

# METHOTREXATE

Methotrexate (MTX) is used to treat forms of vasculitis which, although serious, do not require therapy with cyclophosphamide. MTX often helps patients avoid cyclophosphamide and decreases patients' needs for steroids. Specific forms of vasculitis treated with MTX include Wegener's granulomatosis, Microscopic polyangiitis, Churg-Strauss syndrome, Behcet's disease, and others.

The decision to recommend MTX is an important one. At the Vasculitis Center, we prescribe MTX when a patient's disease needs to be controlled or to keep a patient from relapsing.

We have designed this pamphlet to inform you about the potential side-effects of MTX. You need to be aware of these possible side-effects. You also need to understand what you and your doctors should do in order to monitor your condition while you are on MTX. We present our approach to the use of MTX in a format that includes frequently asked questions from Vasculitis Center patients.

We ask that you read this information carefully and share it with your other doctors. Please feel free to ask any further questions you may have after reading this pamphlet.

## Potential Side Effects and Preventive Measures

### What are the possible side-effects of MTX?

MTX is a serious medicine we use to treat vasculitis. Without it, many forms of vasculitis would cause longer courses of illness and greater damage. But the effectiveness of MTX has certain trade-offs; these relate to its possible side-effects:

- A small number of patients will have some nausea or develop a mouth ulcer.
- Pneumonitis (inflammation in the lung), which mimics pneumonia, with cough and fever. Pneumonitis can occur at anytime after MTX is started or after patients have been on the medication for several years.
- Liver problems that can progress to scarring or cirrhosis.
- Anemia (low red blood cell count), which may cause fatigue.
- Thrombocytopenia (low platelets), which leads to a higher risk of bleeding.
- Leukopenia (low white blood cell count), which may increase the risk of infections.
- A slightly increased risk of developing lymphoma, a type of cancer, after taking MTX. This risk remains elevated for several years after the last MTX dose.

Because of these potential side-effects, we only use MTX when it is needed to control your vasculitis.

### What can I do to help prevent the potential side-effects from MTX?

The following steps are essential:

- Get a blood test every 4-6 weeks.
- Take 1-mg of folic acid (a vitamin) every morning. This will help reduce the chance of developing mouth ulcers.
- Follow up at the Vasculitis Center as instructed.
- Keep in close touch with your primary care provider.

## Frequently Asked Questions

### How does MTX work?

MTX works by dampening the inflammatory process associated with active vasculitis. The aim of using MTX is to push the disease into remission (inactivity) as soon as possible, before the inflammation causes permanent organ damage.

### Is MTX "chemotherapy"?

Not in the sense that cancer drugs are chemotherapy. MTX was developed initially to treat cancer. However, the doses of this medication used in the treatment of vasculitis are far lower than those used to treat cancer.

### Will I be very sick like patients who are on "chemo" for cancer treatment?

In cancer patients, MTX is used in extremely high doses that are administered intravenously. True chemotherapy is often associated with nausea and vomiting in the days after it is given. However, in the doses of MTX that we use to treat vasculitis, the medication does not cause the side-effects of severe nausea and vomiting that patients on cancer chemotherapy often get. Some patients experience mild stomach upset, but severe nausea is very unusual.

### Will I lose my hair?

Your hair may thin somewhat, but patients on MTX almost never have major hair loss. Hair usually returns gradually after MTX is discontinued, although it may require some months.

## More Frequently Asked Questions

### In what forms is MTX available?

MTX can be administered in tablet, liquid, or injectable form. It is usually taken once a week. Generic MTX comes in 2.5-mg tablets. Liquid MTX is the least expensive form.



### When should I take MTX?

MTX can be taken any time of day. It does not have to be taken first thing in the morning as cyclophosphamide and prednisone do.

### How long will I be on MTX?

This depends largely on the type and severity of vasculitis. MTX is typically used for at least 1 year. Some patients will remain on MTX because they tolerate the medicine so well and need it to control their disease.

### Are there any reasons why I should not be on MTX?

Yes. You should **not** take MTX if you have moderate to severe kidney disease. Please consult the Vasculitis Center before starting MTX if there are any questions regarding the health of your kidneys.

### Can I have children when on MTX?

There may be harmful effects on the fetus if you conceive a child while on MTX. Both men and woman should use an effective form of birth control while either partner is taking this medication. MTX is an

## Still More Questions

“abortifacient”, meaning that there is a high likelihood of pregnancy loss if a woman takes MTX while pregnant. Men should not attempt to conceive until three months after stopping MTX. Women should not attempt to conceive until one full menstrual cycle has passed after stopping MTX.

### **Can I consume alcohol while on MTX?**

You should minimize the use of alcohol while being treated with MTX. This medication, like many medications, has the potential to cause harm to your liver. During your treatment, you should consume little to no alcohol in order to decrease the risk of liver damage. “Liver function tests” are blood tests used to monitor the liver while patients are on MTX. Please discuss the use of alcohol with your Vasculitis clinician.

### **Is there anything that my doctor at home needs to check on?**

Your primary care provider or local rheumatologist should arrange for your regular blood and urine tests and keep an eye on these results. If you have these tests performed outside of the Johns Hopkins System please have a copy of these results faxed to us at **410-550-6830**. Between visits to the Vasculitis Center, it is crucial to have regular check-ups with your providers close to home.

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## Concerns About Infection

### **Does my white blood cell (WBC) count affect my treatment?**

WBCs are important in the fight against infection. Remember that one of the possible side effects of MTX is lowering your WBC count. If your count goes below 4,000/mm<sup>3</sup>, MTX is stopped for 10 days. Once the WBC count is greater than 4,000/mm<sup>3</sup>, MTX can be restarted at a lower dose.

### **Should I get the flu vaccine?**

Yes. The flu (influenza) vaccine is recommended every year. Patients on MTX should be especially mindful of getting flu shots annually.

### **Should I get the pneumococcal vaccine?**

Yes. The “pneumovax” shot helps protect against pneumonia for 5-10 years.

### **What can I do to make sure that my WBC count isn't too low?**

Get blood tests as ordered — every 4-6 weeks, or more often if your WBC count has been low. Remember: the goal is to keep your WBC count above 4,000/mm<sup>3</sup>.

### **Do I need to take an antibiotic?**

Possibly. Depending on how much medication you take to control your condition. Usually, the Vasculitis Center will start you on Bactrim® (single-strength form) if you need this. Regardless, you should take folic acid daily and see your doctor when you “catch a cold” or don't feel well.



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If you are interested in knowing more about how you can support the missions of The Johns Hopkins Vasculitis Center in research, teaching, and patient care, please contact:

**Dr. John Stone**  
Johns Hopkins Vasculitis Center  
Office: 410-550-6816  
Fax: 410-550-4332

Visit our website at:  
<http://vasculitis.med.jhu.edu>

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### **The Johns Hopkins Vasculitis Center**

5501 Hopkins Bayview Circle  
JHAAC Room 1B.1A  
Baltimore, MD 21224

Scheduling Telephone: (410) 550-6825  
Research Telephone: (410) 550-6816