



KEEP ALL MEDICINE OUT OF THE SIGHT AND REACH OF CHILDREN

FEC

What is FEC?

FEC is the name of a chemotherapy combination used to treat breast cancer. It is most often used to try to stop breast cancer from coming back after surgery and radiotherapy. This is known as adjuvant therapy. There are a number of combinations of drugs for women with breast cancer. FEC is just one type of treatment. Your doctor will decide which combination is best to treat the type of breast cancer and stage of your breast cancer.

FEC is made up of the drugs

- F= Fluorouracil (5FU)
- E= Epirubicin
- C= Cyclophosphamide

How you have FEC

- You have FEC drugs into your bloodstream (intravenously). You can have them through a thin, short tube (a cannula) put into a vein in your arm each time you have treatment. Or you may have them through a portacath . These are devices placed into your chest in theatre with a tube that goes to the top of your heart that give the drugs directly into a large vein in your chest.
- You usually have FEC chemotherapy as cycles of treatment. You have each FEC treatment over 3 or 4 weeks. This is one cycle. It is most common to have 6 cycles of treatment with FEC. But some people have up to 8 treatments.
- FEC is given by an infusion every 3 weeks. You have all 3 drugs injected on the first day of each 3 week cycle.
- The side effects of a combination of drugs are usually a mixture of those of each drug. The combination of drugs may increase or decrease your chance of getting each side effect. Or it may change the severity.

Common side effects

More than 10 in every 100 people have one or more of the side effects listed below.

- A temporary drop in the number of blood cells made by the bone marrow, causing
- An increased risk of getting an infection from a drop in white blood cells – it is harder to fight infections and you can become very ill. You may have headaches, aching muscles, a cough, sore throat, pain passing urine or feel cold and shivery
- Tiredness and breathlessness due to a drop in red blood cells (anaemia) – you may need a blood transfusion
- Bruising more easily due to a drop in platelets – you may have nosebleeds, bleeding gums after brushing your teeth, or lots of tiny red spots or bruises on your arms or legs (known as petechia)
- Some of these side effects can be life threatening, particularly infections. You should contact your treatment team if you have any of these side effects.
- **Contact your treatment center straight away if you have any of these effects or if your temperature goes above 38°C**



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- Your doctor will check your blood counts regularly to see how well your bone marrow is working.
- Fatigue during and after treatment – most people find their energy levels are back to normal within 6 months to a year
- Hair loss happens to almost everyone treated with FEC – complete head and body hair loss usually begins 2 to 5 weeks after the treatment starts. Remember that this is only temporary and using a cold cap may help to prevent hair loss
- Loss of appetite
- Diarrhoea – make sure you drink plenty of fluids and if diarrhoea becomes severe or lasts more than 3 days, tell your doctor or nurse, who can give you medicines to help
- Loss of taste or a metallic taste may happen on the days you are having your drugs – it should get better when treatment finishes
- Feeling or being sick can be quite severe with FEC but can usually be well controlled with anti sickness medicines. It usually starts a few hours after each treatment and lasts for about a day. It is quite common for people taking cyclophosphamide tablets. Try taking anti sickness tablets at least an hour before you take your cyclophosphamide. If your sickness is not controlled, tell your doctor or nurse. You may be able to have other anti sickness drugs that work better for you
- A sore mouth or mouth ulcers
- Sore eyes – your doctor or nurse can prescribe eye drops to help
- Blurred vision
- Watery eyes due to overproduction of tears
- Women may stop having periods (amenorrhoea) but this may only be temporary
- Loss of fertility – you may not be able to get pregnant or father a child after treatment with these drugs. It is important to talk to your doctor about your fertility before starting treatment if having a baby is important to you
- FEC may have a harmful effect on a developing baby. It is not advisable to become pregnant or father a child if you are having this treatment. Talk about contraception with your doctor or nurse before having the treatment
- Your urine may become a pink or red colour the day after having epirubicin – this is due to the colour of the drug and will not harm you

Occasional side effects

Between 1 and 10 in every 100 people have one or more of these.

- Skin changes – your skin may darken or you may have an itchy rash. Brown markings can occur in the skin following the line of the vein where you have fluorouracil injected
- Skin sensitivity to sunlight – use a high factor sun cream and cover up when you go out
- Nail changes – your nails may become ridged, darker, or may get brittle and chip or break easily
- Changes to liver function – you will have blood tests to check for this
- Inflammation around the drip site – if you notice any signs of redness, swelling or leaking at your drip site, tell your chemotherapy nurse immediately



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- Some people have an allergic reaction while having FEC treatment, usually at the first or second treatment – let your treatment team know immediately if you have any skin rashes, itching, feeling hot, shivering, going red in the face, feeling dizzy, headaches, shortness of breath, anxiety or a sudden need to pass urine

Rare side effects

Fewer than 1 in 100 people have these.

- Confusion or unsteadiness
- Burning, stinging or pain on passing urine (cystitis) – if you see blood in your urine contact your doctor straight away
- Damage to heart muscle, which is usually temporary but for a small number of people may be permanent – your doctor will check your heart before and after your treatment
- Changes in lung tissue over many years can cause a cough or breathlessness
- There is a small risk that you may get a second cancer some years after FEC treatment.

Important points to remember

You may have some of the side effects above. A side effect may get worse through your course of treatment. Or you may have more side effects as the course goes on. This depends on

- How many times you've had a drug before
- Your general health
- How much of the drug you have (the dose)
- The way you take the drug (tablets or drip)
- Other drugs you are having

Coping with side effects

Talk to your doctor, pharmacist or nurse about all your side effects so that they can help you manage them. They can give you advice or reassure you. Your nurse will give you a contact number to ring if you have any questions or problems. If in doubt, call them.

Other medicines

Tell your doctor about any other medicines you are taking, including vitamins, herbal supplements, and over the counter remedies – some drugs can react together.

Pregnancy and contraception

These drugs may have a harmful effect on a developing baby and it is not advisable to become pregnant or father a child if you are having this treatment. Talk about contraception with your doctor or nurse before treatment starts.

Breastfeeding

Breastfeeding is not advisable during this treatment because the drug may come through in the 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. Give them contact details for your cancer doctor.



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

Immunisations and chemotherapy

- You should not have immunisations with live vaccines while you are having chemotherapy or for at least 6 months afterwards. These include rubella, mumps, measles (usually given together as MMR), BCG, yellow fever and Zostavax (shingles vaccine).
- You can have other vaccines, but they may not give you as much protection as usual until your immune system has fully recovered from your chemotherapy. It is safe to have the flu vaccine.
- It is safe for you to be in contact with other people who've had live vaccines as injections. There can be problems with vaccines you take by mouth (oral vaccines), but not many people have these now. So there is usually no problem in being with any baby or child who has recently had any vaccination. You might need to make sure that you aren't in contact with anyone who has had oral polio, cholera or typhoid vaccination recently, particularly if you live abroad.