Methotrexate

Methotrexate has been used to treat psoriasis for over 50 years. It works by suppressing the immune system, slowing down the overproduction of skin cells that cause psoriasis. It is also used to treat psoriatic arthritis. Methotrexate is sometimes referred to by the brand names Matrex or Metoject. Methotrexate belongs to the group of medicines known as ‘systemics’, in the treatment of psoriasis.

Key Features

- Approved for treating psoriasis and psoriatic arthritis
- Given primarily in tablet form to be taken once a week, but is also available as an injection, and dosing schedules can vary
- A full blood count and kidney and liver function tests must be carried out before taking methotrexate. Patients may also need an annual flu jab.
- It may take up to 12 weeks for benefit to be seen

How does methotrexate work?

Methotrexate has a number of actions that account for its helpful effects in psoriasis. It slows down the skin cells that are dividing so rapidly in psoriasis, and also reduces inflammation by altering the way the immune system works.

Who is it for?

Methotrexate is indicated for use in adults with moderate to severe psoriasis. It can also be used to treat psoriatic arthritis. For more information, see the How do I get methotrexate? section below.

Who should not take methotrexate?

- Pregnant women, or women and their partners who are trying to conceive a child should not use methotrexate. Both the patient and their partner should take contraceptive precautions for three months after stopping methotrexate. Women should not breast feed whilst on methotrexate.
- People with active infections, such as TB, or have a history of abnormal liver function tests, hepatitis or cirrhosis of the liver, or significant kidney impairment.
- People who have excessive alcohol consumption. In most cases, alcohol should be avoided whilst taking methotrexate, unless your doctor advises you otherwise.
- Anyone with an active peptic ulcer

**How is it used?**

Methotrexate is usually taken once a week, either by mouth or by injection. It is most commonly taken orally in tablet form. Methotrexate is nearly always given as a single weekly dose. If it proves necessary to split the dose (e.g. because of nausea), patients receive two divided doses 12 hours apart. However, it is important for each patient to take methotrexate as directed by their doctor.

A test dose of methotrexate is given first to see if the patient tolerates the drug. If the patient tolerates methotrexate, the dosage will then be increased to achieve clearance. Once methotrexate starts to work, the dose is adjusted to the lowest level capable of maintaining a reasonable improvement. If doing well, a person may be taken off methotrexate until symptoms return. However, some people must continue to take a maintenance dose to sustain their results.

Patients taking methotrexate need to have regular blood tests to ensure that the drug is being safely processed by the body and is not negatively affecting the liver, blood or bone marrow. Methotrexate can cause a reduced white blood cell count, which makes a person more at risk of infection. Blood tests are required weekly initially or when the dose is being altered, but once the dose of methotrexate is stable blood tests are carried out every 2-3 months.

Methotrexate is sometimes rotated with other treatments such as PUVA, acitretin or ciclosporin in order to decrease side effects or get better results. It can also be used in conjunction with biologic injections in people with severe psoriasis, or active and progressive psoriatic arthritis.
What are the side effects?

In some patients methotrexate can cause a feeling of sickness, diarrhoea, mouth ulcers, hair loss and skin rashes. Most of these side effects are often dose-related, and can be controlled by your doctor altering the dosage. Sometimes nausea can be helped by drinking milk or eating before taking the medication. Most doctors prescribe folic acid tablets to patients who are taking methotrexate as this can reduce the likelihood of side effects. Folic acid is not taken on the same day as methotrexate.

The main risk of long-term methotrexate use is the potential for liver damage. In order to detect and treat any liver damage early, you will have regular blood tests and may be required to have occasional liver biopsies, where a thin needle is inserted through the skin to extract a small sample of liver tissue.

Taking methotrexate can affect the blood count (one of the effects is that fewer blood cells are made) and can make you more likely to develop infections. If you develop a sore throat or other infection, a fever, unexplained bruising or bleeding, if you develop jaundice (eyes or skin turning yellow), or if you develop any new symptoms after starting methotrexate, you should see your doctor as soon as possible.

Methotrexate can interact with other medications – do not take ‘over-the-counter’ preparations, Chinese herbs or other complementary and alternative therapies without discussing this first with your doctor or pharmacist.

How do I get methotrexate?

Methotrexate can only prescribed to treat psoriasis by a hospital consultant (Dermatologist or Rheumatologist) who is responsible for your psoriasis or psoriatic arthritis care. The National Institute for Health and Care Excellence (NICE) guideline on the assessment and management of psoriasis recommends that systemic non-biologic treatments (of which methotrexate is one) should be considered for people with any type of psoriasis if:

- Their psoriasis cannot be controlled with topical (applied to skin) treatments and
- Their psoriasis has a significant impact on their physical, psychological or social wellbeing and
- Their psoriasis is extensive (covers 10% or more of the body), OR
- Their psoriasis is not extensive (perhaps in only one area) but is causing significant distress or stopping the person from living a normal life, OR
- Phototherapy (UV light therapy) has not worked, cannot be used, or has resulted in ‘rapid relapse’ (return of moderate or severe psoriasis in less than 3 months)

After this criteria has been met, methotrexate should be considered as the first choice systemic treatment for most people. People who have certain types of psoriasis (for example, pustular forms), need fast or short-term control of their psoriasis, are planning to start a family or...
cannot use methotrexate for other health reasons may be offered a different type of systemic treatment.

There is, at present, no NICE guidance for the use of methotrexate to treat psoriatic arthritis, although it is acknowledged by both the British Association of Dermatologists and the British Society for Rheumatology as a treatment that can be used for this condition.

**BADBIR**

If you have been prescribed methotrexate for treatment of your psoriasis, you may be asked to take part in the British Association of Dermatologists Biologics Interventions Register (BADBIR). This register is to compare the safety of different treatments for psoriasis and to see how well they work. For more information on BADBIR, please see the website: [www.badbir.org](http://www.badbir.org)

The information in this resource is not intended to replace that of a healthcare professional: If you have any concerns or questions about your treatment, do discuss this with your doctor and **always read the patient information leaflet** to make sure you are using it correctly.

For more information, or for a list of resources used in the production of this information sheet, please contact the Psoriasis Association.

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