

Crohn's Disease

Treating Your Child in the Hospital

This handout covers treatments of complications from Crohn's and what to expect during a hospital stay for a flare.

Why does my child need to stay in the hospital?

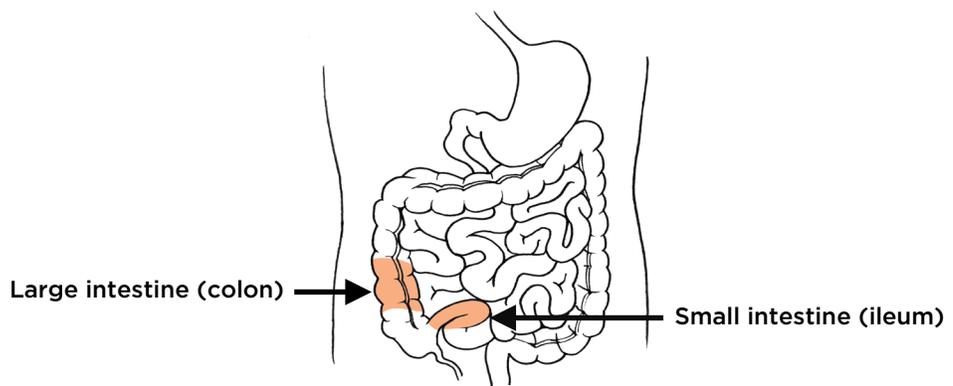
Most of the time, your child or teen can manage their Crohn's disease with medicine and diet at home. Sometimes it flares or gets worse, and staying at the hospital is the safest way to get better and treat any complications.

Who will care for my child?

Your child will receive care from a team that will include doctors, nurses, dietitians and other staff members. For more information about the roles of your healthcare team see our handout Welcome to the Medical Unit at seattlechildrens.org/pdf/PE077.pdf or ask your child's nurse for a printed copy.

What is Crohn's disease?

Crohn's disease is a type of inflammatory bowel disease (IBD). The disease causes inflammation anywhere in the gastrointestinal tract, but most commonly in the lower part of the small intestine (ileum) and the large intestine (colon). The inflammation occurs in patches and affects the inner lining of the intestines, and may extend outside the intestinal wall into the abdominal cavity. This may cause stomach pain (which can be severe), diarrhea or constipation; and at times, bloody diarrhea, weight loss, anemia, or compromised nutrition.



Main areas of intestine affected by Crohn's

To Learn More

- Gastroenterology
206-987-2521
- Ask your child's healthcare provider
- seattlechildrens.org

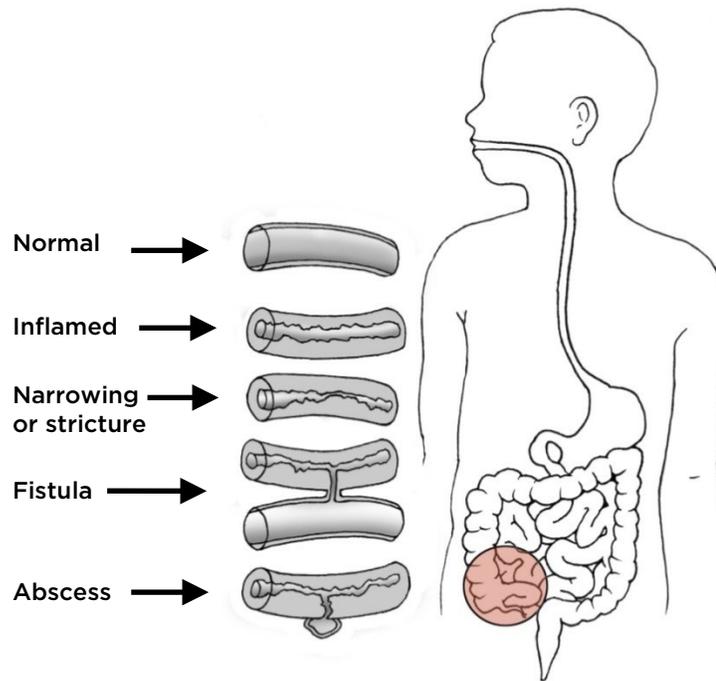
Free Interpreter Services

- In the hospital, ask your nurse.
- From outside the hospital, call the toll-free Family Interpreting Line, 1-866-583-1527. Tell the interpreter the name or extension you need.

What are the complications and treatment of Crohn's disease?

Active Crohn's inflammation causes various symptoms. Early recognition and quick treatment of flares and complications are key to getting your child back on track and feeling well.

The most common complications of Crohn's and its treatments are listed below.



Complications of Crohn's

Inflammation or flare

The inside of the intestine wall can get inflamed and swollen. This inflammation can cause different symptoms depending on where the inflammation is and how inflamed it is. Symptoms of inflammation can include pain, diarrhea, blood in the stool, vomiting, weight loss and fever.

Narrowing or stricture

Narrowing or stricture is when the intestine becomes so inflamed that it narrows to the point of partially or fully blocking the gut from moving any waste (stool).

- A bowel obstruction is a blockage of the intestines due to inflammation and swelling of the inside of the intestines or a scar. A complete bowel obstruction will require surgery to open the obstruction.
- A partial bowel obstruction may be treated with IV fluids and a nasogastric (NG) tube to remove stomach contents that cannot pass because of the partial blockage. This tube usually helps rapidly reduce vomiting, nausea and pain. Your child will not be allowed to eat or drink until the obstruction is cleared. Surgery may be needed in the future to prevent it from happening again.

Fistula and abscess in the abdomen/pelvis

A fistula is an abnormal connection or passage from one part of an organ to another; in this case, one part of the intestine opens to another. The abnormal connection happens when very inflamed tissue breaks down and tears into the other area.

- An abdominal/pelvic fistula can leak digestive contents into the abdomen or pelvis and allow a pocket of pus called an abscess to form.
- Symptoms include abdominal pain, nausea, vomiting, fever, and tenderness to touch on the belly area.
- Treatment is based on the size of the abscess and where the fluid is collecting.
 - A small amount of fluid or pus is usually treated with intravenous (IV) antibiotics through a vein first, followed by antibiotics given by mouth.
 - A large amount of fluid or pus may need to be drained and rinsed out in a procedure done by interventional radiology or the IBD surgery team. This is a minimally invasive image-guided procedure done through a small cut made in the skin under anesthesia sedation. A drain may be left in place so the area can be flushed twice a day for a few days. After the procedure, your child may need several radiology studies (like a CT scan, MRI, or ultrasound) of the area where the fluid or pus collection was, to be sure it was all removed. Inflamed bowel that results in a fistula, or abscess in an abdominal or pelvic fistula, will likely need surgery.

Perforation of the bowel

A perforation is a hole in the intestinal wall. This occurs when the ulcers of the intestine go all the way through the lining of the intestine. Surgery is needed to repair the hole in the intestinal wall.

Toxic megacolon

Toxic megacolon occurs when the large intestine becomes severely inflamed, causing the intestine wall to weaken and balloon out. Repair requires immediate surgery to prevent rupture or perforation of the intestine.

Skin tags

Skin tags are caused by Crohn's inflammation. When the Crohn's inflammation is effectively treated, the skin tags should not cause any problem beyond minor irritation. When inflamed, they could be painful and bleed a little. It is discouraged to remove the tags surgically due to the high complication risk.

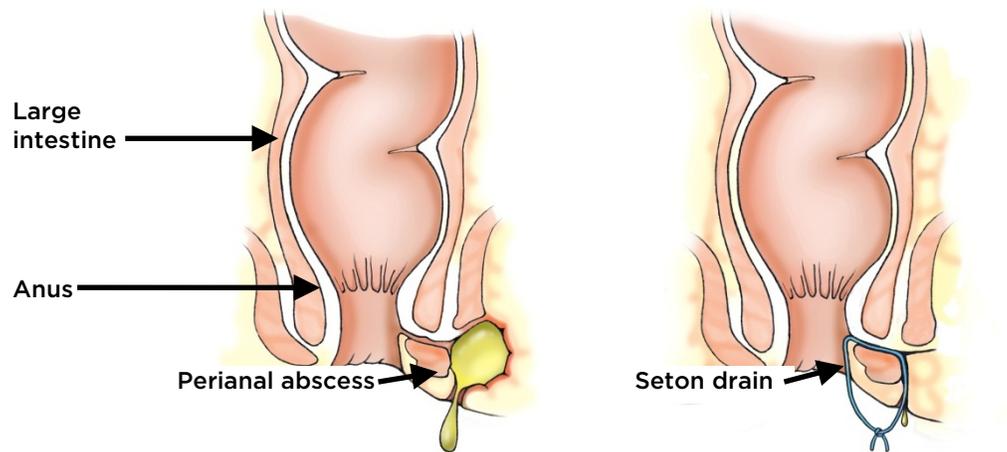
Fissures

Fissures are small tears that can occur in the lining of the mucous membranes of the anus. Fissures heal when the Crohn's inflammation is treated effectively. Some skin ointments can help reduce the discomfort around your child's bottom.

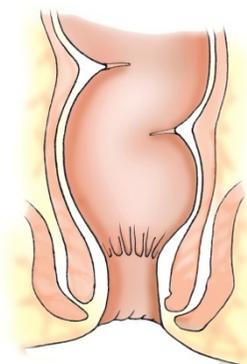
Fistula and abscess of the anus

A fistula is an abnormal connection or passage from one part of an organ to another. In some cases, one part of the intestine opens to the outer skin around the anus. This is called an anal fistula.

- An anal fistula can also cause an abscess in the area around the anus. This is called a perianal abscess. Symptoms include bottom pain, pus, pain with stooling, stomach pain, pain around the anus, difficulty sitting, difficulty walking, and sometimes fever or vomiting.
- When an abscess is formed around the anus, surgery under full anesthesia may be done to drain the pocket of pus. A soft, thin, short, closed drain called "seton" is usually left in the anal area after surgery. This reduces pain right away and helps prevent an abscess from recurring. A seton drain can stay in place for 4 to 12 months until the fistula heals.



Perianal abscess



Healed perianal abscess

What can I expect during this hospitalization?

While your child is in the hospital, they are assigned a lead doctor who will recommend what testing needs to be done and make a specific plan for treating the child's inflammatory bowel disease. The plan may include:

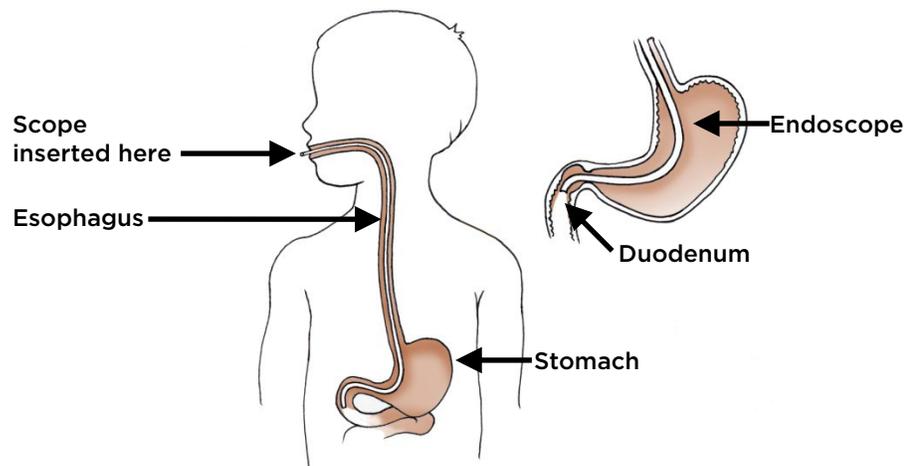
- Medicine to reduce the inflammation and improve symptoms
- Radiology imaging (X-ray, MRI, ultrasound, CT scan)
- Blood tests
- Guided diagnostic scope camera exams of the inside of the colon (endoscopy, sigmoidoscopy)
- Continuous monitoring of symptoms including bowel movements (stool), bleeding, pain, and activity level
- Regular temperature, heart rate, blood pressure and pain checks
- Tracking and measuring of all urine and stool that comes out of your child

What diagnostic scope exams are used during my child's stay?

Several types of tests using scopes help us look inside your child's bowel. The type of endoscopy procedure used depends on how far we need to go up (or down) into the bowel.

Upper endoscopy (EGD)

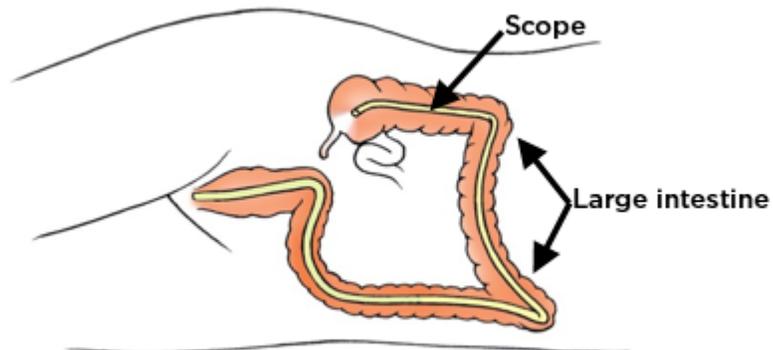
Upper endoscopy uses a thin, flexible tube called a scope to look at the lining of the esophagus, stomach, and first part of the small intestine (duodenum). The scope is inserted through the mouth and into the esophagus and has a lighted camera inside the tip so that the doctor can look directly at the lining of these areas. An upper endoscopy can confirm a diagnosis of Crohn's disease, see how much inflammation is in the upper GI tract, or find a source of bleeding. Your child will take medicine to help them relax or sleep to minimize discomfort.



Endoscopy

Colonoscopy

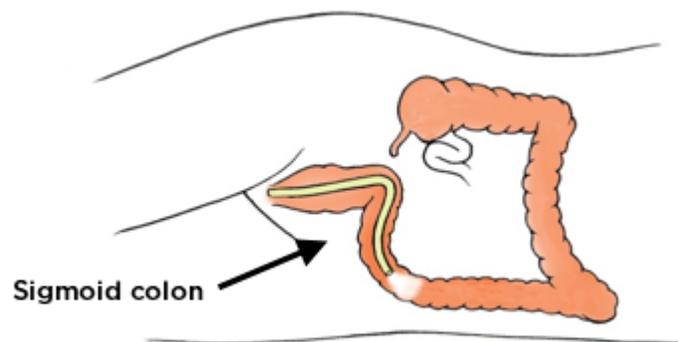
Colonoscopy uses a very long, thin, flexible tube called a scope to look at the lining of the whole large intestine. The scope is put in through the anus and has a lighted camera inside the tip so that the doctor can look directly at the lining of the colon. Tissue samples can be collected to confirm a diagnosis of Crohn's disease, evaluate the presence of inflammation in the colon, or find a source of bleeding. Your child will be sedated. Before the colonoscopy your child will need to take medicine to get rid of all the stool in their colon.



Colonoscopy

Sigmoidoscopy

Sigmoidoscopy uses the same type of scope as with the colonoscopy, but to look at the lining of the lower third of the large intestine (the rectum and sigmoid colon). A flexible sigmoidoscopy exam can confirm a diagnosis of ulcerative colitis, Crohn's disease of the lower part of the colon, the presence of inflammation, the source of bleeding, or infections that worsen symptoms (such as cytomegalovirus). Your child may be sedated to minimize discomfort.



Sigmoidoscopy

Will my child need a central line?

A central line is a small tube that is placed in a main blood vessel leading to the heart. It can stay in place throughout your child's treatment for their entire hospital stay and beyond. Some children who are very sick and cannot take food by mouth may need to get special IV nutrition through a central line (see page 8, Nutritional therapy). The medicines used in the treatment of Crohn's do not require a central line, but if your child already has one in place for their nutrition, we will likely put the medicine in through this line as well. The central line can be used after discharge home if necessary for the treatment plan, to give antibiotics and IV nutrition.

Preventing blood clots

Sometimes we give your child a blood thinner medicine called enoxaparin by injection, to help prevent blood clots around the central line. Active inflammatory bowel disease may make your child more likely to have blood clots, especially when a central intravenous line is in place. Blood clots may cause problems if they form inside blood vessels such as arteries, veins or the heart. Ask your doctor whether your child should receive medicine to prevent blood clots.

Enoxaparin (Lovenox), or low molecular weight heparin (LMWH), is an anticoagulant. An anticoagulant is a medicine given by a subcutaneous injection (a shot into the tissue just below the skin) that prevents blood clots from forming inside blood vessels. It works by making the blood take longer to clot. This means that your child will bleed longer than usual after a cut or scrape when taking this medicine. In studies of patients with inflammatory bowel disease, enoxaparin did not worsen rectal bleeding.

What is the treatment plan?

Medical treatment for Crohn's disease has two main goals:

1. Achieving remission (the absence of symptoms)
2. Maintaining remission (prevention of flare-ups)

To accomplish these goals, treatment is aimed at controlling the inflammation (swelling) in the intestine. This is done through medicines (medical therapy) and nutrition therapy. Controlling inflammation will decrease symptoms. It is also important to focus on:

- Making sure your child is getting good nutrition and restoring your child's growth and development.
- Helping your child and family with the mental, emotional and social effects of IBD.

Your GI team will design a treatment plan for your child and review with you and your child. You can find more resources on our IBD website at seattlechildrens.org/clinics/gastroenterology-hepatology/treatments-and-services/ibd-center/.

Medical therapy (medicines)

Medicines are part of the treatment for IBD, including Crohn's. They work to calm the overactive immune system and reduce inflammation. We try to avoid using corticosteroids (medicines that suppress the immune system) because they can cause long-lasting side effects if used again and again.

Medicines used to treat IBD and Crohn's include:

- Immune modulators - drugs that weaken or modulate the immune system (like azathioprine, 6-mercaptopurine, cyclosporine, tacrolimus, methotrexate)
- Anti-TNF therapy: genetically engineered proteins derived from human genes (like Humira, Cimzia, Remicade)
- Anti-adhesion therapy (like vedolizumab (Entyvio), natalizumab (Tysabri)
- IL12-23 therapy: ustekinumab (Stelara)
- Aminosalicylates - a specific type of anti-inflammatory (like mesalamine) with an aspirin-like active portion that reduces colonic inflammation

Nutrition therapy

Nutrition therapy is giving feedings through a tube or vein when your child is unable eat food by mouth. This is used to help your child gain weight, restore lost vitamins and minerals, promote growth, and assist with anti-inflammatory therapy. There are two options:

- Tube feeding - nutrition given through a tube in the nose that goes down into the stomach. This is called a nasogastric (NG) feeding tube.
- Intravenous (IV) feeding - nutrition given intravenously through a peripherally inserted central catheter (PICC line) in a vein in the arm.

We also support diet therapy that can improve inflammation control and provide comprehensive nutritional needs under expert nutrition on the Specific Carbohydrate Diet.

When is my child able to leave the hospital?

Your child or teen is ready to go home when their GI symptoms are improved and they have:

- No fever
- Stable vital signs
- A nutrition plan set in place (and they can eat and drink to keep up with needed calories or have an alternative plan)
- No need for intravenous pain medicine
- Follow-up visits scheduled in the Gastroenterology clinic

Resources

An interactive website with pictures of how Crohn's affects your body:
www.ccfa.org/resources/gi-tract-guide.html

Procedures and medications:
www.ccfa.org