

# Methotrexate (MTX) Therapy for Inflammatory Bowel Disease (IBD)

# Methotrexate (MTX) Therapy for IBD

- Your health care provider feels that treatment with methotrexate (meth-oh-TREX-ate) may help your inflammatory bowel disease (IBD) (like Crohn's disease, ulcerative colitis).

## What is methotrexate (MTX)?

- The cells in your body that fight infection and inflammation (swelling) are known as the immune system. If your immune system is too active, it can cause inflammation and damage to body tissues and organs (like the bowel).
- Diseases that cause your immune system to be too active include:
  - › Rheumatoid arthritis
  - › Certain types of liver disease
  - › Inflammatory bowel disease (IBD) (like Crohn's disease, ulcerative colitis)
- Methotrexate (MTX) is an immunosuppressive medication. This means it suppresses (weakens) the immune response, which lowers inflammation.
- MTX works by blocking an enzyme involved in the immune system, which makes the immune system less active.

## **How well does MTX work?**

- When MTX is used alone, it can help some people. It may take 2 to 3 months before symptoms get better.
- Taking MTX alone may not help as much if you have ulcerative colitis. If you have ulcerative colitis, your health care provider may recommend taking MTX together with another treatment.

## **Combination therapy in IBD**

- MTX is sometimes used together with medications called biologics. Biologics are special medications that are also used to treat IBD. MTX may help a biologic work better to treat IBD.

## **Who should not take MTX?**

- **Do not take MTX if you have:**
  - › Chronic (ongoing) liver disease
  - › Alcohol addiction
  - › Diabetes
  - › Stomach ulcers
  - › Anemia (low red blood cell levels)
  - › Leukopenia (low white blood cell levels)
  - › Thrombocytopenia (low blood platelet levels)
  - › Repeated infections
  - › Ascites (extra fluid in the stomach area) or pleural effusion (extra fluid in the lungs)
  - › Chronic disease of the nervous system
  - › Chronic lung disease or fibrosis
  - › Chronic kidney disease
  - › Chickenpox (in the recent past) or herpes zoster virus (shingles)
  - › Gout
  - › Kidney stones

**Tell your health care provider if you have had any of these conditions.**

- **You should not take MTX if you are pregnant, plan to get pregnant, or plan to get someone else pregnant.**
  - › MTX can harm an unborn baby, and can cause birth defects or miscarriage.
- Tell your health care provider if you are pregnant, plan to get pregnant, or plan to get someone else pregnant, before taking MTX.

**If you and your partner are trying to get pregnant, do not take MTX.**

- Talk to your health care provider about birth control before you start taking MTX.

- **Do not breastfeed or chest feed while taking MTX.**
  - › MTX can be passed to your baby through breast milk and harm your baby.
- Tell your health care provider if you are breastfeeding or chest feeding.

## How is MTX given?

- MTX can be given orally (by mouth), but many people with IBD are prescribed MTX injections. MTX is only taken once every 7 days (1 week), on the same day each week.

## If you are prescribed MTX injections:

- Ask your health care provider about learning how to give self-injections.
- **Ask your health care provider to go over these instructions with you.**

## To self-inject MTX:

- Give yourself **1 injection every 7 days.**
- If you miss a dose, make sure there is **at least 5 days** between injections.

## Before each injection:

1. Have a clean, well-lit work area on a table or a desk.
2. Gather all of your supplies:
  - › 1 vial of MTX (fluid should be yellow and transparent [clear])
  - › Alcohol swabs
  - › A syringe
  - › Needle bucket for disposing of syringe

## Preparing your injection:

1. **Wash your hands.**
2. Place the vial of MTX on a flat surface. **Do not** touch the rubber stopper.
3. Wipe the rubber stopper with an alcohol swab.
4. Take the cap off the syringe.
5. Pull back the plunger of the syringe to 1 ml. This pulls air into the syringe.
6. Insert (put in) the needle of the syringe into the rubber stopper of the vial. Push down the plunger to inject the air into the vial. This will make it easier to draw out the fluid.
7. With the syringe still in the vial, turn the vial upside down.
8. With the tip of the needle in the MTX, draw out 1 ml of fluid (for a 25 mg dose). You may need to pull the needle out of the vial a bit to get the last of the fluid out.
9. If there is air in the syringe, you can push it back into the vial and keep drawing the fluid out.
10. When you have 1 ml of fluid (for a 25 mg dose), remove the needle from the vial. **Replace the cap on the needle before you put it down.**

## Where to inject MTX:

- Choose an area that has a layer of fat between the skin and the muscle. This is called subcutaneous (under the skin) tissue.
- For example:
  - › **Top of the thigh:** Put 1 hand on your groin and 1 hand on your knee. Use the space in between for the injection. **Do not** inject into your groin or knee. **Do not** use any area where you can see a blood vessel.
  - › **Abdomen (belly): Do not inject near your waistline. Do not** use your abdomen if you are very thin.
- Change the injection area each time, staying about 1½ inches away from the last injection site.
- At times, you may have slight bruising at the injection site. This is not serious.

## To give the injection:

1. Use an alcohol swab to clean about 2 inches around the injection site you have chosen.
2. Wait about 1 minute (60 seconds) for the area to dry.
3. Take the cap off the syringe.
4. Make a fold of skin between your thumb and index finger.



5. Quickly insert the needle at a 45-degree or 90-degree angle to your folded skin. The needle should be fully covered by skin.
6. Let go of the folded skin and move this hand to hold the syringe in place.
7. Slowly push the plunger all the way to the bottom to inject your MTX.
8. **Do not inject if you see blood.** Pull out the syringe and start again with a fresh vial of medication and a new syringe.
9. Put the alcohol swab on the site where the needle is in your skin and pull out the syringe. Gently hold the area for about 30 seconds. **Do not rub.**
10. If there is any bleeding, put on a bandage (like a Band-Aid®).
11. It is OK if there is a small air bubble in the syringe. It is fine if a small amount of air enters your skin.
12. **Do not put the cap back on the syringe.** Put the syringe in your needle bucket and throw away the cap.
13. When your needle bucket is full, you can return it to your pharmacy and get a new one.

**If you get MTX on your skin:**

- Wash the area right away with warm, soapy water to prevent irritation.

**If you get MTX on your work area:**

- Put on rubber gloves. Use a paper towel and warm, soapy water to wash the area. **Throw away the paper towel in your needle bucket, not in the regular trash.**

**If you get MTX in your eye(s):**

- Wash your eye(s) with lots of water. **If your eye is red or irritated, call your primary health care provider (family doctor or nurse practitioner) or go to the nearest Emergency Department right away.**

## **What are the possible side effects?**

These side effects are less serious, but they may cause discomfort or be upsetting.

### **Less serious side effects**

- Dizziness
- Mouth sores
- Loss of appetite (do not feel like eating)
- Nausea (feeling sick to your stomach) and vomiting (throwing up)
- Diarrhea (loose, watery poop)
- Hair loss
- Itchy skin and/or rash
- Changes in your periods (if you have periods)
- Tender breasts
- Lowered sperm count (if you have testicles)
- Sensitivity to light
- Tired, achy muscles

These side effects usually go away as soon as you stop taking the medication.

## **Serious side effects:**

**If you have any of these side effects, tell your health care provider right away:**

- Weakness
- Fever (temperature above 38.5 °C or 100.4 °F)
- Sore throat
- Joint pain
- Abnormal bleeding or bruising (like bleeding or bruising easily)
- Blood in your stool (poop), urine (pee), or vomit (throw up)
- Swelling in your feet or lower legs
- Liver fibrosis (scarring): Your health care provider will request a liver scan if they think you might have fibrosis.
- Pneumonitis (lung inflammation), dry cough, trouble breathing

If you have any of these side effects, your health care provider may lower your dose, or tell you to stop taking it.

## What can I do to lower the chance of side effects?

- **Limit alcohol.** Drinking alcohol while taking MTX can damage your liver and lead to cirrhosis (scarring of the liver).
- **Do not try to get pregnant or get someone else pregnant while taking MTX. Do not take MTX if you are pregnant.**
- **Talk to your health care provider before you get any live vaccinations. This does not include flu or COVID shots.** Everyone should get a flu vaccination and a COVID vaccination every year.
- **Do not start taking any new medications without talking to your health care provider first.** Some medications can cause problems when taken at the same time as MTX.
- Tell your health care provider if you have any allergies or infections.
- **Take a folate supplement.** Taking extra folate can help to lower how severe (very bad) and frequent your side effects are. It also helps protect your liver while taking MTX. Your health care provider will tell you how much folate to take.

- **Have regular blood tests** to check the effect of MTX on your body, and in treating your disease.
- Have a regular check-up at least once a year with your primary health care provider.

## **Concerns**

You may be worried that this medication is too dangerous. Serious side effects are rare. There is less risk from the medication than there is from your disease.

**What are your questions?**

**Please ask a member of your health care team. We are here to help you.**

# Notes:

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This pamphlet is for educational purposes only. It is not intended to replace the advice or professional judgment of a health care provider. The information may not apply to all situations. If you have any questions, please ask your health care provider.

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