Crohn's complex perianal fistulas (CPF) 297

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What is an anal fistula?

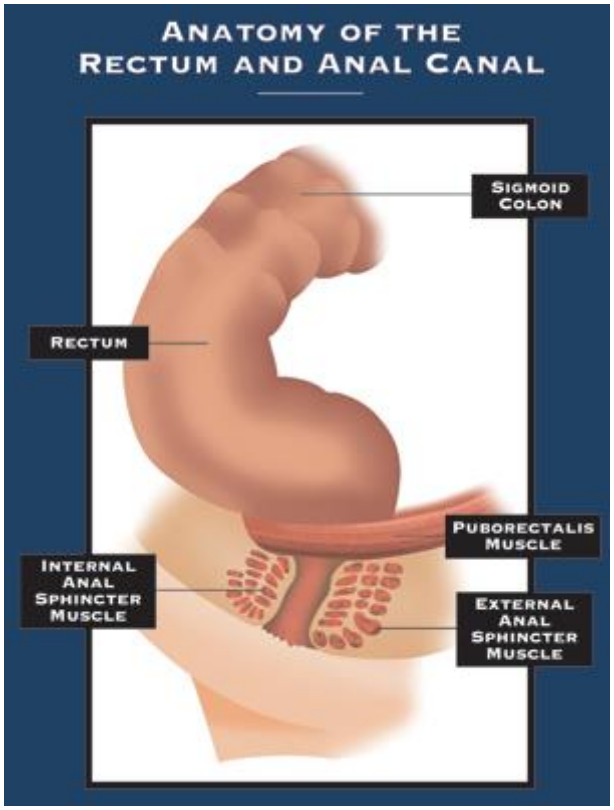
A fistula is an abnormal connection or tunnel between two organs or two tissue surfaces. An anal fistula is known medically as "fistula-in-ano" and is sometimes also referred to as perianal fistula. Perianal refers to the area of the body surrounding the anus, and particularly the skin in that area. Perianal fistulas are when these abnormal connections or tunnels occur between the anal canal (or rectum) and an external opening in the skin near the anus.

The **anus** is the lower opening of the GI track.

The **anal canal** or **rectum** is the lowermost portion of the large intestine.

Anatomy

In order to understand the cause, treatment, and complications of therapy for anal fistulas, an understanding of the anatomy of the anal canal (or rectum) is necessary. The anal canal is the terminal (end) portion of the gastrointestinal tract. Two rings of muscle, the internal anal sphincter and external anal sphincter, surround the anal canal. The internal anal sphincter is composed of smooth muscle and is not under voluntary control. The external anal sphincter is composed of skeletal muscle and is under voluntary control. Together these two muscles are very important in the maintenance of the ability to control bowel movements. Approximately one to two centimeters inside the anal canal, the lining changes. There is a line that marks this change called the dentate line. There are also anal glands located between the layers of the internal and external anal sphincters. These glands contain fluid that will empty into the anal canal at the level of the dentate line. It is when these anal glands get infected that abscesses and anal fistulas can occur. An abscess is a pocket of pus from an infection.



Causes of Perianal Fistulas

Perianal fistulas can occur in anyone; however, it is twice as common in men and people assigned male at birth (AMAB). Perianal fistulas are often a result of a specific cause or disease. These can include:

- Colitis
- Crohn's disease
- Chronic diarrhea
- Diverticulitis
- Chronic sexually transmitted infection (STI)
- Infection with tuberculosis or HIV
- Radiation treatment in the perianal region (such as for rectal cancer)
- Complications of surgery near the anus
- Being immunocompromised (having a weakened immune system) or prone to more frequent

infections

People with Crohn's disease may experience fistulas forming in different parts of the intestines, with another organ, such as the bladder, or through to the skin surface. However, perianal fistulas are the most common type of fistula in Crohn's disease and can be referred to as perianal Crohn's fistulizing disease. Research has shown that between 23%-38% of those with Crohn's disease may develop perianal Crohn's fistulizing disease.

Symptoms

Symptoms of an anal fistula include:

- skin irritation around the anus
- a throbbing pain that may worsen with movement, a bowel movement, or coughing
- smelly discharge near the anus
- passing pus or blood with a bowel movement
- swelling and redness around the anus
- difficulty controlling bowel movements
- fever

Diagnosis

Diagnosis of a perianal fistula rests on identifying

- the external opening on the skin
- the internal opening to the abscess in the anal canal
- the path or tunnel of the fistula from one opening to another

Learn more about The Diagnosis of Anal Fistulas with IFFGD Fact Sheet No. 145 *Anal Fistulas: Symptoms and Diagnosis*

Perianal fistulas often present as small holes or red bumps on the skin, and healthcare providers can find most external openings during a physical exam. During the exam, they will press on the skin where they suspect a fistula to determine if there is a drainage. Often the area is extremely painful to the touch the examination must be performed in the operating room under sedation. This is called examination under anesthesia (EUA). Finding the internal opening of the fistula can be more difficult. They may use a lighted scope, like an anoscope or proctoscope (a longer scope that can visualize your rectum) to view inside the rectal canal. Knowing the complete path of an anal fistula is important for effective treatment. To determine the path (or tunnel), healthcare providers may use a probe inserted at one opening, travelling through the path and coming out at the other opening. This allows them to see where the fistula travels and if it goes through sphincter muscles. There are also several imaging tests that can be used.

Classifying Perianal Fistulas

Fistulas can be classified as simple or complex:

- Simple perianal fistula: A low fistula, confined to the anal canal with a single external opening without abscess or stricture (abnormal narrowing of the anal canal). Simple perianal fistulas occur below the dentate line, and generally have no perianal complications.
- Complex perianal fistula: high fistula, passes through or above muscle layer with single or multiple external openings with or without abscess. Complex perianal fistulas occur above the dentate line and may be associated with perianal abscesses, rectal stricture, inflammation of the lining of the rectum (proctitis) or connection with bladder or vagina.

Treatment

Sepsis is when the body responds improperly to an infection. It can be very serious and must be treated promptly.

The goals of treatment for a perianal fistula are the complete closure of the fistula, the elimination of sepsis (if present), the prevention of recurrence, and continence (continued ability to control bowel movements). Combined medical and surgical treatments are used to treat perianal fistulas. Having a multidisciplinary team which includes a gastroenterologist, radiologist, and colorectal surgeon is important. The treatment and management of perianal fistulas requires precise diagnostics to understand the disease, the correct choice of treatment option, either pharmacological or surgical, or both, as well as a monitoring plan to ensure they do not recur. There are many options and open and honest discussions between the healthcare team and the patient are

Colorectal surgeons are experts in the surgical and non-surgical treatment of diseases of the colon, rectum, and anus.

extremely important.

Procedures for Anal fistulas are generally outpatient procedures and patients go home the same day without need for an overnight stay in the hospital. Pain medication is often prescribed following the procedure as the affected area will be sore and painful. Alongside the pain medications, some find taking a sitz bath (sitting in a warm bath) several times a day to be helpful. It will also aid in healing the area faster. The perianal area will likely have a wound dressing which will need to be changed often and kept clean.

Learn more about The Treatment of Anal Fistulas with IFFGD Fact Sheet No. 288 Treatment of *Anal Fistulas*

Management of Crohn's complex perianal fistulas (CPF)

There is one medication that can be used to treat Crohn's complex perianal fistulas (CPF). It is in a class called Biologic Therapies. These medications are antibodies created in a laboratory made from materials found in life, not a chemical compound used in pharmacology. Biologics stop certain proteins in the body from causing inflammation. There are also biosimilars, which are the generic form of the biologic they are the generic for. Because biologics are made from living cells and organisms, they cannot be exactly reproduced like a chemical formula. Biosimilars are clinically similar to the biologic; but not exactly the same. Infliximab (Remicade®) is an intravenous infusion that has been approved by the FDA for the treatment and maintenance of remission of Crohn's disease and ulcerative colitis. It is also approved for reducing the number of draining fistulas and maintaining fistula closure in adult patients with fistulizing disease. There are three biosimilars for infliximab. They are Infliximab-abda (Renflexis®), Infliximab-dyyb (InflectraTM) and Infliximab-qbtx (IXIFI™).

If infliximab is not available, another course of therapy is to treat the fistula and the underlying condition of Crohn's disease at the same time. Healthcare providers will sometimes prescribe certain drugs to treat Crohn's, beginning with milder ones and working up to more aggressive treatments. They will often use surgery alongside one of the following therapies.

- Immunomodulatory agents: Immunomodulators are medicines that modify the immune system, so it can work more effectively. Immunomodulators commonly used are azathioprine (Imuran®, Azasan®), 6-mercaptopurine (6-MP, Purinethol®), methotrexate, cyclosporine A (Sandimmune®, Neoral®) and tacrolimus (Prograf®). It can take up to three to six months to see an improvement in symptoms with immunomodulators; therefore, antibiotics and/or steroids may be used in the beginning.
- 5-aminosalicylic acid (5-ASA): This anti-inflammatory medication is often prescribed to people with IBD to reduce inflammation in the digestive tract by working directly on the lining of the bowel. By reducing inflammation in the bowel, it is possible to achieve and maintain remission.
- Corticosteroids: Sometimes a fast-acting anti-inflammatory steroid may be used. However, since long-term use can make IBD symptoms worse, they should only be used in the short-term to treat flares.
- Biologic therapies: these biologics are used to treat Crohn's disease, but do not treat perianal fistulas. In some cases, a combination of biologics may be used to achieve the best possibility for remission.
    - Anti-Tumor Necrosis Factor Agents (anti-TNF): This type of biologic helps reduce inflammation in the intestine as well as other organs and tissues. Two anti-TNF therapies are Adalimumab (Humira®) and Certolizumab pegol (Cimzia®). Both are given by injection (shot) to treat Crohn's disease. There are three biosimlars for adalimumab. They are Adalimumab-atto (Amjevita™), Adalimumab-adbm (Cyltezo™) and Adalimumab-adaz (HymirozTM).
    - Integrin Receptor Antagonists: These types of biologics reduce inflammation. Two examples of this type of medication include Natalizumab (Tysabri®) and Vedolizumab (Entyvio™). Both medications are given intravenously.
    - Interleukin-12 and -23 Antagonist: This biologic helps to reduce inflammation. An example of this type of medication is Ustekinumab (Stelara®). The first dose of ustekinumab is

given intravenously. The remining treatments are given as an injection (shot).

Stages of Fistula Healing

Healthcare providers will use one of two categorizations when assessing fistulizing disease. During treatment, healthcare providers may assess the healing using the three stages of healing recognized in the fistula drainage assessment (FDA):

- Draining: the presence of drainage containing, consisting of, or completely of pus after a gentle finger compression
- Clinical Response: a reduction of 50% or more in the number of draining tunnels
- Closed or remission: there is no pus drainage after compression. Remission is generally regarded as either the reduction or disappearance of the signs and symptoms of a disease. A fistula assessed as closed or remission does not necessarily indicate the problem has fully been resolved.

Remission versus Response

Anal Fistulas are often a chronic condition for those with autoimmune diseases such as Crohn's disease. When experiencing fistulas, it is not considered "cured" even if the treatment has proved successful.

It is categorized as:

- Symptomatic Response: Meaningful improvement in symptoms of pain and drainage in the absence of remission. This category is often used during treatment to assess if the current treatment is working.
- Symptomatic Remission: The absence of both pain and drainage after gentle compression in the perianal area near the fistula opening.
- Complete Remission: the experience of being symptom-free or having a significant reduction in severity of symptoms following treatment. It does not; however. imply that the treatment has cured the disease or that another fistula will not develop.
- Radiographic Remission: The absence of inflammation in any fistula tract and the absence of any abscess. This is only confirmed by using either a pelvic MRI and/or endoanal ultrasound (EUS). (see below in diagnosis section)

What are the complications of an anal fistula?

A fistula that goes untreated generally will not heal on its own. Even with treatment they may return. This can lead to long-term complications, such as:

- Persistent infection. A fistula that has a symptomatic response, but is not healed completely may return, forming a new abscess. Sometimes, the fistula may seem to be healing and may close at the opening, but the abscess is still present and the fistula may reopen or a new fistula appear.
- Fistula extension. Sometimes a chronic fistula can extend in new directions, creating new dividing paths and openings in the skin. These complex fistulas are very difficult to repair.
- Cancer. Anal cancer has been found in untreated anal fistulas that have been present for years. Chronic inflammation and erosion are known risk factors for cancer.
- Fecal incontinence. Some people experience fecal continence after anal fistula surgery due to damage to the anal sphincter.

About IFFGD

The International Foundation for Gastrointestinal Disorders (IFFGD) is a 501(c)(3) nonprofit education and research organization. We work to promote awareness, scientific advancement, and improved care for people affected by chronic digestive conditions. Our mission is to inform, assist, and support people affected by gastrointestinal disorders. Founded in 1991, we rely on donors to carry out our mission. Visit our website at: www.iffgd.org.

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