Methotrexate

What is methotrexate?

*Methotrexate* is a mild immunosuppressant that also exhibits anti-inflammatory activity. *Methotrexate* is commonly used for the treatment of certain cancers including but not limited to leukemia, Hodgkin’s disease and head and neck cancers. In these illnesses, *methotrexate* is used in very large doses so that it interferes with the reproduction of the cancer cells. *Methotrexate* is used in much smaller doses for the treatment of rheumatoid arthritis, Crohn’s disease and psoriasis.

Why am I on methotrexate?

If your doctor has put you on *methotrexate*, it is probably because your disease has not responded to the usual therapies for the treatment of Crohn’s disease. Or you may have had difficulty in tolerating the other medications we commonly use, such as Imuran (azathioprine), Purinethol (6-mercaptopurine) or Cellcept (mycophenolate). Or you have been unable to wean off prednisone. Because Crohn’s disease is thought to be caused by an overactive immune system that responds with inflammation in the gut, using an immunosuppressant such as *methotrexate* will decrease the inflammation that you are having and will improve your symptoms. The goal is to get your Crohn’s disease in remission. An added helpful effect may be an improvement in the joint pains that are associated with the arthritis of Crohn’s disease.

Is there any reason why I should not be on methotrexate?

You should not be on *methotrexate* if you are pregnant or thinking about becoming pregnant. This is true for both men and women. It can cause birth defects.

If you have known liver disease or drink alcohol (more than three drinks per week) you should not be on *methotrexate*. It will cause or worsen preexisting liver disease. If you are obese or have diabetes (high blood sugar), *methotrexate* can be used but close monitoring is essential because of the increased risk of liver disease.
What should I expect while on the medication?

The preferred method of giving methotrexate is by injection. You will receive teaching by the nurse or the doctor on how to give yourself an injection. Frequently the large muscles are used, but it has been shown that subcutaneous injection (into the fat) works just as well. If you don’t feel you can give yourself an injection, perhaps you know someone who would give you the injection (see the attached precautions regarding exposure of friends and family to methotrexate). Or if you have a local doctor or nurse that is willing to schedule you on a weekly basis, the injection could be given in their office.

It will be necessary for you to have blood drawn frequently while on methotrexate. Because methotrexate is an immunosuppressant, your (WBC) white blood cell count (the infection fighting cells) must be monitored regularly to avoid increased risk of infections. And because of the potential risk of liver disease, your liver enzymes should be monitored on a regular basis also. We suggest that you have your labs drawn 2 weeks after you get your first injection, and then every 2-4 weeks thereafter for a few months. Even though we are using doses much lower than used for cancer patients, there is still risk involved and you must be monitored for these side effects.

Methotrexate will probably not work immediately. It may take almost 3 months before you see an effect from the methotrexate. In the meantime, it is important that you follow your doctor’s instructions regarding the therapies required, until such time as the methotrexate takes effect.

How should I take this medicine?

As noted, the methotrexate is best given as an injection. The usual dose is 25mg (or 1cc) given on a weekly basis. It is possible that the dose would be adjusted up or down dependant on your weight or the results of your blood counts. The doctor or nurse will teach you how to give yourself the injection, and how to dispose of the supplies used.

What are the side effects associated with this medicine?

- The most common side effect is nausea and/or vomiting after a dose is given. If this persists for more than 2 days after the injection, call your doctor.
- Some patients report a "flu-like" feeling for a couple of days after the injection (muscle aches, low grade fever etc). This should get better over time. There does seem to be a "getting used to it" period. Please let us know if this does not improve after a couple of injections.
- Mouth sores (called "stomatitis") and bleeding of the gums ("gingivitis") can occur. To avoid this side effect, use a soft toothbrush gently. Avoid vigorous flossing of the teeth. Frequent salt-water rinses of the mouth will help with good oral hygiene.
- Do not go into the sun or use a sun lamp without strong sunscreen (at least 45 SPF). The methotrexate makes your skin sensitive to the sun and increases the risk of severe sunburn.
- If you develop a cough (dry or productive) that does not go away after a couple of days, call your doctor.

If you should require immunizations, it is important that you do not receive live vaccines (ask the doctor who is administering the vaccine). It is okay to receive inactive immunizations, but you may not get a maximal response to it because the immune system is suppressed.

Please notify your family doctor that you have been started on methotrexate. He should also remain informed of all the medications you are taking for your Crohn’s disease.

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Self-Administration of Methotrexate:

Methotrexate is given for a number of diseases including, but not limited to Crohn’s disease, arthritis and psoriasis. It is also given for the treatment of some cancers but in much higher doses than you will be receiving.

You have probably received information from your pharmacist and/or doctor about the safe administration of methotrexate. Because of the powerful nature of the medication, there are certain precautions that should be taken when giving yourself these injections. Exposure of family and friends to the medicine should be limited, especially if they are of childbearing age.
-The medicine you receive from the pharmacy should be in a concentration of 25 milligrams per 1 cc (or 1 ml). This is the usual dose of the methotrexate for patients with Crohn’s disease. If you will be taking a different dose, be sure you know exactly how much volume is required to give you the prescribed dose. A multi dose vial of 10 cc's is available. Be sure that the preparation you receive has a preservative (so you can use the vial for repeated doses.)

-Find an area in your home that will be free of interruption when you give yourself the injection. An area that is clean and uncluttered is best. Have all your supplies handy: this should include the medicine itself, syringes and needles, alcohol swabs and a disposal canister.

-The methotrexate should be kept away from light and heat and cold. (Do not store in the refrigerator or in the bathroom medicine cabinet). You can keep the vial in the original box or wrap the vial in a piece of aluminum foil when not in use. Keep the medication in a plastic zip lock bag in between doses.

-Discard the used needle and syringe in a puncture proof canister (like a bleach container or a coffee can with the lid on). In between uses, place the disposal container in a plastic bag. **DO NOT** throw the canister away. Bring it with you to your next doctor’s appointment and tell the staff to dispose of it properly. Remind them that it is a container of used needles and syringes used for chemotherapy.

-If you need assistance with giving yourself an injection, the person who helps you should wear gloves. If at all possible, you should prepare the medicine (drawing it up in a syringe) yourself.

We strongly advise that persons (men and women) who are pregnant or thinking about becoming pregnant, not be exposed to methotrexate.
Self-Injection for Methotrexate

Supplies you will need:
- Syringe 3cc
- Needle 25 gauge 5/8"
- Alcohol prep (cotton swab with alcohol)
- Vial of methotrexate (concentration of 25mg per 1cc or ml)
- Puncture proof container (Clorox box, coffee can)

Locate an area.
Find a spot in the kitchen, bathroom, or any room in the house where you will be comfortable giving yourself an injection. The area should have a surface nearby that is flat and even. Clean the surface with soap and water or mild bleach solution. Gather the above materials to the area. Have paper towels handy to absorb any spillage of medication.

Wash your hands and dry well.
This is the most important step in the entire process. Your hands should be clean! If someone other than you is giving the methotrexate injection, they should also wash their hands and wear gloves.

Assemble the needle and syringe unit.
The needle will screw onto the syringe. (You may have a syringe with a needle already attached...if it has a bigger needle than you need, you can remove the larger one and replace it with a smaller one). Make sure the needle is snug on the syringe.

Choose and prepare the site for injection.
The best areas to use are the fatty part of the arm or thighs. For self-injection, it is easier to use the legs. If someone else is injecting you, the back of the arms is best. Remember you are injecting into the fat, so find a fatty spot. Avoid areas that are bruised, scarred or have many visible veins. Sometimes the abdomen is also used. After you have chosen the site, clean the
area with an alcohol swab, using a circular motion to clean the site.

**Draw up one (1) cc of medication.**

Remove the plastic cap from the medicine vial. Remove the plastic cap from the needle. Insert the needle into the vial and turn the vial and syringe upside down (vial on top and syringe on the bottom). Slowly draw the fluid back into the syringe to the 1cc mark. There may be an air bubble that gets in. If this is the case, pull slightly more than 1 cc back. Lightly tap or flick the syringe to get the air bubble(s) to the top (the end with the needle). Slowly push the plunger up to the 1cc line. Push the excess medication back into the vial.

**Inject medicine.**

Not too fast, not too slow...inject the needle into the previously chosen site. Use the base of the wrist as an anchor and hold the syringe like a dart or a pencil. Before pushing the plunger in (to inject the medication), pull slightly back on the plunger. This is to check that you are not accidentally in a blood vessel. If no blood appears, slowly and steadily inject the entire contents of the syringe. Briskly remove the needle and place pressure at the site for a few moments with the alcohol swab. If blood should appear in the syringe when you pull back on the plunger, do not inject, but rather pull the needle out and place pressure on the site. (If this should happen, the needle and syringe and its contents should be thrown away and a new set put together, and the above steps repeated).

**Discard the supplies.**

Place the needle and syringe into the puncture-proof container. Put the container in a plastic bag. Reuse the container until your next visit to the hospital or doctors office. Bring it with you and it will be disposed of properly. The paper towel, the alcohol swab and any non-sharp supply can be folded up in newspaper and placed in a plastic bag for disposal in the trash.