

Chemotherapy

This fact sheet is for men who are thinking about having chemotherapy to treat their prostate cancer. It is one of a set of fact sheets that have been written to help you decide which treatment is best for you. Partners and family members may also find this information helpful.

It describes how chemotherapy is used to treat prostate cancer as well as the possible side effects of treatment. Each hospital will do things slightly differently. Use this fact sheet as a general guide to what to expect and ask your doctor or nurse for more details about the treatment and support available to you. If you would like to know more about anything you read in this fact sheet, you can call our confidential Helpline on 0800 074 8383.

In this fact sheet:

- Who can have chemotherapy?
- How does chemotherapy treat prostate cancer?
- What are the advantages and disadvantages?
- What does treatment involve?
- What are the side effects?
- What happens afterwards?
- Where can I get support?
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- Questions to ask your doctor or nurse

Who can have chemotherapy?

You may be offered chemotherapy if your cancer has spread to other parts of the body (advanced or metastatic prostate cancer) and is no longer responding to hormone therapy. Chemotherapy will not get rid of your prostate cancer but it may help to control symptoms such as pain. It may also help some men to live longer.

Some men may be offered chemotherapy at an earlier stage of their disease, as part of a clinical trial (see page 3).

You need to be reasonably fit to have chemotherapy because the side effects are sometimes difficult to cope with. If your multi-disciplinary team (MDT) think you may benefit from chemotherapy, they may check that your heart, lungs, liver and kidneys are working normally, as well as making sure that you are well enough to care for yourself with some occasional help.

Multidisciplinary team (MDT)

This is the team of health professionals or specialists involved in your care. You may hear it called your specialist team. The team may include a specialist nurse, a consultant oncologist, a consultant urologist, a pathologist, a radiologist, and other health professionals such as a dietitian. Although there will be several people in your MDT, you may not get to meet all of them at your appointments.

You may also be offered mitoxantrone if you have had treatment with docetaxel but you did not respond well to it, or you have stopped responding to it. When mitoxantrone is used after docetaxel, you may hear it called second-line chemotherapy.

Can I take part in a clinical trial?

You may be able to have chemotherapy as part of a clinical trial. A number of clinical trials are currently looking into how chemotherapy can be used most effectively to treat prostate cancer. These include trials looking at:

- using chemotherapy at an earlier stage of prostate cancer
- using different chemotherapy medicines in combination, and
- using chemotherapy in combination with other medicines.

You can ask your doctor or nurse if there are any clinical trials you could take part in, or you can call our confidential Helpline on **0800 074 8383**. You can also search the clinical trials database on the CancerHelp UK website. For general information on clinical trials, you can read our Tool Kit fact sheet,

A guide to prostate cancer clinical trials.

What are the advantages and disadvantages?

Advantages

- Chemotherapy can help improve your quality of life by controlling symptoms such as pain.
- It may shrink or slow the growth of your cancer. This may help some men live a bit longer.
- There is no need to stay overnight in hospital. You will usually visit as a day patient.

Disadvantages

- You will have regular hospital appointments.
- There is no guarantee that it will work.

Like most treatments, chemotherapy can cause side effects (page 5). You may also get side effects from the steroids you take alongside chemotherapy.

What does treatment involve?

Before you start chemotherapy

If you decide to have chemotherapy, your doctor or nurse will discuss your treatment plan with you. They will explain which medicines you are going to have, what treatment will involve, possible side effects and any tests that you will need before, during and after treatment.

It can be very hard to take all this in. You might find it helpful to write things down or bring someone with you to listen and discuss things with later. Your doctor or nurse should also give you written information to take home. If you are uncertain about anything, ask your doctor or nurse to explain. There is a list of questions you might like to ask on page 11. You could also ask for details of someone you can contact after the appointment, in case you think of any more questions.

You will need to sign a consent form to say that you want to have chemotherapy and that you understand the risks and benefits of treatment.

If you are having chemotherapy as part of a clinical trial, your specialist doctor and research nurse will give you the full details of what this involves. You will need to sign a consent form to say that you understand what the trial involves and that you agree to take part. You can read more about this in our Tool Kit fact sheet, **A guide to prostate cancer clinical trials.**

Planning around special occasions

You may be able to delay a treatment to fit in with special occasions. For example, you may have a holiday planned or a family wedding you are keen to go to. If you tell your doctor or nurse in plenty of time, it may be possible for them to schedule your treatment to fit around these occasions.

Before each treatment session

Most types of chemotherapy are given as a course of up to ten sessions (cycles) of treatment, with a break of three to four weeks between each session. Before each treatment session begins, your doctor or nurse will check how you are feeling and how you are coping with any side effects.

You will have a blood test between treatment sessions to check that the amounts of different blood cells (your blood count) are within normal limits. This is important because chemotherapy can cause the level of blood cells to drop. You can read more about the possible side effects of treatment on page 5. If your blood count is not high enough to cope with a cycle of treatment, your doctor may decide to reduce the amount (dose) of chemotherapy medicine they give you. Or they may decide to delay the cycle and continue with treatment once your blood count returns to normal.

You may also have blood tests to check how well your liver and kidneys are working. This is because chemotherapy medicines are broken down by the liver and pass out of your body via the kidneys. Depending on your general health and the medicines that you are taking, you may need to have some other tests before your treatment begins.

Other medicines

Let your doctor know if you are taking any other medicines, including dietary supplements (such as vitamins and minerals) or herbal medicines. We do not know for certain if or how these may affect chemotherapy. Your doctor may advise you to avoid some of these while you are having treatment.

Treatment

At each treatment session, the chemotherapy medicine will be given through a drip (infusion). This usually involves running a liquid containing the medicine through a fine tube (cannula) into a vein in your arm. This allows the medicine to enter your bloodstream and travel throughout the body. Treatment

usually takes about one hour. Sometimes chemotherapy is given through a tube that is inserted under the skin of your chest into a vein. This tube can stay in place throughout your course of chemotherapy. The end of the tube is covered with a special cap between treatment sessions to keep it closed.

You will usually have three or four sessions of chemotherapy to begin with. If your cancer is responding well and you do not have too many side effects, you will continue to have up to a maximum of ten sessions.

Your doctor may decide to stop your treatment if you have severe side effects or your cancer continues to grow during treatment. Every man responds differently to chemotherapy. Some men find the side effects very difficult to cope with and decide to stop treatment. If you are thinking about stopping treatment, speak to your doctor or nurse.

You will usually take steroid tablets such as prednisolone or dexamethasone, alongside chemotherapy. You may start these before your first treatment session and continue taking them throughout treatment. Or you may just take them for a few days around the time of each treatment session. Your doctor will give you more information about when to take these tablets.

If you are having hormone therapy, you may continue to take this during chemotherapy if your specialist thinks it may still have some effect on your cancer. Or you may stop taking your hormone therapy when you start chemotherapy. You may also have other treatments alongside chemotherapy to help improve any symptoms you have, such as pain.

After each treatment session

At your first appointment, your doctor or nurse should give you details of who to contact at the hospital if you develop signs of infection during treatment, or if you have any questions or concerns about your treatment. This should include someone you can contact outside of normal hours. Be sure to call if you have any concerns, even if you think they are not very important, and especially if you have side effects that are severe or do not go away.

Signs of infection

If you develop signs of infection, such as a fever (high temperature), chills, or a sore throat, contact the hospital immediately for advice. You should have been given details of who to contact at the hospital, including someone to contact outside of normal hours. Use the contact telephone numbers you have been given, rather than calling your GP. If you don't have any contact numbers, visit your nearest accident and emergency (A&E) department and tell them you are on chemotherapy. Do not wait to see if your symptoms get better and do not worry if it is an inconvenient time, such as during the night or over the weekend.

It may be useful to have a thermometer at home to check your temperature. A fever is a temperature higher than 38°C. If you are taking steroids, your temperature may not be raised, but you should still contact the hospital straight away if you feel unwell.

It is safe to be around other people, including children and pregnant women, when you are having chemotherapy. But you should try to avoid contact with people who are unwell. This is because your ability to fight infections (your immunity) is not as strong as usual during each chemotherapy cycle. You are most at risk between 7 and 14 days after each treatment. It is safe to be around people with certain types of infections, for example HIV, but it is best to check with your doctor if you are unsure.

A personal experience

"I had a firm telling off by my GP, my oncology nurse and my wife for delaying calling my GP when I had signs of an infection. I learnt my lesson that I must call even if I think it's something trivial."

You should not have a type of vaccination called a live vaccine during your treatment or for at least six months afterwards. Live vaccines include measles, rubella

(German measles), MMR (the triple vaccine for measles, mumps and rubella), BCG (tuberculosis), and yellow fever. It is safe to be around others who have had these types of vaccines. Other vaccinations such as the flu jab are safe, but may not give you as much protection as usual because your immune system may be weaker. It is always best to check with your doctor or nurse before having a vaccination.

What are the side effects?

As well as damaging cancer cells, chemotherapy can also affect some healthy cells in the body. These include the cells in hair follicles, finger and toe nails, bone marrow, and in the lining of the mouth and parts of the digestive system. When chemotherapy damages these cells, it can cause side effects. Most of the side effects are temporary and will gradually go after you finish treatment.

If you are offered chemotherapy, it is important to discuss the possible side effects with your doctor or nurse. Knowing what side effects you might get may help you to cope with them.

What side effects will I get?

People react in different ways to chemotherapy. Some men get a lot of side effects whilst others only get a few. There is no way of knowing in advance which side effects you will get and how bad they will be. Tell your doctor or nurse about any side effects you have as soon as they develop. They may be able to give you treatment to help reduce them or advice on how to manage them.

There are some general side effects that are common to all types of chemotherapy. The most common ones are described here.

Each particular type of chemotherapy also has its own more specific side effects. Ask your doctor or nurse about the possible side effects of the chemotherapy you are having.

Feeling and being sick (nausea and vomiting)

You may experience feeling sick (nausea) or being sick (vomiting) during treatment. There are many anti-sickness medicines (anti-emetics) that can help to control this. Ask your doctor or nurse for more information. You may have these medicines as injections into your vein, or as tablets, just before each treatment session. You may also be given some anti-sickness tablets to take home with you. It is important to follow your doctor's instructions for taking the tablets.

If the smell of food is putting you off eating, try to avoid strong smelling foods. It may help to eat cold foods as these usually smell less than hot foods. You may also find it helps to avoid fried, greasy or very sweet foods. If possible, you could ask someone to prepare your meals for you. Let your GP or doctor or nurse at the hospital know if you continue to feel or be sick.

Temporary bone marrow problems

Chemotherapy affects how well your bone marrow works. Bone marrow is the spongy material that fills some of our bones. It makes white blood cells, red blood cells and platelets. White blood cells help fight infection and red blood cells carry oxygen from the lungs around the body. Platelets help your blood to clot. During chemotherapy, there may be a drop in the levels of these cells. This can mean that:

- **You are more at risk of getting an infection.**

This is caused by a drop in the number of white blood cells. If you get an infection, you may become very unwell. Contact the hospital immediately if you develop signs of infection (see page 5).

- **You may feel breathless and tired.**

This is caused by a drop in the number of red blood cells, which is known as anaemia. If this happens, your doctor may delay your next treatment session to give your red blood cells time to recover. If your level of red blood cells falls very low, you may need to have a blood transfusion.

- **You may bleed and bruise more easily.**

This is caused by a drop in the number of platelets. You may notice you have nose-bleeds or bleeding gums. There are things you can do to lower the risk of bleeding, for example, using a softer toothbrush and using an electric shaver.

You can ask your doctor or nurse about other ways to help prevent some of the problems that low blood counts can cause. You should contact your doctor or nurse straight away if you develop any of the symptoms described above.

Extreme tiredness (fatigue)

Many people say that fatigue is the most difficult side effect to cope with. Fatigue is not just a general feeling of tiredness that goes away with a bit of rest. It can be quite overwhelming and may affect how you function from day to day. Fatigue is usually more obvious towards the end of your treatment. Sometimes there is a specific cause for your tiredness, like low levels of red blood cells.

Most people find that their energy levels improve after finishing their treatment but this can take a while. For some people, tiredness can last longer. Remember that tiredness can be caused by things other than your treatment. For example, the cancer itself can make you feel tired, as can feeling anxious or depressed.

Eating healthily and getting regular physical activity, for example gentle walking, may help improve energy levels. Also, listen to your body. If you feel tired, take a rest, even if it is in the middle of the day. You can read more about ways of managing tiredness in our booklet, **Living with prostate cancer: A guide to physical, emotional and practical issues during and after treatment.**

A personal experience

"My tip would be not to try and fight fatigue, but go to bed and take a proper rest whenever you feel you need to."

Hair loss

Hair loss is a temporary side effect of some chemotherapy medicines. Some men find this distressing and may choose to cover their head with a hat or wig. Your hair will usually begin to grow back after you have finished treatment. You may be offered scalp cooling to try to reduce hair loss. Scalp cooling involves wearing a special cap during each treatment session that is filled with a chilled gel or connected to a small refrigerated cooling system. However, more research is needed to know for sure whether it makes a difference and it may not be available in every hospital. If you are interested in scalp cooling, speak to your doctor or nurse.

Sore mouth

Some chemotherapy medicines can make your mouth sore. You may develop ulcers, which can be painful. This is because your ability to fight infection is lower than normal. There are several things that may help to prevent and relieve a sore mouth, including:

- gently brushing your teeth twice a day, flossing and using mouth washes regularly
- making small changes to your diet such as choosing soft, moist foods and avoiding foods that are acidic, spicy, very hot or very cold
- drinking through a straw.

Your nurses should give you more information about mouth care. If your mouth gets very sore, your doctor may prescribe pain-relieving medicines to help. If you find it difficult to eat, you can supplement your diet with nourishing drinks like milk or milkshakes, or with nourishing powders that can be added to drink or food (see the next section **Loss of appetite**).

Loss of appetite

You may lose your appetite during chemotherapy. This may be caused by some of the side effects from treatment such as feeling sick or having a sore mouth. If your appetite is smaller than usual, eating small meals and having regular snacks that are high in calories and protein may help you to get the nutrients you need and to minimise weight loss.

Chemotherapy can also cause food to taste different. Food may taste more salty, bitter, or metallic, or it may lose its taste. Taste changes can sometimes cause men to avoid certain foods. If you do not feel like eating much, it is important to drink plenty of fluids and to find foods that are more appealing to you. You may find that you prefer foods that you did not often before you started treatment. The steroids you take with your chemotherapy should help improve your appetite.

A personal experience

“During chemotherapy, I found that most foods tasted a bit funny. Someone advised me to avoid my favourite foods during treatment as their taste would be disappointing and may put me off them. Save your favourite meals for after your treatment has finished.”

If you find it difficult to eat meals, you may be able to get a prescription from your GP or doctor at the hospital for nourishing powders that can be added to drinks or food to provide extra nutrition. There are several different types available so, if you find you do not like one type, you may be able to try another. If you are having problems eating a balanced diet or if you are losing weight, you can also talk to your doctor or nurse. They may be able to refer you to a dietitian who specialises in helping people with cancer.

Bowel problems

Some types of chemotherapy may make your stools loose and watery (diarrhoea). This usually happens in the first few days after treatment. Some chemotherapy medicines and some anti-sickness medicines can make it difficult to pass stools (constipation). Bowel problems can usually be well controlled with medicines, so let your doctor or nurse know about any problems you are having.

Numb or tingling hands and feet

Chemotherapy can affect your nerves. This may cause numbness or tingling in your hands and feet (peripheral neuropathy). Numbness and tingling usually improve slowly a few months after treatment finishes.

It is important to tell your doctor or nurse about any numbness or tingling you have. If it is severe, your doctor may decide to reduce the amount (dose) of chemotherapy medicine you have at each treatment session. Numbness and tingling can have other causes, including the cancer itself. You may need to have some tests to check the cause of any numbness or tingling you experience.

Nail changes

You may find that your nails grow more slowly, or become brittle or flaky. The shape or colour of your nails may also change.

Other possible side effects

Some people say that they feel sad and negative at certain times during their chemotherapy. This is natural and should usually only last a short time. However, if you continue to feel very low after your treatment is over you should let your doctor or nurse know. You may have depression, which is very different to just feeling sad. Do not be afraid to let people know how you are feeling as there are things that can be done to help manage and treat depression.

A personal experience

"My husband kept a daily diary to note down how he felt physically and mentally. It was very useful after each treatment to look back and say, 'Oh, I'd forgotten how I felt two days after the infusion – it was just the same this time.'"

Side effects of steroids

You may get side effects from the steroids you take with your chemotherapy. Possible side effects include a risk of developing diabetes, bone thinning and fluid retention, which can cause swelling in your lower legs. Other less common side effects will be listed in the leaflet that comes with your medicine. Your doctor or nurse will monitor you for signs of side effects.

What happens afterwards?

After you finish your course of chemotherapy, you will have regular follow-up appointments to monitor how well treatment is working and any side effects. Your doctor or nurse will let you know how often your appointments will be and what they will involve.

As part of your follow-up care, you will have regular blood tests to measure the level of a protein called prostate specific antigen (PSA) in your blood. At each follow-up appointment, your doctor will also ask you about any symptoms you have and any side effects you are experiencing. If your PSA level falls or your symptoms improve, for example you have less pain, this usually suggests that chemotherapy is working.

Between appointments

If you have symptoms in between your follow-up appointments, contact your doctor or nurse as soon as possible. In many situations, they will be able to help you reduce or control them.

What if my cancer starts to grow again?

If your cancer starts to grow after you finish your treatment, you may be offered further treatment, including:

A different type of chemotherapy

For example, if you have already had docetaxel, you may be offered cabazitaxel or mitoxantrone. Depending on your response to your first type of chemotherapy, you may be offered the same type again. However, this is not standard practice because at the moment we do not have enough evidence to show that it will help.

A type of hormone therapy called abiraterone (Zytiga®)

This is for men with advanced prostate cancer that has stopped responding to other hormone therapy and chemotherapy treatments. Like chemotherapy, it is used to help control symptoms and not to cure prostate cancer. Abiraterone is a relatively new treatment and may not be available on the NHS in your area. Speak to your

More information

CancerHelp UK

www.cancerhelp.org.uk

Freephone 0808 800 4040

(Mon–Fri, 9am–5pm)

CancerHelp is the patient information website of Cancer Research UK and provides information about living with cancer.

Macmillan Cancer Support

www.macmillan.org.uk

Macmillan Support Line 0808 808 00 00

(Mon–Fri, 9am - 8pm)

Provides practical, financial and emotional support for people with cancer, their family and friends.

Marie Curie Cancer Care

www.mariecurie.org.uk

Marie Curie run hospice centres throughout the UK and provide a nursing service for patients in their own home day and night, free of charge.

National Institute for Health & Clinical Excellence (NICE)

Provides national guidelines on promoting good health and preventing and treating ill health, including prostate cancer. They produce specific guidelines on the use of docetaxel (Taxotere®) for prostate cancer (reference: N1056).

UK Council for Psychotherapy

www.psychotherapy.org.uk

Telephone 020 7014 9955

Holds a national register of psychotherapists and counsellors and provides information to help you choose a therapist.

UK Prostate Link

www.prostate-link.org.uk

Guide to reliable sources of prostate cancer information.

Notes

Questions to ask your doctor or nurse

What is the aim of this treatment?

Which medicines would be most suitable for me?

How long will the treatment last? How many cycles will I need?

Can I stop the treatment if I feel unable to carry on with it?

What are the possible side effects of the medicines, and how long will they last?

What happens if chemotherapy does not work? Are there other treatments I can have?

Are there any clinical trials I can take part in?

Are there any other treatments available to me?

Who should I contact if I have any questions at any point during my treatment?
How do I contact them?

Who will follow me up after my treatment finishes, and how often will I have follow-up appointments?

The Prostate Cancer Charity makes every effort to provide up-to-date, unbiased and accurate facts about prostate cancer. We hope that these will add to any medical advice you have had. Please continue to talk to your doctor if you are worried about any medical issues.

The Prostate Cancer Charity is the UK's leading charity working with people affected by prostate cancer. We fund research, provide support and information, and campaign to improve the lives of men with prostate cancer. If you would like to make a donation to support our work, please call 020 8222 7666 or visit www.prostate-cancer.org.uk/donations

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*Calls are recorded for training purposes only. Confidentiality is maintained between callers and The Prostate Cancer Charity.

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Tell us what you think

We hope you have found this information useful. If you have any comments or suggestions about any of our publications, you can email literature@prostate-cancer.org.uk or write to The Information Team at The Prostate Cancer Charity, 100 Cambridge Grove, London W6 0LE

References to sources of information used in the production of this fact sheet are available on our website.

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