

Gemcitabine

Gemcitabine is a chemotherapy drug.

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Gemcitabine

It is best to read this information with our general information about [chemotherapy](#) and the [type of cancer](#) you have.

Your doctor will talk to you about this treatment and its possible side effects before you agree ([consent](#)) to have treatment.

More information about this treatment

This information is correct at time of publishing. But sometimes the types of cancer this treatment is used for, or treatment side effects, may change between revision dates.

You can talk to your cancer team if you want more detailed information about this treatment. Or visit the [electronic Medicines Compendium \(eMC\)](#) website, which has patient information leaflets (PIL) for individual drugs.

How gemcitabine is given

You will be given gemcitabine in the chemotherapy day unit or during a stay in hospital. A chemotherapy nurse will give it to you. Gemcitabine can be given with other can

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During treatment you usually see a:

- cancer doctor
- a chemotherapy nurse or a specialist nurse
- a specialist pharmacist.

This is who we mean when we mention doctor, nurse or pharmacist in this information.

Before or on the day of each treatment, a nurse or person trained to take blood (phlebotomist) will take a blood sample from you. This is to check that it is safe for you to have chemotherapy.

You will speak to a doctor, nurse or pharmacist before you have chemotherapy. They will talk to you about your blood results and ask you how you have been feeling. If your blood results are okay, the pharmacy team will prepare your chemotherapy.

Your nurse usually gives you anti-sickness (anti-emetic) drugs before the chemotherapy. You may have the chemotherapy drugs through:

- a [cannula](#) – a short, thin tube the nurse puts into a vein in your arm or hand
- a [central line](#) – a fine tube that goes under the skin of your chest and into a vein close by
- a [PICC line](#) – a fine tube that is put into a vein in your arm and goes up into a vein in your chest
- an [implantable port](#) (portacath) – a disc that is put under the skin on your chest or arm and goes into a vein in your chest.

Your course of chemotherapy

You usually have a course of several cycles of treatment over a few months. Your nurse or doctor will discuss your treatment plan with you.

About side effects

We explain the most common side effects of this treatment here. We also include some that are less common.

You may get some of the side effects we mention, but you are unlikely to get all of them. And you may have some side effects, including rarer ones, that we have not listed here.

Other cancer treatments may cause different side effects. If you are also having other cancer treatment, you may have other side effects.

Always tell your doctor, nurse or pharmacist about any side effects you have. They can give you:

- drugs to help control some side effects
- advice about managing side effects.

It is important to take any drugs exactly as explained. This means they will be more likely to work for you.

Serious and life-threatening side effects

Some cancer treatments can cause serious side effects. Sometimes, these may be life-threatening. Your doctor, nurse or pharmacist can explain the risk of these side effects to you.

Contact the hospital

Your doctor, nurse or pharmacist will give you 24-hour contact numbers for the hospital. If you feel unwell or need advice, you can call at any time of the day or night. Save these numbers in your phone or keep them somewhere safe.

Side effects while treatment is being given

Some people may have side effects while they are being given the chemotherapy or shortly after they have it:

Flu-like symptoms

Gemcitabine may cause flu-like symptoms such as:

- feeling hot, cold or shivery
- having a headache
- aching.

You may have these symptoms while the drug is being given or several hours later. Your nurse will tell you if this is likely to happen. They may advise you to take paracetamol. If the symptoms are severe or do not improve after 24 hours, contact the hospital. If you have flu-like symptoms at any other time, you should contact the hospital straight away.

Breathlessness

You may feel mildly breathless soon after you have gemcitabine. This usually gets better by itself. But if you feel breathless, let your doctor, nurse or pharmacist know.

Common side effects

Risk of infection

This treatment can reduce the number of white blood cells in your blood. These cells fight infection. If your white blood cell count is low, you may be more likely to get an [infection](#). A low white blood cell count is called neutropenia.

An infection can be very serious when the number of white blood cells is low. It is important to get any infection treated as soon as possible. If you have any of the following symptoms, contact the hospital straight away on the 24-hour number:

- a temperature above 37.5°C
- a temperature below 36°C
- you feel unwell, even with a normal temperature

- you have symptoms of an infection.

Symptoms of an infection include:

- feeling shivery and shaking
- a sore throat
- a cough
- breathlessness
- diarrhoea
- needing to pass urine (pee) often, or discomfort when you pass urine.

It is important to follow any specific advice your cancer treatment team gives you.

Your white blood cell count will usually return to normal before your next treatment. You will have a blood test before having more treatment. If your white blood cell count is low, your doctor may delay your treatment for a short time, until your cell count increases.

Bruising and bleeding

This treatment can cause changes to the number of platelets in your blood. Platelets are cells that help the blood to clot.

If the number of platelets is low, you may bruise or bleed easily. You may have:

- nosebleeds
- bleeding gums
- heavy periods
- blood in your urine (pee) or stools (poo)
- tiny red or purple spots on your skin that may look like a rash.

Tell your doctor if you have any unexplained bruising or bleeding. You may need a drip to give you extra platelets. This is called a platelet transfusion.

Rarely gemcitabine can cause high numbers of platelets. If this happens, your doctor may need to stop your treatment.

Anaemia (low number of red blood cells)

This treatment can reduce the number of red blood cells in your blood. Red blood cells carry oxygen around the body. If the number of red blood cells is low, this is called anaemia. You may feel:

- very low in energy
- breathless
- dizzy and light-headed.

If you have these symptoms, contact the hospital straight away on the 24-hour number. You may need treatment for anaemia. If you are very anaemic, you may need a drip to give you extra red

blood cells. This is called a blood transfusion.

Feeling sick

Your doctor, nurse or pharmacist will prescribe anti-sickness drugs to help prevent or control sickness. Take the drugs exactly as they tell you to, even if you do not feel sick. It is easier to prevent sickness than to treat it after it has started.

If you feel sick, take small sips of fluid often and eat small amounts regularly. It is important to drink enough fluids. If you continue to feel sick, or if you are sick (vomit) 1 to 2 times in 24 hours, contact the hospital on the 24-hour number as soon as possible. They will give you advice. They may change your anti-sickness treatment. Let them know if you still feel sick.

Loss of appetite

This treatment can affect your appetite. Don't worry if you do not eat much for 1 or 2 days. But if your appetite does not come back after a few days, or if you are losing weight, tell your doctor, nurse or pharmacist. They can give you advice. They may give you food or drink supplements. Or they may suggest changes to your diet or eating habits to help.

Effects on the kidneys

This treatment can affect how the kidneys work. This is usually mild and goes back to normal after treatment ends. You will have blood tests to check how well your kidneys are working. Contact the hospital on the 24-hour number if you:

- have blood in your urine (pee)
- are passing less urine or peeing less often than usual.

Drinking fluids helps protect your kidneys. The advice is usually to try to drink at least 2 litres (3½ pints) of fluid each day. But follow any advice from your doctor, nurse or pharmacist about how much is right for you.

Effects on the liver

This treatment can affect how your liver works. This usually goes back to normal after treatment. You will have blood tests to check how well your liver is working during your treatment.

Effects on the lungs

This treatment can cause changes to the lungs. Tell your doctor, nurse or pharmacist if you develop:

- a cough that does not go away
- wheezing
- breathlessness.

You should also tell them if any existing breathing problems get worse. You may have tests to check your lungs.

Fluid build-up

This treatment can cause a build-up of fluid in the body. This will slowly get better after treatment ends. Contact the hospital on the 24-hour number if you:

- are gaining weight
- have swelling in your face, legs or ankles.

They can give you advice and treatment to help.

Skin changes

Gemcitabine can cause an itchy skin rash due to an allergic reaction. Contact your doctor, or call the number you have been given if this happens.

Rarely, if you had radiotherapy in the past, gemcitabine may cause the skin over the treatment area to become red and sore.

Very rarely, a more serious skin condition can develop. You may have a skin rash which then blisters, and your skin can peel. Contact the hospital straightaway if this happens.

Hair loss

Your hair will get thinner. Or you may lose all the hair from your head. You may also lose your eyelashes and eyebrows, as well as other body hair. Hair loss usually starts after your first or second treatment.

If you want to cover up hair loss, there are different ways you can do this. Your nurse will give you information about [coping with hair loss](#).

Remember to protect your skin from the sun. Use suncream with a sun protection factor (SPF) of at least 30 on your scalp. Or cover up with a hat or scarf.

Hair loss is almost always temporary. Your hair will usually grow back after treatment ends.

Feeling tired

[Feeling tired](#) is a common side effect of this treatment. It is often worse towards the end of treatment and for some weeks after it ends. Try to pace yourself and plan your day so you have time to rest. Gentle exercise, like short walks, can help you feel less tired.

If you feel sleepy, do not drive or use machinery.

Problems sleeping or feeling drowsy

Gemcitabine can affect your sleep. You may have difficulty sleeping or feel drowsy. If you feel sleepy, do not drive or operate machinery.

Sore mouth and throat

This treatment may cause a [sore mouth and throat](#). You may also get mouth ulcers. This can make you more likely to get a mouth or throat infection. Use a soft toothbrush to clean your teeth or dentures in the morning, at night and after meals.

Contact the hospital straight away on the 24-hour number, if:

- a sore mouth or throat affects how much you can drink or eat
- your mouth, tongue, throat or lips have any blisters, ulcers or white patches.

They can give you advice, and mouthwash or medicines to help with the pain or to treat any infection. Follow their advice and make sure you:

- drink plenty of fluids
- avoid alcohol and tobacco
- avoid food or drinks that irritate your mouth and throat.

Constipation

This treatment can cause [constipation](#). Constipation means that you are not able to pass stools (poo) as often as you normally do. It can become difficult or painful. Here are some tips that may help:

- Drink at least 2 litres (3½ pints) of fluids each day.
- [Eat high-fibre foods](#), such as fruit, vegetables and wholemeal bread.
- Do regular gentle exercise, like going for short walks.

If you have constipation, contact the hospital on the 24-hour number for advice. They can give you drugs called laxatives to help.

If you have not been able to pass stools for over 2 days and are being sick, contact the 24-hour number straight away.

Diarrhoea

This treatment may cause [diarrhoea](#). Diarrhoea means passing more stools (poo) than is normal for you, or having watery or loose stools. You may also have stomach cramps. If you have a stoma, it may be more active than usual.

If you are passing loose stools 3 or more times a day and this is not normal for you, contact the hospital as soon as possible on the 24-hour number. Follow the advice they give you about:

- taking anti-diarrhoea medicines
- drinking enough fluids to keep you hydrated and to replace lost salts and minerals
- any changes to your diet that might help.

They might also ask you for a specimen of your stool to check for infection.

Headaches

This treatment may cause headaches. If you have headaches, tell your doctor, nurse or pharmacist. They can give you advice about painkillers that may help. Tell them if the headache does not get better, or gets worse.

Muscle or joint pain

You may get pain in your muscles or joints for a few days after treatment. If this happens, tell your doctor, nurse or pharmacist. They can give you painkillers and advice. They can also tell you if any of the painkillers you usually take are suitable.

Tell them if the pain does not get better. Having warm baths and resting regularly may help.

Less common side effects

Effects on the heart

This treatment can affect how the heart works. You may have [tests](#) to check how well your heart is working. These may be done before, during and after treatment.

If the treatment is causing [heart problems](#), your doctor may change the type of treatment you are having.

Contact the hospital straight away on the 24-hour number if you have any of these symptoms during or after treatment:

- breathlessness
- dizziness
- changes to your heartbeat (palpitations)
- swollen feet and ankles.

Other conditions can cause these symptoms, but it is important to get them checked by a doctor.

Always call 999 if you have:

- chest pain, pressure, heaviness, tightness or squeezing across the chest
- difficulty breathing.

Effects on the brain

Rarely, this treatment causes a brain condition that can be serious. You can make a full recovery from this. But it must be diagnosed and treated quickly.

This condition can cause:

- a headache that does not get better
- drowsiness or confusion
- changes in eyesight
- fits (seizures).

If you have any of these symptoms, it is important to either:

- contact the hospital straight away on the 24-hour number
- go to the hospital straight away.

You should not drive yourself to hospital.

Other important information

Blood clot risk

Cancer and some cancer treatments can increase the risk of a [blood clot](#). Contact the hospital straight away on the 24-hour number if you have any of these symptoms during or after treatment:

- throbbing pain or swelling in a leg or arm
- reddening of the skin in the area – if you have black or brown skin, this can be harder to notice, but the skin might become darker
- suddenly feeling breathless or coughing.

Always call 999 if you have:

- chest pain
- difficulty breathing.

A blood clot is serious, but it can be treated with drugs called anticoagulants. These thin the blood. Your doctor, nurse or pharmacist can give you more information about preventing and treating blood clots.

Other medicines

Some medicines can affect how this treatment works or be harmful while you are having it. Always tell your cancer doctor, nurse or pharmacist about any drugs you are taking or planning to take, such as:

- medicines you have been prescribed
- medicines you buy in a shop, pharmacy or online
- vitamins or supplements
- [herbal drugs and complementary or homeopathic therapies](#)
- recreational drugs – for example, cannabis.

Alcohol

Some preparations of this treatment contain alcohol. If having alcohol is a problem for you, tell your doctor, nurse or pharmacist. Your blood alcohol level may be above the legal limit after you have the treatment. Do not drive or operate machinery for a few hours after having this treatment, even if you feel okay.

Salt

Gemcitabine contains sodium. Talk to your doctor if you are on a low-salt diet.

Vaccinations

Cancer doctors usually recommend that people with cancer have vaccinations for [flu](#) and [coronavirus \(covid\)](#). They may also recommend other vaccines, such as Shingrix[®] for shingles. These all help reduce your risk of serious illness from these infections. Most people can have these vaccines, including people with weak immune systems.

You should not have live vaccines if your immune system is weak. This includes if you are having or recently had chemotherapy, radiotherapy or other cancer treatments that affect your immune system. Live vaccines can make you unwell because they contain a very weak version of the illness they protect you against. There are several live vaccines, including the yellow fever vaccine.

It is important to ask your doctor, nurse or pharmacist for advice about having vaccinations. They can explain what vaccines are right for you and when it is best to have them.

Contraception

Your doctor, nurse or pharmacist will advise you not to [get pregnant](#) or [make someone pregnant](#) while having this treatment and for some time afterwards. The drugs may harm a developing baby. It is important to use contraception to prevent pregnancy. Follow their advice about:

- what types of contraception to use
- how long after treatment you should continue to use contraception.

Breastfeeding

You are advised not to [breastfeed](#) while having this treatment, or for some time after treatment ends. This is because the drugs could be passed to the baby through breast milk.

Your doctor, nurse or pharmacist can give you more information.

Fertility

Some cancer drugs can affect whether you can [get pregnant](#) or [make someone pregnant](#). If you are worried about this, it is important to talk with your doctor before you start treatment.

Sex

It is possible that small amounts of chemotherapy may be passed on through vaginal fluids or semen. If you have sex during this treatment, your cancer team will usually advise using condoms or a dental dam to protect your partner.

Medical and dental treatment

If you need medical treatment for any reason other than cancer, always tell the healthcare professional that you are having cancer treatment. Give them the contact details for your cancer doctor or cancer team so they can ask for advice.

If you have appointments with a dentist, always tell them you are having cancer treatment. Talk to your cancer team before you have any dental treatment.

About our information

References

Visit the [electronic Medicines Compendium \(eMC\)](#) to download a Patient Information Leaflet (PIL) for more detailed information. The leaflet lists all known side effects.

Reviewers

This information has been written, revised and edited by Macmillan Cancer Support's Cancer Information Development team. It has been reviewed by expert health professionals and people living with cancer. Our cancer information has been awarded the [PIF TICK](#). Created by the Patient Information Forum, this quality mark shows we meet PIF's 10 criteria for trustworthy health information.

The language we use

We want everyone affected by cancer to feel our information is written for them.

We want our information to be as clear as possible. To do this, we try to:

- use plain English
- explain medical words
- use short sentences
- use illustrations to explain text
- structure the information clearly
- make sure important points are clear.

We use gender-inclusive language and talk to our readers as 'you' so that everyone feels included. Where clinically necessary we use the terms 'men' and 'women' or 'male' and 'female'. For example, we do so when talking about parts of the body or mentioning statistics or research about who is affected.

You can read more about how we produce our information [here](#).

Date reviewed

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ⓘ This content is currently being reviewed. New information will be coming soon.



Patient Information Forum

Our cancer information meets the [PIF TICK](#) quality mark.

This means it is easy to use, up-to-date and based on the latest evidence. Learn more about [how we produce our information](#).

How we can help

How to print a PDF from this website

Instructions on how you can make a PDF version of this page using the print function on your browser.

Clinical Information Nurse Specialists

Our Cancer Information Nurse Specialists are dedicated cancer nurses available to talk to on our Macmillan Cancer Support Line.

Call us free on 0808 808 00 00

8am to 8pm, 7 days a week. You can talk to our cancer specialists about anything.

Online Community

Chat online anonymously to others who understand what you are going through. Our community is available 24/7 and has dedicated forums where you can get advice and ask our experts.

Find local cancer support services

What's going on near you? Find out about support groups, where to get information and how to get involved with Macmillan where you live.

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