

Bladder cancer

Bladder cancer affects twice as many men as women. It is rare in people under 55 years of age and most common among those over 70 years. Each year in Victoria, about 595 people are diagnosed with an invasive bladder cancer.

The bladder and kidneys

The bladder is a hollow, muscular, balloon-like organ that stores urine. It sits inside the pelvis. Urine consists of water and waste products not needed by the body. The bladder is lined with a membrane that stops the urine going into the body. The cells of this membrane are called transitional cells or urothelial cells. The membrane lining is called the urothelium.

The kidneys produce urine, which is carried to the bladder by tubes called ureters. The bladder stores the urine. When it is full enough, urine is passed from the body through a tube called the urethra. In women, the urethra is a very short tube in front of the vagina (birth canal). In men, the tube is longer and passes through the prostate and the penis.

Risk factors for bladder cancer

The exact cause of bladder cancer is unclear. However, it has been linked to several risk factors including:

- **Cigarette smoking** – some chemicals in cigarettes can cause bladder cancer. Your risk if you smoke is almost four times that of a non-smoker. Smoking heavily or for a long time increases your risk.
- **Increasing age** – most cases occur in people over 70 years.
- **Long-term chemical exposure** – especially in certain occupations: for example, exposure to some of the chemicals used for dyeing in textile and rubber industries is thought to increase the risk of bladder cancer. (This can be difficult to prove.)
- **Repeated or chronic infections of the bladder** – this has been linked to squamous cell carcinoma of the bladder.
- **Treatment for other types of cancers** – radiotherapy to the pelvic area can increase your risk of bladder cancer. Also, treatment with the chemotherapy drug cyclophosphamide increases your risk.

Symptoms of bladder cancer

The symptoms of bladder cancer include:

- Blood in the urine
- The need to urinate often
- A painful, burning sensation on urination.

All of these symptoms can be caused by other, much less serious conditions than cancer, such as a urine infection. If symptoms persist, you should always see your doctor.

Types of bladder cancer

Most bladder cancers are found in the cells of the bladder lining. These are called transitional cells so it is known as 'transitional cell bladder cancer'. There are two main types of transitional cell cancer:

- **Superficial or papillary bladder cancer** – this is early-stage transitional cell bladder cancer. The cancer has not spread beyond the lining of the bladder. Most bladder cancers are superficial when they are diagnosed.
- **Invasive bladder cancer** – this means that the cancer has spread into the muscle layer of the bladder or further.

There are other, rarer types of bladder cancers such as squamous cell carcinomas and adenocarcinomas of the bladder. These types are more likely to spread into the deeper layers of the bladder.

Diagnosis of bladder cancer

Bladder cancer is usually diagnosed using a number of tests and examinations, including:

- **Urine test** – a urine sample is sent to a laboratory to be examined under a microscope for cancer cells.
- **Physical examination** – includes an examination of the pelvis and other organs.
- **Cystoscopy and biopsy** – a small flexible telescope is threaded through the urethra to view the lining of the bladder and urethra. If abnormalities are seen, a small sample is removed for further examination.
- **Intravenous pyelogram (IVP)** – a dye is injected into a vein, usually in the arm, and goes through the blood to the kidneys. The doctor can watch the dye move around the body on an x-ray screen and pick up anything unusual.

If bladder cancer is diagnosed, you may need to have other scans and x-rays to determine the size of the cancer and whether or not it has spread (the 'stage' of the cancer).

Treatment – superficial bladder cancers

Most bladder cancers are superficial: small, mushroom-like growths that can be removed using a cystoscope. It's used to snip the cancer off at the stem. The area around the cancer is then cauterised (burned) to prevent excessive bleeding. This type of cancer often returns, so you will need follow-up cystoscopies.

Immunotherapy (also known as 'biological therapy') is sometimes used to treat superficial bladder cancers. This is the use of substances that encourage the immune system to fight the cancer. The most common immunotherapy used to treat superficial bladder cancer is Bacillus Calmette-Guérin (BCG) vaccine.

Another treatment that may be given is intravesical chemotherapy. This means that the chemotherapy drugs are injected directly into the bladder through a catheter.

Treatment – invasive bladder cancer

Treatment for invasive bladder cancer may include one or a combination of:

- **Surgery (cystectomy)** – part or all of the bladder may need to be removed (known as a 'partial' or 'radical' cystectomy). Not many people have a type of bladder cancer that can be treated with partial cystectomy. If the cancer has spread beyond the bladder, the surgeon can often stop the cancer growing by removing the bladder and organs nearby.
- **Chemotherapy** – is the use of cancer-killing drugs. Some chemotherapy drugs are injected into a vein to circulate around the body. Others may be injected directly into the bladder.
- **Radiotherapy** – is the use of radiation to kill cancer cells.
- **Complementary and alternative therapies** – when used alongside your conventional cancer treatment, some of these therapies can make you feel better and improve quality of life. Others may not be so helpful and in some cases may be harmful. Details of the Cancer Council Victoria's booklet *Complementary and alternative cancer therapies* are in the **Where to get help** section.

All treatments can have side effects. Your medical team will discuss these with you before you begin any type of treatment.

After surgery

After a partial cystectomy you will be able to pass urine as usual, but your bladder will be smaller and hold less urine, so you will need to pass urine more often. Not many people have a type of bladder cancer that can be treated with partial cystectomy.

After a radical cystectomy, a new place to store the urine will need to be created. The most common way of doing this is to make a urostomy. This is an artificial opening (stoma) which is created using a piece of your small bowel. It opens onto the abdomen and is covered with a flat, watertight bag that will catch your urine. Your doctor will discuss this and other possible options before surgery.

Living with a stoma

Most people find it takes time to come to terms with having a stoma. It is a big change in your life. People often worry about how they will care for their stoma. A stomal nurse will explain how to care for your stoma and tell you about support services.

You may also be very concerned about the effect it may have on your personal relationships, sexuality and lifestyle. You may find it difficult or embarrassing to talk about cancer and sexuality. However, most doctors and nurses are very understanding, and even if they're unable to help, they can refer you to a doctor or therapist who specialises in sexual problems.

When a cure isn't possible

If bladder cancer has been diagnosed in its later stages, the cancer may have spread to the point where a cure is no longer possible. Treatment then focuses on improving quality of life by relieving the symptoms (this is called 'palliative' treatment), with medications to relieve pain, nausea and vomiting.

Caring for someone with cancer

Caring for someone with cancer can be a difficult and emotional time. If you or someone you know is living with cancer or caring for someone with cancer, they may find it helpful to download and read some of the Cancer Council Victoria booklets that are available.

Where to get help

- Your doctor
- Urologist
- Cancer Council Victoria, Information and Support Service Tel. 13 11 20
- Victorian Multilingual Cancer Information Line. Tel. (03) 9209 0169
- Cancer Council Victoria's booklet *Complementary and alternative cancer therapies*.

Things to remember

- Cigarette smoking is the most important factor linked to bladder cancer.
- Bladder cancer is most common in people over 70 years of age.
- Treatment depends on the type of bladder cancer you have.

This page has been produced in consultation with, and approved by:

Cancer Council Victoria

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