Surgery for Anal Fistulas

What is an anal fistula?

An anal fistula is an abnormal connection between the anal canal and the skin near the anus. It has an entrance in the anal canal (internal opening) and an exit on the skin near the anus (external opening). The fistula itself is a tunnel or tube connecting the internal and external openings which crosses the anal sphincter muscles. Most anal fistulas follow an anal abscess. [Link – Abscess/Fistula]

Fistulas may be divided into low, mid and high tracts depending on how much of the anal sphincter muscles lie between the tract and the skin. The anal sphincters surround the anal canal like 2 cylinders or donuts. When they contract they close the anal canal and provide control (continence). The internal anal sphincter is smooth or involuntary muscle and it keeps the anal canal closed at rest. The external sphincter is striated or voluntary; it allows you to close the canal by squeezing. Together, they guard against leakage or incontinence.

What are the treatment options for anal fistulas?

There are several treatment options available to treat an anal fistula. These include:

Fistulotomy

Fistulotomy means to cut open the fistula. The tunnel (connection) between the internal and external openings is found during an examination under anesthesia. The roof of this tunnel is skin and possibly some anal sphincter muscle. The roof between the two openings is cut until the tunnel is reached. This opens the tunnel so it is no longer a closed space. The edges are trimmed to create a wound that is wider at the skin level than at the base. The wound can then heal from the bottom up.

A primary fistulotomy is done all at once and is the most effective way to eliminate a fistula. However, if there is a lot of muscle between the skin and the fistula, the risk of incontinence or poor control of bowel movements increases if it is all cut at once. When this is a concern, the fistulotomy may be performed in 2 steps, a staged fistulotomy. A seton to control the fistula and allow it shrink in size and length between steps.

The options described below are alternatives to a fistulotomy that are designed to protect the anal sphincter and the ability to control gas and stool.

Seton placement

A seton is a circular drain. It is placed from the external fistula opening in the skin, through the tract and internal opening and brought out of the anal canal. It is then tied to itself as a loop. A seton is usually made from a soft, flexible, Silastic strand similar to a floppy rubberband and is tied with a black silk thread. The seton allows the fistula and any associated cavity to drain and to shrink down. It also keeps the tract and external site open so that a new abscess is much less likely to develop. Over time, the tissue within the seton scars down and thins, and the seton becomes looser. The tissues outside of the seton also contract and fill in up to the seton.
There are 2 ways to use a seton:

**Draining seton** - The loop is left loose and used to keep the fistula open. This promotes continual drainage from the fistula. The draining seton may be used as a short term way to minimize the infection in the tunnel to prepare the area for another surgery to eliminate the fistula. The draining seton may also be used as a long term way to control the infection and prevent intermittent abscess formation.

**Cutting seton** – The loop is slowly tightened and gradually cuts through the roof of the fistula. The tightening is performed in the office every 1-2 weeks, and may require 6-8 tightenings before it cuts all the way through. Slowly cutting through the roof of the tunnel (anal sphincter muscle) allows it to heal before more is cut. This is similar to ice reforming when pushing a wire through a block of ice. This approach is only occasionally used.

**Advancement flap repairs**

Advancement flap repair are used for higher fistulas. They allow closure of the internal fistula opening within the anal canal and healing of the fistula without cutting the anal sphincter. A flap is created from either above or below the internal opening. The flap is lifted up off the internal anal sphincter muscle. The fistula tunnel is cleaned out, and the internal opening is removed. The lifted flap is removed and sutured down to cover the site.

**Anal fistula plug**

The anal fistula may be filled with a long narrow plug. The plug is made of a material that the body slowly absorbs and replaces with scar tissue. The anal fistula plug is low risk procedure since no anal muscle is cut. However, long term success rates are fairly low.

**LIFT Procedure**

**Ligation of the Intersphincteric Fistula Tract**

This is the newest procedure currently being performed for the treatment of anal fistulas. The space between the internal and external anal sphincter muscles (intersphincteric space) is opened through a small incision at the entrance to the anal canal. The fistula tunnel crossing this space is identified, divided, and sutured closed (ligated). A variation of this procedure is called the **BioLIFT**. In addition to ligating the intersphincteric tract, a small sheet of biologic material (mesh that the body absorbs and replaces by scar) is placed in the space. This is to help reinforce the separation of the two divided ends of the fistula tract. This is currently being evaluated to see if it improves healing.
Which procedure is best to treat an anal fistula?

There are 3 goals to consider when treating an anal fistula.

- Control the underlying condition – Infection, Crohn’s disease, or immune suppression
- Eliminate the fistula
- Retain continence - Protect the function of the anal sphincter muscles and the ability to control passage of gas and stool

In general, procedures that are more successful in eliminating a fistula also have a higher chance of affecting the function of the anal sphincter. Fistulotomy is the most successful, but also the riskiest, of the options. The anal fistula plug is the least successful, but is also the safest of the options. There is no perfect procedure for anal fistulas, and the choice of procedure must be made for each patient’s individual situation. A person’s typical bowel habit and the cause of the fistula are important considerations when choosing a procedure to treat the fistula.

Are there any risks?

The main risks associated with the treatment of fistulas are incontinence (loss of control of bowel movements or gas), recurrence of the fistula, and bleeding. A common problem immediately after anal surgery is difficulty urinating. Occasionally, this requires placement of a temporary urinary catheter.

How do I prepare?

If you have any significant medical problems, a medical clearance report is needed from your primary care doctor. You should call his or her office to arrange for this. If you have heart problems, you may need clearance from a cardiologist who may order additional tests. Bowel preparation on the day of surgery to clean out the rectum is usually needed. Do not eat or drink anything for at least 8 hours before the operation. Follow the preparation directions supplied closely.

What can I expect after surgery?

Most patients are discharged from the hospital when the anesthetic has worn off, about three to four hours after the surgery. You must be accompanied home by a responsible adult that you know. Occasionally, patients may be kept overnight for monitoring. Your doctor will prescribe pain medication. You will need to keep your stools soft and passing easily after surgery. This is accomplished by eating a high fiber diet, and taking stool softeners and fiber supplements. Sitz/tub baths should be taken 3 times daily and after bowel movements.

It is very important to keep the wound clean and to pack it with gauze so that the skin does not heal over and create another cavity. Healing generally takes from 3 to 12 weeks.

Is any follow-up needed?

If you notice large amounts of blood or pus from the rectum, increased pain or fever you should call immediately.

You will need to follow-up with your doctor after the operation to check the operative site, to make sure the wound heals properly, and to look for new problems.

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Patient information materials developed in the Section of Colon and Rectal Surgery at Rush University Medical Center. The information contained in this brochure is believed to be accurate; however, questions about your individual health should be referred to your physician.

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