

Methotrexate treatment

- Oral methotrexate pre-treatment patient information leaflet
- Patient-held blood monitoring and dosage record booklet

This leaflet has been prepared to support information given to you as part of your discussions with the doctor, nurse or pharmacist before you start treatment with oral methotrexate. This leaflet should be used to help you in these discussions. The specialists you are seeing may also provide you with some information about your condition and how to take your methotrexate.

Every bottle or carton of medicine you collect from your pharmacy will also contain important information that you should read.

This leaflet does not cover information for children or young people with arthritis treated with methotrexate. For information on treatments for children refer to: **www.bspar.org.uk**

These guidelines have been written to help you understand more about low dose methotrexate. Sometimes your treatment may differ from the information provided in this leaflet. The doctor or nurse will be able to explain the reasons for this when they advise you about your treatment.

Please keep this pre-treatment leaflet as there is important information that can act as a reminder to you while you are treated with methotrexate.

Please take this leaflet with you when you go to see your doctor, nurse or pharmacist.

Contact details for the healthcare staff looking after you

This booklet belongs to:

Date of birth

Hospital/clinic

Record No.

Consultant/specialist

Hospital pharmacy

Telephone helpline/specialist nurse _____

GP surgery address _____

GP surgery telephone _____

Community pharmacy _____

Pharmacy address _____

Pharmacy telephone _____

If found, please return this booklet to _____

Low dose methotrexate (25mg or less once a week)

What it is

Methotrexate was first used, in high doses, to treat cancer but experience over thirty years has shown that methotrexate at much lower doses is helpful in the treatment of a number of joint, skin and bowel conditions. Methotrexate is a well established effective treatment for several different types of rheumatic diseases (for example, rheumatoid arthritis, psoriatic arthritis, juvenile idiopathic arthritis), severe psoriasis and for bowel diseases (such as Crohn's disease). It is also used in some other conditions where the body's natural defence system is overactive.

Most people receiving methotrexate are greatly helped by it and suffer few, if any, problems. It is however a powerful medicine and must be treated with respect. This leaflet tells you more about methotrexate and how the risks or problems can be kept to a minimum.

The doctor or nurse treating your condition may give you more information that explains about your particular condition and your treatment. You should read all the information you receive.

This leaflet only provides information for people being treated with low dose methotrexate (25mg or less once a week) for inflammatory conditions. It **does not cover** treatment for cancer as the dose of methotrexate is much higher and the treatment may vary considerably to the information provided in this leaflet.

What methotrexate can do

Methotrexate acts by slowing the production of new cells by the body's immune system. This helps to reduce the inflammation that causes swelling and stiffness of joints, thickened skin or damage to the bowel responsible for the problems you experience with your condition. Methotrexate reduces the permanent damage to joints caused by continuing inflammation. It is not a painkiller.

Seeing the benefits

It may take up to 12 weeks after reaching the best dose for your condition before you notice any benefits. It is important that you continue to take your treatment. Although you may not feel any benefit during this time, it is likely that the methotrexate is working.

Methotrexate cannot cure your condition and you may need to take it for several years to keep your symptoms controlled.

What happens before I start treatment?

Before you start treatment you will need some blood tests to check your blood count, liver and kidneys. You may be asked to have a chest x-ray and may also be asked to have breathing tests to check your lungs. This information will provide a record of how you are before you start treatment and to check whether methotrexate is a suitable treatment for you. A very small number of people will be unable to take methotrexate because of lung or liver problems.

You will be asked about any other medicines, herbal, complementary or alternative therapies you are taking as these can interact with the methotrexate.

Effective contraception must be used by both men and women receiving methotrexate. **You must not take** methotrexate if you might be pregnant or are wishing to start a family.

Your dose

A typical dose will range from 7.5mg to 25mg **once a week**. Methotrexate is **never** taken every day. The dose will vary for each person depending upon many factors such as how active your disease is and how you respond to the treatment.

Methotrexate is usually given as tablets but in some circumstances can be given as a liquid or by injection. If you are prescribed a liquid or injection, you should check how to take these with your doctor, nurse or pharmacist.

Once a week

Your methotrexate should **only** be taken as a single **once a week dose** on the same day each week.

What happens if I forget to take my tablets?

If you miss your methotrexate on your normal day, don't worry: you can take it the following day or two. For example, if your normal day for taking your dose is Tuesday, you can take it on Wednesday or Thursday. Do not take the dose if you are three or more days late. A flare-up of the disease during this time is unlikely. In both cases, take your next dose on your usual day the following week.

Folic acid

A vitamin supplement called folic acid has been shown to help your body cope with the methotrexate and also reduces some of the side effects you may experience. Your doctor or nurse will advise you when you should take these tablets. See the section on possible side effects later in this leaflet.

It is important that you do not forget to take the folic acid that you are prescribed.

How to take methotrexate

You should take the tablets by mouth, after food. Swallow the tablets whole with a glass of water and do not crush or chew them.

Safety in the home

You must keep methotrexate out of reach of children and pets and handle the methotrexate as little as possible.

Tablets should be stored at room temperature.

If you have been prescribed a liquid or injection you should check how to store these with your pharmacist or nurse.

Check your prescription and tablets very carefully every time you collect your medicines

Methotrexate tablets are made in two different strengths, 2.5mg and 10mg. The two strengths are different shapes but the tablets are a very similar colour.

It is important that you take the correct strength and dose of tablets. Always double-check your prescription carefully in case you have been given a different strength of tablet to usual.

Some hospitals and doctors have agreed to only use the 2.5mg strength to prevent any confusion; ask your doctor, nurse or pharmacist whether this has been agreed in your area.

It is important that you **do not** use your medicine if you think you have the wrong strength. Check with your doctor, nurse or pharmacist as soon as possible.

The doctor may wish to change the dose of methotrexate you take. If your dose changes, the number of tablets you need to take may change. It is important to show the pharmacist your record book each time you collect your medicines. You will still need to take the medicine only **once a week**.

Why you need regular blood tests

When you first start treatment, blood tests will usually be taken every week or at least once a fortnight. Once the dose is stable, and the blood tests are satisfactory, the frequency of your monitoring will be reduced. Regular blood tests will help your doctor, nurse or pharmacist check how well your body is coping with the methotrexate and will help to decide whether you can continue on the treatment. The doctor may increase or decrease the number of tablets you take depending upon how well your treatment is controlling your condition.

It will be your responsibility to ensure that you attend regularly for your blood tests. It is important that you **do not miss your blood tests.**

It is important that you **do not** take methotrexate unless you are having regular blood tests. You should attend for your review appointments to ensure that you are being carefully monitored whilst you are receiving treatment.

In most cases your blood tests will tell the doctor how your liver and bone marrow is coping with the methotrexate. Occasionally further tests (for example, liver biopsy) may be needed to decide if you can stay on your medicine.

Who will be checking my blood test?

When you start treatment your doctor or nurse will explain to you how the monitoring of your medication will be managed. This may be managed by your hospital team or shared between the hospital and your own general practitioner team. Details of your blood test results will be recorded in the monitoring booklet section of this leaflet.

Monitoring booklets

The monitoring booklet is a valuable document which should be kept carefully and taken with you every time you see your general practitioner or attend hospital appointments. Although in some parts of the country computer systems allow some sharing of blood test results

between your general practitioner and hospital, there are many parts of the country where your specialist or the doctor treating you in an emergency will not have access to the results of blood tests organised by your general practitioner. It is therefore important that the results of your blood tests are recorded and are kept up-to-date.

What problems must I look out for?

Most people on low dose methotrexate cope well with few, if any, side effects. However, you should be aware of some of the problems which can occur. It is always important to take note of any new symptoms you experience after starting treatment and discuss them with your doctor, nurse or pharmacist.

There are also some side effects that must be dealt with **immediately** (see 'Side effects/problems that mean I need to stop treatment immediately and get urgent medical advice').

General information about some side effects

If you experience one of the side effects mentioned below **do not take your next dose of methotrexate** until you have sought advice. You will be advised by your doctor or nurse whether you will be able to restart methotrexate once your problem has been investigated.

Do not take your next dose until you have spoken to your doctor, nurse or pharmacist.

Feeling sick, upset stomach or diarrhoea

When you first start treatment you may feel unwell. This normally settles but may persist. Speak to your doctor or nurse as something can be done to help. These symptoms can be helped in one of three ways:

- you may be advised to increase the amount of the folic acid supplement you take;
- you may be advised to take another tablet that reduces the feeling of sickness. These tablets are called anti-emetics;
- the doctor may wish to change your treatment to methotrexate by injection once a week.

If you vomit within a few hours of taking methotrexate **do not take another dose**. Make a note that you have been unable to take your tablet and tell your doctor or nurse if this happens again the following week.

Effects on your bone marrow or liver

Your blood tests will help to monitor these. Symptoms that may show problems with the bone marrow or liver include regularly catching infections, bruising or bleeding easily. Your doctor or nurse monitoring your treatment will contact you if there are any problems with your blood test results. Occasionally changes in your blood may mean you have to stop your methotrexate.

Mouth ulcers, sore throat or sore mouth

If you experience mouth ulcers, or a sore throat or mouth, speak to your doctor, nurse or pharmacist. It may be necessary for you to have a blood test to check how your body is coping. In many cases, if your blood tests are normal, you may be given some medication to treat these problems.

Infections

Methotrexate may reduce your ability to fight infections and this can be a problem in some individuals who may be more vulnerable to infections.

It is important to get prompt advice if you think you have an infection (for example, a wound that fails to heal promptly, pain or burning when passing water, or a chest infection).

Rashes – new rash or severe itching anywhere on the body

If you get a new rash or severe itching seek advice from your doctor, nurse or pharmacist.

Thinning of the hair

This can happen, although it is uncommon and, if it does happen it is usually slight. Hair growth usually returns to normal on stopping treatment. If you feel this becomes more than a very slight hair loss you should discuss it with your doctor.

Other problems may be experienced. Report these to your doctor or nurse if the problems continue or if they occur after every dose.

Side effects/problems that mean I need to stop treatment immediately and get urgent medical advice

Shortness of breath (breathlessness)

Methotrexate can very occasionally cause inflammation of the lungs. The breathlessness caused by methotrexate can come on gradually or over a few days. You may also have a dry cough. If you feel breathless when resting and you don't have a heavy cold (runny nose and temperature) you should **stop your methotrexate** and **contact your doctor or nurse**. It is important that the doctor examines you as very occasionally methotrexate can cause severe inflammation of the lungs.

If the whites of your eyes become yellow or you develop severe itching of the skin

Stop treatment and seek advice from your doctor or nurse, as these are sometimes signs of liver problems.

Infections, including fever, chills or severe sore throats

It is important that you are careful about the risks of infections and take sensible precautions to avoid them. If you have any infection **stop your methotrexate** and get prompt advice from your doctor or nurse.

New unexplained bleeding or bruising

This can sometimes mean that your blood cells are affected by the methotrexate. **Stop your methotrexate** and seek advice from your doctor or nurse.

Severe and continuing diarrhoea or vomiting

If you have severe diarrhoea and vomiting or are unable to take fluids you may become dehydrated. Your kidneys may then be unable to flush methotrexate from your blood. **Stop your methotrexate** and seek advice from your doctor or nurse.

If you think you are pregnant

Methotrexate may harm the unborn child and cause a miscarriage. Men who are taking methotrexate should note that your treatment may affect your sperm and therefore you should ensure your partner should not become pregnant whilst you are on the treatment. Women who become pregnant whilst on the treatment should **stop their treatment immediately** and speak to their doctor. For women who have a partner taking methotrexate, please see your doctor for advice if you become pregnant.

Chickenpox and shingles

If you are taking methotrexate and have never had chickenpox you may be at risk of severe infection from the virus which causes chickenpox and shingles. If you come into close contact with someone who has either of these conditions, you should contact **your doctor or nurse promptly** as you may need special treatment.

What happens if I need an operation (surgery)

- do I have to stop treatment?

Let your doctor or nurse know so they can advise you on what to do about your methotrexate. Make sure you take your monitoring booklet with you to all appointments or pre-assessment clinics. If you are having an operation, in most cases you will be advised to continue with your treatment but it will help the doctors plan your care.

You should also make sure that your dentist knows you are on methotrexate so they take this into account when they are carrying out any dental treatment.

What happens if I am severely unwell

- do I have to stop treatment?

Sometimes if you become severely unwell or immediately after an operation it may be necessary for you to stop your methotrexate for a short while. Your hospital will make sure that the medicines you are given are safe to be taken together. This is because certain medications, for example

some antibiotics, interact with methotrexate and it is important you don't take them together especially if you are dehydrated.

The team looking after you will also make sure that you don't get dehydrated and your kidneys are able to pass usual amounts of urine so that your body can cope normally with your medicines. Speak to your doctor or nurse for advice.

Other advice

Taking other medicines

It is important that your doctor knows about **all** the tablets and remedies you take, including herbal and alternative remedies.

You **must not take** co-trimoxazole (Septrin®) or trimethoprim whilst taking methotrexate. These can react with methotrexate and can be dangerous.

Always check with your doctor or pharmacist before taking any other medicine. This includes checking medicines you can buy over the counter such as aspirin, paracetamol or ibuprofen, and medicines for coughs, colds and flu. Some of these can interact with methotrexate. It is helpful to bring a list of current medications with you when you see the doctor, nurse or pharmacist.

If you have any additional problems that you are trying to treat yourself, speak to your doctor, nurse or pharmacist before purchasing any supplements or treatments to make sure they can be taken with your methotrexate. It is possible that the symptoms you are experiencing might be related to your methotrexate.

What should I do if I accidentally take too much methotrexate?

If you make a mistake and take too much methotrexate you may need urgent hospital treatment. Keep the bottles/cartons, make a note of how many tablets you think you have taken and contact your doctor or local accident and emergency department immediately. If the error is not considered serious, you may just need to have your blood checked and miss your next dose. If it is serious, however, you may need urgent treatment with a drug (calcium leuovorin or calcium folinate) which can reduce the effects of methotrexate.

Alcohol

Methotrexate and alcohol may both cause liver damage. The risk of liver damage from methotrexate appears to be greater in psoriasis than with individuals who have rheumatoid arthritis. The risk is increased by alcohol. If you are taking methotrexate you should ensure that your alcohol intake is **well within** the maximum limits (2-3 units per day for women and 3-4 units per day for men).

If you have psoriasis, it may be recommended that you avoid alcohol altogether. You may also have an additional blood test (PIIINP) to monitor your liver although sometimes a further test is needed (a needle biopsy of the liver). Your doctor or nurse can provide further individual advice on this.

Food

Methotrexate may reduce your ability to fight infection. There are some reports of bacteria (germs) found in food that may cause a problem to those with a reduced ability to fight infections. These risks have not been directly linked to taking low dose methotrexate. However, the few cases reported are usually linked to those taking a number of medicines that dampen down immunity. It would be sensible to be cautious about unpasteurised milk or soft cheese and be aware of food preparation and normal hygiene conditions in the handling of food, particularly if you are also taking steroids or one of the newer biologic therapies (adalimumab, anakinra, etanercept and infliximab).

Having a baby

Methotrexate can reduce fertility in men and women. It may also damage the unborn child.

Women should not take methotrexate if they are breastfeeding, pregnant or wish to become pregnant. If you think you might be pregnant do not take methotrexate. Men should not attempt to father a baby while taking methotrexate.

It is recommended that women wait at least three months after stopping treatment, before trying for a baby. It is also recommended that men wait at least three months after stopping treatment before trying to father a child, as sperm can be affected. You should talk to your doctor or nurse about effective contraception.

Vaccinations

It is important that any doctor or nurse you see is aware that you are on methotrexate and that you should not receive any **live** vaccines.

This is because live vaccines may not work well while you are on methotrexate.

Live vaccines include yellow fever, MMR and rubella (German Measles). There are often alternatives to live vaccines that can be given. You should speak to your doctor or nurse for advice.

Close relatives and family members may have live vaccines as normal. This will not be a risk to you.

Flu vaccination and Pneumovax® are safe as they are **not** live vaccines.

Speak to your doctor or nurse for advice.

Other information

If your treatment ends and you have some methotrexate left over, return any remaining medicine to your pharmacist. Do not flush them down the toilet or throw them away.

Use the monitoring booklet section of this leaflet to record your blood test results.

Contact information

NHS Direct

Tel: 0845 4647

www.nhsdirect.nhs.uk

NHS Direct Wales

Tel: 0845 4647

www.nhsdirect.wales.nhs.uk

You must tell NHS Direct if you are taking oral methotrexate if seeking their help. Specific patient information leaflets are produced that can give you information about your condition and treatment with methotrexate.

Patient and professionals organisations

Arthritis Care
www.arthritiscare.org.uk Tel: 0808 800 4050

Arthritis Research Campaign
www.arc.org.uk Tel: 0870 850 5000

National Rheumatoid
Arthritis Society
www.rheumatoid.org.uk Tel: 0845 458 3969

National Association
for Colitis and Crohn's disease
www.nacc.org.uk Tel: 0845 130 2233

Psoriasis Association
www.psoriasis-association.org.uk Tel: 0845 676 0076

Psoriasis Arthropathy Alliance
www.thepaa.org Tel: 0870 770 3212

British Society for Rheumatology
www.rheumatology.org.uk

Tel: 0207 842 0900

British Association of Dermatologists
www.bad.org.uk/public

National Library for Health on skin conditions
www.library.nhs.uk/skin

British Society for Paediatric and Adolescent Rheumatology
www.bspar.org.uk

Patient-held blood monitoring and dosage record

Choose a day of the week to take your oral methotrexate

Please remember that your methotrexate is only ever taken as a once a week dose. Choose a day of the week to take your oral methotrexate and stick to it.

If you miss your methotrexate on your normal day, don't worry. You can take it the following day or two. For example, if your normal day for taking your dose is Tuesday, you can take it on Wednesday or Thursday. Do not take the dose if you are three or more days late. A flare-up of the disease during this time is unlikely. In both cases, take your next dose on your usual day the following week.

You will also be prescribed folic acid (a vitamin supplement). Your doctor, nurse or pharmacist will advise you when you should take the tablets.

Write down your chosen day of the week on the following page and this will help you remember which day to take your dose.

Day of the week for taking methotrexate:

When you should take your folic acid:

Things you must tell healthcare professionals caring for you

If you need emergency treatment, the staff caring for you will need to know that you are taking oral methotrexate. You must tell the doctor, nurse or pharmacist if you are taking other medicines including over-the-counter drugs. This includes medicines, mineral or herbal supplements and Chinese medicines you can buy over the counter such as pain relief (for example, ibuprofen) or medicines for coughs, colds and flu. You should not use these without first checking that they are safe to use with methotrexate.

If you have any other problems that you wish to treat yourself, speak to your doctor, nurse or pharmacist before purchasing any supplements or treatments. This is to make sure it is safe to take these with your methotrexate and that the staff know about your symptoms.

Please show this booklet to any doctors, nurses, pharmacists, dentist or other healthcare professionals treating you so they are aware of your treatment and your blood results.

Record of your dose

Keep a record of your dose by filling in details of your dose and the number of tablets you should take. If your dose changes, for example after a blood test, ask the doctor or nurse to record the new dose here.

Take this new dose, and not the dose shown on the bottle or carton label.

Show this record to your pharmacist each time you receive some more methotrexate tablets.

Record of your dose

Date of dose instruction	Weekly dose in mg	Strength of tablets
15 May 2006	10mg	2.5mg

Blood tests: Methotrexate blood test monitoring record

Test Date				
METHOTREXATE				
Hb				
MCV				
WBC				
Platelets				
Neutrophils				
Lymphocytes				
ALT /AST				
Creatinine*				
CRP				
ESR or PV				
Other tests:				
PIIINP				
Next test date				

Blank rows may be used for special tests.

The person responsible for prescribing/ monitoring your methotrexate can help you complete this record.

Blood tests: Methotrexate blood test monitoring record

Test Date				
METHOTREXATE				
Hb				
MCV				
WBC				
Platelets				
Neutrophils				
Lymphocytes				
ALT /AST				
Creatinine*				
CRP				
ESR or PV				
Other tests:				
PIIINP				
Next test date				

Blank rows may be used for special tests.

The person responsible for prescribing/ monitoring your methotrexate can help you complete this record.

What the terms mean

It is common for people with long term conditions to have blood results that may be slightly different from people who don't have a chronic condition. For instance, people with rheumatoid arthritis are often slightly anaemic. So, although your treatment can cause anaemia (low haemoglobin), there may be other reasons related to your condition that should be checked with regular monitoring. Keeping results of your blood tests will help you to know what is 'normal' for you and you will get to know more about this as you continue your treatment.

When checking blood results the doctors and nurses are not only looking at 'what is normal for you' but also looking for any trends in the blood results that might change gradually over time. These gradual 'trends' can be as important as the 'normal values' set out on the following page.

Different laboratories may have slightly different normal values from the ones set out on the following page. Ask the doctor or nurse to check that these normal values are right for your local area.

Term and normal values	Explanation
Hb Male 13.5-17.5 g/dl Female 12-16 g/dl	Haemoglobin is the oxygen-carrying protein inside red blood cells: low levels may show that you are anaemic.
MCV 80-100 fl	The average volume of a red blood cell: two potential causes of large red blood cells are methotrexate toxicity and a deficiency of folic acid.
WBC $4.0-11.0 \times 10^9/l$	White blood cells are important in fighting infections. The count can rise as a result of infection or from taking steroids: a low count may indicate that methotrexate is harming the bone marrow.
Platelets $150-400 \times 10^9/l$	Platelets are essential for normal blood clotting: a low count may indicate that methotrexate is harming the bone marrow.
Lymphocytes $1.5-4.0 \times 10^9/l$	A type of white blood cell that has an important role in protecting your body from infections.

Term and normal values	Explanation
Neutrophils 2.0-7.5 x 10 ⁹ /l	A type of white blood cell that usually increases quickly to fight infections.
ALT/AST usually less than 50 u/l	ALT/AST are tests to see how your liver is working. Rising blood ALT/AST levels may indicate liver inflammation.
Urea and creatinine 2.5-8.0 mmol/l (varies with age) 60-125 µmol/l (varies with age)	These are tests that help to show how your kidneys are working. You will normally have these checked before you start treatment and from time to time (usually 3 - 6 monthly) when you are reviewed.
CRP, ESR & PV	Indicators of inflammation which may be raised from active disease or infection.
Other tests	Your doctor or nurse will explain the need for other monitoring tests which may be needed.

Other tests that may be requested

There are some tests that may be required in addition to those outlined in your monitoring booklet. Some of these tests are to give the doctors and nurses caring for you additional information about your treatment, especially when the routine blood tests fall outside what is 'normal for you'. Some of these additional tests include:

Alkaline Phosphatase:

This is a test that measures some liver, bone and stomach conditions. In many cases Alkaline Phosphatase will not be routinely recorded as slightly raised levels are common.

PIINP

This is a more specific test to monitor the effect of methotrexate on your liver. It is used in patients receiving methotrexate for the treatment of psoriasis, as the risk of liver inflammation appears to be greater than in people with rheumatoid arthritis.

Important notice

This patient information leaflet has been compiled, after consideration of the information available, by the National Patient Safety Agency as at June 2006. It is not intended to be exhaustive and should not be used as a substitute for consulting your clinician on any particular issue. The National Patient Safety Agency makes no representations, warranties or guarantees as to the accuracy, completeness or adequacy of any of the content of this patient information leaflet and cannot be held responsible for any liability, loss or damage whatsoever which may arise from the use of, or reliance upon, this patient information leaflet, except as may otherwise be required by law.

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