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Anal fissure

An anal fissure is a small tear in the lining of the skin around the back passage (anus). An anal fissure that lasts more than six weeks is called a chronic anal fissure. For most people, the anal fissure heals quite quickly but some form of treatment is often needed. Anal fissures may keep coming back.

What is an anal fissure?

An anal fissure is a small tear or cut in the lining of the skin around the back passage.

Anal fissure symptoms

Typical symptoms of an anal fissure include:

- Pain around the back passage (anus).
- Bleeding when you pass stools (poo).

The pain can be severe and tends to be worse whilst passing stools and for an hour or so after this.

You may also bleed when you pass stools - the blood is typically bright red, in the pan or on the toilet paper. Bleeding from the back passage should always be checked by a doctor.

For some people, the fissure heals within 1-2 weeks or so but it can take much longer. Those that heals within six weeks are known as acute anal fissures whereas a chronic anal fissure has been present for longer than six weeks.

What causes an anal fissure?

Anal fissures are often caused by damage to the back passage (anus). The damage can arise from:

- Constipation.
- Chronic diarrhoea.
- Pregnancy and childbirth.
- Inflammatory bowel disease (IBD).

Constipation

Constipation happens if the stools become hard and it becomes harder and/or more painful to poo, or you're pooing significantly less than usual. Stretching and tearing can occur when a person passes particularly hard stools.

Lots of factors can cause constipation, but among the most common are:

- Not eating enough fibre (roughage).
- Not drinking enough fluids (particularly if you are unwell).
- Losing more fluid than usual (particularly if you are unwell) due to sweating from a high temperature (fever) - and often eating less.
- Medication particularly strong painkillers, eg, codeine.
- Medical conditions such as an underactive thyroid gland.

Other causes

Other causes of anal fissure include:

- Previous surgery to the back passage.
- During pregnancy and childbirth. (An anal fissure occurs in about 1 in 10 women during childbirth.)

In a small number of cases, a fissure occurs as part of another condition. For example, as a complication of inflammatory bowel disease such as Crohn's disease, ulcerative colitis, or after a sexually transmitted infection such as anal herpes infection.

In these situations, other symptoms that are caused by the underlying condition are usually present. These types of fissures are not dealt with in this leaflet.

How common are anal fissures?

Anal fissures are common and probably affect about 1 in 350 people each year. They are more common in people aged between 15 and 40 years but can occur at any age, including in very young children.

Women who are pregnant or have recently had a baby are at higher risk of anal fissures. They are much less common in the elderly.

How is an anal fissure diagnosed?

Your doctor will usually diagnose an anal fissure if there are typical symptoms and by examining the skin around the back passage (anus).

No other tests are usually needed but your doctor may arrange more investigations just to check your gut (bowel) and back passage are otherwise okay.

Anal fissure treatment

For most people the anal fissure heals within a week or so, just like any other small cut or tear to the skin. Treating anal fissures aims to ease the pain and to keep the stools (faeces) soft whilst the fissure heals.

Easing pain and discomfort

• Warm baths, also known as Sitz baths, are soothing and may help the back passage (anus) to relax to help ease the pain.

- A cream or ointment that contains an anaesthetic (to numb the skin) such as lidocaine may help to ease the pain. This should only be used for short periods (5-7 days). If you use it for longer, the anaesthetic may irritate or sensitise the skin of the anal canal. You can obtain these creams or ointments on prescription. You can also buy some of them at pharmacies, without a prescription. The cream/ointment should be applied before going to the toilet.
- Wash the anus carefully with water after going to the toilet. Dry gently. Don't use soap or wet wipes whilst it is sore as this may cause skin irritation.
- **Painkillers** such as paracetamol or ibuprofen may help to ease the pain (but avoid codeine see below).

Avoid constipation and keep the stools soft

- **Eat plenty of fibre,** which is found in fruit, vegetables, cereals, wholemeal bread, etc.
- Drink plenty of water. Adults should aim to drink at least two litres (10-12 cups) of fluid per day. You will pass much of the fluid as urine. However, some is passed out in the gut and this softens the stools. Most sorts of drink will do; however, alcoholic drinks can lead to lack of fluid in the body (dehydration) so should be avoided in excess.
- **Fibre supplements and laxatives**. If a high-fibre diet is not helping, you can take fibre supplements (bulking agents) such as ispaghula, methylcellulose, bran or sterculia. Methylcellulose also helps to soften stools directly, which makes them easier to pass. You can buy these stool softeners at pharmacies. A laxative such as lactulose or a macrogol laxative may sometimes be suggested.
- Toileting. Don't ignore the feeling of needing to pass stools.
 Some people suppress this feeling and put off going to the toilet.
 This may result in bigger and harder stools forming that are more difficult to pass later.

 Avoid painkillers that contain codeine, such as co-codamol, as they are a common cause of constipation. Paracetamol is preferable to ease the discomfort of a fissure.

Anal fissure treatment in children

The above measures also apply to children who have a fissure. In children, the pain often makes them hold on to their stools as they often become fearful of the pain. This may lead to a vicious circle, as then even larger and harder stools form. These then cause more pain when they are finally passed.

Therefore, in addition to the above measures, a short course of laxatives may be prescribed for children with an anal fissure. The aim is to make sure their stools are soft and loose whilst the fissure heals.

Additional treatment

An anal tear (fissure) may heal within 1-2 weeks and need no treatment, but will take about 6-8 weeks in half of affected people.

Glyceryl trinitrate ointment

When glyceryl trinitrate (GTN) ointment is applied to the anus, it relaxes the muscle around the anus (the anal sphincter). It also increases blood flow to the damaged skin by expanding the blood vessels in that area. This may facilitate healing of the fissure. It can also ease the pain. Most clinicians recommend using it for about 8 weeks.

As this medication is absorbed into the bloodstream via the skin of the back passage, it can cause expansion of the blood vessels elsewhere in the body, including in the head, and therefore headache is a side effect that about 15% of people report when using GTN ointment.

GTN ointment may help in some, but not all, cases. Research studies showed that, for people with chronic anal fissures, about 6 in 10 fissures healed with GTN treatment. This compared to about 5 in 10 that healed with no treatment. So, the effect of GTN ointment is modest but may be worth a try.

Other medicines

Some studies have shown that other medicines may also help relax the anal sphincter muscle and increase the blood supply to the area, to encourage the anal fissure to heal. For example, medicines called calcium-channel blockers, such as diltiazem. These medicines may sometimes be suggested for people unable to use GTN ointment (perhaps because of headache).

An injection of botulinum toxin into the anal sphincter muscle can also be given to relax the anal sphincter muscle and help anal fissures heal. This treatment may be suggested if other treatments have not been successful.

Surgery

An operation is an option if the fissure fails to heal or comes back. The usual operation is to make a small cut in the muscle around the anus (internal sphincterotomy). This permanently reduces the tone (pressure) around the anus and allows the fissure to heal.

This is a minor operation which is usually done as day case surgery (you will not usually have to stay overnight in the hospital). The success rate with surgery is very high. At least 9 in 10 cases are cured.

There are other additional surgical techniques that can be used, particularly if the fissure is not healing with the treatments described above.

How long do anal fissures take to heal?

Some people heal within a couple of weeks. In about half of people (1 person in 2), this skin damage will heal within 6-8 weeks without any problems.

About 4 in 10 people with an anal fissure will develop a longer-lasting problem. This called a chronic anal fissure. Chronic anal fissures do not respond as well to conservative measures (like diet and pain relief) and often need secondary care (hospital-based) treatments.

Preventing anal fissures

To prevent an anal fissure developing:

- Avoid constipation: the stool should be soft and passed without straining: try to eat a varied diet of fibre (at least 30 g per day), fruit and vegetables, increase physical activity and maintain a healthy weight.
- **Drink enough fluids**: as outlined above, adults should aim to drink at least two litres (10-12 cups) of fluid per day.
- If you are prone to constipation, a laxative may be required for a short period of time. Less commonly, some people use a laxative on a regular basis to prevent constipation following discussion with a healthcare professional (GP, practice nurse or pharmacist).

Further reading

- Cross KLR, Brown SR, Kleijnen J, et al; The Association of Coloproctology of Great Britain and Ireland guideline on the management of anal fissure.
 Colorectal Dis. 2023 Dec;25(12):2423-2457. doi: 10.1111/codi.16762. Epub 2023 Nov 5.
- Anal Fissure; NICE CKS, April 2021 (UK access only)
- Jahnny B, Ashurst JV; Anal Fissures
- Vitoopinyoparb K, Insin P, Thadanipon K, et al; Comparison of doses and injection sites of botulinum toxin for chronic anal fissure: A systematic review and network meta-analysis of randomized controlled trials. Int J Surg. 2022 Aug;104:106798. doi: 10.1016/j.ijsu.2022.106798. Epub 2022 Aug 5.

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