Cryotherapy

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This fact sheet is for men who are thinking about having cryotherapy to treat their prostate cancer. Your partner or family might also find it helpful. We describe how cryotherapy treats prostate cancer and the possible side effects.

Each hospital does things differently, so use this fact sheet as a general guide. Ask your doctor or nurse for more details about your treatment and the support available. You can also speak to our Specialist Nurses, in confidence, on 0800 074 8383.

What is cryotherapy?
Cryotherapy uses extreme cold to freeze and destroy cancer cells. It's also called cryosurgery or cryoablation. Thin needles are inserted into the prostate and a gas is passed down them to freeze the prostate and kill the cancer cells.

There are two types of cryotherapy.

- **Whole-prostate cryotherapy** freezes the whole prostate including healthy tissue.

- **Focal cryotherapy** freezes only the areas of the prostate where the cancer is. This means less healthy tissue is frozen, compared to whole prostate cryotherapy.

Focal cryotherapy isn’t as widely available in the UK as whole-prostate cryotherapy. So when we refer to cryotherapy, we mean whole-prostate cryotherapy. For more information about focal cryotherapy see page 5.

**Whole-prostate cryotherapy**
Focal cryotherapy

In the UK cryotherapy is only available in specialist centres or as part of a clinical trial. This is because it is newer than some other treatments, and we don’t know as much about how well it works in the long term, including the risk of side effects. Read more about clinical trials in our Tool Kit fact sheet, A guide to prostate cancer clinical trials.

Who can have cryotherapy?

Cryotherapy could be suitable for you if your cancer is contained within your prostate (localised prostate cancer). It’s sometimes an option if your prostate cancer is just breaking through your prostate but hasn’t spread to the surrounding area. It’s not an option if your cancer has spread out of your prostate to other parts of your body (advanced prostate cancer).

Cryotherapy is usually used to treat prostate cancer that has come back after treatment with radiotherapy or brachytherapy. But you may also be able to have it as a first treatment. Speak to your doctor or nurse about whether it’s available to you.

You may not be able to have cryotherapy if you have severe urinary problems, as it can make these worse. If you have urinary problems speak to your doctor about whether cryotherapy is suitable for you.

Other treatment options

Other first treatment options for localised prostate cancer include:

• active surveillance
• watchful waiting
• surgery to remove the prostate (radical prostatectomy)
• external beam radiotherapy
• brachytherapy (a type of internal radiotherapy).

You may also be offered high intensity focused ultrasound (HIFU). Like cryotherapy, HIFU might only be available in specialist centres or as part of a clinical trial.

Read more about these treatments in our Tool Kit fact sheets or call our Specialist Nurses.

Unsure about your diagnosis and treatment options?

If you have any questions about your diagnosis, ask your doctor or nurse. They can explain your test results and treatment options. Make sure you have all the information you need. Find more information about diagnosis in our Tool Kit fact sheet How prostate cancer is diagnosed. Or call our Specialist Nurses.

What are the advantages and disadvantages?

An advantage for one person might not be for someone else. Speak to your doctor or nurse about the pros and cons of cryotherapy and other treatments. There is a list of questions on page 6 which you might find helpful.

Advantages

• Cryotherapy is less invasive than some other treatments, with little blood loss.

• You will only be in hospital for a short time and it shouldn’t take long to recover.

• It may be a treatment option if your cancer has come back after radiotherapy or brachytherapy.
### Disadvantages
- You may get side effects that might affect your daily life, such as erection and urinary problems.
- We don’t know as much about how well cryotherapy treats prostate cancer or the side effects in the long term (after 10 or 15 years), compared with other treatments.
- Cryotherapy is not widely available in the UK.

### What does cryotherapy involve?
Each hospital does things differently. Ask your doctor or nurse how they carry out the treatment.

#### Before having treatment
You will need to take a laxative or have an enema to help empty your bowels before the treatment. This will help your doctor take clear scans of your prostate during the treatment.

#### During treatment
Cryotherapy usually takes about two hours and is done under general anaesthetic so that you’re asleep and won’t feel anything. It’s sometimes done under spinal anaesthetic (an epidural), so you’re awake but won’t feel anything.

A tube called a warming catheter is passed into your bladder through your urethra (the tube that you urinate through). Warm liquid is passed through the catheter during the treatment to help stop your urethra and the wall of your back passage (rectum) being frozen.

An ultrasound probe is inserted into your back passage. This scans your prostate and an image appears on a screen. This helps your doctor to see where to insert the needles. Several thin needles are then inserted into your prostate through the skin between your testicles and back passage (perineum).

Sensors to monitor temperature are put in and around your prostate. This is to make sure the areas around your prostate, your bowel and back passage aren’t frozen.

Freezing gases are passed down the needles, causing the temperature to drop to about \(-40^\circ C\). This freezes and destroys the prostate tissue. Your prostate is then allowed to warm up, either naturally or by passing a different gas through the needles to warm it. This process is usually carried out twice.

The needles and probes are then removed. After about 20 minutes the warming catheter is also removed. Another tube to drain urine is passed into your bladder through either your penis (urethral catheter) or a small cut in your abdomen (suprapubic catheter). Some hospitals may put a suprapublic catheter in before treatment. Read more about having a catheter below.

#### Going home after treatment
Most people can go home the same day or the following day. It’s normal to have some pain or discomfort. Your doctor or nurse will tell you which pain-relieving drugs you can take.

You will be given antibiotics to lower your risk of infection. You should take these for a few days. Contact your doctor or nurse if you have any signs of a urine infection, such as:
- a high temperature
- a burning sensation when you urinate
- dark, cloudy or unpleasant smelling urine
- needing to urinate more often than usual.

You may be given drugs called alpha-blockers, such as tamsulosin, to relax the muscle in and around your prostate to help you urinate. You may take tamsulosin for a few weeks after treatment, or for longer if you still have problems urinating. Tamsulosin may cause side effects, talk to your doctor or nurse about this.

You will go home with a catheter in to avoid any problems urinating. This will stay in for one to two weeks. Your urine will drain from your bladder into a catheter bag, which can then be emptied. Your nurse will show you how to care for your catheter before you leave hospital.

Your catheter will usually be taken out at hospital. This may be uncomfortable. You will need to stay for a few hours after to check you can urinate without any problems.
When the catheter is removed, you may find that you leak urine. It’s a good idea to take spare underwear and a spare pair of trousers with you. You can wear incontinence pads to help absorb urine – check if your hospital will provide these. If they don’t it’s a good idea to take your own. You can buy them at pharmacies.

You may see some blood in your urine while you have your catheter in and immediately after it’s removed. This is normal. Drink plenty of fluids to help clear the blood. If you see signs of infection (see above) or lots of blood clots in your urine speak to your doctor or nurse.

You might have some bruising and swelling around your testicles (scrotum), buttocks and inner thigh for a few days after the treatment. This can look worrying but is normal and will pass. It may help to wear tighter fitting underwear to help provide support. Your doctor or nurse may advise you not to stand for long periods for the first few weeks. You should be able to go back to your day-to-day activities as soon as you feel able to. But it may take a few weeks or months before you feel back to normal.

What happens afterwards?
You will have check-ups with your doctor or nurse at the hospital. You will have regular PSA tests to check how well the cryotherapy has worked. How often you have these will depend on your hospital, but you should have a PSA test about every three months for at least the first year, and every six months after that. Ask your doctor or nurse how often you’ll have PSA tests. If your PSA level rises this could be a sign that your cancer has come back. You may also have an MRI scan after treatment to check all your prostate cancer has been treated.

If tests show that your cancer has started to grow again, and you had cryotherapy as a first treatment, you may be able to have more cryotherapy. Or you may be offered radiotherapy or, rarely, surgery. If you had cryotherapy as a second treatment and your cancer starts to grow again, you may be offered hormone therapy.

For more about cancer that has come back after treatment in our booklet, Recurrent prostate cancer: A guide to treatment and support, or call our Specialist Nurses.

What are the side effects?
Like all treatments, cryotherapy can cause side effects. These will affect each man differently and you may not get all of them.

Many of the side effects of cryotherapy are caused by healthy tissue being frozen and damaged. You are more likely to get side effects if you have already had radiotherapy or brachytherapy to your prostate. This is because they might have already damaged the tissues around your prostate. The most common side effects of cryotherapy are erection and urinary problems.

Erection problems
The most common long-term side effect of cryotherapy is difficulty getting or keeping an erection (erectile dysfunction). The nerves that control erections can be damaged. More than three quarters of men (over 75 per cent) can’t get an erection after cryotherapy.

Some men may find that they gradually get their erections back. And there are treatments which can help – ask your doctor or nurse about these. Read more about treatments for erection problems in our booklet, Prostate cancer and your sex life.

Urinary problems
Cryotherapy can cause urinary problems such as leaking urine (urinary incontinence) and difficulty urinating. Most men have some urinary problems for the first three to four weeks after cryotherapy. For some men, these problems gradually improve after a few months. But for others it can be a long term problem.

Leaking urine after cryotherapy is more likely if you have cryotherapy as a second treatment. Leaking urine may improve with time but for some men the problem will be long term. There are ways to manage leaking urine.
Damage to your urethra during cryotherapy can cause it to narrow. This can cause problems urinating including, a weak or slow flow of urine or problems emptying your bladder (urine retention). This is more likely if you have cryotherapy as a second treatment. Urine retention can lead to urine infections or bladder stones. If it’s not treated, it can damage your kidneys. There are treatments that can help, including using a catheter, medicines or surgery.

Speak to your doctor or nurse if you have any urinary problems. There are treatments to manage these and things you can do yourself. Read more in our Tool Kit fact sheet, Urinary problems after prostate cancer treatment.

Pain
It’s normal to have some pain after having cryotherapy. Some men will have pain that lasts a few weeks or months. It may be in the area in or around your penis, testicles and back passage. You’re more likely to get pain if you’ve had another treatment before cryotherapy. Pain usually improves. And pain-relieving drugs can help. Your doctor or nurse can tell you which ones you can take.

Bowel problems
If you have cryotherapy after radiotherapy, there is a very small chance you may get a complication where a hole forms between your back passage and your urethra. This is called a fistula. Fistulas can develop up to several weeks after treatment. Signs include:
- pain
- infection (see page 3)
- frequent loose watery bowel movements (diarrhoea)
- discharge from your urethra or back passage.

If you have any of these, contact your doctor or nurse. If you develop a fistula, you may need to have an operation to repair the hole.

Problems having children
You may not be able to have children naturally after cryotherapy. Cryotherapy can damage the prostate, which makes the fluid that carries sperm. If you’re planning to have children, you may be able to store your sperm before cryotherapy. If this is important to you ask your doctor or nurse about it.

What is focal cryotherapy?
Focal cryotherapy is a new way of treating prostate cancer. It’s not widely available in the UK but there are some hospitals that offer it.

It isn’t suitable for all men and will depend on the size and position of your cancer. Speak to your doctor or nurse about whether it may be an option.

What does focal cryotherapy involve?
Focal cryotherapy is done in a similar way to whole-prostate cryotherapy but uses fewer needles. These are only inserted into the cancer rather than the whole prostate.

What are the side effects?
Focal cryotherapy can cause the same side effects as whole-prostate cryotherapy (see page 4). But research suggests that you may be less likely to get these side effects with focal cryotherapy and they may be less severe because less healthy tissue is damaged.

Dealing with prostate cancer
Being diagnosed with prostate cancer can change how you feel about life. If you’re dealing with prostate cancer you may feel scared, stressed or even angry. There’s no ‘right’ way to feel and everyone reacts differently. There are things you can do to help yourself and people who can help.

How can I help myself?
Find out about your treatment, so you know what to expect and what your options are. And ask about any side effects so you know what to expect and how to manage them.

Set yourself goals and things to look forward to. Be as active as you can and eat a healthy balanced diet.
Find someone you can talk to. It could be someone close or a trained counsellor and read more in our booklet, *Living with and after prostate cancer: A guide to physical, emotional and practical issues.*

**Who can help?**

**Your medical team**
Speak to your nurse, doctor, GP or anyone in your medical team. They can explain your diagnosis, treatment and side effects, listen to your concerns, and put you in touch with others who can help.

**Our Specialist Nurses**
Our Specialist Nurses can answer your questions and explain your diagnosis and treatment options. They’ve got time to listen to any concerns you or those close to you have in confidence.

**Trained counsellors**
Many hospitals have specialist counsellors for people with cancer – ask your doctor or nurse at the hospital if this is available. Your GP can refer you or you can see a private counsellor.

**Our one-to-one support service**
Our one-to-one support service is a chance to speak to someone who’s been there. They can share their experiences and listen to yours. You can discuss whatever’s important to you.

**Our online community**
Our online community is a place to deal with prostate cancer together. You can talk about whatever’s on your mind. Anyone can ask a question or share an experience.

**Local support groups**
At local support groups men get together to share their experiences of prostate cancer. You can ask questions or offload worries you are going through. Many groups also welcome friends and family.

To find out more about any of the above, visit prostatecanceruk.org/wecanhelp or call our Specialist Nurses on 0800 074 8383.

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**Questions to ask your doctor or nurse**

You may find it helpful to keep a note of any questions you have to take to your next appointment.

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<th>Question</th>
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<td>What is the risk of side effects and how can they be managed?</td>
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<td>What are my other treatment options?</td>
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<td>How much experience does the specialist have in carrying outcryotherapy?</td>
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<td>How often will you check my PSA after the treatment?</td>
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More information

**British Association of Counselling & Psychotherapy (BACP)**  
www.itsgoodtotalk.org.uk  
Telephone: 01455 883300  
Information about counselling and details of therapists in your area.

**CancerHelp UK**  
www.cancerhelp.org.uk  
Nurse helpline: 0808 800 4040  
Patient information from Cancer Research UK.

**Healthtalkonline**  
www.healthtalkonline.org  
Watch, listen to and read personal experiences of men with prostate cancer.

**Macmillan Cancer Support**  
www.macmillan.org.uk  
Helpline: 0808 808 00 00  
Practical, financial and emotional support for people with cancer, their family and friends.

**Maggie’s Centres**  
www.maggiescentres.org  
Telephone: 0300 123 1801  
Drop-in centres for cancer information and support. Includes an online support group.

**National Institute for Health and Care Excellence (NICE)**  
www.nice.org.uk  
Telephone: 0845 003 7780  
Guidelines for care on the NHS in England and Wales.

**Penny Brohn Cancer Care**  
www.pennybrohncancercare.org  
Helpline: 0845 123 23 10  
Runs courses and offers physical, emotional and spiritual support for people affected by cancer.

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About us

Prostate Cancer UK fights to help more men survive prostate cancer and enjoy a better life.

This fact sheet is part of the Tool Kit. You can order more Tool Kit fact sheets, including an A to Z of medical words, which explains some of the words and phrases used in this fact sheet.

Download and order our fact sheets and booklets from our website at prostatecanceruk.org/publications or call 0800 074 8383.

At Prostate Cancer UK, we take great care to provide up-to-date, unbiased and accurate facts about prostate cancer. We hope these will add to the medical advice you have had and help you to make decisions. Our services are not intended to replace advice from your doctor.

References to sources of information used in the production of this fact sheet are available at prostatecanceruk.org

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- Prostate Cancer UK Volunteers
- Prostate Cancer UK Specialist Nurses
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Did you find this information useful? Would you like to help others in your situation access the facts they need? Every year, 40,000 men face a prostate cancer diagnosis. Thanks to our generous supporters, we offer information free to all who need it. If you would like to help us continue this service, please consider making a donation. Your gift could fund the following services:

• £10 could buy a Tool Kit – a set of fact sheets, tailored to the needs of each man with vital information on diagnosis, treatment and lifestyle.

• £25 could give a man diagnosed with a prostate problem unlimited time to talk over treatment options with one of our Specialist Nurses.

To make a donation of any amount, please call us on 0800 082 1616, visit prostatecanceruk.org/donations or text PROSTATE to 70004*.

There are many other ways to support us. For more details please visit prostatecanceruk.org/get-involved

*You can donate up to £10 via SMS and we will receive 100% of your donation. Texts are charged at your standard rate. For full terms and conditions and more information, please visit prostatecanceruk.org/terms