



Crohn's and Colitis
Foundation of Canada

Fondation canadienne des
maladies inflammatoires
de l'intestin

PRESCRIPTION FOR HEALTH



*Medication and
Inflammatory Bowel
Disease*

MEDICATION AND INFLAMMATORY BOWEL DISEASE

If you or someone you know has been diagnosed with inflammatory bowel disease (IBD), you need to know about the drugs that are available to help you.

Although there is no known cure for IBD there are medications which can improve symptoms, reduce inflammation, and lead to an improved quality of life.

The Crohn's and Colitis Foundation of Canada (CCFC) realizes that you need information that will help you understand the different types of drugs available, their purpose, side effects and precautions. That is the purpose of this booklet.

In the meantime, CCFC will continue to pursue its mission of finding the cure for IBD, taking every avenue available to accomplish it. We know the cure is more than a dream – one day it will be a reality.



UNIQUELY YOU AND YOUR DRUGS ARE TOO!

We should start off by saying that the drugs your doctor prescribes for you, the dosage and the effects you experience are going to be unique to you. There is no "one size fits all" approach to IBD medications, so be prepared to find out that others may be taking different medications than you, in different doses and various combinations. You and your physician must work together to sort out what is the most effective regime (routine) for you when you are in a flare-up (relapse) or in remission (when your symptoms are under control). It is very important to understand that because IBD is a chronic relapsing disease your physician will likely ask you to take medications even when your symptoms are gone to increase the likelihood that you will remain well.

WHAT DO THE DRUGS DO?

Even though modern medicine cannot cure you with drugs, there is a lot that can be done to control the symptoms of IBD. Generally, medications fall into one of two categories:

- A. those that control the inflammation in your gut
- B. those that deal strictly with the symptoms you are experiencing without touching the inflammation

In other words, one group of drugs actually puts out the fire in your gut while the other group gets rid of the smoke. However, remember where there is smoke there is fire and treating only with drugs that relieve symptoms is not usually recommended.

PRO'S AND CON'S

We don't mean to oversimplify this situation. You need to know that with every drug you take, there are "pluses and minuses" associated with their medicinal action. The "pluses" are those effects which are intended by your physician to help you with your IBD. The "minuses" are the side effects you might experience which are unintended but not necessarily unexpected.



Side effects pose a tricky balancing act. If the main action of the drug is doing what it is supposed to do, but is also causing you difficulties due to side effects, you and your doctor need to discuss the pro's and con's of the prescription and the dosage you are taking. While the side effects described are sometimes worrisome or scary, your physician will usually aid you in demonstrating that the benefits greatly outweigh the risks. A workable balance needs to be established so that your symptoms can be controlled while giving you an acceptable quality of life.

STICK TO THE PROGRAM

Doctors, nurses and pharmacists sometimes refer to "patient compliance" when talking about the success or failure of a particular drug. It seems that some patients pay little regard to the instructions on the drug label (e.g., eat with meals), the frequency of taking their meds (e.g., take twice a day), dosage (e.g., two pills a day, not one) and prescription completion (e.g., take for 7 days) or renewal. This results in a failure of the drug to achieve the expected results.

Studies have shown that patient compliance is a key factor in the drug's ability to relieve symptoms and control disease. In spite of this, some people decide to "do their own thing" for a variety of reasons that make sense to them. Don't be one of those patients who decides to alter their medications on their own. If you are having trouble with one of your drugs, talk to your pharmacist, your physician or your nurse.

HOW LONG WILL I BE ON MEDICATION?

Crohn's disease and ulcerative colitis are chronic (lifelong) diseases. As such, you will probably be on some kind of medication for much of your life. The amount and dosage will vary depending upon whether you are in remission or having a relapse. You and your doctor or nurse practitioner will work together to adjust your meds as the case may be.

WHAT ABOUT HERBAL MEDICINES?

Herbal medicines are still medicine. They contain active ingredients that have an effect on your body. Be sure to discuss all of the herbal medicines you are thinking about taking with your doctor as some of them may interact badly with the medications you are being prescribed. There are no herbal medications that have been approved to treat IBD. Beware of "fad" diets, drinks and health foods that come with claims of miracle cures. If there is a cure out there for IBD, your healthcare team will let you know.

A. Drugs that control the inflammation in your gut

Let's look at the drugs that fight the inflammation in your body. Overall, they fall into five classes:

1. Aminosalicylates
2. Glucocorticoids (steroids)
3. Immunosuppressants and Immunomodulators
4. Antibiotics
5. Biologics

The information on the next page shows you the generic name of drugs you may be prescribed, not the brand names. To relate these terms to everyday language, the generic name would be like talking about "facial tissue" while the brand name would be like talking about a specific manufacturer's tissue. Your doctor may order a generic or brand name when filling out your prescription.

1. Aminosalicylates (5-Aminosalicylic acid or 5-ASA)

Generic Names:	Used for:	How it works:	Taken:
<ul style="list-style-type: none">• Sulfasalazine• Mesalamines• Osalazine (not available in Canada)• Balsalazide (not available in Canada)	<ul style="list-style-type: none">• Milder attacks of IBD• Reduces the risk of multiple relapses in UC patients	Decreases inflammation in the intestinal tract	Orally or rectally

Possible Side Effects:

You may experience rash, nausea, headaches, increased diarrhea, or reduced appetite. It is also possible that you may experience a reduced sperm count if you are taking sulfasalazine (which goes back to normal when you stop the drug) or hair loss. If you are allergic to sulfa, then sulfasalazine could give you hives (itchy rash), swollen hands and/or face within three weeks of starting the medication. Contact your doctor if this occurs.

Very rarely, a person might experience pancreatitis, hemolysis (breaking down of your red blood cells) or marrow aplasia (bone marrow shutdown) when taking one of the 5-ASA drugs.

Nutritional impact:

Sulfasalazines interfere with the absorption of folic acid. A folate supplement may be recommended



2. Glucocorticoids (Steroids)

Don't worry! These are not the steroids that you hear about when athletes are taking performance-enhancing drugs! This group of steroids includes powerful anti-inflammatories.

Generic Names:	Used for:	How it works:	Taken:
<ul style="list-style-type: none">• Prednisone• Hydrocortisone• Betamethasone• Tixocortol (not available in Canada)• Budesonide	<ul style="list-style-type: none">• Moderate and severe attacks of IBD• Not for prolonged use or for prevention of flare-ups• Can be used along with an aminosalicylate drugs	Made from cortisol (a hormone produced by your adrenal glands), these drugs quell the inflammation in your body and decrease the activity of the immune system	Orally, rectally or intravenously depending on which drug is used

Possible Side Effects:

Steroids are a class of drugs that have proven to be of tremendous benefit to people with IBD, however you should be aware of their side effects. Here is a partial list of those most commonly experienced; many of these will go away after steroid use has ceased:

Cosmetic Side Effects:

- Acne
- Redness of the face
- "Chubby cheeks"
- A tendency to bruise easily
- Fluid retention and weight gain

Effects on your metabolism:

- Increased appetite
- Weight gain
- Bone loss
- Increased blood pressure

Psychological:

- Mood swings
- Depression
- Feeling energized

Rare side effects but sometimes experienced:

- Muscle weakness
- Psychosis
- Osteonecrosis (reduced blood flow to the joints in your body)

Prolonged use of steroids can result in:

- Osteoporosis
- Cataracts
- High blood pressure
- Steroid-induced diabetes

You can see why your doctor will only prescribe steroids for a short period of time; extended use is not advisable.

Precaution!

Because the use of steroids causes your natural production of cortisol to decrease, you should never stop taking them suddenly. If you do, you may experience nausea, fatigue, weakness, lightheadedness or diarrhea. A gradual tapering off of the dosage is necessary to give your body time to ramp up its own production of cortisol.

It's important to let others on the health care team know that you are on steroids. Remind them that you are taking steroids and wear a medical alert bracelet stating their use.

Nutritional impact:

Steroids interfere with your absorption of calcium and protein. Calcium and vitamin D supplements may be necessary.

3. Immunomodulators and Immunosuppressants:

Generic Names:	Used for:	How it works:	Taken:
<ul style="list-style-type: none">• 6-Mercaptopurine and Azathioprine• Methotrexate	<ul style="list-style-type: none">• Long-term treatment, not for acute attacks• Keeping people with CD in remission and occasionally for those with UC• Helping people reduce the use of steroids	Suppresses your immune system, thereby reducing the overactive inflammatory response typical of IBD	Orally or by injection
<ul style="list-style-type: none">• Cyclosporin	<ul style="list-style-type: none">• Severe UC flare-ups that have hospitalized patients	As above	Intravenous or by injection initially followed later by oral medication

Immunomodulators do suppress your ability to fight infections in general. You are therefore more susceptible to picking up infections so you should get into the habit of regular handwashing during the day, particularly before eating.

Potential Side Effects:

These drugs are generally well-tolerated however a few people may encounter trouble with nausea, GI upset, fever or rash. Due to the possibility that some serious complications can arise (e.g., pancreatitis, non-specific abdominal pain), people on immunomodulators should have complete blood work and a liver biochemistry done.

Occasionally people can experience flu-like symptoms if taking methotrexate however shortness of breath and cough may be signs of an allergic reaction and warrant an immediate call to your doctor. This type of drug should not be taken by men or women several months before conception.

Cyclosporin in particular can have side effects such as infections and kidney damage as well as increase in blood pressure, tremor, seizures and increased facial hair growth.

There has been research into the possibility of an increased risk for cancer associated with the use of immunomodulators. While there is a very small individual risk of developing lymphoma (cancer of the lymph nodes), there does not appear to be any risk for other types of cancer for those who use these drugs.

4. Antibiotics:

Generic Names:	Used for:	How it works:	Taken:
<ul style="list-style-type: none">• Metronidazole• Ciprofloxacin	<ul style="list-style-type: none">• Sometimes used as the primary therapy for people with CD• When a CD or UC patient has an abscess or fistula and an infection	<ul style="list-style-type: none">• It is not totally understood why they are effective as primary therapy (the only meds given) for CD• Antibiotics kill or immobilize bacteria and control infections	Orally or intravenously

Possible Side Effects:

Metronidazole can cause nausea, vomiting, constipation or the opposite – diarrhea. Some people complain of a metallic taste when taking the drug. If used long-term, you can experience numbness in hands or feet resulting in difficulties with balance. If these symptoms occur, contact your doctor immediately. Drinking alcohol while on this drug can cause nausea, vomiting flushing and weakness.

Ciprofloxacin may cause nausea and diarrhea, but this is normally short-term and quite rare. It also



prolongs the effects of caffeine and can cause insomnia and vivid dreams. There are occasional reports of tendonitis (inflammation of the tendons).

Both types of antibiotics can also result in yeast infections in women and clostridium difficile (C. diff) infections after the antibiotics are finished. C. diff causes diarrhea and may aggravate your IBD.

Nutritional and other impacts:

Antacids (calcium carbonate) may interfere with you body's ability to absorb antibiotics so do not take both within a few hours of each other. Also, antibiotics can decrease the effectiveness of your birth control pills! And beware that antibiotics can dangerously affect you if you are taking any anti-coagulant medication; adjustments to your meds may be in order so be sure to remind your doctor that you are taking both kinds of drugs. Finally, stay out of the sun while on certain antibiotics as they may increase your sensitivity to exposure.

Antibiotics can interfere with your body's ability to absorb calcium, zinc, iron, vitamin K and biotin. The absorption of antibiotics may be interfered with by over the counter and prescription drugs. This should be reviewed with your pharmacists.

5. Biologics:

Biologics are the latest generation of medications to hold great promise for relieving IBD because of their targeted action on specific molecules to block inflammation or activate other molecules to reduce inflammation.

Generic Names:	Used for:	How it works:	Taken:
<ul style="list-style-type: none">• Infliximab• Adalimumab• Certolizumab pegol (not available in Canada)	<ul style="list-style-type: none">• Treatment of moderate to severe CD and for prevention of relapses• Infliximab used for UC that has been unresponsive to other treatments• Can also be helpful when people are decreasing their steroid levels	<p>Depending on the drug:</p> <ul style="list-style-type: none">• Blocks targeted molecules or locations on cells to diminish the inflammatory response• Spurs on the activity of other molecules or cell receptors to reduce inflammation	Intra-venously for Infliximab and by injection for Adalimumab and Certolizumab pegol

Possible Side Effects:

Because biologics are targeted drugs, their side effects are less than those experienced with other drugs. However, there can be feelings of stomach pain, nausea, cough or sore throat or a rash. The side effects most reported appear to be related to the intravenous administration, so things like flushing, warmth, redness at the intravenous site, shortness of breath and feelings of chest tightness during the IV have been occasionally reported.

Precautions!

If you have had tuberculosis (TB) in the past, be sure to tell your physician because biologics may re-activate your old TB. All patients should have a TB skin test before starting on a biologic drug. Also, if you have a heart condition, be sure to remind your doctor and if you have any signs of heart failure while on the drug, contact the office right away.

Because biologics are immunosuppressants, you are more prone to infections. If you develop a cough, severe headache and fever, you should follow up with your doctor. Persons taking biologics may be at slight elevated risk for the development of lymphoma (cancer of the lymph nodes).

B. Drugs that affect your symptoms

Some of the following are available over-the-counter in your drugstore. Be careful! Just because a drug is available without a prescription does not mean that it is without side-effects. Remember that all drugs require informed decision-making and a balance between desired results and undesired effects.

1. Ointments and Suppositories

Use off-the-shelf ointments to reduce inflammation around hemorrhoids to reduce the swelling and itching. Most of these ointments contain a steroid such as hydrocortisone and will help to shrink inflamed tissue.

A daily sitz bath will also help to calm tissue around a fissure or anal sphincter that has gone into spasm due to surrounding inflammation.

Zinc oxide or baby ointment can be soothing and protective if a person is experiencing anal itching. Apply after a sitz bath.





2. Analgesics (painkillers)

Beware of the use of acetylsalicylic acid (ASA) and non-steroidal anti-inflammatory drugs (NSAIDs) for pain. Examples of NSAIDs include ibuprofen and naproxen. People with IBD are more prone to stomach and duodenal ulcers from the use of these common painkillers and, in addition, they may cause a flare-up of your disease.

The NSAIDs in particular require caution due to their tendency to aggravate IBD symptoms. If a mild analgesic is required, try acetaminophen or acetaminophen with codeine for more severe pain. However, be aware that large and prolonged doses of these drugs have been linked to liver damage and kidney failure.

3. Anti-diarrheals

These can either be prescription or non-prescription drugs depending on the type. These drugs reduce diarrhea by altering muscle activity of the gut and slowing down the passage of the food bulk. Be careful – sometimes the anti-diarrheals work too well and constipation can occur. They are not usually taken during a flare-up as they may encourage complications of IBD.

4. Bulk Formers

Use for relieving constipation (or surprisingly – mild diarrhea), bulk formers are not actually drugs, but fibre that soaks up and binds water, thereby making stool less loose and bowel movements more frequent.

5. Bile Salt Binder (Cholestyramine)

If you have CD, and your ileum is inflamed, you can have difficulty absorbing bile salts from your gut. Bile salts are normally helpful to you by assisting the gut in digesting fat; however, if your ileum is not functioning properly, the bile salts remain in your colon and irritate it. This results in diarrhea. Cholestyramine helps to prevent this irritation, thereby reducing diarrhea.

Possible side effects include vomiting, nausea, constipation, increased diarrhea, abdominal pain and bloating. Bile salt binders inhibit the absorption of vitamins A, D, E and K, so vitamin supplements may be required.



ARMED AND INFORMED

Information is power. The Crohn's and Colitis Foundation of Canada (CCFC) encourages you to find out all you can about IBD and to be an active participant in your own healthcare team. We are here to help you take on that role and be an informed health care consumer.

For more information, please go to our website www.ccfc.ca, read our other booklets, subscribe to **The Journal**, and join a local CCFC chapter or support group. Together we will find a cure.

***Get involved. Stay involved –
for your own good!***

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