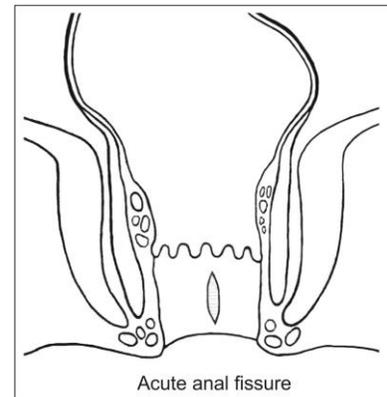


Anal Fissure

What is an anal fissure?

An anal fissure is a tear in the lining of the anal canal. Each time a bowel movement is passed it stretches the tear and may cause pain or bleeding.

The anal canal is an extremely sensitive area of the body, and bowel movements often cause a sharp cutting pain as the stool is being passed. Sometimes this pain is so severe that it can make you afraid to have a bowel movement. The pain from passing stool causes the anal sphincter muscle to go into spasm. This may cause the pain to linger after the bowel movement is done. The lingering pain usually changes character from the sharp pain to a dull, aching or throbbing discomfort. This lingering discomfort may last a few minutes or it may last for hours. The pain is usually gone by the next morning. Bleeding may occur because of the tear which may damage the external hemorrhoidal blood vessels beneath the skin. Blood may be seen on the toilet tissue when wiping or as a streak on the stool. Less often it may be seen dripping into the water.

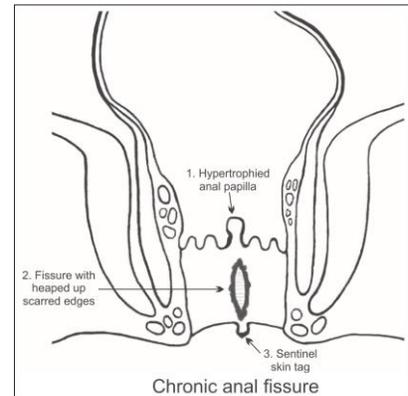


What are the causes of an anal fissure?

- Constipation - Most fissures are caused by an extreme of bowel habits. Either diarrhea or constipation can cause forceful emptying of stool which may tear the lining of the anal canal.
- High tension or spasm of the anal sphincter muscles.
- Crohn's Disease – May cause deep or irregular fissures or ulcers.
- Infections
- Cancer – Usually associated with a hard mass

Acute vs chronic fissures

- **Acute anal fissure** - An acute anal fissure is one that recently developed and has caused symptoms for a few days or weeks. The fissure is all that is present and may be difficult to see. Acute anal fissures often heal without treatment or with simple dietary methods.
- **Chronic anal fissure** - A chronic anal fissure is one that has been present for months or years. For some people it will cause symptoms with every bowel movement. Other people may have periods of time without complaints and then experience periods with pain and or bleeding. The fissure is usually associated with a small lump inside the anal canal and above the fissure called a hypertrophic anal papilla and another small lump right below the fissure at the anal opening called a sentinel skin tag. Chronic anal fissures rarely heal without treatment.



How is a fissure treated?

The first step in treating an anal fissure is making the correct diagnosis. Fissures from infection, Crohn's disease, or cancer need treatment specific to those conditions.

There are 2 main things to address when treating a fissure caused by diarrhea or constipation.

- **Improve bowel habits** - The cause of a fissure is usually poor bowel habits, either constipation or diarrhea. It is very important that this be improved to allow the fissure to heal. Bowel movements should be soft, formed stool that passes easily with minimal straining. Fiber supplements such as Metamucil, Benefiber, Konsyl or Citrucel are an excellent first step. The fiber is not digested; it passes through the gastrointestinal tract and absorbs water. This can help add bulk and consistency to loose stool, or help hold moisture in harder stool. It acts as a "regulating agent" to help create normal soft, formed stools. Increasing fluid intake to at least eight 8 ounce glasses each day makes the fiber more

effective. It is also helpful to have the bowel movement when the urge is present and not hold it in. The longer the stool is present the harder it becomes.

- **Relax the anal sphincter muscle spasm** - Anal muscle spasm occurs as the body's reaction to the pain caused by passing stool. Some people also normally have higher resting tension in the internal anal sphincter muscle. This increased pressure causes two problems. It is the reason pain lingers even after the bowel movement is done. It also makes it harder for blood to circulate to the area of the fissure. Methods which reduce or relieve the spasm are very helpful in controlling the lingering pain and may result in healing of the fissure. Some methods are more effective than others at relieving the spasm. In general, the most effective methods for relieving the spasm are more likely to result in healing of the fissure.

Methods to relieve tension and spasm in the anal sphincter, in order of increasing effectiveness (and increasing risk of incontinence), are:

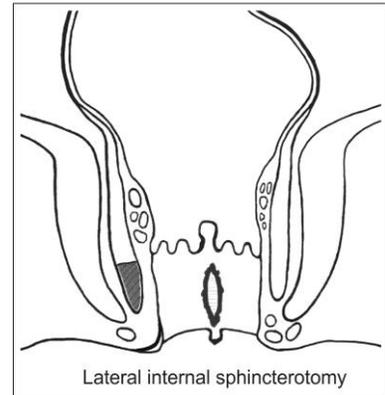
- Warm water / Sitz baths
- Medications in the anal canal as a cream, ointment, or suppository
- Botox injection
- Lateral internal sphincterotomy (LIS)

Warm water baths are effective because the warmth helps to relax the anal sphincter muscles. Take 10-15 minute warm bath 2-3 times per day, generally after each bowel movement.

Medications placed in the anal canal may be used to relax the anal sphincter muscles. These may be used 2-3 times per day. Nitroglycerine cream is the only medication commercially available currently. Although often helpful, it is absorbed into the blood stream and may cause headaches. Other medications such as Nifedipine or Diltiazem, often mixed with Lidocaine, may be made by a compounding pharmacy. They are often more expensive because they are custom made. However, they do not cause headaches.

Botox is a chemical that paralyzes muscles. It may be injected into the anal muscles, causing them to relax. It may be effective when more conservative methods fail. However, the injection may be painful, it cause incontinence (inability to hold stool), and it wears off after 4 to 6 weeks so the fissure may recur.

Lateral internal sphincterotomy is a surgical procedure in which the lower one half of the internal anal sphincter muscle is cut. This is very effective and up to 95% of persistent chronic fissures will heal. enough to relieve the spasm in the muscle and allow the fissure to heal. However, it has a risk of incontinence.



What are the risks?

The main risks associated with the treatment of fissures are incontinence (loss of control of bowel movements), recurrence of the fissure, infection in the surgical wound, fistula, and bleeding. Although lateral internal sphincterotomy is the most effective method of relieving a chronic fissure and has the lowest rate of recurrence, it has the highest rate of incontinence for either gas, loose stools or even formed stools. Not treating the fissure is not dangerous, as long as the fissure is not caused by infection or cancer.

Your doctor will exam you and discuss the treatment options. Together, you will decide which approach is best for you.

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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