

How can I feel better?

There are many medications for the treatment of ulcerative colitis.

These medicines can be very good at helping your inflammation heal if you take them as your doctor recommends. In addition to taking medications, you should:

- Eat a healthy diet.
- Get at least eight hours of sleep each night.

PROCEDURES THAT MAY BE DONE IN PATIENTS WITH IBD

Esophagogastroduodenoscopy (EGD)

A tube, with a video camera attached, is placed in your mouth and moved down into your GI tract to get a good look at the lining of your esophagus, stomach, and the start of your small intestine. This procedure also allows the doctor to take small samples (biopsies) of these three areas. A doctor will use a microscope to look at the samples to see if there is inflammation and to diagnose IBD.

Colonoscopy

A colonoscopy is very similar to an EGD. A tube with a video camera attached is placed into the rectum to look at the colon and terminal ileum. Doctors take biopsies during the colonoscopy and look at them under a microscope to see if you have IBD.

Computed Tomography (CAT) scan or

Computerized Tomography Enterography (CTE)

This procedure is used to help diagnose and/or tell how severe the IBD is and where it is located. It is also used to look for strictures, abscesses, or fistulas.

- You will need to have an IV (a soft tube placed in your vein) for this test. A special dye goes through the IV to help highlight your vessels and any inflammation. There is a special drink you will take that helps us see your bowel better.
- CAT scans do involve radiation.

Magnetic Resonance Imaging or Enterography (MRI or MRE)

This procedure helps diagnose and/or tell how severe the IBD is and where it is located.

- You will need to have an IV (a soft tube placed in your vein) for this test. A special dye goes through the IV to highlight your vessels and any inflammation.
- There is a special drink you will take that helps us see your bowel better.
- This test does not expose you to radiation.

Capsule Endoscopy

A camera, the size of a pill, is swallowed by the patient or placed by EGD into the small intestine to look at the parts of the small intestine that are not reached by EGD or colonoscopy. About 60,000 images are taken.

- This test is not recommended for patients with strictures or bowel obstructions.

MEDICATIONS

Why is taking medicine important?

- It treats the inflammation in your intestine and can prevent recurrence of flare-ups, which can make you have pain, feel weak, and may lead to admission to the hospital.
- Many times you feel well and may think that you do not need to take your medicine anymore. Always talk with your doctor first. The goal of taking medicine is to keep you feeling well all the time and in remission.
- Medicines may be changed over time based on your needs and will be done in conjunction with your doctor.

How can I remember to take my medicines?

- Store your medicines in a place that will help to remind you to take them every day, such as:
 - » *The bathroom when you brush your teeth in the morning and*

- » before bed.
- » On the kitchen counter to take with breakfast and dinner.
- Keep your medicines organized.
 - » Place your medications in a pill box every week so you can tell whether you took them or not.
 - » Make sure that your medicines are stored where young children cannot get to them.
- Set an alarm.
 - » Set an alarm clock in your house or on your phone to remind you to take your medicine.

Acid-Suppressing Medications

Acid-suppressing medications are given to people who have active inflammation of the stomach or esophagus. There are two types: H2 Blockers and Proton Pump Inhibitors. Both block the production of acid by the stomach.












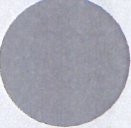
H2 Blockers









- Also known as Ranitidine (Zantac®) or Famotidine (Pepcid®)
- Fast-acting

H2 BLOCKER	PICTURE	ACTUAL SIZE
Ranitidine 75mg 0.9 x 1cm		
Ranitidine 150mg 1.0cm		

Proton Pump Inhibitors (PPIs)

- Also known as Lansoprazole (Prevacid®), Pantoprazole (Protonix®), Omeprazole (Prilosec®) and Esomeprazole (Nexium®)
- Slower-acting

PPI	PICTURE	ACTUAL SIZE
Esomeprazole DR 20 mg 1.4 x 0.5cm		
Esomeprazole 40mg 1.6 x 0.5cm		
Lansoprazole DR 15mg 1.5 x 0.6cm		
Lansoprazole DR 30mg 2.1 x 0.8cm		
Lansoprazole ODT 15mg 0.9cm		
Lansoprazole ODT 30mg 1.8cm		

PPI (continued)	PICTURE	ACTUAL SIZE
Omeprazole DR 10mg 1.7 x 0.6cm		
Omeprazole DR 20mg 1.8 x 0.6cm		
Omeprazole DR 40mg 2.2 x 0.7cm		
Pantoprazole 40mg 1.1 x 0.6cm		

How are they dosed?

They are generally taken orally, once or twice per day. Both types of medicine work best when taken on an empty stomach.

How long do they take to work?











- H2 blockers work faster than PPIs, but both will start to work within one day.
- PPIs have to be slowly tapered down to stop using them.





Side Effects

If acid-suppressing medications are taken over many years, they can cause poor bone health and more gastrointestinal infections.

Aminosalicylates (ASAs)

- Also known as 5-ASA, Mesalamine, Pentasa®, Lialda®, Asacol®, Apriso®, Canasa®, Rowasa®, Sulfasalazine, Azulfidine®, Sulfazine®
- They work topically in the intestine to reduce the inflammation. Many are made to deliver the medicine directly to the area that is inflamed. They can be used for Crohn's disease and ulcerative colitis.

ASA	PICTURE	ACTUAL SIZE
Asacol® HD 800mg 2 x 0.9cm		
Balsalazide 750mg 2.2 x 0.9cm		
Lialda® 1.2mg 2.1 x 1cm		
Mesalamine DR 400mg 2.1 x 0.7cm		
Pentasa® 250mg 2.1 x 0.8cm		

ASA (continued)	PICTURE	ACTUAL SIZE
Pentasa® 500mg 2.6 x 0.8cm		
Sulfazine® 500mg 1.4cm		

How are they dosed?

- They are either taken orally or via the rectum as a suppository or enema.
- Canasa® is a suppository, and Rowasa® can be an enema or suppository.
- Many pills cannot be chewed or crushed. Check with your pharmacist or doctor regarding opening a capsule or crushing a tablet.
- Many 5-ASAs need to be taken more than one time per day and sometimes more than one pill at a time.
- Your doctor may want you to take a folate supplement while taking these medicines.

How long do they take to work?






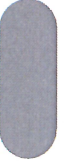






5-ASAs take at least one week for you to feel an effect from the medicine.

Side Effects

- People with sulfa allergies cannot take some 5-ASAs like sulfasalazine.
- The most common side effects are headaches, nausea and/or rash.
- The most worrisome side effect is kidney problems, so your doctor will check blood and urine tests to make sure your kidneys are okay.

Antibiotics

The most commonly used antibiotics are Ciprofloxacin (Cipro®) and Metronidazole (Flagyl®). These work to alter the bacteria in your intestine that may be causing inflammation. They are also used to treat active infections like abscesses.

ANTIBIOTIC	PICTURE	ACTUAL SIZE
Alinia® 500mg 1.3cm		
Ciprofloxacin 500mg 1.8 x 0.8cm		
Ciprofloxacin 750mg 2.2 x 0.8cm		
Ciprofloxacin 250 mg 1.7cm		
Metronidazole 250mg 0.9cm		
Metronidazole 500mg 1.6cm x 0.7cm		

How are they dosed?

- Ciprofloxacin is normally dosed two times per day and can be a tablet or liquid. It may be given by IV if you are admitted to the hospital.
 - » *It is important not to take Ciprofloxacin with milk or antacids like milk of magnesia.*
- Metronidazole is normally dosed three to four times per day and can be a tablet or liquid. It may be given by IV if you are admitted to the hospital.
 - » *It is important not to drink alcohol while taking Metronidazole as it will cause nausea and vomiting.*

How long do these antibiotics take to work?

You will notice a difference within the first two to three days after taking them.

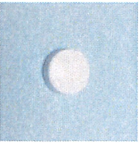











Side Effects

- All antibiotics reduce the efficacy of birth control, so use other methods of birth control when taking antibiotics.
- Ciprofloxacin can cause headaches, nausea and vomiting.
- Metronidazole can cause a metallic taste in your mouth, decreased appetite, dark urine, and nausea. If used over long periods of time, it can cause tingling in the hands and feet. You should tell your doctor if you experience this.

Corticosteroids/Steroids

(Also known as Prednisone and Orapred®/Prednisolone)

Steroids are often used during a flare-up of your IBD. They work to suppress your immune system to get the inflammation under control. They work well for both Crohn's disease and ulcerative colitis.

CORTICOSTEROID/STEROID	PICTURE	ACTUAL SIZE
Prednisone 1mg 0.6cm		
Prednisone 2.5mg 0.6cm		
Prednisone 5mg 0.7cm		
Prednisone 10mg 0.7cm		
Prednisone 20mg 0.9cm		
Prednisone 50mg 1.1cm		

How are they dosed?

They can be given through an IV while in the hospital and changed to either pills or flavored liquid for home.

How long do they take to work?

You can feel the effects from steroids within one day to one week. It takes most medications up to four weeks to have a full effect.

Common Side Effects

- Short-Term
 - » *Increased appetite and weight gain*
 - » *Acne*
 - » *Swollen or round face*
 - » *Trouble sleeping*
 - » *Change in mood*
- Long-Term
 - » *Poor blood sugar control which can lead to temporary diabetes*
 - » *High blood pressure*
 - » *Poor bone health*
 - » *Cataracts*

Oral Topical Steroids

(Also known as Budesonide or Entocort® EC)

Budesonide can be used as a topical method to decrease inflammation in the small intestine and the right colon. It works best for patients with small intestinal Crohn's disease.

ORAL TOPICAL STEROID	PICTURE	ACTUAL SIZE
Budesonide 3mg 1.9 x 0.7cm		

How are they dosed?

You take the capsule once per day. These capsules cannot be opened, crushed or chewed.

How long do they take to work?

They will start to work right away, though you may not notice a difference for two to four weeks.

Common Side Effects

The side effects listed for steroids apply, however, the likelihood for these side effects is less since they are topical in nature and systemic absorption is limited.

Rectal enemas

(Cortenema®, Hydrocortisone, Methylprednisolone), suppositories or foams (Hydrocortisone acetate, Cortifoam®, Proctofoam®)
Rectal preparations work best in the left colon, sigmoid colon and rectum. They are used mainly for ulcerative colitis, but can be used for large intestinal Crohn's disease as well.

How are they dosed?

These are given via the rectum up to two times per day.

How long do they take to work?

They will start to work right away, though you may not notice a difference for one week.













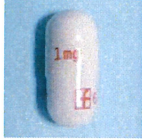

Common Side Effects

The side effects listed for steroids apply, however, there is less likelihood of side effects with rectal enemas since they are topical in nature.

Immunomodulators

(Also known as 6-Mercaptopurine (6-MP), Azathioprine, Methotrexate, Tacrolimus)

They work by stopping your immune system from attacking your intestine. They can be used in both Crohn's disease and ulcerative colitis.

IMMUNOMODULATOR	PICTURE	ACTUAL SIZE
Azathioprine 50mg 0.8cm		
Mercaptopurine 50mg 1.2 x 0.9cm		
Methotrexate 2.5mg 0.6cm		
Tacrolimus 0.1mg 1.7 x 0.7cm		
Tacrolimus 0.2mg 1.9 x 0.6cm		
Tacrolimus 0.5mg 1.2 x 0.5cm		
Tacrolimus 1mg 1.1 x 0.5cm		

IMMUNOMODULATOR	PICTURE	ACTUAL SIZE
Tacrolimus 5mg 1.4 x 0.5cm		

How are they dosed?

- 6-MP, Azathioprine and Tacrolimus are typically dosed once or twice per day.
- Methotrexate can be given as a pill or an injection once per week.
 - » *Methotrexate requires taking a daily oral folate supplement.*

How long do they take to work?

- 6-MP/Azathioprine can take up to three months to get to a high enough level to have an effect.
 - » *Your doctor will check a blood test to see how you process this kind of medicine.*
- Methotrexate starts to work immediately if given as an injection. If given as a pill, it may take three to six weeks to see improvement.
- Tacrolimus starts to work right away, but you may not notice a difference for at least one week.

Side Effects

- 6-MP and Azathioprine
 - » *Most common side effects include headache for 6-MP and easy bleeding for Azathioprine.*
 - » *The most serious side effects are pancreatitis and bone marrow suppression (not making enough blood cells or infection fighting cell(s)).*
- » *Rare cases of lymphoma have been reported in patients who have taken these medications. The risk is slightly higher than for a person not taking these medications, but it is still extremely low.*

- Methotrexate
 - » The most common side effects are nausea and a possible low white blood cell count (infection fighting cells).
 - » As with any injection, there is a risk of pain and infection at your injection site.
 - » Methotrexate should not be used in pregnant women as it can cause birth defects.
- Tacrolimus
 - » The most common side effect is kidney problems if your blood levels are too high.
 - » You will need frequent lab work to check your kidneys and the amount of tacrolimus in your blood.

Biologic Therapies

Also known as Infliximab (Remicade[®]), Adalimumab (Humira[®]), and Certolizumabpegol (Cimzia[®])

These work to block inflammatory molecules produced by your immune system to stop inflammation. They decrease how well you fight infections. Tests will have to be done before starting these medicines to make sure you do not have a serious infection. They work well for both Crohn's disease and ulcerative colitis.

How are they dosed?

- Infliximab: It is given with an IV over four hours. The doses are administered every two weeks at first, but then spaced out to once every eight weeks.
 - » You are admitted to the hospital for the infusion.
- Adalimumab: It is given as a subcutaneous (sub-Q, or just under the skin) injection every one to two weeks.
- Certolizumabpegol: It is given as a sub-Q injection initially every two weeks, and then is spaced to every two to four weeks.

How long do they take to work?

Most people notice an improvement in symptoms within the first week after a dose, but it may take several weeks to feel completely better.

Side Effects

- The most common side effect occurs at the time of the infusion or immediately after an injection. You may have a rash or difficulty breathing. This should be reported to your doctor immediately.
- You will be at increased risk of infection while taking these medications. It is important to call your doctor if you develop any fever.
- There are reports of a rare type of lymphoma in patients taking both an immunomodulator (6-MP, Azathioprine) and Infliximab. This risk is increased over the general population, but it is still very rare.

Remember that this is a short list of medications and there are more being investigated every day.

Nutritional Therapies

We know that intestinal bacteria (the microbiome) contribute to IBD. By eating different foods, you can change the microbiome, and this can help with IBD flares-ups.

Complete enteral nutrition can be used as an alternative to or in conjunction with medications in mild to moderate IBD to help your body return to a normal state of health. This is called remission.

- This means that all your calories are taken as formula like Pediasure[®], Ensure[®] or Boost[®]. These can taste very good, especially when cold.
- This is usually done for a short period, eight weeks, to get into remission, and then medications are started to keep you in remission.
- A dietitian can help determine how much you need to drink per day for good nutrition.
 - » There are special diets that avoid certain carbohydrates; they can help some people. Discuss these diets with your doctor and dietitian before starting.

Vitamins

People with higher levels of Vitamin D have been shown to have decreased numbers of flare-ups of their IBD. Your doctor may check this level and ask you to take a Vitamin D supplement.

Since people with IBD don't absorb vitamins as well as other people, your doctor may prescribe a multi-vitamin to supplement the vitamins you already get from your regular diet.

Probiotics

These are live bacteria that you can take as a pill to help establish a colony of good bacteria in the gut. Some examples are lactobacillus rhamnosus (Culturelle®) and bifidobacterium infantis combined with lactobacillus acidophilus (VSL#3®).

- Discuss this with your doctor before starting these supplements.
- Probiotics are not recommended for people with central IV access.

Vaccines

If you are taking steroids, immunomodulators or biologics, you should not get live virus vaccines without talking to your doctor. These vaccines could cause real infection in you.

- Live virus vaccines include: MMR (measles, mumps, rubella), Flu-Mist® (inhaled flu vaccine), Oral Typhoid, Yellow Fever and Oral Rotavirus

All patients with IBD should get a flu shot every year and should get inactivated vaccines as scheduled.

Medicines to Avoid

Do not take non-steroidal anti-inflammatory medicines

- Ibuprofen (Motrin®, Advil®),
- Aspirin (Bayer Aspirin®, some Excedrin®, BC® powder)
- Naproxen (Naprosyn®, Aleve®, Anaprox®)

My Diagnosis is:	
It is located in the:	
My medications are:	
My doctor is:	
My nurse is:	
The phone number to reach my nurse/doctor is:	
My pharmacy is:	
The phone number to my pharmacy is:	
My insurance provider is:	

OTHER HELPFUL RESOURCES

Crohn's and Colitis Foundation of America

<http://www.cdfa.org>

IBD Education for Adolescents

Online module for teens with IBD

https://dl.dropboxusercontent.com/u/182888348/_IBD_CD/_IBDedu.swf

**Cincinnati Children's Schubert-Martin Inflammatory Bowel
Disease Center**

<http://www.cincinnatichildrens.org/health/ibd>

GI Kids

Helpful Information on all topics related to pediatric and gastrointestinal
disease

<http://www.gikids.org>

Cincinnati Children's Center for Adherence and Self-Management

<http://www.cincinnatichildrens.org/adherence>