

POMB/ACE chemotherapy

POMB/ACE is a chemotherapy treatment used to treat [testicular](#) cancer and a rare type of [ovarian](#) cancer.

On this page

- [The drugs used in POMB/ACE](#)
- [How POMB/ACE is given](#)
- [Animations and information you might find helpful](#)
- [Possible side effects of POMB/ACE](#)
- [Less common side effects of POMB/ACE](#)
- [Other information about POMB/ACE](#)
- [References and thanks](#)

This information should ideally be read with our general information about [chemotherapy](#) and your [type of cancer](#).

The drugs used in POMB/ACE

POMB/ACE is named after the initials of the chemotherapy drugs used:

- [cisplatin](#), which contains platinum
- [vincristine](#), which was originally called Oncovin ®
- [methotrexate](#)
- [bleomycin](#)
- [dactinomycin](#) (sometimes called actinomycin D)
- [cyclophosphamide](#)
- [etoposide](#).

How POMB/ACE is given

POMB/ACE is given as two separate treatments – POMB and ACE. You usually have the POMB treatment during a short stay in hospital. The ACE treatment is given either in the chemotherapy day unit, or during a short stay in hospital. A chemotherapy nurse will give it to you.

During treatment you usually see a cancer doctor, a chemotherapy nurse or a specialist nurse. This is who we mean when we mention doctor or nurse in this information.

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

You will also see a doctor or nurse before you have chemotherapy. They will ask you about how you have been. If your blood results are alright on the day of your treatment, the pharmacist will prepare your chemotherapy. Your nurse will tell you when your treatment is likely to be ready.

Your nurse will give you anti-sickness drugs before the chemotherapy. They will also give you extra fluids through a drip before and during your treatment. The drugs and fluids are given through one of the following:

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

Some of the chemotherapy may be run through a pump, which gives you the treatment over a set time. Some drugs are given as an injection into a fast flowing drip. Some drugs are given as a drip (infusion).

POMB

On the first day (day 1), your nurse will give you vincristine as a short infusion. They will then give you the methotrexate. You may have an injection of methotrexate followed by an infusion of methotrexate over 12 hours.

On day 2, the nurse will give you bleomycin as an infusion over 24 hours. On day 3, they will give you cisplatin as an infusion over 8-12 hours. Before and after treatment with cisplatin, you'll be given plenty of fluid through your cannula or line to keep your kidneys working normally.

You will also be given another drug called folinic acid (sometimes called leucovorin). It is given either as a series of injections into the vein or as tablets. It's important to take this exactly as you are told, as it helps reduce the side effects of methotrexate. You normally start taking the folinic acid 24 hours after the start of the methotrexate. Your nurse or doctor will tell you more.

ACE

On the first day of ACE chemotherapy (day 1), your nurse will give you an injection of dactinomycin into a fast-flowing drip to flush it through. You will then be given etoposide as a short infusion over about an hour. You'll have the same treatment on day 2 and day 3, but on day 3 you'll also have an infusion of cyclophosphamide over an hour or as a slow injection.

When the chemotherapy is being given

Some people might have side effects while they are having the chemotherapy:

Allergic reaction

Rarely, chemotherapy may cause an allergic reaction while it's being given. Your nurse will check you for this. If you have a reaction, they will treat it quickly. Signs of a reaction can include: a rash, feeling itchy, flushed or short of breath; swelling of your face or lips; feeling dizzy; having pain in your tummy, back or chest; or feeling unwell. Tell your nurse straight away if you have any of these symptoms.

The drug leaks outside the vein

If this happens when you're having chemotherapy it can damage the tissue around the vein. This is called extravasation. Tell the nurse straight away if you have any stinging, pain, redness or swelling around the vein. Extravasation is not common but if it happens it's important that it's dealt with quickly.

If you get any of these symptoms after you get home, contact the doctor or nurse straightaway on the number they gave you.

Pain along the vein

If you have this, tell your nurse straight away. They will check your drip site and slow the drip to ease the pain.

Flushes, dizziness, a strange taste and a blocked nose

If you have any of these symptoms, tell the doctor or nurse. Slowing down the drip should reduce these effects.

Your course of POMB/ACE

You have chemotherapy as a course of several sessions (or cycles) of treatment over a few months. Each cycle of POMB or ACE takes 14 days (two weeks).

POMB

The drugs are given over three days as described above. You then have a rest period with no drugs (apart from folinic acid) for 11 days. This makes up a cycle of POMB.

ACE

You'll have the drugs given as described above. After this, you'll have a rest period with no treatment for the

next 11 days. This completes a cycle of ACE treatment.

At the end of each cycle (either POMB or ACE), you start the next cycle of your treatment. The number of cycles you have will depend on your situation and on the level of tumour markers in your blood.

The treatments are given in the following order: POMB-POMB-ACE-POMB-ACE. This is followed by alternating cycles of POMB and ACE until the tumour markers return to normal. If you need more than four cycles of POMB you will usually only be given the vincristine, methotrexate and bleomycin part of the treatment (OMB).

Your doctor or nurse will tell you the number of cycles you are likely to have.

Going home

Before you go home, the nurse or pharmacist will give you [anti-sickness drugs](#) to take. Take all your tablets exactly as they have explained to you.

Before you leave hospital after the POMB treatment, the nurse or pharmacist will give you folic acid tablets to take when you are at home. Always take your tablets exactly as explained. This is important to make sure they work as well as possible for you and to help prevent serious side effects.

If you are sick just after taking the tablets, contact the hospital. You may need to take another dose. If you forget to take a tablet, do not take a double dose. Keep to your regular schedule and let your doctor or nurse know.

Other things to remember about your tablets:

- Keep them in the original package at room temperature, away from heat and direct sunlight.
- Keep them safe and out of the reach of children.

Animations and information you might find helpful



[Having a central line](#)

This animation is about central lines, how they are fitted and what they are for.



[Having a PICC line](#)

This animation is about PICC lines, how they are fitted and what they are for.

Possible side effects of POMB/ACE

We explain the most common [side effects](#) of POMB/ACE here. But we don't include all the rare ones that are unlikely to affect you.

You may get some of the side effects we mention but you are very unlikely to get all of them. Always tell your doctor or nurse about the side effects you have. Your doctor can prescribe drugs to help control some of these. It's very important to take the drugs exactly as your nurse or pharmacist has explained. This means

they will be more likely to work better for you.

Your nurse will give you advice about managing your side effects. After your treatment is over, they will start to improve.

Contact the hospital

Your nurse will give you a telephone numbers to call the hospital. You can call them if you feel unwell or need advice any time of day or night. Save these numbers in your phone or keep them somewhere safe.

Risk of infection

POMB/ACE can reduce the number of white blood cells in your blood. This will make you more likely to get an [infection](#). When the number of white blood cells is low, it's called neutropenia.

Your nurse may give you injections of a drug called GCSF under the skin (subcutaneously). It encourages the bone marrow (where blood cells are made) to make more white blood cells.

Contact the hospital straight away on the contact number you've been given if:

- our temperature goes over 37.5°C (99.5°F) or over 38°C (100.4°F), depending on the advice given by your chemotherapy team
- you suddenly feel unwell, even with a normal temperature
- you have symptoms of an infection – this can include feeling shaky, a sore throat, a cough, diarrhoea or needing to pass urine a lot.

Your white blood cells usually increase steadily and return to normal before your next treatment. You will have a blood test before having more chemotherapy. If your white blood cells are still low, your doctor may delay your treatment for a short time.

Bruising and bleeding

POMB/ACE can reduce the number of platelets in your blood. Platelets are cells that help the blood to clot. Tell your doctor if you have any bruising or bleeding you can't explain. This includes nosebleeds, bleeding gums, blood spots or rashes on the skin. Some people may need a drip to give them extra platelets.

Anaemia (low number of red blood cells)

POMB/ACE can reduce the number of red blood cells in your blood. These cells carry oxygen around the body. If the number of red blood cells is low, you may be tired and breathless. Tell your doctor or nurse if you feel like this. If you are very anaemic, you may need a drip to give you extra red cells ([blood transfusion](#)).

Feeling sick and being sick

This may happen in the first few days after chemotherapy. Your doctor will prescribe anti-sickness (anti-emetic) drugs to prevent or [control sickness](#). Take the drugs exactly as your nurse or pharmacist explains to you. It's easier to prevent sickness than to treat it after it has started.

If you still feel sick or are vomiting, contact the hospital as soon as possible. They can give you advice and change the anti-sickness drug to one that works better for you. Some anti-sickness drugs can make you constipated. Let your doctor or nurse know if this is a problem.

Sore mouth

Your mouth may [become sore](#) and you may get ulcers. This can make you more likely to get an infection in your mouth. Gently clean your teeth and/or dentures morning and night and after meals. Use a soft-bristled or children's toothbrush. Your nurse might ask you to rinse your mouth regularly or to use mouthwashes. It's important to follow any advice you are given and to drink plenty of fluids.

The folic acid tablets you have been given will help to reduce the risk of a sore mouth. It is important that you take the tablets as instructed.

Tell your nurse or doctor if you have any problems with your mouth. They can prescribe medicines to prevent or treat mouth infections and reduce any soreness.

Taste change

You may get a bitter or metallic taste in your mouth or find that [food tastes different](#). This should go away when your treatment finishes. Try using herbs and spices (unless you have a sore mouth or ulcers) or strong-flavoured sauces to give your food more flavour. Sucking boiled sweets or chewing sweets such as wine gums can sometimes help get rid of a bitter or metallic taste. Your nurse can give you more advice.

Loss of appetite

You may [lose your appetite](#) during your treatment. Try to eat small meals regularly. Don't worry if you don't eat much for a day or two. If your appetite doesn't improve after a few days, let your nurse or dietitian know. They can give you advice on getting more calories and protein in your diet. They may give you food supplements or meal replacement drinks to try. Your doctor can prescribe some of these and you can buy them from chemists.

Diarrhoea

Your doctor can prescribe drugs to control [diarrhoea](#). Let them know if it is severe or doesn't get better. Make sure you drink at least two litres (three and a half pints) of fluids every day if you have diarrhoea. The folic acid tablets you have been given will help to reduce the risk of severe diarrhoea. It is important that you take the tablets as instructed.

Fever and chills

This often happens several hours after bleomycin is given but doesn't usually last long. Your doctor may give you a steroid drug beforehand to reduce this side effect.

Tiredness

[Feeling very tired](#) is a common side effect. It's often worse towards the end of treatment and for some weeks after it's finished. Try to pace yourself and get as much rest as you need. It helps to balance this with taking some gentle exercise, such as short walks. If you feel sleepy, don't drive or operate machinery.

Skin changes

Chemotherapy may affect your skin. Your doctor or nurse can tell you what to expect. If your skin feels dry, try using an unperfumed moisturising cream every day. During treatment and for several months afterwards, you'll be more sensitive to the sun and your skin may burn more easily than usual. You can still go out in the sun, but use a suncream with a sun protection factor (SPF) of at least 30, and cover up with clothing and a hat.

Your skin may darken during treatment. Occasionally, bleomycin causes long thin streaks that look a bit like scratches to appear on one or more areas of skin. If you've had radiotherapy (either recently or in the past), the area that was treated may become red or sore.

Always tell your doctor or nurse about any skin changes. They can give you advice and may prescribe creams or medicines to help. Try to avoid scratching as this can cause brown marks on the skin. Any changes to your skin are usually temporary and improve when treatment finishes.

Hair loss

You usually lose all the hair on your head. Your [eyelashes, eyebrows and other body hair](#) may also thin or fall out. This usually starts after your first or second cycle of ACE. It is almost always temporary and your hair will grow back after chemotherapy ends. It is important to cover your head to protect your scalp when you are out in the sun until your hair grows back. Your nurse can give you advice about coping with [hair loss](#).

Nail changes

Your nails may become darker or ridged. These usually grow out over several months after treatment ends.

Numb or tingling hands or feet

These symptoms are caused by the effect of vincristine and cisplatin on the nerves. It's called [peripheral neuropathy](#). You may also find it hard to fasten buttons or do other fiddly tasks.

Tell your doctor if you have these symptoms. They sometimes need to lower the dose of the drug. The symptoms usually improve slowly after treatment finishes, but in some people they may never go away. Talk to your doctor if you are worried about this.

Constipation

Vincristine may make you [constipated](#) and cause tummy pain. Drinking at least two litres of fluids (three and a half pints) every day will help. Try to eat more foods that contain fibre (such as fruit, vegetables and wholemeal bread) and take some regular gentle exercise.

If you haven't had a bowel motion for two days, contact the hospital for advice. Your doctor can prescribe laxatives to help you. Waiting more than two days can make constipation more difficult to treat. Contact the hospital straightaway if you are constipated and have tummy pain or are being sick.

Watery eyes

Methotrexate can cause your eyes to become watery. They may also become sore and inflamed (conjunctivitis). Your doctor can prescribe eye drops if you need these.

Changes in hearing

You may have ringing in the ears (tinnitus), and you may lose the ability to hear some high-pitched sounds. Very occasionally, your sense of balance may be affected.

Any hearing loss and balance changes, if they occur, may be permanent. However, tinnitus usually improves when treatment ends. Tell your doctor if you notice any loss of hearing or tinnitus.

Your kidneys may be affected

This doesn't usually cause any symptoms, and the effect is generally mild. Rarely, cisplatin may cause permanent damage to the kidneys unless treatment with it is stopped.

Before each treatment, your kidneys will be checked with a blood test. You'll be given fluid through a drip (infusion) before and after the treatment to keep your kidneys working normally. You may be asked to measure and record what you drink and the amount of urine you pass. It's important to tell your nurse or doctor if you pass less urine than usual.

If necessary, you may be given medicine, either tablets or injections, to help you pass urine. You may be asked to drink extra fluid before and after treatment. It's important to do this so let your doctor know if this is a problem – for example, if you're feeling sick.

Less common side effects of POMB/ACE

Your liver may be affected

The treatment may cause changes in the way your liver works, although it will return to normal when the treatment finishes. You're very unlikely to notice any problems, but your doctor will take regular blood samples to check your liver is working properly.

Your lungs may be affected

Bleomycin can cause changes to the lungs. These are more likely if you already have lung problems. Always tell your doctor if you develop wheezing, a cough, fever or feel breathless. You should also let them know if any existing breathing problems get worse. You may have lung tests done before starting bleomycin and again during the treatment. Cyclophosphamide and methotrexate may cause less serious changes to lung tissue.

Bladder irritation

Cyclophosphamide may irritate your bladder and cause discomfort when you pass urine. Drink plenty of fluids – at least two litres (three and a half pints) – especially during the 24 hours following chemotherapy. It is also important to empty your bladder regularly and to try to pass urine as soon as you feel the need to go.

Contact the hospital straight away if you feel any discomfort or stinging when you pass urine, or if you notice

any blood in it.

Second cancer

There's a very small risk of developing a second cancer many years later. Your doctor or nurses can discuss this with you.

It's important to tell your doctor or nurse straight away if you feel ill or have severe side effects. This includes any we don't mention here.

Other information about POMB/ACE

Blood clot risk

Cancer increases the chance of a blood clot (thrombosis) and having chemotherapy can add to this risk. A clot can cause symptoms such as pain, redness and swelling in a leg, breathlessness and chest pain. Contact your doctor straight away if you have any of these symptoms. A blood clot is serious but your doctor can treat it with drugs that thin the blood. Your doctor or nurse can give you more information.

Some people having POMB/ACE are given medicine to thin their blood (anticoagulants), to help prevent blood clots. It is usually given as an injection under the skin during the time you are an inpatient.

Other medicines

Some other medicines can interact with chemotherapy. Medicines, including some painkillers, such as ibuprofen, drugs to control high blood pressure, and the drug allopurinol can make the side effects of POMB/ACE worse. Tell your doctor if you are taking any of these.

Chemotherapy may affect how some other drugs work. Tell your doctor if you are taking phenytoin (used to control fits), as it may be less effective than normal.

Medicines you can buy in a shop or from a chemist may also be harmful when you are having chemotherapy. Tell your doctor about any medicines you are taking, including over-the-counter drugs, [complementary therapies](#) and [herbal drugs](#).

Fertility

POMB/ACE may affect your [fertility](#) (being able to get pregnant or father a child). If you are worried about this, you should talk to your doctor or nurse before treatment starts.

Contraception

Your doctor will advise you not to become pregnant or to father a child during treatment. This is because the drugs may harm a developing baby. It's important to use effective contraception during and for a few months after chemotherapy. You can talk to your doctor or nurse about this.

Sex

If you have sex within the first couple of days of having chemotherapy you need to use a condom. This is to protect your partner in case there are any chemotherapy drugs in your semen or vaginal fluid.

Changes to your periods

Chemotherapy can sometimes stop the ovaries working. You may not get a period every month and they may eventually stop. In some women, this is temporary, but for others it is permanent and they start the menopause.

Breastfeeding

Women are advised not to breastfeed during treatment and for a few months after. This is in case there are chemotherapy drugs in their breast milk.

Medical and dental treatment

If you need to go into hospital for any reason other than cancer, always tell the doctors and nurses that you are having chemotherapy. Explain you are taking chemotherapy tablets that no one should stop or restart without advice from your cancer doctor. Give them contact details for your cancer doctor.

Talk to your cancer doctor or nurse if you think you need dental treatment. Always tell your dentist you are having chemotherapy.

References and thanks

This section has been compiled using information from a number of reliable sources, including:

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Thanks to people like you

Thank you to all of the people affected by cancer who reviewed what you're reading and have helped our information to grow.

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