



## Anal Fissure

An anal fissure is a condition in which there is a longitudinal tear in the skin of the anal canal. Many people with fissures complain of severe pain with defecation, and liken passing a bowel movement through the anus to passing “shards of glass” or passing a “knife”. The pain may be present just during the act of defecation, or may continue for several hours afterwards. Because there is a tear in the skin, bleeding may occur with the bowel movement and when wiping.

The anus is the opening through which our bowel movements pass. Doctors describe the area of the anus like a clock, with the center back and center front of the anus being compared to 6pm and 12pm on a clock, and the left and right side being 3pm and 9pm. Fissures almost always occur in the skin of the anus at either the 6 pm and 12 pm positions. Small injuries occur to the skin of the anus every time we have a bowel movement – resulting in mild itching after the bowel movement – and the body heals these before the next episode of stooling. In order to heal the body must supply blood to the injured area of the skin – injuries at the 6pm and 12pm positions don’t heal very well as these two locations do not have poor blood flow. If you are unlucky enough to have an injury to the posterior anus 2-3 times in a row when going to the bathroom, you could develop a fissure.

Fissures, which are tears in the skin of the anus, can eventually deepen to involve the anal sphincter muscle, a muscle which wraps around the anus. If the fissure begins to irritate the anal sphincter muscle, this muscle will go into spasm, just like a muscle in the back can spasm. This makes it hard and painful to relax the anus for bowel movements, doctor exams, or to put in suppositories which many doctors prescribe. When the anal sphincter goes into spasm, it further cuts off blood flow to the area of the fissure, and this makes it even more unlikely the fissure will heal on its own.

You are more likely to get a fissure if you have hard bowel movements, as the hard stool can damage or tear the anal canal. You can develop a fissure after frequent wiping or stooling, such as after an episode of diarrhea. Many patients who develop fissures say they have regular, soft, daily stools – we don’t know why they develop their fissure.

Treating fissures medically is a two-fold process. First, you need to avoid further injury to the anal canal. Second, you must maximize blood flow to the area of the fissure.

To avoid further injury to the anal canal, you should avoid constipation and diarrhea. Constipation is the most common condition seen with fissures, and is more common in heat spells or weather changes. While suffering from the pain of the fissure, try colace or miralax, softeners which making stooling easier. Once your pain is resolving, switch to taking plenty of fiber and drinking lots of liquid. This is the best way to fix constipation long term. We recommend a diet with 30 grams of fiber and with 6-10 glasses of liquid per day. See the high fiber handout – getting on a high fiber diet takes time and work and may not help immediately. If you have diarrhea, your doctor will want to diagnose the cause of your diarrhea and treat it if possible.

Maximizing blood flow to the area of the fissure is important in order to stimulate healing. Heat applied to any part of our body will cause blood vessels in the area to dilate and more blood will flow to the warmed site. The easiest way to get heat to the anus is by taking a hot bath, also called a sitz bath. Fill the tub with hot water, then sit in it, gently separating the buttock cheeks so the water can reach the anal area. Addition of Epsom salts is not helpful. Stay in the hot water for 10-15 minutes, then pat dry the anus. Most experts recommend try to complete 3 hot baths per day when treating a fissure. Patients have tried other heating methods—just be very careful, it is easy to cause skin burns with heating pads and devices with internal heat sources. Another option that some patients choose is to take an infant or baby washcloth, soak it with hot water, then roll it into a cigar shape and place it up into the anal cleft for 10-15 minutes. This allows them to have heat to the area but continue to do simple activities.

Your doctor may prescribe a medicated salve designed to help improve blood flow to the area of the fissure. The medicated salves used most commonly are nitroglycerin salve, nifedipine salve, and diltiazem salve. Nitroglycerin is the same medication that heart patients use when having a heart attack – when taken in this setting, it causes vessels around the heart to open and more blood flows to the heart. We use a weaker formula for the anus. It is applied to the pucker of the anus, not inside the anus, and works best if applied after a hot bath morning and night. It must be used in conjunction with stool softeners and heat.

### INSTRUCTIONS

1. Heat for 10-15 minutes to the anus three times per day. Dry well if moist heat used.
2. Avoid becoming constipated by taking either Colace 100mg twice a day, or Miralax 17g per day.
3. Apply medicated salve pea-sized amount two to three times per day following heat therapy.