Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

Methotrexate

This information from UpToDate® Lexidrug™ explains what you need to know about this medication, including what it's used for, how to take it, its side effects, and when to call your healthcare provider.

Brand Names: US

Jylamvo; Otrexup [DSC]; Rasuvo; RediTrex [DSC]; Trexall; Xatmep

Brand Names: Canada

ACH-Methotrexate; AURO-Methotrexate; JAMP-Methotrexate; M-Methotrexate; Methofill; Metoject; Nordimet [DSC]; PMS-Methotrexate

Warning

For all uses of this drug:

- This drug must **NEVER** be taken every day unless used for some types of cancer. Death can happen if this drug is taken every day by mistake.
- Severe side effects like bone marrow problems, liver problems, lung problems, and infections can happen with this drug. Some side effects may not go away and can be deadly. You must talk with the doctor about the risks of this drug.
- This drug may cause kidney problems in some patients. Talk with the doctor.
- Regular blood work and other exams will need to be done to check for side effects. Follow what the doctor has told you.
- Tell your doctor if you have kidney problems or extra fluid around your stomach area or lungs. The chance of side effects may be raised.

- Talk with your doctor if you are getting radiation. There may be more chance of harm to tissue and bone.
- New types of cancer have happened in people taking this drug. If you have questions, talk with the doctor.
- It is common to have diarrhea, upset stomach, throwing up, or mouth sores with this drug. However, sometimes these may be signs of severe and sometimes deadly stomach or bowel problems. Tell your doctor if you get any new or worsening signs. You may need to stop this drug.
- Severe skin reactions have happened with this drug. These have included Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN), and other severe skin reactions. Sometimes these have been deadly. Get medical help right away if you have signs like red, swollen, blistered, or peeling skin; other skin irritation (with or without fever); red or irritated eyes; or sores in your mouth, throat, nose, or eyes.
- Very bad and sometimes deadly bone marrow problems and stomach or bowel problems have happened when this drug was taken with nonsteroidal anti-inflammatory drug (NSAIDs) like ibuprofen or naproxen.
- Not all methotrexate products are used to treat cancer. Talk with the doctor.
- This drug may cause harm to an unborn baby or loss of an unborn baby. A pregnancy test will be done before you start this drug to show that you are NOT pregnant.
- If you or your sex partner may become pregnant, you must use birth control while taking this drug and for some time after the last dose. Ask your doctor how long to use birth control. If you or your sex partner gets pregnant, call your doctor right away.

Cancer treatment:

- Patients with cancer may be at greater risk of getting a bad and sometimes deadly health problem called tumor lysis syndrome (TLS). Talk with the doctor.

For non-cancer uses:

- Do not take if you are pregnant.
- This drug must only be used when other drugs cannot be used or have not worked. Talk with your doctor to be sure that the benefits of this drug are more than the risks.

Injection:

- Some products have benzyl alcohol. If possible, avoid products with benzyl alcohol in newborns or infants. Serious side effects can happen in these children with some doses of benzyl alcohol, including if given with other drugs that have benzyl alcohol. Talk with the doctor to see if this product has benzyl alcohol in it.

What is this drug used for?

- It is used to treat cancer.
- It is used to treat some types of arthritis.
- It is used to treat some types of psoriasis.
- It may be given to you for other reasons. Talk with the doctor.

What do I need to tell my doctor BEFORE I take this drug?

All products:

- If you are allergic to this drug; any part of this drug; or any other drugs, foods, or substances. Tell your doctor about the allergy and what signs you had.
- If you have any of these health problems: Alcohol use disorder, bone marrow disease (like low white blood cell count, low platelet count, or anemia), kidney disease, liver disease, or a weak immune system.
- If you are breast-feeding. Do not breast-feed while you take this drug. You may also need to avoid breast-feeding for some time after your last dose.

Talk with your doctor to see if you need to avoid breast-feeding after your last dose.

Tablets:

- If you are not able to swallow tablets.

This is not a list of all drugs or health problems that interact with this drug.

Tell your doctor and pharmacist about all of your drugs (prescription or OTC, natural products, vitamins) and health problems. You must check to make sure that it is safe for you to take this drug with all of your drugs and health problems. Do not start, stop, or change the dose of any drug without checking with your doctor.

What are some things I need to know or do while I take this drug?

For all uses of this drug:

- Tell all of your health care providers that you take this drug. This includes your doctors, nurses, pharmacists, and dentists.
- Avoid driving and doing other tasks or actions that call for you to be alert until you see how this drug affects you.
- You may have more chance of getting an infection. Wash hands often. Stay away from people with infections, colds, or flu.
- You may bleed more easily. Be careful and avoid injury. Use a soft toothbrush and an electric razor.
- Talk with your doctor before getting any vaccines. Use of some vaccines with this drug may either raise the chance of an infection or make the vaccine not work as well.
- Talk with your doctor before you drink alcohol.
- You may get sunburned more easily. Avoid sun, sunlamps, and tanning beds. Use sunscreen and wear clothing and eyewear that protects you from the sun. Keep protecting yourself from sunburn for as long as you were told by

your doctor.

- Tell your doctor if you have fluid loss, unusual sweating, throwing up, diarrhea, decreased appetite, or unusual thirst.
- Nervous system problems that may be severe have happened with this drug. Some lasted for a short time while some lasted for a long time. These nervous system problems can get worse over time, may not get better, and can be deadly. If you have questions, talk with the doctor.
- If you have had radiation, talk with your doctor.
- If you are 65 or older, use this drug with care. You could have more side effects.
- This drug may affect fertility. This may lead to not being able to get pregnant or father a child. If this happens, it is not known if fertility will go back to normal.
- If you miss a period, have unprotected sex, or think that your birth control has not worked, call your doctor right away.

Cancer treatment:

- Do not take a product that has folic acid or folinic acid (leucovorin) in it unless your doctor tells you to. It may make this drug not work as well.

For non-cancer uses:

- You may need to take folic acid or folinic acid (leucovorin) with this drug to lower the risk of side effects. If you have questions, talk with your doctor.

What are some side effects that I need to call my doctor about right away?

WARNING/CAUTION: Even though it may be rare, some people may have very bad and sometimes deadly side effects when taking a drug. Tell your doctor or get medical help right away if you have any of the following signs or symptoms that may be related to a very bad side effect:

For all uses of this drug:

- Signs of an allergic reaction, like rash; hives; itching; red, swollen, blistered, or peeling skin with or without fever; wheezing; tightness in the chest or throat; trouble breathing, swallowing, or talking; unusual hoarseness; or swelling of the mouth, face, lips, tongue, or throat.
- Signs of infection like fever, chills, very bad sore throat, ear or sinus pain, cough, more sputum or change in color of sputum, pain with passing urine, mouth sores, or wound that will not heal.
- Signs of bleeding like throwing up or coughing up blood; vomit that looks like coffee grounds; blood in the urine; black, red, or tarry stools; bleeding from the gums; abnormal vaginal bleeding; bruises without a cause or that get bigger; or bleeding you cannot stop.
- Signs of a pancreas problem (pancreatitis) like very bad stomach pain, very bad back pain, or very bad upset stomach or throwing up.
- Signs of kidney problems like unable to pass urine, change in how much urine is passed, blood in the urine, or a big weight gain.
- Signs of liver problems like dark urine, tiredness, decreased appetite, upset stomach or stomach pain, light-colored stools, throwing up, or yellow skin or eyes.
- Signs of lung or breathing problems like shortness of breath or other trouble breathing, cough, or fever.
- Signs of nerve problems like a burning, numbness, or tingling feeling that is not normal; weakness; or not being able to move a part of the body (paralysis).
- Pinpoint red spots on the skin.
- Severe dizziness or passing out.
- A fast heartbeat.
- Seizures.
- Feeling confused.
- Feeling sleepy.

- Change in eyesight.
- Bone pain.
- Swelling, warmth, numbness, change of color, or pain in a leg or arm.
- Weakness on 1 side of the body, trouble speaking or thinking, change in balance, drooping on one side of the face, or blurred eyesight.
- Headache.
- Neck stiffness.

Cancer treatment:

- Signs of a severe health problem called tumor lysis syndrome (TLS) like fast or abnormal heartbeat; passing out; trouble passing urine; muscle weakness or cramps; upset stomach, throwing up, diarrhea, or not able to eat; or feeling sluggish.

What are some other side effects of this drug?

All drugs may cause side effects. However, many people have no side effects or only have minor side effects. Call your doctor or get medical help if any of these side effects or any other side effects bother you or do not go away:

- Decreased appetite.
- Hair loss.
- Feeling dizzy, tired, or weak.
- Stomach pain.
- Signs of a common cold.

These are not all of the side effects that may occur. If you have questions about side effects, call your doctor. Call your doctor for medical advice about side effects.

You may report side effects to your national health agency.

You may report side effects to the FDA at 1-800-332-1088. You may also report

side effects at https://www.fda.gov/medwatch.

How is this drug best taken?

Use this drug as ordered by your doctor. Read all information given to you. Follow all instructions closely.

All products:

- Your dose and how often you take it will be based on the health problem that is being treated. This drug must **NEVER** be taken daily unless used for some types of cancer. For non-cancer uses such as psoriasis or arthritis, this drug is usually taken 1 time each week (on the same day of the week). Be sure you know how to take this drug. Deadly errors have happened when this drug was taken the wrong way. If you do not understand what your dose is and how often to take it, talk with your doctor.
- How this drug is taken may change based on blood work results, side effects, and how well the drug is working.
- You will need to take special care when handling this drug. Check with the doctor or pharmacist to see how to handle this drug.
- Drink lots of noncaffeine liquids unless told to drink less liquid by your doctor.

All liquid products:

- Measure liquid doses carefully. Use the measuring device that comes with this drug. If there is none, ask the pharmacist for a device to measure this drug.
- Do not use a household teaspoon or tablespoon to measure this drug. Doing so could lead to the dose being too high.

Oral solution (Jylamvo):

- Shake well before use.

Injection (subcutaneous):

- It is given as a shot into the fatty part of the skin on the top of the thigh or the belly area.
- If you will be giving yourself the shot, your doctor or nurse will teach you how to give the shot.
- Do not give into skin within 2 inches (5 cm) of the belly button.
- Do not use if the solution is cloudy, leaking, or has particles.
- Do not give into skin that is irritated, tender, bruised, red, scaly, hard, scarred, or has stretch marks.
- If you are not sure if your dose was injected or if you have a hard time giving the dose, talk with your doctor or pharmacist before using another dose.
- Throw away needles in a needle/sharp disposal box. Do not reuse needles or other items. When the box is full, follow all local rules for getting rid of it. Talk with a doctor or pharmacist if you have any questions.

All other injection products:

- It is given as an injection into a muscle or vein.
- A shot may be given into the spinal fluid.

What do I do if I miss a dose?

- Call your doctor to find out what to do.

How do I store and/or throw out this drug?

Oral solution (Xatmep):

- Store liquid (solution) in a refrigerator or at room temperature. If stored at room temperature, throw away any part not used after 2 months.
- Keep lid tightly closed.
- Do not freeze.
- Protect from heat.

Oral solution (Jylamvo):

- Store at room temperature in a dry place. Do not store in a bathroom.
- Keep lid tightly closed.
- After opening, throw away any part not used after 3 months.

Tablets and injection (subcutaneous):

- Store at room temperature protected from light. Store in a dry place. Do not store in a bathroom.
- Do not freeze.

All other injection products:

- If you need to store this drug at home, talk with your doctor, nurse, or pharmacist about how to store it.

All products:

- Keep all drugs in a safe place. Keep all drugs out of the reach of children and pets.
- Throw away unused or expired drugs. Do not flush down a toilet or pour down a drain unless you are told to do so. Check with your pharmacist if you have questions about the best way to throw out drugs. There may be drug take-back programs in your area.

General drug facts

- If your symptoms or health problems do not get better or if they become worse, call your doctor.
- Do not share your drugs with others and do not take anyone else's drugs.
- Some drugs may have another patient information leaflet. If you have any questions about this drug, please talk with your doctor, nurse, pharmacist, or other health care provider.
- Some drugs may have another patient information leaflet. Check with your

pharmacist. If you have any questions about this drug, please talk with your doctor, nurse, pharmacist, or other health care provider.

- If you think there has been an overdose, call your poison control center or get medical care right away. Be ready to tell or show what was taken, how much, and when it happened.

Consumer Information Use and Disclaimer

This generalized information is a limited summary of diagnosis, treatment, and/or medication information. It is not meant to be comprehensive and should be used as a tool to help the user understand and/or assess potential diagnostic and treatment options. It does NOT include all information about conditions, treatments, medications, side effects, or risks that may apply to a specific patient. It is not intended to be medical advice or a substitute for the medical advice, diagnosis, or treatment of a health care provider based on the health care provider's examination and assessment of a patient's specific and unique circumstances. Patients must speak with a health care provider for complete information about their health, medical questions, and treatment options, including any risks or benefits regarding use of medications. This information does not endorse any treatments or medications as safe, effective, or approved for treating a specific patient. UpToDate, Inc. and its affiliates disclaim any warranty or liability relating to this information or the use thereof. The use of this information is governed by the Terms of Use, available at https://www.wolterskluwer.com/en/know/clinical-effectiveness-terms.

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If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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