

Prostate Cryotherapy

Information for patients and their families



Introduction

Being diagnosed with prostate cancer is a time of concern for you and your loved ones, but medical advances mean that today, the chances of you beating your cancer are better than ever before. Your doctor will discuss with you the different treatments available. It is important that you research all the options and talk them over with your family to make sure you select the most appropriate one for you and your lifestyle.

This booklet is designed to help you in this process and provide you with more information on cryotherapy – a technique which uses extremely cold temperatures to kill cancer cells in a tumor. Each year, thousands of prostate cancer patients choose cryotherapy because it avoids the need for radiation or surgical removal of the prostate, and offers quality-of-life benefits over surgery and other forms of treatment.



Prostate Cancer Patient Comments

"If you have the right treatment at the right time, you can live a perfectly normal life. Early diagnosis is important."

"The more you know about prostate cancer treatment options, the better prepared you will be to choose the best prostate cancer treatment with the help of your doctor."

"When the cancer came back after radiation, I had cryotherapy. Looking back, if I had been offered cryotherapy instead of radiotherapy, that would have been my first choice."

"If prostate cancer is caught in the early stages, cryotherapy becomes an option for most men."

"I liked the idea of cryotherapy as it was less invasive, and if the cancer should return at a later date, the treatment can safely be repeated. This is a great comfort to me and my family."

What is Cryotherapy?

Cryotherapy is a minimally invasive treatment (no incisions) that uses extremely cold temperatures to treat cancer tumors. Cryotherapy is widely used around the world and has over twenty years' clinical experience to support its safety and effectiveness.¹ It is also recognized by both the American Urological Association and the European Association of Urology as a treatment for prostate cancer. To treat a patient with cryotherapy, doctors create iceballs using compressed gas and specially designed thin probes which deliver the ice to the target area. These iceballs are very precisely shaped and positioned to freeze the prostate cancerous tissue. The process is carefully controlled by your doctor who uses ultrasound, CT or MRI imaging systems and temperature monitors to help ensure that the healthy tissue surrounding the prostate is not affected by the cold temperatures.

If your doctor considers you to be suitable for prostate cryotherapy, it is extremely likely that the procedure will treat your prostate cancer. The effectiveness of cancer therapies is measured in terms of the number of years patients enjoy being disease-free or in remission after treatment. Since prostate cancer treatments have similar survival rates, side effects and quality of life are important considerations when choosing your treatment.



"I am now three years post cryotherapy and my PSA remains low. I still manage to go on holidays and enjoy my quality of life."

I heard cryotherapy is an experimental therapy – is that true?

No. Cryotherapy is recognized by both the American Urological Association and the European Association of Urology as a treatment for prostate cancer and has over twenty years' of clinical data to support its safety and effectiveness.³ In the US, cryotherapy has FDA clearance and is covered by Medicare and most insurance companies.

Am I suitable for cryotherapy?

While your doctor can help determine if you are a good candidate, prostate cryotherapy is used to treat all stages and all types of localized prostate cancer (cancer which has not spread outside the prostate). Prostate cryotherapy is also used to treat patients who have failed radiation therapy.

"If I had to say which treatment would be top of my list, it would be cryotherapy. I have a good quality of life, and there is a good chance I could have the treatment again, if necessary."



What are the benefits of cryotherapy?

Cryotherapy offers many advantages over other treatment options, including:

- A **minimally invasive** (no incisions), treatment
- **20-years of clinical data**¹ supports safety and effectiveness in treating prostate cancer
- **Single treatment**, performed on outpatient basis or requiring just one overnight stay
- **Short hospital stay** reduces risk of hospital acquired infection
- **Short recovery time** permits rapid return to everyday life
- **Lower risk of incontinence**² (leaking urine) than with any other therapy
- **May improve urinary function** in patients experiencing problems prior to cryotherapy^{3,4}
- **Minimal or no pain**
- **No need for radiation** or radioactive substances and risk of associated side effects (eg secondary cancer)
- **Low risk of rectal damage**² or irritation
- **Can be used when other treatments**, such as intensity modulated radiation therapy (IMRT), external beam radiotherapy (EBRT) and brachytherapy have failed to treat prostate cancer

What are the risks of cryotherapy?

Your doctor will advise you that any medical procedure has risks associated with it. However, cryotherapy avoids many of the risks and complications of other therapies. The potential side effects of prostate cancer treatments include incontinence (although the risk of this is very low with cryotherapy) and erectile problems. These are discussed in more detail later in this booklet.

How long does the procedure take?

A prostate cryotherapy procedure usually takes between 90 minutes (1½ hours) and 120 minutes (2 hours). Prostate cryotherapy can be performed on an outpatient basis. This means that you do not need to stay in hospital for more than a few hours after your treatment, and no overnight stay is typically required. Sometimes one overnight stay is preferred, but this is dependent on local arrangements or the individual case.

1. Cohen et al. Urology (2008) 2. Langenhuijsen et al. European Urology (2009) 3. Kimura et al. Urology (2010)

4. Malcolm et al. J Urol (2010)

How will I feel after the procedure?

You may feel some slight discomfort immediately after the procedure, but you will be given pain medication for this and it will improve very quickly. You will have a drainage catheter left in place for a few days until you are able to urinate. You will be shown how to manage the catheter before you return home. Most patients feel a great sense of relief that their cancer has been treated and some feel quite emotional as a result of this.

How long before I can return to work?

Your doctor will advise you on the time you should plan to take off. Because cryotherapy does not involve open surgery, most patients are able to return to work and an active lifestyle once they no longer need their catheter – typically a week or less.

How long before I can return to activities?

Your doctor will advise you on when it is appropriate to resume active hobbies and sports, but usually this will be a week or two after your procedure.

“Straightaway, I was able to resume normal life activities; this was important to me as my wife is disabled and I am her primary caregiver. I feel absolutely wonderful.”



Will cryotherapy impact my sex life?

Your doctor may have explained to you that all treatments for prostate cancer can affect a man's ability to obtain and maintain an erection. This risk can seem daunting, but it is important to remember that there have been significant advances in medication and other aids to help men whose natural ability to obtain an erection is lost or reduced. This condition – called impotence or erectile dysfunction (ED) – is very common among middle-aged men (including those who have not had prostate cancer) and today there are options available to ensure they are still able to lead a fulfilling sex life.

"Radiotherapy had affected that, I was already impotent so that was not a key concern for me. There is more to life. Only recently, we buried a younger guy – mid-50s – with prostate cancer. It's better to be alive.."

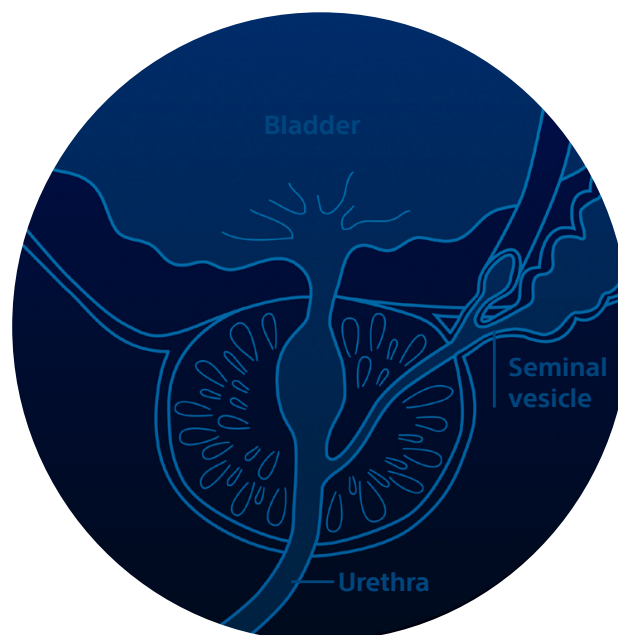


The Prostate Gland

The prostate is part of the male sex gland. The prostate opens into the urethra just below the bladder. During ejaculation it secretes an alkaline fluid that forms part of the semen.

Cancer growing within the prostate may have the effect of disrupting the flow of urine as it can place pressure on the urethra that passes through the prostate. However, this problem may also be caused by benign prostatic hyperplasia or hypertrophy (BPH). BPH is a benign (non-cancerous) condition which affects many men as they get older. Since the prostate continues to grow after puberty, it may eventually apply pressure on the urethra, causing weak or interrupted urine flow. BPH can also make emptying the bladder difficult, causing urgency and frequent visits to the bathroom. BPH is usually controlled by drugs or treated by a simple surgical procedure.

Like prostate cancer, BPH can also cause an elevation in PSA levels, which can be misleading. If a PSA test gives cause for concern, it is usually followed by a biopsy to clarify what is happening in the prostate and determine if prostate cancer or BPH is the cause. Prostate cancer is the most common form of cancer in men over the age of 60.



Over the years, I realize I need to urinate more than I used to, and I'm worried that my cancer treatment might make this worse.



Will I need to wear incontinence pads after the procedure?

The other urinary-related side effect of treatment for prostate cancer is incontinence (leaking urine). This is one of the most common side effects of treatment for prostate cancer. Many men need to wear and regularly change pads as a result of leaking urine; this is a significant hurdle for cancer patients in regaining a good quality of life after their treatment. It is particularly difficult for men who have previously enjoyed a full social life, outdoor sports and other activities.

Overall, the risk of incontinence is significantly lower with cryotherapy than with any other treatments, in addition, many patients who suffer from incontinence before their treatment, see an improvement in symptoms after cryotherapy.^{1,2}

"I feel wonderful! After the procedure I had no pain and felt great. When my catheter was removed, my body adjusted and today, I feel normal – I need no pads."



1. Malcolm et al. J Urol (2010)
2. Kimura et al. Urology (2010)

Glossary of Terms

Ablation	The destruction of tissue by the application of extreme cold, heat or light (laser).
Anaesthesia	The loss of sensation and usually of consciousness artificially produced by the administration of one or more agents that block the passage of pain impulses along nerve pathways to the brain.
Benign prostatic hyperplasia/hypertrophy (BPH):	A non-cancerous condition that can affect PSA levels and cause enlargement of the prostate. This growth of the prostate can press on the urethra and cause urination and bladder problems (urinary symptoms).
Biopsy	The removal and examination of a sample of tissue for diagnostic purposes.
Brachytherapy	A procedure in which radioactive material sealed in needles, seeds, wires, or catheters is placed directly into or near a tumor.
Cancer	A malignant and invasive growth or tumor.
Catheter	A tube inserted into the bladder to temporarily drain urine into a plastic bag. Depending upon your doctor's recommendation, a catheter is normally kept in place 1-2 weeks after prostate cryotherapy.
Cryotherapy	The destruction of tissue by the application of extremely cold temperatures.
Erectile dysfunction (ED)	The loss of the ability to produce and/or sustain an erection. Often referred to as "impotence". In many cases, an erection can be achieved with assistance.
External Beam Radiation Therapy (EBRT)	See Radiation therapy.
Fistula	An abnormal passage from a hollow organ to the body surface or from one organ to another.
Gleason score	A system of grading prostate cancer cells based on how they look under a microscope. Gleason scores range from 2 to 10 and indicate how likely it is that a tumor will spread.
Impotence	See Erectile dysfunction.
Incontinence	See Urinary incontinence.
Intensity-modulated radiation therapy (IMRT)	See Radiation therapy.
Perineum	The area of skin between the scrotum and the anus through which the doctor inserts the ultra-thin cryotherapy probes. After the procedure, a dressing is applied, and the tiny holes heal rapidly.
Prostate	A gland in the male reproductive system just below the bladder. The prostate surrounds part of the urethra, the canal that empties the bladder, and produces a fluid that forms part of semen.

Prostate cancer staging	<p>Stage I: The cells closely resemble normal cells and the gland feels normal to the examining finger.</p> <p>Stage II: More of the prostate is involved and a lump can be felt within the gland.</p> <p>Stage III: The tumor has spread through the prostate wall and the lump can be felt on the surface of the gland.</p> <p>Stage IV: The tumor has invaded nearby tissue.</p> <p>Prostatectomy: Surgical removal of the prostate.</p>
PSA	Prostate specific antigen, a protein produced by the prostate.
PSA test	The PSA test measures levels in the blood and is used to help detect prostate cancer as well as to monitor the results of treatment. Elevated PSA may be an indicator of prostate cancer.
Radiation therapy (Radiotherapy)	Uses high-energy radiation to kill cancer cells and shrink tumors. Radiation may come from a machine outside the body (external beam or intensity modulated radiation therapy) or from materials placed inside the body (internal radiation therapy, implant radiation, or brachytherapy).
Radical prostatectomy	The surgical removal of the entire prostate gland, the seminal vesicles and nearby tissue.
Rectum	The short tube located at the end of the large intestine, which connects the intestine to the anus.
Robotic radical prostatectomy	Instead of directly moving the instruments, the surgeon uses a computer console to manipulate the instruments attached to multiple robot arms. The computer translates the surgeon's movements, which are then carried out on the patient by the robot.
Stage	The extent of a cancer. See also Prostate cancer staging.
Transrectal ultrasound (TRUS)	The use of sound waves to create a picture of the prostate on a screen to help examine the condition of the prostate and guide insertion of the cryotherapy probes.
Urethra	The tube that carries urine from the bladder to the outside of the body.
Urinary incontinence	Involuntary loss of urine associated with a sudden strong urge to urinate.
Urinary symptoms	Problems associated with obstruction to flow of urine, usually caused by BPH.

Location of treatment:

Physician's name:

Physician's contact number:

Nurse's name:

Nurse's contact number:

Email:

Appointment dates:



This booklet has been developed, printed and distributed as an educational service. While every reasonable care has been taken to ensure accuracy in compiling the content for this booklet, it is for informational purposes only and is not intended to provide medical advice. Always consult a physician regarding the diagnosis and treatment of any medical condition.



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