



ANAL FISSURE-Management guidance in adults

INTRODUCTION

An anal fissure is a tear or ulcer in the lining of the anal canal, immediately within the anal margin.

Acute anal fissures are fissures that have been present for fewer than 6 weeks.
Chronic anal fissures are fissures that have been present for 6 weeks or longer.
Primary anal fissures have no identifiable underlying condition causing them.

Primary anal fissures are associated with increased anal tone, the cause of which is debated.

One theory suggests that increased anal tone occurs in response to the development of a fissure caused by passage of a hard stool.
Alternatively, increased anal tone may develop by an as yet unidentified mechanism.

Whatever the initial cause of the fissure, increased anal tone impairs healing by inducing ischaemia. Pain induced by defecation triggers a reflex increasing anal tone and worsening ischaemia. This results in burning pain that may last for several hours after defecation.

Secondary anal fissures have an identifiable underlying cause. These are not associated with increased anal tone or posterior ischaemia.

The commonest causes of secondary anal fissures include:

Constipation, when passage of a hard stool tears the mucosa. Avoidance of defecation to avoid pain may worsen constipation and exacerbate the problem.
Inflammatory bowel disease, when the underlying disease causes ulceration of the mucosa.

Sexually transmitted disease, when infection of the anal mucosa results in tissue breakdown.

Being in the third trimester of pregnancy, or childbirth.

Rectal malignancy.

- 90% occur in posterior midline; 2nd most common site is anterior midline
- Deviation from these rules (eg multiple; off the midline; large or irregular) may indicate underlying pathology – eg Crohn's, infection, ulcerative colitis, sexual abuse

SYMPTOMS

- Pain is sharp, searing or burning; often severe. Associated with defecation and may last from a few minutes to a few hours
- Bleeding (bright red, often on toilet paper) is common – but modest and separate from stool
- Discharge and pruritis (because of discharge) may occur

MANAGEMENT IN PRIMARY CARE

ACUTE <2 WEEKS

Manage conservatively by

- Increase fluid intake
- Treating or preventing constipation
 - Provide dietary advice – Adults should aim to consume 18-30g fibre per day. See table in Appendix 1 for the amounts of fibre in commonly consumed foods.
 - Consider bulk forming bowel regulator if constipation present. Fybogel® will reduce length of symptoms if prescribed BD with increased water intake.
- Provide pain relief
 - Topical creams –consider 1 week course of lignocaine gel
 - Sitz baths – hip bath in hot water for 2-5minutes followed by cold water for 1 minute, after bowel movement
 - Offer paracetamol or ibuprofen for people with prolonged burning pain following defecation.

CHRONIC >6 WEEKS

- Increase fluid intake
- Continue conservative measures (as per acute) – high fibre diet. Must be combined with a bulk forming laxative e.g.: Fybogel® BD and a softening laxative e.g. lactulose for the full 8 weeks
- Prescribe topical 0.4% Glyceryl Trinitrate (GTN) BD for 8 weeks course (40% develop headaches as side effect). 2 tubes of 30g should be sufficient to cover the 8 week course.
 - Cost £34.80 for 30g tube
- If fissure fails to heal (after 8 weeks of GTN) switch to diltiazem 2% (This should be prescribed as Anoheal®) topical for 8 weeks.

- Prescribe one tube of Anoheal® and also refer to secondary care, (continue to prescribe diltiazem 2% cream until referral appointment has been attended).
 - Cost of Anoheal® for 30g tube is approx. £40 per tube.
- If patient unable to tolerate topical GTN and symptoms still severe switch GTN to diltiazem topical 2% and refer to secondary care.

RECURRENCE

Manage as per chronic fissure or refer to secondary care

MANAGEMENT IN SECONDARY CARE – (Following primary care referral)

- Increase fluid intake
- Continue conservative measures (as per acute) – high fibre diet, laxatives if required. Must be combined with Fybogel® BD and a softening laxative e.g. lactulose for the full 8 weeks
- Prescribe topical diltiazem 2% BD for 8 weeks course; prescription to be provided by secondary care and should be prescribed by the brand name Anoheal®.
- If fails to heal then consider Botox® injection or repeat course depending on severity of pain
- Botox® may be used as a first line (in secondary care) of treatment in the patient who is unable to function at all because of the pain.
- If Botox® fails in the young male sphincterotomy can be used or anooplasty
- If Botox® fails in the female then anooplasty is the procedure of choice.

Clinical Information

- NICE's evidence summary on unlicensed use of diltiazem 2% topical cream provides the following information: (<http://publications.nice.org/esuom3-chronic-anal-fissure-2-topical-diltiazem-hydrochloride-esuom3#close>)
- One Cochrane systematic review (4 RCTs; assessed as up-to-date November 2011) and 5 additional RCTs (neither considered by nor excluded from the Cochrane review) provide the evidence for this summary.
 - The Cochrane review and 2 additional RCTs found that the efficacy of 2% topical diltiazem hydrochloride was **not statistically significantly different from topical glyceryl trinitrate** in adults, but limited evidence indicates a reduced frequency of headaches.
 - An additional RCT found that the efficacy of 2% topical diltiazem hydrochloride was **not statistically significantly different from botulinum toxin injection**.
 - Fissure healing and recurrence rate estimates from the studies varied widely because of variation in the study methodologies, populations, and follow-up.

Appendix 1

Table 1. Approximate amount of fibre in examples of commonly consumed foods and fibre supplements.

Food	Typical portion (weight)	Fibre content grams (g) per portion
Fibre supplements		
Bran (wheat)	1 tablespoon (7 g)	2.5 g
Breakfast cereals		
All-Bran	1 medium-sized bowl (40 g)	9.8 g
Shredded wheat	2 pieces (44 g)	4.3 g
Bran flakes	1 medium-sized bowl (30 g)	3.9 g
Weetabix	2 pieces (37.5 g)	3.6 g
Muesli (no added sugar)	1 medium-sized bowl (45 g)	3.4 g
Muesli (Swiss style)	1 medium-sized bowl (45 g)	2.9 g
Fruit 'n' Fibre	1 medium-sized bowl (40 g)	2.8 g
Porridge (made with milk or water)	1 medium-sized bowl (250 g)	2.3 g
Cornflakes	1 medium-sized bowl (30 g)	0.3 g
Bread/rice/pasta		
Crispbread, rye	4 crispbreads (36 g)	4.2 g
Pitta bread (wholemeal)	1 piece (75 g)	3.9 g
Pasta (plain, fresh cooked)	1 medium portion (200 g)	3.8 g
Wholemeal bread	2 slices (70 g)	3.5 g
Naan bread	1 piece (160 g)	3.2 g
Brown bread	2 slices (70 g)	2.5 g
Granary bread	2 slices (70 g)	2.3 g
Brown rice (boiled)	1 medium portion (200 g)	1.6 g
White bread	2 slices (70 g)	1.3 g
White rice (boiled)	1 medium portion (200 g)	0.2 g
Vegetables		
Baked beans (in tomato sauce)	Half can (200 g)	7.4 g
Red kidney beans (boiled)	3 tablespoons (80 g)	5.4 g
Peas (boiled)	3 heaped tablespoons (80 g)	3.6 g
French beans (boiled)	4 heaped tablespoons (80 g)	3.3 g
Brussel sprouts (boiled)	8 sprouts (80 g)	2.5 g
Potatoes (old, boiled)	1 medium size (200 g)	2.4 g
Spring greens (boiled)	4 heaped tablespoons (80 g)	2.1 g
Carrots (boiled, sliced)	3 heaped tablespoons (80 g)	2.0 g
Broccoli (boiled)	2 spears (80 g)	1.8 g
Spinach (boiled)	2 heaped tablespoons (80 g)	1.7 g
Salad vegetables		
Pepper (capsicum green/red)	Half (80 g)	1.3 g
Onions (raw)	1 medium (80 g)	1.1 g
Olives (in brine)	1 heaped tablespoon (30 g)	0.9 g

Tomato (raw)	1 medium/7 cherry (80 g)	0.8 g
Lettuce (sliced)	1 bowl (80 g)	0.7 g

Fruit

Avocado pear	1 medium (145 g)	4.9 g
Pear (with skin)	1 medium (170 g)	3.7 g
Orange	1 medium (160 g)	2.7 g
Apple (with skin)	1 medium (112 g)	2.0 g
Raspberries	2 handfuls (80 g)	2.0 g
Banana	1 medium (150 g)	1.7 g
Tomato juice	1 small glass (200 mL)	1.2 g
Strawberries	7 strawberries (80 g)	0.9 g
Grapes	1 handful (80 g)	0.6 g
Orange juice	1 small glass (200 mL)	0.2 g

Dried fruit or nuts

Apricots (semi-dried)	3 whole (80 g)	5.0 g
Prunes (semi-dried)	3 whole (80 g)	4.6 g
Almonds	20 nuts (33 g)	2.4 g
Peanuts (plain)	1 tablespoon (25 g)	1.6 g
Mixed nuts	1 tablespoon (25 g)	1.5 g
Brazil nuts	10 nuts (33 g)	1.4 g
Raisins/sultanas	1 tablespoon (25 g)	0.5 g

Convenience foods

Quorn (pieces)	1 serving (100 g)	4.8 g
Chicken curry (takeaway)	1 portion meat/sauce (150 g)	3.0 g
Vegetable pasty	1 medium sized (150 g)	3.0 g
Potato crisps (low-fat)	1 bag (35 g)	2.1 g
Pakora/bhajia (vegetable)	1 portion (50 g)	1.8 g
Pizza (cheese and tomato)	1 slice, deep pan (80 g)	1.8 g

Adapted from: [\[MeReC, 2004\]](#)

Flow diagram on management of anal fissures in primary and secondary care

