



## Methotrexate

*At the Clinical Center referred to as methotrexate (meth-o-TREX-ate).*

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**How Given:** Intravenously (by vein), intramuscularly (injection into the muscle), and orally (by mouth)

**Drug Action:** Methotrexate blocks a protein that cancer cells need to copy and repair DNA. DNA is the genetic material in cells used to make new cells.

**Side Effects:**

1. Lip, mouth, throat, and rectal sores can occur within 7 days after treatment.
2. Bone marrow effects can include a temporary decrease in white blood cells, platelets, and red blood cells. These usually occur within 7 days after treatment.
3. Stomach cramps, diarrhea, nausea, and vomiting can occur.
4. Skin changes can occur. These include increased sensitivity to sunlight, red rash, and dry itchy skin.
5. Kidney damage can occur. Tests will be done to monitor this effect.

**Special Instructions:**

1. Do not take any prescription or over-the-counter medications without talking to your NIH doctor. These include vitamins; herbal treatments; nose drops; and cold, flu, fever, headache, pain, hay fever, or allergy medications.
2. Protect your skin from sun exposure. Wear protective clothing and use a sunscreen with an SPF rating of 15 or more when in the sun.

3. Drink 8 to 10 glasses of fluid a day after treatment to help prevent kidney damage.

4. Call your NIH doctor or nurse if you

- are unable to drink for more than 1 day or unable to eat for more than 2 days after treatment
- have a temperature of 101.0 °F (38.3 °C) at any time, or have a temperature of at least 100.4 °F (38.0 °C) that lasts for 1 hour or occurs two times in a 24-hour period
- have any unusual bleeding or bruising
- have diarrhea for more than two days



This information is prepared specifically for patients participating in clinical research at the Warren Grant Magnuson Clinical Center at the National Institutes of Health and is not necessarily applicable to individuals who are patients elsewhere. If you have questions about the information presented here, talk to a member of your healthcare team.

Living with Cancer Chemotherapy Series  
January, 1983; draft September, 1998  
National Institutes of Health, CC  
Nursing Department

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