of sex drive and weakened bones. Eventually, cells become immune and other treatments may be needed.
<b>Chemotherapy new treatments and combination treatment.</b>	Combinations of steroids, chemotherapy or new types of hormone therapy can be used when initial hormone therapy has failed..	Treatment will have side effects that may affect a mans quality of life.

## New treatments

There are many new treatments for prostate cancer under development and these include:

- ▶ High-intensity focused ultrasound (HIFU). HIFU is a treatment that uses ultrasound (high-energy sound waves) to destroy cancer cells. It is currently used as a treatment for prostate cancer that has returned following radiotherapy but is also being evaluated for treatment as an alternative to surgery or radiotherapy as initial treatment as a clinical trial in some but not all treatment centres.
- ▶ Gene and immunotherapy. Gene and immunotherapy uses the individual's own immune system to fight cancer. Substances made by the body or made in a laboratory are used to boost, direct, or restore the body's natural defences against cancer.

The specialist healthcare team can explain these treatments and others in more detail and advise you if any may be suitable.



**Q.** What are clinical trials?

**A.** Some people with cancer may be considered for a clinical trial during their course of their treatment. These trials are an important part of the cancer research process. Your healthcare team will discuss the treatment with you so that you have full understanding of the trial and what it involves. Individuals who take part in a clinical trial may receive the standard treatment for their cancer or be among the first to receive a new treatment. Many newer treatments are being developed to treat prostate cancer and men with more advanced disease may be asked to take part in trials to evaluate their effectiveness.

## Treatment options: longer term

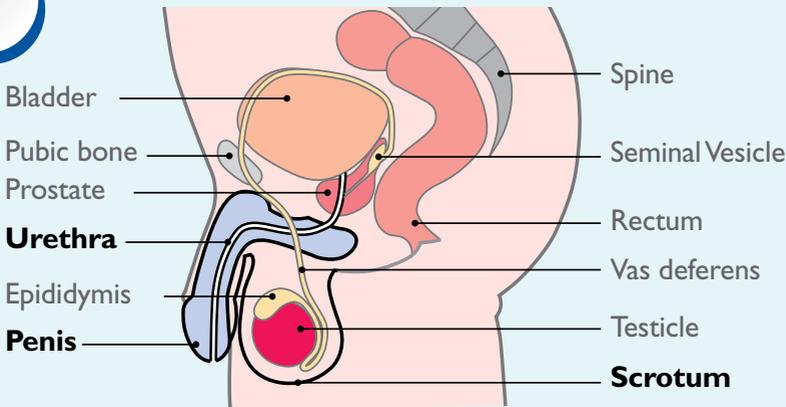
The treatment offered to each person will be regularly reviewed and may change over time. For example a specific treatment may no longer work, there may be unwelcome side effects or a more effective option becomes available. The specialist healthcare team will support people through this process.

## Sex and treatment

Whether someone decides to remain sexually active during cancer treatment or not is entirely a personal choice and the type of treatment will affect men in different ways. You may wish to talk to your specialist healthcare team if you have any concerns.

# Penile Cancer

Penile cancer is a rare cancer and affects over 500 men each year. It is usually diagnosed in men over the age of 50 years although men can be affected as young as 30.



The penis is the external male sexual organ. The main part of the penis is known as the shaft and the head of the penis is called the glans. At birth the glans is covered by a loose piece of skin, known as foreskin which may be removed in infancy - this is known as circumcision. Inside the penis is the urethra, the tube through which urine and semen exit the body.

## What is penile cancer?

Penile cancer occurs when normal, healthy cells, which are carefully regulated in the body, begin to reproduce uncontrollably. In most cases, the growth is slow however in some cases, penile cancer grows quickly and may spread to other parts of the body.

## Possible signs of penile cancer

There is no single symptom to indicate the presence of penile cancer. Common signs include:

- ▶ White or red scaly patches
- ▶ Red moist patches of skin
- ▶ Change in the colour of the skin
- ▶ Skin thickening
- ▶ Growth, bump or sore.

If a man is suffering from any of the above it is important that they see their GP for assessment. Any abnormal condition on the penis which does not improve after two weeks of prescribed treatment should be investigated by a specialist such as a urologist.

## What are the likely causes of penile cancer?

There is no single known cause of penile cancer. However, research studies have shown the following may play a role in penile cancer:

- ▶ The human papilloma virus (HPV) that causes penile warts also increases the risk of cancer. Two strains HPV 16 and 18 are linked with penile cancer.
- ▶ Penile cancer is less common in men who have had their foreskin removed (been circumcised) soon after birth.

- ▶ Skin diseases that are associated with cancer of the penis include Bowen's Disease and Erythroplasia of Queyrat (collectively called "Carcinoma-in-Situ"). If left untreated these could lead to cancer, so it is important to see your doctor and receive the necessary treatment.

## How is penile cancer diagnosed?

It can be very difficult to recognise the signs and symptoms of penile cancer. Most GPs will never see someone with the disease during their lifetime. Many of the symptoms mentioned are also associated with other diseases, some of which may be sexually transmitted. If an initial examination or course of treatment does not "clear up" or resolve the symptoms within two weeks it is important to seek a referral to a urologist where further investigation can be carried out. This may include a sample of tissue (a biopsy) being removed or a circumcision under a local or general anaesthetic. If the tissue is shown to be cancer, a referral to a specialist centre or Supra-Network will be made.



### Q. What is a Supra-Network?

**A.** Supra-Network centres are designed to treat specialist or rarer cancers because there is not a specialist cancer service in every hospital in the UK. Guidelines from The National Institute for Health and Clinical Excellence recommend that people who are diagnosed with penile cancer are managed by a specialist Supra-Network centre. At the centre there is a multi-disciplinary specialist team – depending on which centre you visit this might include surgeons and a plastic/reconstructive surgeon, oncologists, radiologists, clinical nurse specialists, counsellors and sex therapists.

The specialist healthcare team will carry out a series of blood tests, examinations and scans (such as a computerised tomography or CT scan) to identify the stage and grade of the cancer and whether it has spread beyond the penis. This will help to determine the best course of treatment.

### Treatment options: what are they?

There are three possible types of treatment available to you: surgery, radiotherapy and chemotherapy.

Surgery is the most common treatment option for penile cancer. Removing small, surface cancers that have not spread can be done through surgery, either by a

laser or freezing cryotherapy (freezing). If the cancer affects the foreskin, it may be possible to treat it with circumcision alone. Removal of part or all of the penis is recommended where the cancer has spread to a wider area, is large, covers the head of the penis or is near the base of the penis. Total removal also known as a penectomy is now much less common, as surgeons can usually preserve the penis. Reconstructive surgery is possible to restore the appearance of the penis and sometimes it is possible for surgeons to reconnect certain nerves to provide sensation and blood flow to allow the reconstructed penis to become erect. Lymphadenectomy involves the surgical removal of lymph nodes in the groin area. This is an option if it is suspected that the cancer has spread beyond the penis.

Chemotherapy may be used along with radiotherapy and surgery particularly where the cancer has spread or to ensure it does not return. Chemotherapy cream may sometimes be used to treat very small, early cancers that are confined to the foreskin and end of the penis.

Radiotherapy may be used instead of surgery when someone is not well enough to have an operation or doesn't want to have surgery.

Photodynamic therapy (PDT) is a new type of treatment which is being tested for treating penile cancer. It uses laser, or other light sources combined with a light sensitive drug (sometimes called a photosensitising agent) to destroy abnormal cells. PDT is only available at specialist centres.



- Q.** Why might you be recommended or refused a specific treatment?
- A.** No two cases of cancer are the same. The grade and stage of the cancer will vary, as will the medical history and general health of the person being treated. Your specialist healthcare team (MDT) will consider all these factors before recommending a specific course of treatment. They will also want to consider the side effects of your treatment and how this might affect your quality of life.
- Q.** What is palliative care?
- A.** If the cancer is very advanced or if it has spread to other parts of the body there may be limited or no treatment options. In this case the specialist healthcare team will offer palliative care to help relieve pain or other symptoms.

## Sex and treatment

The type of treatment will affect men in different ways. Most treatments for penile cancer will not affect the ability to have sex but for men who have had part or their entire penis removed they will find their sex life is affected. Access to specialist support from counsellors or sex therapists is important both during and after treatment.

## Resources

For further information and support on male cancer, please visit the Orchid website at [www.orchid-cancer.org.uk](http://www.orchid-cancer.org.uk) or call **0203 465 5766**.

Orchid has produced a series of leaflets and Factsheets on specific issues relating to male cancer. You may find the following helpful:

- ▶ **Testicular Cancer - all you need to know booklet**
- ▶ **Testicular Cancer and Your Fertility**
- ▶ **Ball Basics - a quick guide to testicular health and testicular cancer**
- ▶ **Prostate Cancer and You - a quick guide to prostate cancer**
- ▶ **PSA Factsheet**
- ▶ **Penile Cancer Booklet and Information Leaflets**

*Low-down*, Orchid's newsletter features the latest news and developments in male cancer including research, treatments, new services and events.

### **Other helpful websites include:**

[www.cancerhelp.org](http://www.cancerhelp.org) – which offers a broad range of information and support from Cancer Research UK for everyone affected by cancer:

[www.macmillan.org.uk](http://www.macmillan.org.uk) – offers information and support for everyone affected by cancer:

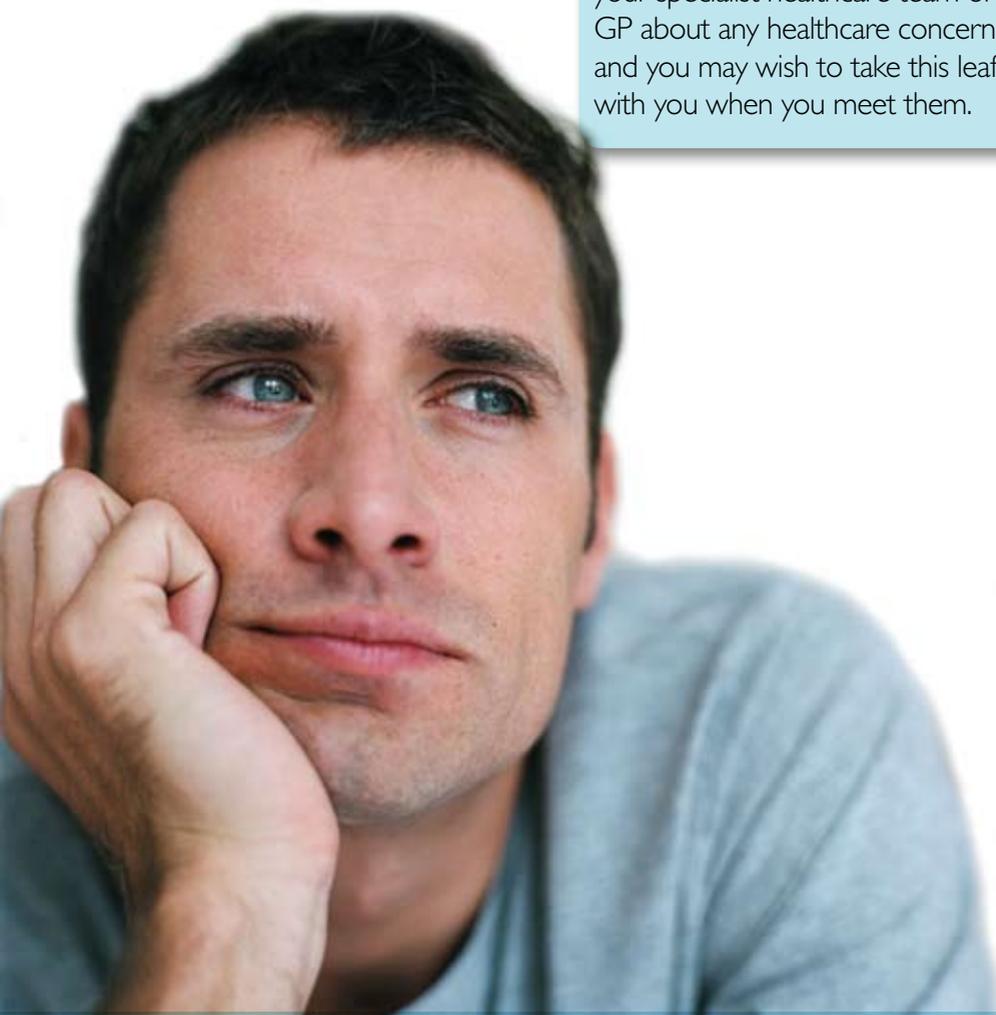
[www.prostatecanceruk.org](http://www.prostatecanceruk.org) – Prostate Cancer UK provides support and information to people affected by prostate cancer:



Orchid has a **Male Cancer Helpline** manned by specialist nurses on Mondays and Wednesdays 10am-5pm **0808 802 0010** or email **helpline@orchid-cancer.org.uk**

## Conclusion

We hope the information provided in this leaflet has been helpful. You should always consider speaking to your specialist healthcare team or GP about any healthcare concerns and you may wish to take this leaflet with you when you meet them.



## References to sources of information used in this booklet are available from Orchid.

Orchid is the UK's leading charity dedicated to supporting men and their families who are affected by male-specific cancers:- testicular, prostate and penile.

Established in 1996 by a young testicular cancer patient and the oncologist who saved his life, Orchid works to improve the lives of people affected by male cancers through a world class research programme, educational campaigns and raising awareness and an extensive support service.

If you have any queries regarding the information contained in this booklet please contact the Orchid Team on:

**Tel: 0203 465 5766**

**Fax: 0207 600 1155**

**Or you can contact Orchid Nurses**

**Tel: 0203 465 6105**

**email: [nurse@orchid-cancer.org.uk](mailto:nurse@orchid-cancer.org.uk)**

References are available on request.

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Orchid Cancer Appeal and  
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Orchid has a **Male Cancer Helpline** manned by specialist nurses on Mondays and Wednesdays 10am-5pm **0808 802 0010** or email **[helpline@orchid-cancer.org.uk](mailto:helpline@orchid-cancer.org.uk)**

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