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So no one faces cancer alone

understanding Prostate Cancer

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Established in 1987, the Hong Kong Cancer Fund ("Cancer Fund") is the city's largest cancer support organisation, providing FREE professional support and information to anyone touched by cancer to ensure that no one faces cancer alone.

This publication is part of the Cancer Fund's "Understanding Cancer" series, providing detailed information on cancer diagnosis and treatment options, along with practical tips to help cancer patients and their families cope with side effects and emotional distress caused by cancer and its treatment. A digital copy of the booklet is also available on our website for free download.

Our services span from the hospital to the community and the home with a network of 4 Cancer Support Centres in Central, North Point, Kwai Chung and Wong Tai Sin.

Our professional team includes oncology nurses, social workers, art therapists, dietitian and clinical psychologist. They help clients manage the physical, emotional, psychological and social challenges brought about by a cancer diagnosis.

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Introduction

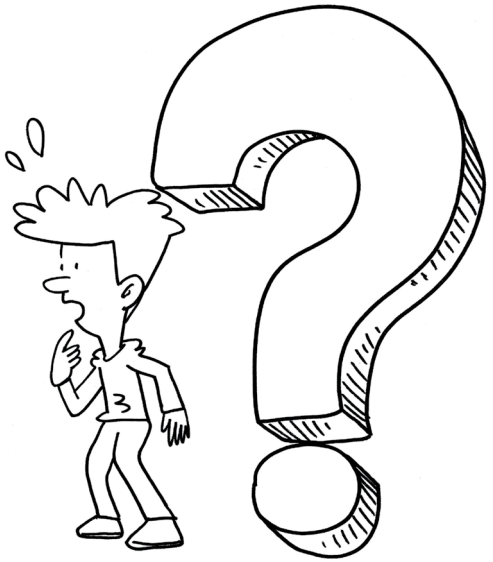
This booklet has been prepared to help you understand more about prostate cancer.

Many people feel understandably shocked and upset when told they have prostate cancer. We hope this booklet will help you to understand the diagnosis and treatment of the disease. We also include information about support services.

Before commencing any health treatment, always consult your doctor. This booklet is intended as a general introduction and should not be seen as a substitute for your own doctor's or health professional's advice. All care is taken to ensure that the information contained is accurate at the time of publication.

We hope this booklet will answer some of your questions and help you think about the questions you want to ask your doctors.

You do not need to read it from cover to cover, just read the parts which are useful to you. You may like to pass this booklet to your family and friends for their information. They, too, may want to be informed so that they can help you cope with any problems you may have.



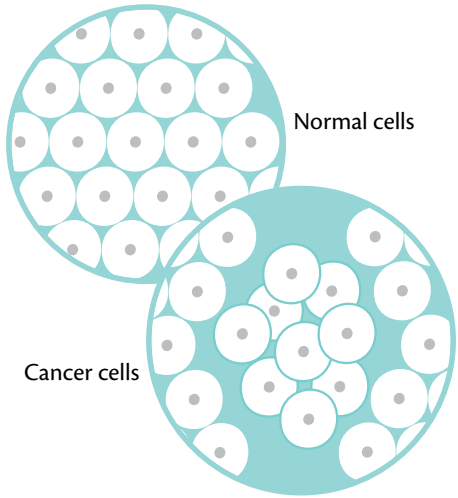
Contents

What is cancer?

Our body is made up of billions of cells, and their shape and function vary in different parts of the body. Normally, cells grow, divide (multiply), and eventually die in an orderly manner. However, when the division process goes out of control, cells continue to proliferate and accumulate in the body, forming a lump called a tumour.

Benign vs. Malignant

Tumours can be benign (non-cancerous) or malignant (cancerous). Benign tumours generally do not cause symptoms or spread to other parts of the body. They are usually not life-threatening and only need to be monitored regularly unless they grow and compress adjacent tissues, requiring treatment. A malignant tumour, also known as cancer, not only grows at the original site but can also spread. If not treated in time, they can destroy surrounding tissues and invade other organs via the bloodstream or lymphatic system, forming metastases or secondary cancer.

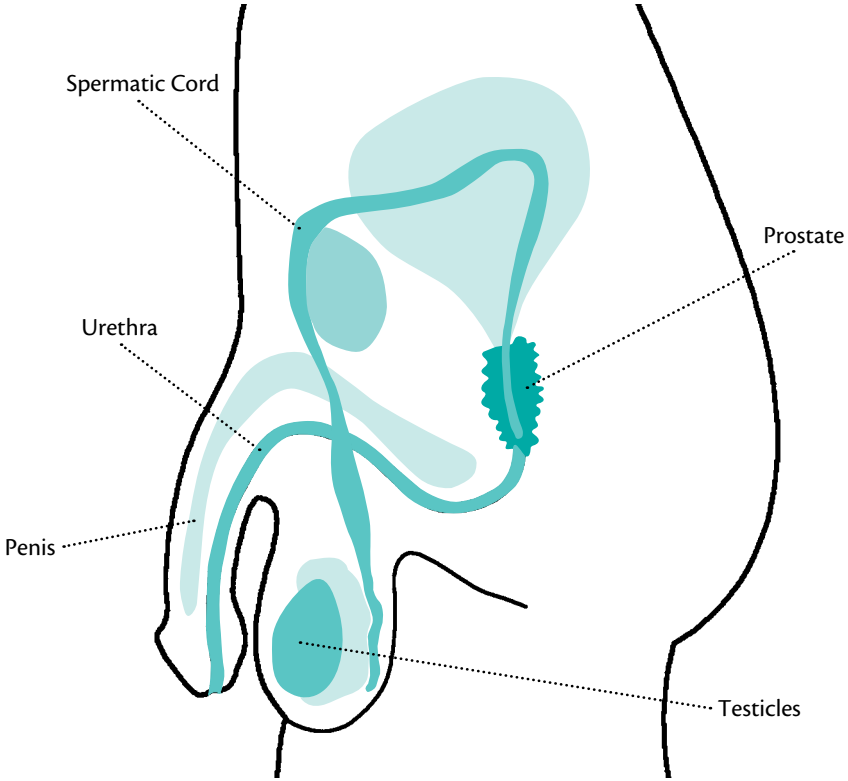


Primary vs. Metastatic (Secondary)

Cancer is divided into primary and metastatic types. Primary cancer refers to cancer that originates in the original site. For example, if liver cells become cancerous and form a tumour, it is referred to as primary liver cancer. Metastatic cancer refers to cancer cells spreading to other parts of the body. For example, if lung cancer cells spread to the liver and form a tumour, it is considered metastatic lung cancer and referred to as "lung cancer spreading to the liver".

Prostate

Unique to men, the prostate is a walnut-size gland located below the bladder, surrounding the initial part of the urethra. The white, thick fluid produced by the prostate is an important component of semen. Benign prostatic hyperplasia is closely related to the male hormone testosterone, which is produced by the testes.



What causes prostate cancer?

Although the exact cause of prostate cancer remains unknown, the following factors may increase the risk of developing prostate cancer:

- Men aged 50 or older
- A family history of prostate cancer
- A high-fat diet

Among the most common cancers among men in Hong Kong, prostate cancer ranks third in incidence and fourth in mortality*.

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* Hong Kong Cancer Registry 2024 (figures in 2022)

Symptoms

Approximately half of men over the age of 50 will experience benign prostatic hyperplasia (BPH). The symptoms of prostate cancer are similar to those of BPH, but the underlying causes are different. In BPH, the enlarged prostate compresses the urethra and makes it narrower, leading to difficulty of urination. While prostate cancer can also cause urinary issues, its originates from the abnormal growth of prostate cells, which may not necessarily cause the prostate to enlarge to the point of obstructing the urethra.

BPH does not progress into prostate cancer.

Symptoms of prostate cancer:

- Weak urine flow
- Increased frequency of urination
- Frequent urination at night (nocturia)
- Urinary urgency
- Difficulty starting urination
- Persistent pain in the lower back, pelvis, or thighs

If you experience any of these symptoms, it is important to consult a doctor for an examination. However, it is important to remember that the majority of prostate enlargement cases are benign and are easily treatable.

Prostate cancer, a relatively slow-growing type of malignancy, is more common in older men. Early-stage prostate cancer may have no obvious symptoms, or no symptoms at all. Therefore, even in the absence of symptoms, men aged 50 and above should undergo regular PSA (prostate-specific antigen) testing, a simple blood test that can help assess the risk of prostate cancer. Men with a family history of prostate cancer or those exhibiting symptoms should consult their doctor to determine whether further tests are needed, regardless of their age.

How do doctors make a diagnosis?

Prostate cancer typically progresses slowly and may not present symptoms in its early stages. A simple blood test (prostate-specific antigen, PSA test) can help assess the likelihood of prostate cancer. If the results are suspicious, the doctor will recommend additional tests to confirm whether prostate cancer is present.

(I) Initial examination

PSA test

Prostate cancer can initially be screened through a blood test that measures the level of PSA in the blood. PSA is a protein made by both normal prostate cells and cancerous prostate cells. PSA is generally present in the blood of men. A typical PSA test result is considered normal if the level is below 4ng/mL, indicating a lower likelihood of prostate cancer. However, if the level is above 4 ng/mL, it may suggest a potential issue with the prostate or a precursor to cancer, with a 25% chance of prostate cancer. When the PSA level exceeds 10 ng/mL, the likelihood increases to approximately 50%. Other factors can also cause elevated PSA levels, such as BPH, and inflammation. Doctors will take into account your age, prostate size, rate of PSA change, and any medications that may influence PSA levels before deciding whether further testing is needed.

In addition, some prostate cancer patients may have a normal PSA level, so the PSA level alone cannot be used as a definitive diagnostic indicator for prostate cancer.

Further examination will be necessary based on your specific condition.

PSA levels are also used to monitor the response to treatment. If cancer treatment is effective, PSA levels will decrease. During cancer treatment, regular PSA monitoring is required.

PSA testing is available at most general practitioners' clinics. For more information, consult your family doctor.

(II) Diagnostic tests

If abnormal PSA levels are detected, your doctor may recommend additional tests to confirm whether you have prostate cancer, such as magnetic resonance imaging (MRI), or a trans-rectal or transperineal ultrasound-guided prostate needle biopsy.

1. Magnetic resonance imaging (MRI)

An MRI is a non-invasive method to detect cancer in the prostate. If a suspicious shadow is observed during the MRI, it may suggest the presence of cancerous cells. In such cases, your doctor may recommend further invasive tests, such as a prostate needle biopsy, to confirm the diagnosis. For more details, please refer to Section 2.

The role of an MRI includes:

- Examining the prostate for cancer cells and checking whether cancer has spread to surrounding areas, such as the seminal vesicles or lymph nodes.

MRI uses magnetic fields to create cross-sectional images of the body and examine tissues. Sometimes, a contrast agent is injected into a vein in the arm to enhance image clarity.

During the procedure, the patient lies inside a cylindrical machine for approximately 30 minutes. The cylinder is hollow and has openings at both ends. Some individuals may feel uncomfortable being in a confined space for a prolonged period. If you feel

anxious, inform the doctor. MRI machines are quite noisy, so the radiation therapist will provide earplugs.

The MRI machine uses strong magnetic fields, so all metal items must be removed before entering the room. People with implanted devices such as pacemakers, heart defibrillators, or surgical clips are not suitable candidates for MRI scans.

2. Trans-rectal or transperineal ultrasound-guided prostate needle biopsy

Trans-rectal or transperineal ultrasound-guided prostate needle biopsy is an invasive method for obtaining prostate tissue samples. This procedure is typically recommended for patients suspected of having abnormal prostate conditions.

The role of trans-rectal or transperineal ultrasound-guided prostate needle biopsy:

- To obtain prostate tissue samples for laboratory analysis to confirm prostate cancer

Ultrasound scanning uses sound waves to create an image of the prostate. During the procedure, a small probe is inserted into the rectum, and the images are displayed on a monitor. Some discomfort may occur during the procedure, but it can be done under local or monitored anesthesia if preferred.

2.1 Systemic biopsy

A systemic biopsy involves taking multiple tissue samples from different regions of the prostate during a trans-rectal or transperineal ultrasound-guided prostate needle biopsy. The prostate is typically divided into 12 zones, and a sample is taken from each zone for examination. This method is especially useful when MRI results are inconclusive or when a patient has not had an MRI, but their PSA levels are abnormally elevated.

2.2 MRI-guided systemic biopsy

In addition to ultrasound-guided biopsy (Section 2.1), MRI-guided biopsy can be used, where real-time MRI images are fused to guide the extraction of suspicious prostate tissue. When MRI guidance is used, tissue samples are typically obtained from various regions of the prostate (usually divided into 12 zones). Additionally, suspicious areas highlighted by MRI, which may indicate prostate cancer cells, are also targeted for biopsy. This method is the most accurate for diagnosing prostate cancer, with an accuracy rate exceeding 90%.

(III) Staging

Once prostate cancer is diagnosed, further assessment of the cancer stage is necessary to determine an appropriate treatment regimen.

1. PSMA positron emission tomography-computed tomography (PSMA PET-CT)

PSMA (prostate-specific membrane antigen) is a transmembrane protein expressed on the surface of more than 80% of prostate cancer cells. Utilizing PSMA to track prostate cancer cells effectively locates the cancer and helps determine if it has spread to other areas, such as the bones or lymph nodes. Additionally, PSMA can serve as a therapeutic target (refer to the section on "Radionuclide therapy" on Page 23).

The role of PSMA PET-CT includes:

- Detecting metastasis or spread of prostate cancer to bones and lymph nodes
- Assessing the stage of prostate cancer
- Observing the effectiveness of prostate cancer treatment

PSMA PET-CT has an accuracy rate of 95%, making it more accurate than conventional computerised tomography (CT scan) or magnetic resonance imaging

(MRI) for detecting prostate cancer. It has also replaced isotope bone scan for assessing bone metastasis.

The following three methods, with lower accuracy, have been gradually replaced by MRI and PSMA PET-CT: CT scan, X-rays and isotope bone scan.

2. Computerised tomography scan (CT scan)

A CT scan is a specialized form of X-ray imaging. Multiple X-ray images are photographed and processed by a computer to generate detailed images of internal tissues. This scan can show whether the tumour has spread beyond the prostate. To enhance image clarity, an iodine-based contrast agent is injected into a vein in the arm, which may cause a warm sensation throughout your body for a few minutes. Once you lie on the examination table, the scan will be performed. The procedure is painless and typically takes several minutes.

3. X-ray

X-rays are used to examine the chest and bones, mainly to check if cancer cells have spread to other parts of the body.

4. Isotope bone scan

During an isotope bone scan, a small amount of radioactive isotope material is injected into a vein in the arm. The scan detects areas where the affected bone absorbs more radioactive material than normal bone, indicating potential metastasis. The dose of the radioactive isotope injected into the body is minimal, and you will not retain radiation after the scan. After the injection, you will need to wait for about three hours before the scan. During this time you can engage in activities such as watching movies, listening to music, or reading on your mobile phone or tablet to pass the time.

What treatment options are available?

Choosing the most appropriate treatment for prostate cancer is complicated and involves considering several factors, with the most important being:

- Age
- General health
- The stage of cancer, the extent of potential spread, and whether the cancer has metastasized to other tissues

Even after a prostate cancer diagnosis, not all patients will require treatment. Low-risk patients, as assessed by their doctor, may opt for "active surveillance", which involves regular monitoring rather than immediate treatment. Active surveillance is often chosen for elderly patients in the early stages, as sometimes the side effects of treatment are more bothersome than the cancer itself. However, it is crucial to fully understand the pros and cons of any treatment option before making a decision, and to consult with your doctor.

Since prostate cancer typically grows slowly, early-stage patients may not need treatment immediately, but need regular monitoring to ensure that cancer cells have not spread.

There are several different treatment options for prostate cancer, including:

- Surgery
- Radiotherapy
- Hormone therapy
- Chemotherapy
- Targeted therapy
- No treatment required
  (but with regular monitoring/active surveillance)

The doctor may choose to combine several different treatment options to achieve the best results.

Research on the treatment of prostate cancer is ongoing. However, since prostate cancer grows slowly, clinical trials often take many years to complete.

You may find that other men you encounter in the hospital are receiving different treatments than you. This is common because everyone's condition, physical function, and needs are unique, leading to different treatment approaches. If you have any questions about the treatments, feel free to ask your doctor or nurse. Feel free to ask any questions and bring along family or friends, which can often be helpful.

Some individuals find that seeking a second opinion from another doctor helps them decide which treatment to pursue. If you think it will be helpful, most doctors will be willing to recommend a specialist for a second opinion.

(I) Surgery

Depending on the type, size, and spread of the cancer, the doctor will recommend the most suitable treatment option.

1. Radical prostatectomy

Radical prostatectomy is the standard surgical treatment for prostate cancer. This procedure involves the removal of the entire prostate, seminal vesicles, and the direct connection of the bladder to the urethra. There are three main surgical approaches: traditional open surgery, laparoscopic surgery, and robotic - assisted minimally invasive surgery.

Radical prostatectomy is suitable for patients whose cancer cells have not spread beyond the prostate.

In Hong Kong, the majority of patients undergo robotic - assisted minimally invasive prostatectomy. The use of robotic arms enhances surgical precision, making the procedure safer, improving postoperative outcomes, and reducing complications. As the surgery is minimally invasive, the incisions are smaller, resulting in less pain, a lower risk of wound infection, shorter hospital stays, and faster recovery. The procedure is usually performed under general anesthesia and lasts about four hours.

During the prostatectomy, the surgeon may also perform a bilateral pelvic lymphadenectomy if needed, to remove lymph tissue for testing to determine whether cancer cells have spread to the pelvic lymph nodes.

Post-surgery

After prostate removal, the patient will receive intravenous fluids and have a catheter inserted. An incision will be made in the lower abdomen, and a catheter may be used to collect draining fluids. Patients may experience pain during the first few days after surgery, especially when moving around. Pain relief medication will be provided, and if pain persists, medical staff should be notified.

Patients who undergo minimally invasive surgery can usually walk and be discharged within two to three days, often with the catheter still in place. The catheter is usually removed one to two weeks after surgery during a follow-up visit.

Advantages and limitations

- The advantage of this surgery is that it can completely remove the cancerous tumour from the prostate. The removed tissue can be analysed to assess the stage, grade, and potential risk of recurrence of the prostate cancer. After surgery, the need for radiotherapy may be determined to destroy any remaining cancer cells.
- In the short term (usually one to six months), patients may experience urinary leakage, particularly when moving, coughing, or sneezing. Initially, adult diapers may be necessary. As urinary leakage decreases, patients can switch to pads. Fewer than 10% of patients require pads a year after surgery.
- Erectile dysfunction may occur, but medications are available to improve this condition.
- Since radical prostatectomy includes the removal of the seminal vesicles, it can impact fertility.

2. Focal therapy

Focal therapy refers to the removal of only the portion of the prostate affected by cancer cells. It is typically used for patients with localized, early-stage, and low-risk prostate cancer.

There are four main types of focal therapy: high-intensity focused ultrasound (HIFU), cryotherapy, microwave ablation (TMA), and Nanoknife irreversible electroporation (IRE). These methods are used to destroy prostate cancer cells. After treatment, regular MRI scans and prostate biopsy are required to monitor and control the condition.

2.1 **High-intensity focused ultrasound (HIFU):** An ultrasound probe is inserted into the rectum to deliver heat energy through sound waves to kill the cancer cells.

2.2 **Cryotherapy:** A needle is inserted through the perineum into the prostate to freeze and destroy the cancer cells.

2.3 **Microwave ablation (TMA):** A needle is inserted into the prostate, and microwave heat energy is used to destroy the cancer cells.

2.4 **Nanoknife irreversible electroporation (IRE):** High-voltage electrical pulses are used to kill the cancer cells. The current from the nanoknife can clearly define the targeted area and minimize damage to surrounding organs. However, this technique has not yet been introduced in Hong Kong. Due to the risk of mechanical failure during the electrical process, patients with metal implants, such as pacemakers or heart stents, are ineligible for IRE.

Doctors will choose the appropriate treatment method based on the location of the tumour. HIFU is more suitable for tumours located near the rectum, while cryotherapy and TMA are better for tumours located toward the middle front of the prostate. IRE is more appropriate for tumours located near the urethra.

Advantages and limitations

Compared with traditional standard of care, focal therapy causes less surgical trauma, allowing patients to resume their normal activities sooner. Additionally, the procedure has a lower risk and fewer long-term complications.

Focal therapy is not suitable for all patients, and its recurrence rate is higher than that of traditional prostatectomy or radiotherapy.

3. Transurethral resection of the prostate (TURP)

If the tumour obstructs the urethra, surgery may be needed to remove the blockage and facilitate urination. This procedure, called transurethral resection of

the prostate (TURP), is typically used for patients with more advanced stages of the disease or those who are not suitable candidates for radical prostatectomy. The procedure improves urination, allows for better urine flow, and reduces the risk of complications (such as urinary retention).

The surgery is generally performed under general or spinal anesthesia, where the anesthetic is injected into the spinal cord.

As the name suggests, it involves inserting an endoscope through the urethra and using electrical energy or lasers to remove the obstructed prostate tissue.

Post-surgery

After surgery, medical staff will encourage early mobilization, and patients may be able to get out of bed within 24 hours. A catheter will be temporarily inserted into the bladder to drain urine into a collection bag. Once the urine clears, the catheter will be removed. For the first few days post-surgery, you may experience discomfort or pain, and if the pain persists despite the medication, the medical staff should be notified. Most patients are able to be discharged 3 to 4 days after surgery.

4. Orchiectomy

To slow the growth of cancer cells, doctors may consider removing the testicles to reduce male hormone levels. This simple procedure involves making a small incision in the scrotum (which contains the testicles), and most patients can return home the same day. However, this procedure may cause side effects such as hot flashes and erectile dysfunction, which can be inconvenient for men.

After the removal of the testicles, artificial (prosthetic) testicles can be implanted to maintain the scrotum's shape and appearance.

As hormone therapy has advanced, it has gradually replaced orchiectomy, though both share similar side effects. Please refer to the "Hormone therapy" section on Page 24.

(II) Radiotherapy (also known as radiation therapy)

Radiotherapy uses high-energy radiation to destroy cancer cells while minimizing damage to normal cells.

Radiotherapy is used in two primary situations:

- To treat cancer
- To alleviate symptoms, particularly bone pain

1. Traditional external beam radiotherapy

External beam radiotherapy is conducted at the hospital's radiotherapy department. The length and number of sessions depend on:

- The size of the tumour
- The extent of its spread

Before starting radiotherapy, the doctor will explain the details of the treatment to you.

Treatment planning

To ensure the most effective treatment, radiotherapy must be carefully planned. During your first visit to the radiotherapy department, medical staff will ask you to lie on a "simulation table" for X-rays of the treatment area. A computer scanner may also be used during this step. Careful planning is a critical part of radiotherapy, and patients may need to visit the department several times.

Medical staff will mark your skin to indicate the areas that need treatment. These markings will help the technicians precisely target the radiation. They must remain visible throughout the treatment. Once treatment is completed, they can be washed off.

With your consent, the doctor may place two or three small permanent marks on your skin. When treatment begins, medical staff will teach you how to care for the skin in the treated areas.

Before each session, the radiation therapist will carefully position you correctly and ensure your comfort. The treatment takes only a few minutes. During treatment, you will be left alone in the room but can communicate with the technician who will observe your condition in the next room through an intercom. Radiotherapy is not painful, but you must remain still for a few minutes during each session.

Hydrogel-assisted treatment

In recent years, hydrogel technology has been applied in prostate cancer treatment to reduce the risk of rectal damage during radiotherapy. Since the prostate is located near the rectum, traditional radiotherapy methods could easily affect the rectum, causing issues such as rectal bleeding and inflammation. Hydrogel technology helps reduce this risk.

One to two weeks before radiotherapy, the doctor will inject hydrogel between the prostate and the rectum to create an 8 to 10 mm gap, forming a protective layer. This helps reduce the risk of rectal damage during radiotherapy and protects the nerve pathways in front of the prostate, lowering the risk of erectile dysfunction after treatment. The hydrogel begins to break down after 3 months and is fully absorbed by the body after 6 months, eliminating the need for surgical removal. The only side effect is mild pain during injection.

Before using any skincare products, it is advisable to consult with the radiation therapist. Moisturizers and creams should be avoided. If necessary, the doctor may prescribe specific moisturizers to help alleviate skin discomfort.

Side effects

- Nausea
- Fatigue
- Frequent urination, incontinence, or a burning sensation during urination
- Diarrhoea
- Erectile dysfunction

These side effects do not necessarily occur in all patients, and most will gradually subside after the completion of the radiotherapy course, though some may persist for several months. If you have any concerns, please consult your primary physician.

External beam radiotherapy does not make you radioactive, and during the treatment course, you and your loved ones, including children and grandchildren, will not be at risk.

2. Radionuclide therapy (Lu-177-PSMA therapy)

Lutetium-177 (Lu-177) is a radioactive isotope used in targeted radiotherapy. PSMA is a unique receptor found on the surface of most prostate cancer cells. Lu-177 is injected intravenously into the patient's body, where it binds to the PSMA receptors on prostate cancer cells and releases radiation to treat the cancer. Lu-177-PSMA therapy is suitable for patients with advanced metastatic prostate cancer who have not responded to chemotherapy or hormone therapy. It can also be considered for certain patients who cannot undergo chemotherapy due to liver, kidney, or other health factors. Patients need to undergo a PSMA positron emission tomography (PET) scan prior to treatment to assess whether they are suitable candidates for Lu-177-PSMA therapy. Around 10% to 20% of patients may not be eligible for this therapy due to a lack of PSMA receptors.

The standard course of Lu-177-PSMA therapy consists of 4 to 6 injections, typically administered once every 6 to 8 weeks. Since Lu-177 is radioactive, patients will need to remain in the hospital until their radiation levels drop to a safe level before they can return home. After returning home, patients should follow specific precautions as bodily fluids (such as stool and urine, saliva, and sweat) may carry trace amounts of radiation. Hence, it is recommended that patients wash their clothes separately from those of others in the household, store toothbrushes and towels separately, and use separate utensils for eating. If household members are more sensitive to radiation (e.g. pregnant women or children), patients should temporarily avoid contact with them or sleep in separate rooms.

The side effects of Lu-177-PSMA therapy are generally mild and short-term, such as fatigue, nausea, vomiting, and dry mouth. As Lu-177 is a radioactive substance, it may temporarily affect the bones, causing anemia, weakened immunity, and reduced white blood cell count. Patients should be cautious of complications arising from lowered immunity.

When combined with standard of care (e.g., hormone therapy or radiotherapy), Lu-177-PSMA therapy can control cancer cell growth and prolong survival (increasing the "progression-free survival"). 51% of patients experience tumour shrinkage, and some may even see complete remission.

3. Stereotactic body radiotherapy (SBRT)

Stereotactic body radiotherapy (SBRT) is a type of radiotherapy that uses imaging techniques to precisely target prostate cancer cells. It is more accurate than traditional radiotherapy, allowing for higher radiation doses, and consequently, the number of sessions is reduced from the traditional 36 to 38 sessions to just 5, completing the treatment in 2 to 3 weeks. In addition to fewer sessions, the side effects of SBRT are generally milder and short-lived. 10% of patients may experience rectal inflammation, which generally resolves on its own within two years without medication; fewer than 2% of patients experience severe side effects.

SBRT is especially effective for patients with early- to mid-stage prostate cancer patients. For some early-stage patients, SBRT may be the only treatments needed, with a recurrence rate as low as 10% within 5 years. It is important to note that unlike prostatectomy, radiotherapy does not allow for tissue samples to be extracted for detailed histological diagnosis to determine the cancer stage.

(III) Hormone therapy (androgen deprivation therapy)

Prostate cancer depends on the growth of male hormones (androgens), so inhibiting hormones can slow down the growth of tumours and even shrink tumours. Hormone therapy is suitable for patients with metastatic and advanced prostate cancer, aiming to alleviate the discomfort of the patients, yet it is not considered a radical treatment. Hormone therapy can be divided into two categories: orchiectomy and hormonal medication treatment.

Orchiectomy

The testes produce over 90% of the male hormones in the body, with the remaining about 10% produced by the adrenal glands. By removing both testes, the production of male hormones is significantly reduced, which can help slow tumour growth. See Page 20 for details.

Injections and oral hormones

Injections: Hormonal injections are available in one-month, three-month, and six-month dosages, requiring regular administration. Luteinizing hormone-releasing hormone agonists/antagonists are effective in suppressing the body's production of male hormones, offering a therapeutic effect similar to orchiectomy. Common luteinizing hormone-releasing hormone agonists/antagonists include: Leuprorelin, Diphereline and Degarelix. In addition, anti-androgens are also used in the treatment of prostate cancer. Common anti-androgen medications include: Flutamide and Bicalutamide.

Oral hormones: Oral hormones can be used as an assisted treatment and are indicated in patients whose tumours become reactive after orchiectomy or injection (if PSA index rises again). Commonly used medications include: Abiraterone and Enzalutamide, etc.

Side effects

- Erectile dysfunction
- Hot flash
- Fatigue
- Loss of interest in sex
- Headache
- Nausea
- Weight gain
- Prolonged hormone therapy has the potential to increase the risk of osteoporosis

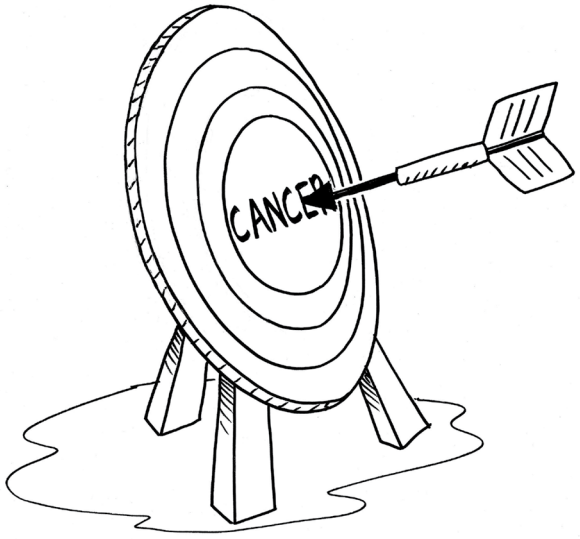
The above side effects do not necessarily occur in all patients, and the majority of these side effects tend to gradually improve upon completion of the treatment course. If you have any concerns, please consult your primary physician.

(IV) Chemotherapy

Chemotherapy is a systemic therapy that is somewhat effective against metastatic prostate cancer. You may consult your physician regarding the possibility of chemotherapy.

(V) Targeted therapy

Targeted therapy, like chemotherapy, is a form of systemic therapy that uses the circulatory system to deliver drugs to different parts of the body to kill cancer cells. The distinction lies in the fact that chemotherapy does not exclusively target cancer cells and may also affect normal tissues, whereas targeted therapy focuses on specific genes responsible for cancer cell growth and the proteins they produce (known as "targets"). Targeted drugs can disrupt the growth or repair functions of these cancer cells, leading to their demise, hence the term "targeted" therapy.



Generally, targeted therapy has fewer side effects than chemotherapy and less impact on bone marrow hematopoietic cells and the immune system. However, it is only applicable to tumours with specific genetic mutations.

For instance, Poly ADP-ribose polymerase (PARP) inhibitors (Olaparib, trade name: Lynparza, or Niraparib, trade name: Zejula), are targeted drugs designed for metastatic prostate cancer patients with BRCA gene mutations. PARP inhibitors are oral targeted drugs with milder side effects than chemotherapy, capable of controlling cancer cell growth and prolonging life (extending "progression-free survival").

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Side effects of treatment

Prostate cancer treatment may cause unpleasant side effects, so it is crucial to have a clear understanding of the potential side effects before making a treatment decision. Doctors cannot accurately predict who will be more severely affected, making thorough prior discussions and understanding of the potential risks essential.

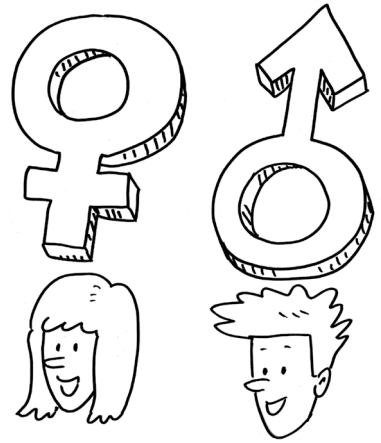
Urinary incontinence

Urinary incontinence may occur as a result of prostate cancer itself, or following surgical procedures or radiotherapy. In recent years, the medical field has made significant advancements in developing new methods to manage urinary incontinence. Please communicate any concerns to your doctor or nurse without worry or embarrassment. Hospitals have medical staff who can guide patients in addressing urinary incontinence.

Remember, these side effects do not necessarily affect all patients. If you have any questions about the treatment or its side effects, it is essential to discuss them with your doctor and be mentally prepared for any potential issues.

Change in body image

Cancer may alter the way you perceive yourself. Side effects such as urinary incontinence can lead to feelings of embarrassment and insecurity.



Some changes are temporary; for instance, incontinence issues can often be improved or managed. However, other changes, such as the removal of the testes, are permanent.

You may feel that these changes impact your sense of masculinity. But even with physical changes, you remain who you are, with your

sense of humor and personality intact. Speaking with other men who have gone through similar experiences can be helpful.

Impact on sex life

Engaging in sexual activity does not require a prostate, but treatments for prostate conditions will affect your sex life. After a radical prostatectomy or radiotherapy, the functions of the prostate and seminal vesicles will cease. This means that while you may still experience the sensation of orgasm during sexual activity, ejaculation will not occur.

Erectile dysfunction

Both hormone therapy and surgical interventions have the potential to cause erectile dysfunction. To address this issue, several different treatment decisions are available, including:

- **Oral medications:** These drugs are designed to increase blood flow to the penis. They may cause side effects like headaches or flushing. Men with heart conditions should consult their doctor before taking them.
- **Penile injections:** The substances injected can dilate blood vessels, leading to an erection. This treatment method is effective for most men. A doctor's prescription and guidance on self-administering the injections are required.
- **Vacuum pumps:** These pumps can assist in engorging the corpora cavernosa of the penis with blood. If medications and injections are not suitable, this can also be considered as an alternative.
- **Penile prosthesis:** This involves surgically implanting a penile prosthesis into the corpora cavernosa, which can be activated to achieve an erection when needed.

For men of any age, discussing erectile dysfunction with a doctor or nurse can be very challenging. However, please remember that your doctor has treated many patients with the same issue, so there is no need to feel embarrassed.

Erectile dysfunction following cancer treatment is not necessarily permanent; sometimes it is caused by anxiety rather than being a direct result of the treatment. Some hospitals have specially trained sexual psychologists or counsellors who can provide assistance and advice. Some individuals may hesitate to discuss this issue with their partners due to fear of rejection. Sexual relationships are built on many factors, such as love, trust, and shared experiences. You and your partner may also consider seeing a clinical psychologist.

"I always thought that only penile erection could lead to orgasm. But recognizing that this is not necessarily the case, maintaining sex is not as difficult as I thought it was."

Sterility

Treatment of prostate cancer can cause infertility, which can be a significant concern for men who want to have children. It is important to discuss this possibility with your partner and doctor before starting treatment.

In addition, some patients receive medical procedures to store sperm before treatment.

Decreased sexual desire

During cancer treatment, many people experience a loss of sexual desire. This may be caused more by concerns about the diagnosis than the treatment's side effects. Typically, sexual desire returns after the treatment ends.

After prostate cancer treatment, some adjustments to your sex life may be needed. With patience and practice, the following tips may be helpful:

- ✔ If you have a spouse or partner, open communication can be very beneficial. Open conversations can help both of you understand each other's needs and enhance emotional intimacy.
- ✔ Your partner is also affected by changes in your sex life, just as you are. Try different positions with your partner to find what works best for both of you.

- ✔ Adapting to changes in your body takes time. Stand naked in front of a mirror, and if you feel comfortable, try touching your genitals to notice the differences and identify areas that feel painful or numb.
- ✔ Allow your partner to observe the changed parts of your body, helping both of you adjust to these changes.
- ✔ Create an intimate atmosphere with your partner, whether through bathing, showering together, mutual massages, listening to music, or traveling – anything that helps you both feel relaxed.
- ✔ After cancer treatment, take your time during initial sexual experiences. Start by caressing each other, using your hands to guide your partner to the areas you wish to be touched. When you feel relaxed, incorporate genital stimulation.
- ✔ Ask your partner to be especially gentle, as the penis may be sensitive. Experiment with using hands or oral stimulation to achieve orgasm.
- ✔ As a partner, touches, hugs, tight embraces, and caresses are also ways to show affection and reassurance, letting your partner know that you love them and enjoy being close.
- ✔ Patients may also explore orgasm through masturbation.
- ✔ If difficulties persist, consider seeking advice from a doctor or psychologist.

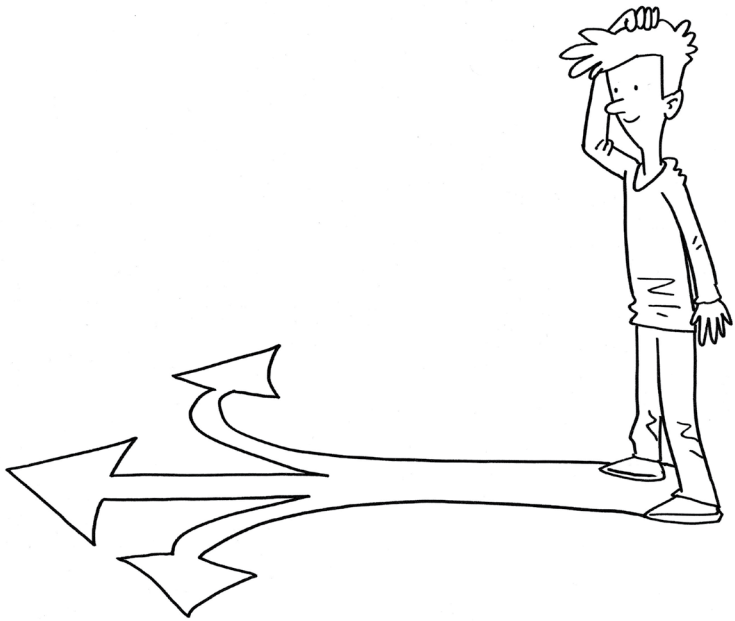
Deciding on treatment

Even after learning about different treatment options, deciding which one is best for you can still be challenging. You may feel overwhelmed by the sheer volume of information and the urgency to make a decision.

First and foremost, it is essential to understand your condition, the available treatments, and their potential side effects to make an informed decision.

Even if the situation feels urgent, take the time to thoroughly explore which treatment is best for you. Discuss your thoughts with family, friends, and those who have gone through similar experiences before making your decision.

Prostate cancer typically grows slowly, giving you time to carefully choose your treatment, stay informed about new developments, seek advice from others, and avoid rushing into a decision.



When choosing a treatment, you need to:

- Have detailed discussions with your doctor about the various treatment options. Write down all your questions and concerns, and ask your doctor to clarify anything that is unclear.
- Weigh the advantages and disadvantages of each treatment option.
- Consider the side effects of each treatment and the extent to which you can accept them - particularly those that may affect your lifestyle, and discuss them with your partner.
- After discussing treatment options with your doctor, you may also want to talk to family, friends, nurses, or social workers about your thoughts. Through these conversations, you will often find the best treatment option for you.
- Some people find that seeking a second opinion from another doctor can help them make a more informed decision. If you feel this would be helpful, do not hesitate; most doctors are willing to refer you to another specialist for a second opinion.

When making a treatment decision, everyone's priorities may differ. Some prioritize a cure above all else, while others believe the benefits of treatment must outweigh the side effects. Still, others consider quality of life more important than a cure, opting for symptom relief rather than more aggressive radical treatments.

"Initially, I didn't fully understand the doctor's diagnosis, and the proposed treatment was hard to accept. This made deciding on a treatment difficult, but carefully analysing the pros and cons with my doctor and family was incredibly helpful."

What to ask your doctors?

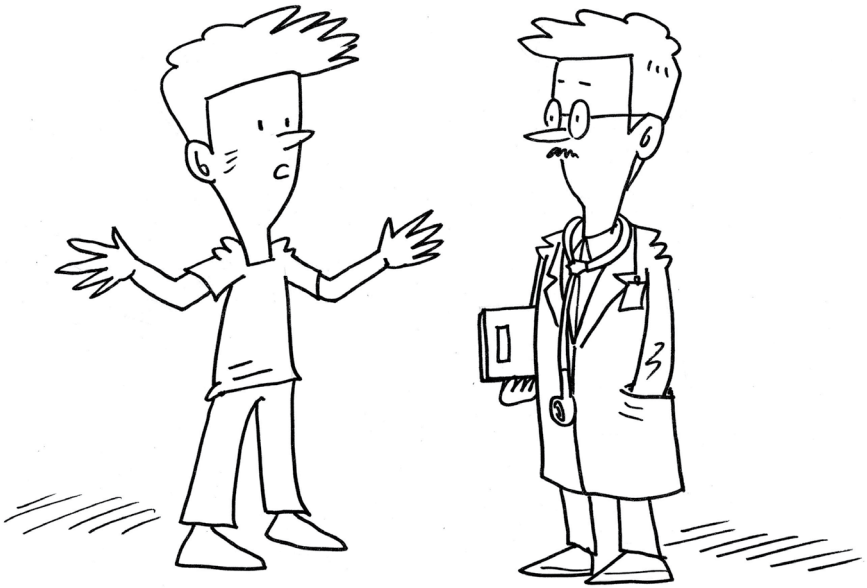
Before meeting with your doctor for your diagnosis and treatment recommendations, prepare a list of questions. You may want a family member or friend to accompany you to take notes, remind you of the questions, or even ask on your behalf. If you don't understand something, be sure to ask the doctor to explain. Some patients may want to record or video the consultation, but this must be agreed upon in advance with the doctor, who has the right to refuse such a request. In public hospitals, prior approval from the hospital authority is also required. Below are common questions cancer patients often have:

1. Is my tumour malignant? What tests were used to confirm this? What category is it?
2. How large is the tumour? Did it spread? Where is it located? At what stage is it?
3. What is the best way to treat it? How confident are you in this treatment? What are the risks?

4. Why is this treatment right for me? Are there any other treatment options?
5. I've heard that cancer treatments include surgery, radiotherapy, and chemotherapy, etc. Will I only need one type of treatment? Or will I require additional therapies after completing this one?
6. How long will the entire treatment course last? Is hospitalization required? How significantly will it impact daily living? Will I need to take time off work?
7. Are the side effects severe? How can they be alleviated? Will there be any long-term after effects?
8. What is the total cost for the entire treatment course?
9. How can we determine if the treatment is successful after completing the course?
10. How frequently should follow-up visits be scheduled after completing the treatment course? What periodic tests will be done?
11. If the treatment is not started now, will it be too late to consider it later?
12 After completing the treatment, will my physical condition weaken significantly, requiring major adjustments in daily life, such as being unable to care for my children or work normally?
13. Is this type of cancer prone to recurrence?
14. Will there be any scars left after the cancer tumour is removed?
15 Is the cancer I have hereditary?
16. During the treatment, would it be helpful to consult a TCM practitioner simultaneously? Could there be any conflicts?

Post-treatment follow-up

- After completing your treatment, you will need to return to the hospital regularly for check-ups, including blood tests, PSA level checks, and imaging.
- After prostate removal, your PSA level will quickly drop to zero, as there will be no prostate cells to produce PSA.
- Following radiotherapy, your PSA level will gradually decrease, but it may take one to two years to reach its lowest point.
- Your doctor will determine the frequency of your tests. If no issues arise after a certain period, the frequency of your tests will gradually decrease.
- If you notice any new symptoms at any time, inform your doctor as soon as possible.



What if the prostate cancer comes back?

If your PSA level rises, it indicates that there are still cancer cells in your body, and you may need additional treatment.

If the cancer has spread to other parts of your body, hormone therapy may be an option.

Your doctor will determine your further treatment based on the treatments you have already received, including radiotherapy, hormone therapy, chemotherapy, etc.

FREE Services

3656 0800

Your feelings

Most people feel overwhelmed when they are told they have cancer. During diagnosis and treatment, your emotions may fluctuate due to physical reactions. You may experience some of the following emotions, although the order may differ. This is normal and does not mean that you are not strong enough to cope with cancer.

Navigating emotional changes is part of the patient's journey in coping with the disease. Everyone's reactions can vary, and there is no right or wrong way to feel. Your family and friends may also have similar feelings and need emotional support and guidance.

Shock and disbelief

"I can't believe it!" "It can't be true!"

Upon first learning of a cancer diagnosis, the immediate reaction may be shock, numbness, and disbelief. After the initial shock, one may refuse to accept the reality: not listening to others, only remembering one's own suffering, or repeatedly asking the doctor the same questions without truly absorbing the information.

In fact, many cancers can be treated, and even if they cannot be cured, they can usually be controlled. Therefore, patients should allow themselves time to come to terms with their emotions before discussing it with those around them. This may help in accepting the diagnosis.

Anger

"Why me? Why did this happen to me?"

Some patients use anger to hide their fear and sadness. They may direct their anger toward family members, colleagues, their environment, or even question their faith: "Why are you being so harsh on me?"

Any illness is difficult to bear, but cancer can feel especially overwhelming. Anger is a normal emotion, and you should not feel guilty about it. Sometimes, your family and friends may not fully understand that your anger is linked to concerns about your condition.

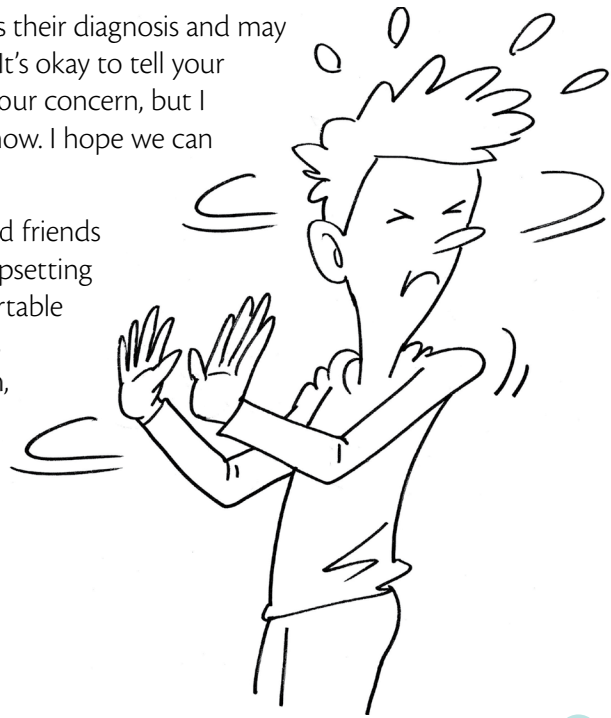
After your emotions have settled, try to express your feelings to them in an appropriate setting. If it's hard to do so face-to-face, consider using email, text messages, or even sharing this booklet with them. If you'd like to speak with a social worker or counsellor, our **free services hotline** is available: **3656 0800**.

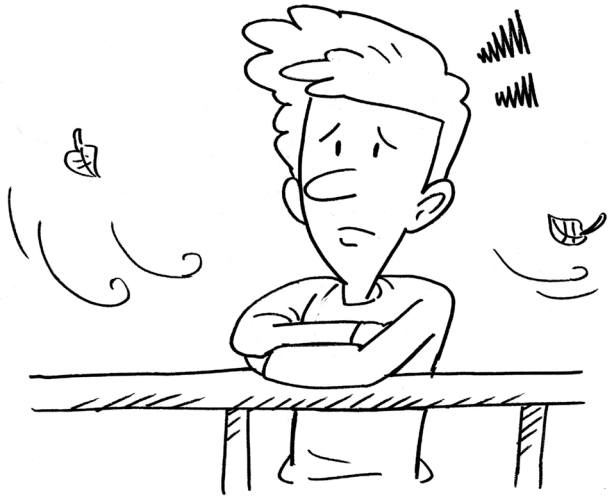
Denial

"I'm fine!" "I didn't have cancer!"

Some patients may refuse to discuss their diagnosis and may avoid the word "cancer" altogether. It's okay to tell your family and friends: "Thank you for your concern, but I don't want to talk about this right now. I hope we can revisit it later!"

However, sometimes your family and friends may avoid the topic out of fear of upsetting you. If this makes you feel uncomfortable or isolated, don't hesitate to express that you understand your condition, want to face it positively, and need their support.





Fear

"Will I die?" "Will it hurt very much?"

Upon learning of a cancer diagnosis, "death" is often the first fear that comes to mind, followed by concerns about pain.

Recent advances in cancer treatment have led to higher success rates and lower mortality rates for most cancers. If detected early, many cancers can be cured, and for some patients, cancer has become a manageable chronic condition. If you experience pain, there are medications and other methods available to manage it, so there is no need to be overly anxious.

Another common worry is whether the benefits of treatment will outweigh its side effects. This concern is understandable, but each case is unique. You can prepare a list of all your questions and ask your doctor to explain them in simple terms until you fully understand and feel comfortable proceeding with treatment.

Some patients find that doctors' answers about expected treatment outcomes can seem vague. This is because doctors can only provide information on treatment effects and reactions based on clinical experience and data. However, each patient's situation is different, and the true effects of the treatment can only be confirmed through follow-up examinations. However, with advancements in medical science,

doctors are now better equipped to understand disease progression and offer a wider range of medications to provide appropriate follow-up and treatment options for patients.

The fear of recurrence after treatment is a common concern. The uncertainty of the future can indeed be unsettling, but reality is often less frightening than imagined. Talking to family and friends can help reduce unnecessary anxiety caused by stress. There are also many reliable resources with authoritative medical information and shared patient experiences that can help ease your concerns and allow you to approach treatment with peace of mind. However, be cautious about the sources of information you trust. Unreliable sources can lead to unnecessary worries and cause detours in your cancer journey. The Cancer Fund has produced over 40 booklets (14 in English) on topics like "**Understanding Cancer**" and "**How to Cope**", which are available at our Support Centres or can be accessed electronically on the Cancer Fund's website.

Cancer booklet

Complaint and guilt

"If I hadn't... I wouldn't have gotten cancer."

When diagnosed with cancer, some people may blame themselves or others, searching for a cause of their illness. While understanding the cause can provide psychological relief, even doctors may not always know the exact reason for a specific case of cancer. Therefore, patients should not blame themselves or dwell on unanswerable questions.

Resentment

"You haven't tried radiotherapy, so you don't understand my pain!"

During the course of an illness, feelings of resentment and frustration are common. Your family members might feel burdened by the disruption to their lives and may express frustration. It is helpful to find a moment to have open and honest conversations about your feelings. Working together to understand each other and find solutions will ease the strain. Holding on to resentment can increase stress for everyone involved.

Withdrawal and self-isolation

"Leave me alone!"

While you may desire some alone time to process your emotions during your illness, your family and friends may also want to support you during this difficult time. If you need space, try to communicate this to them. Let them know that you need quiet time to think, but that you will reach out for their support once you feel ready. This will help them understand your needs and give them the reassurance that you still value their presence.

Cancer can lead to depression and a desire to withdraw from others, which is understandable. However, if feelings of sadness persist for an extended period and start affecting your daily life, you can contact our social workers or clinical psychologists, or ask your doctor for a referral to a psychiatrist for counselling and support.

Learning to "get along" with cancer

After being diagnosed, it may take time to adjust to the changes in your life and the side effects of treatment.

You may need frequent hospital visits and feel fatigued afterward. Some patients may need extended rest at home to recover after completing treatment. During this period, focus on resting and avoid overexerting yourself, whether in daily activities or work.

Many of today's treatments have fewer side effects than in the past, allowing patients to maintain a relatively normal life during treatment.

Even if cancer can be overwhelming, try not to feel defeated. Don't hesitate to share your experience with your friends and family. They will likely want to support you through this journey.

What can you do?

Upon learning of a cancer diagnosis, beyond the initial shock, some people may feel that they can only rely on doctors and wait passively. However, with the readily available information and the increasing number of social services organisations today, there are actually many things you and your family can do while waiting for diagnosis and treatment. Seeking information independently can help you understand your diagnosis better, giving you more confidence when making decisions about your treatment.

Understanding your cancer and its treatment

The more you learn about your cancer and treatment options, the easier it will be to make choices, cope with the treatment process, and adjust to life after treatment. However, sometimes information sources may not be reliable, and each patient's experience is unique. It is best to consult your doctor to ensure that the information you receive is accurate.

Patient recovery after treatment

After treatment, some patients may find it difficult to handle tasks that they previously took for granted, such as household chores. As your body gradually recovers, you can try setting small, achievable goals to slowly rebuild your confidence.

To start, focus on optimizing your diet and sleep patterns, both of which play a crucial role in supporting your recovery. You can create a healthy meal plan on your own or with the help of your family, and consult a nutritionist if needed. Relaxation is also important. There are many online resources available to help you master this skill, though it requires practice. You can access online resources at home or even attend classes, aiming for consistency and making it a part of your daily routine.

Additionally, you can incorporate regular exercise into your routine to strengthen your body. The type and frequency of exercise should be based on your physical condition, and you can set personalized goals and progress step-by-step.

Even if you find it challenging to adhere to a strict diet or exercise routine, you can explore new hobbies to support your well-being, such as walking, hiking, traveling, dancing, playing music and gardening, etc.

Financial burden

In addition to affecting your physical health, and mental well-being, cancer can also bring significant medical expenses. Apart from seeking treatment at public hospitals, you can apply for the government's "Comprehensive Social Security Assistance (CSSA) Scheme", various drug subsidy programs provided by the government and different organisations or the relief fund offered by the Cancer Fund when facing financial difficulties.

For more details, you contact our **service hotline** at **3656 0800** or speak to one of our professional team at our Cancer Support Centres.

Who can help?

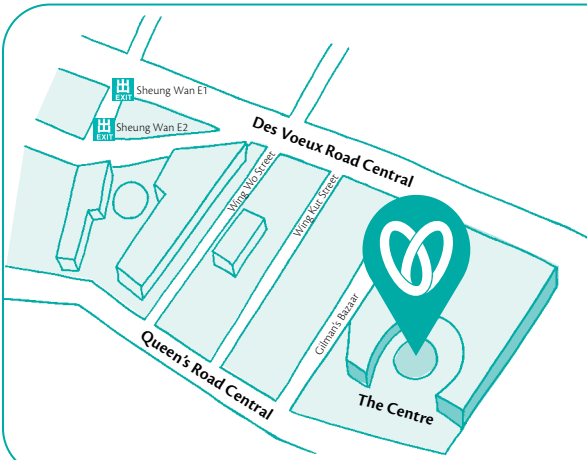
Remember that many people are willing to help you and your family. Sometimes, it might be easier to talk to someone who is not directly connected to your condition. You may find it helpful to talk to a counsellor who is specially trained to offer support and advice. Our team are always willing to discuss any concerns that you might have and can arrange for one-on-one counselling or connect you with a relevant peer support group. For more information, please call the Cancer Fund's **free services hotline** at **3656 0800**.

Cancer Fund's peer support

We have four Cancer Fund Support Centres located in Central, North Point, Wong Tai Sin and Kwai Chung. We are here to provide free information and counselling services for cancer patients and their families.

We have a network of 22 peer support groups under our umbrella, "Friends of CancerFund", with a strong membership of over 16,000 people that includes cancer patients and survivors. This one-of-a-kind volunteer-based network is cancer specific covering all types of cancer such as throat, prostate, colorectal, nasopharyngeal, gynaecological, breast and many more. We manage this large network through our Support Centres, providing mutual support services and organising various activities in the community.

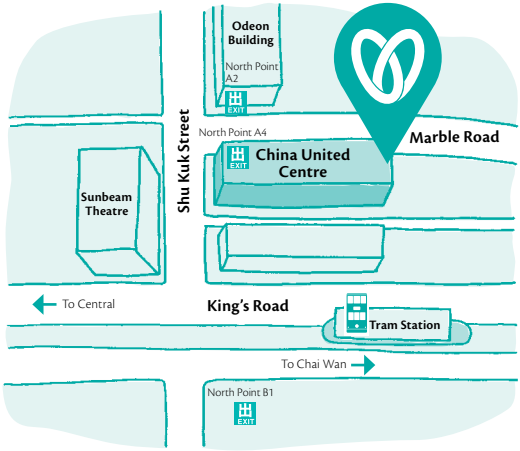
Location maps of Hong Kong Cancer Fund Support Centres



Hong Kong Cancer Fund Women Support Centre

Unit 5, Ground Floor, The Centre, 99 Queen's Road Central, Hong Kong (MTR Sheung Wan Station Exit E1/E2)

Email: canfund-hki@hkcf.org



Hong Kong Cancer Fund Support Centre (North Point)

Room 2201-03, 22/F, China United Centre, 28 Marble Road, North Point, Hong Kong (MTR North Point Station Exit A4)

Email: canfund-hki@hkcf.org

Special Thanks

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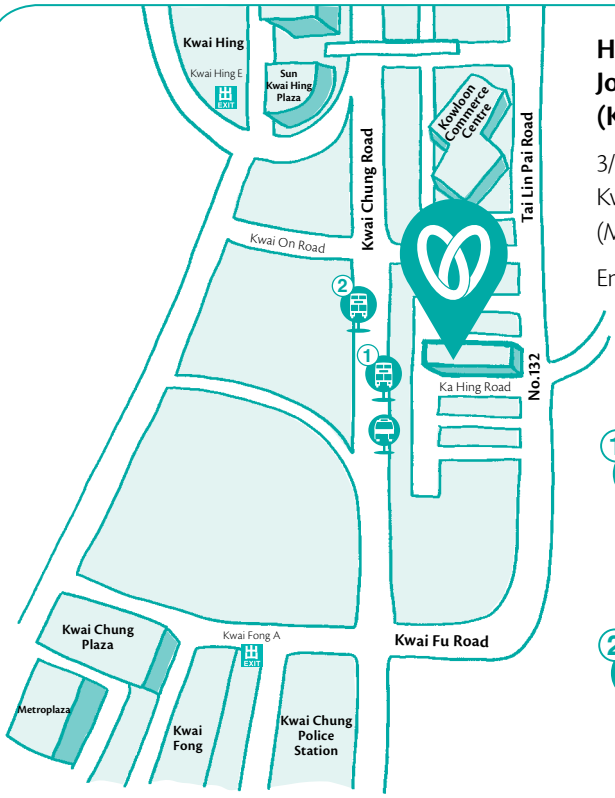

Hong Kong Cancer Fund Jockey Club Support Centre (Kwai Chung)

3/F, TLP132, 132-134 Tai Lin Pai Road,
Kwai Chung, New Territories
(MTR Kwai Fong Station Exit A)

Email: canfund-kcc@hkcf.org

Green Minibus Station
(Kwai Chung Road)
94, 302, 313

Kwai Fong Estate Bus Station
(Kwai Chung Road, Opposite to Kwai Fong Estate / Outside Yee Lim Factory Building)
237A, 265M, 269A, 269M, 290, 290A, 33A, 36A, 38A, 40, 46P, 46X, 57M, 59A, 61M, 935

Kwai Fong Estate Bus Station
(Kwai Chung Road, near Kwai Yik Road)
240X, 260C, 265M, 269M, 46P, 46X, 47X, 57M, 58M, 58P, 59A, 67M, 269P

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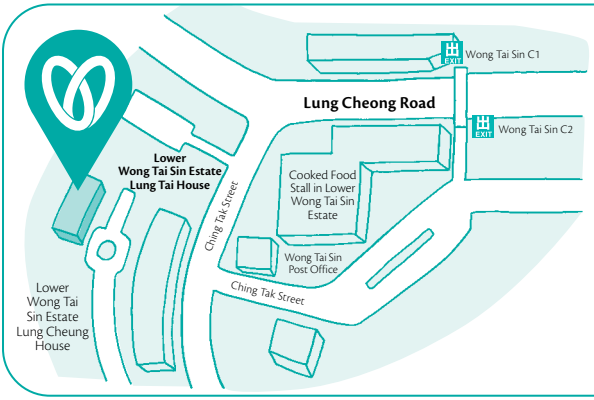

Hong Kong Cancer Fund Support Centre (Wong Tai Sin)

Unit 2-8, Wing C, G/F,
Lung Cheung House,
Lower Wong Tai Sin (II) Estate,
Kowloon
(MTR Wong Tai Sin Station Exit C2)

Email: canfund-wts@hkcf.org

"Hong Kong Cancer Fund's holistic approach to cancer care ensures people with cancer and their families have free access to life-changing information and professional support as they navigate through their diagnosis, treatment and into survivorship."

Because no one should face cancer alone.

This booklet is published by Hong Kong Cancer Fund in 2025

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Hong Kong Cancer Fund

Free Services: 3656 0800
Donation hotline: 3667 6333
Website: www.cancer-fund.org

Cancer booklets


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