# How to treat

**Pull-out section** 

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UPDATE: CPD points for the 2008-10 triennium have been applied for

## FAECAL incontinence

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#### The author



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## Background

FAECAL urgency and incontinence are conditions affecting all ages and both sexes but are particularly common in women. It is less common than urinary incontinence and both may occur in combination.

In Australia, faecal incontinence is thought to affect up to 2% of the population. An even higher incidence is evident in the elderly and nursinghome population.

Faecal urgency is defined as the sense of having to rush to the toilet, being unable to defer defaecation for any significant period of time. Arbitrarily this time is often taken as five minutes.

Incontinence may occur if a toilet cannot be found or reached in time. This is socially limiting and may force the affected person to remain at home, particularly if the bowel habit is erratic.

Anal incontinence is defined as the inadvertent or uncontrolled passage of flatus or stool.

Faecal urgency and incontinence can have major consequences on quality of life, including social, recreational, occupational and sexual activities. People with the condition may become housebound, or forced to use pads, napkins and deodorants to help compensate and hide their symptoms. It may be the deciding factor in placing an elderly person in a nursing home.

Faecal and urinary incontinence are hidden disabilities. It takes great effort for a person to bring these problems to the attention of a health professional. Many people consider that symptoms are the natural result of childbirth and ageing and that little can be done. Great efforts have been made by government, concerned professional societies and organisations to remove the stigma of the problem and direct people to obtain help.

By direct inquiry, primary care practitioners can reveal the presence of problems of incontinence and enable help to be provided. Patients are often best managed in a multidisciplinary clinic to address all symptoms related to the pelvic floor.

## What maintains normal continence?

Normal continence relies on adequate sensory, motor and reflex *cont'd next page* 

### How to treat – faecal incontinence

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function of the anus and rectum. Continence is also enabled by the delivery of a formed stool to the rectum. Disorders of the colon and upper GI tract can therefore affect continence. A normal rectum and anal sphincter will generally cope with loose stool or the urgent need to go to the toilet. However, a weakened sphincter may be overcome.

Normal continence is disturbed with faecal impaction. This is not because the anus is abnormal, but results from abnormal sensory and motor function of the rectum, causing spurious diarrhoea.

The rectum has a sensory ability, with awareness of distension by flatus or faeces. It acts as a reservoir for faeces so that the need to go to the toilet can be deferred until socially appropriate.

Disorders of the rectum causing incontinence are commonly due to a lack of compliance. Compliance is the ability of the rectum to distend and increase in volume without an increase in intraluminal pressure. Surgery and radiotherapy to the rectum may



## Causes of incontinence

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#### Congenital

CONGENITAL anorectal malformations — particularly agenesis of the anal sphincter — may result in imperfect continence. This depends on the amount of sphincter muscle involved and whether there is an associated sacral and neurological deformity. Corrective operations in childhood generally give good results.

Children born with spina bifida also have continence issues, both urinary and faecal. They may be candidates for more advanced surgical procedures.

#### **Obstetric**

Childbirth is the leading cause of anal incontinence, and is particularly associated with difficult vaginal delivery. Injury to the anal sphincter may be due to disruption of the muscles of the anal sphincter, pudendal nerve neuropathy, which denervates the anal sphincter, or disruption of the connective tissues of the pelvic floor.

The risk of injury to the anal sphincter is greatest with the first vaginal delivery, instrumental delivery (forceps and vacuum extraction) and

#### Table 1: Decisions subsequent to delivery after initial traumatic vaginal delivery.

Anal injury	Investigation	Subsequent delivery
Third-degree tear, asymptomatic	Normal manometry, normal ultrasound	Trial vaginal delivery
Third-degree tear, symptomatic	Abnormal manometry, abnormal ultrasound	Elective caesarean
Secondary repair	Normal manometry, normal ultrasound	Elective caesarean
Third-degree tear, occult damage, asymptomatic	Abnormal manometry Abnormal ultrasound	? Vaginal delivery ? Elective caesarean

Adapted from Best Practice & Research Clinical Obstetrics & Gynecology 2001; 15:63-79.

toms of anal incontinence postnatally, early referral to a physiotherapist, continence nurse adviser or colorectal surgeon is appropriate.

There is much debate about how a woman who has experienced significant perineal trauma should deliver next time. There is no scientific evidence to guide us in this decision, but a decision can be made depending on symptoms and the results of investigations to the anal sphincter (table 1). Certainly if there is doubt about an easy delivery with a subsequent pregnancy (ie, cephalo-pelvic disproportion or fetal macrosomia), a caesarean section should be performed.

Ano-vaginal and recto-vagi-

## Constipation and overflow incontinence

This is a common condition, particularly in children and the elderly. Management includes teaching toileting techniques, altering drug regimens and using appropriate laxatives. Both diet and mobility need to be considered.

#### Neurogenic incontinence

The pudendal nerve supplies the external anal sphincter. Neuropathy can occur when the nerve is stretched against points in the pelvis at which it is anatomically fixed. This occurs with chronic straining to defaecate and descent of the perineum and pelvic floor. The nerve can also be injured with difficult or obstructed If there are symptoms of anal incontinence postnatally, early referral to a physiotherapist, continence nurse adviser or colorectal surgeon is appropriate. functional problem such as incontinence.

## latrogenic trauma to the anal sphincter

Operations on the anus, particularly those involving the anal sphincter, can result in altered faecal control. Haemorrhoidectomy may damage the anal sphincter, or the anus may be unable to fully close after removal of too much of the anal cushions.

Operations for anal fissure are commonly performed. These include anal stretch and internal anal sphincterotomy. Both these operations cause deliberate and permanent injury to the internal anal sphincter.

In most people this is of no consequence but some may experience permanent incontinence. All patients having this form of surgery should be warned about the risk.

Alternative therapies are available, such as glycerine trinitrate (to relax smooth muscle) and injection of botulinum toxin (causing reversible paralysis of the sphincter muscle). These may be offered before resorting to potentially harmful surgery. Surgery for anal fistula (a connection between the anal mucosa and the perianal skin) can also damage the anal sphincter. The fistula tract involves a variable amount of the anal sphincter. If this is laid open (fistulotomy), some muscle will be cut. The potential for incontinence depends on the amount of muscle cut and the threshold for incontinence in any given patient. This is more likely in the elderly and in women who are parous. Alternative means to deal with the fistula, such as an

The internal anal sphincter is an involuntary smooth muscle under autonomic nerve control. Anatomically it is the caudal continuation of the circular muscle coat of the rectum. This muscle is responsible for 85% of resting anal tone.

The external anal sphincter is a voluntary skeletal muscle under systemic nerve control. It is responsible for the residual 15% of resting anal tone. It may be contracted to prevent passage of flatus or faeces and is reflexly contracted during a cough, sneeze or Valsalva manoeuvre.

The external anal sphincter is supplied by the pudendal nerve. This nerve comes from the second, third and fourth sacral anterior spinal segments. The pudendal nerve may be damaged or stretched with chronic constipation and repetitive straining at stool, rectal prolapse and with difficult childbirth.

The puborectalis muscle is fused with the levator ani muscles of the pelvic floor and the external anal sphincter. It is a sling muscle arising from and inserting into the pubic symphysis.

> anal advancement flap, seton, or fibrin glue or plug, should be used where there is concern. A seton is a suture placed through the fistula tract and tied to encircle it, allowing drainage. It can be tied loosely or tightly, when it will slowly cut through the fistula tract.

#### **Colon and rectal surgery**

Surgery to the colon and rectum will influence bowel function. Operations that remove a considerable amount of the colon will cause diarrhoea and can result in incontinence.

Removing the rectum (such as for rectal cancer) and replacing it with the more proximal colon (low anterior resection) will cause a patient to have a more frequent bowel action and can result in marked urgency (low anterior resection syndrome). Low anterior resection may be technically possible but in an elderly person with borderline anal sphincter function a preferred option might be a stoma.

## Spinal trauma and neurological disease

delivery of a large baby. Any documented trauma to the anal sphincter (third- or fourth-degree tear) is a major perinatal event and must be given due regard. Such tears should be repaired by someone experienced, in a setting where there is appropriate anaesthesia and operative conditions.

Postnatal follow-up to ensure healing and return of anal function is essential. Good postnatal practices attentive to bowel habit and pelvic floor exercises need to be stressed. If there are sympnal fistula is the most serious deformity associated with anal incontinence after childbirth. There is passage of flatus and faeces through the vagina and there may be associated significant injury to the anal sphincter.

To occur there must have been a through-tear between the vagina and anus. These are rare in developed countries and usually are apparent soon after the delivery. Operations to repair the fistula and associated sphincter defects to the anal sphincter need to be performed.

labour.

#### **Rectal prolapse**

When the supporting structures of the rectum are weak the rectum is able to intussuscept through the pelvic floor and anal sphincter. It will be felt as a lump protruding through the anus and may be associated with mucus discharge, bleeding, incontinence and constipation.

Surgical correction, either with an operation from the perineum or the abdomen, will fix the prolapse but does not always assist with any Spinal trauma and neurological disease such as Parkinson's disease, multiple sclerosis and diabetic neuropathy all can have incontinence as part of the spectrum of disability.

Treatment generally is supportive, with varying toileting techniques, and modulation of the consistency of the bowel with diet and medication. Rarely is an operation considered.

#### Idiopathic

The cause of incontinence may remain uncertain and is often labelled as idiopathic.

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## History and examination

#### History

A FULL history, including social, family, dietary, past medical conditions and use of prescription and non-prescription medications, needs to be taken. Drugs such as metformin and magnesium can cause diarrhoea and subsequent incontinence.

For women, obstetric history including the nature of deliveries, birth weight, tears, instruments used such as forceps and whether stitches were required may help indicate if an injury from childbirth is likely. Menopause is often the time of onset or worsening of symptoms. Determine if HRT has been started as it may be helpful.

Passage of flatus or faeces through the vagina would indicate an ano-vaginal fistula. General problems related to the pelvic floor, such as urinary incontinence or prolapse, need to be excluded. Appropriate management or referral to another specialist (eg, a urogynaecologist) may be required.

A history specific to the presenting problem of anal incontinence needs to exclude the possibility of colonic and rectal disease. Past operations to the bowel, anus and gynaecological structures may indicate the likely cause of the incontinence.

Specific questions regarding the incontinence should be asked to ascertain the degree of disruption to lifestyle, pad use and the nature, degree and frequency of the incontinence: • How long has the person experienced the incontinence?

• Was the onset related to any

specific event?

- Is the incontinence to flatus, liquid or solid stool?
- How much is lost and how often is it occurring?
- Is the loss related to any particular activity such as exercise?
- Is the person aware of the loss as it is happening or only aware that it has happened at a later time (passive incontinence)?

Toilet habits are important. The general nature of the stool, its consistency, how long a person can wait, whether they need to strain and how often they go will help determine if the incontinence is related to bowel function and whether management can be directed at improving this function and hence improving the incontinence.

Validated symptom scores

are useful in measuring the degree of disability and allowing a reliable longitudinal measure of symptoms over time.

#### Examination

Examination for faecal incontinence tends to centre on the abdomen and anus. However, consideration should be given to urological and gynaecological examination, particularly if there are related symptoms. The abdomen should be inspected for abnormalities and scars of surgical procedures. Palpation will exclude obvious disease.

The anus should be inspected in the left lateral position. Scars from past procedures and obstetric tears, as well as skin tags, prolapse, haemorrhoids and fissure will be seen. The presence of a pad, stool on the perineum, use of a cream or powder and the state of the perianal skin should be noted. Is the skin broken, excoriated or inflamed because of the incontinence?

The relationship of the anus to the vagina will indicate whether there is a likelihood of past obstetric injury. This will be evident by lack of a gap between the two structures. This may indicate an anteriorly placed sphincter defect. Lack of the normal skin corrugations around the anus, asymmetry, and patulousness support a diagnosis of a sphincter problem causing the incontinence.

A digital rectal examination allows assessment of the resting anal tone. By instructing the patient to squeeze and cough, the external anal sphincter activity can be estimated. A defect to the sphincter is often palpable.

The presence of anterior bulging of the lower rectum into the vagina (rectocoele) is noted. The patient can be asked to strain down as if defaecating. This will help to determine the presence or absence of rectal prolapse and perineal descent (normally <2cm). Also, ask the patient to elevate the pelvic floor as in performing pelvic floor exercises. Have they been instructed on these exercises properly?

Faecal impaction is obvious on digital examination. Anorectal and pelvic disease such as a tumour can be excluded.

## Investigations

#### **General investigations**

GENERAL screens such as a complete blood picture, electrolytes, LFTs and thyroid function may be indicated. Exclude coeliac disease, particularly if diarrhoea is present.

Proctoscopy and sigmoidoscopy are important procedures to exclude rectal and lower colonic pathology. Plain abdominal X-ray is of little value but may show gross constipation or impaction.

Colonic investigations, including barium enema and colonoscopy, may be indicated if there is a suspicion of bowel disease that may be contributing to the symptoms. This is particularly so where there is a deranged or altered bowel habit or other symptoms such as bleeding or a positive family history for bowel disease.

#### **Specific investigations**

Muscle and nerve injury can be identified and quantified with relatively simple anal investigations (endoanal ultrasound and pudendal nerve terminal motor latency test, respectively). Anal function can be quantified using anal manometry; bowel and anal symptoms can be documented by interview, using reliable questionnaires such as the Self Administered Faecal Incontinence Questionnaire (SAFIQ) and the Cleveland Clinic Florida Fecal Incontinence Score (CCF-FI).

## Figure 2: Anal ultrasound probe.



Figure 4: Sphincter defect on anal ultrasound. Defect to the external anal sphincter is visible between the two arrows.





Figure 5: Defaecating proctogram. Anterior rectocoele. Initial view (A) and post-defaecation view (B) showing retention of contrast in the rectocoele.



#### **Anal manometry**

With a probe inserted into the anal canal, the resting and squeeze pressures of the anal canal can be measured. The resting pressure reflects the ability of the internal anal sphincter to close the anal canal. The squeeze pressure reflects the ability of the external anal sphincter to be recruited to consciously close the anal canal.

Other measurements that can be made include rectal compliance and the recto-anal inhibitory reflex, when relaxation of the anal sphincter occurs with rectal distension to allow some stool or flatus to enter the upper anal canal and hence be sampled and recognised.

**Endoanal ultrasound (figures 2-4)** A probe is inserted into the anus to identify defects to the internal or external anal sphincter, which may be the cause of the incontinence and amenable to surgical correction.

#### MRI

MRI gives good images of the sphincter and pelvic floor anatomy. It is a useful resource but is not currently rebateable, so patients incur considerable cost for this procedure. **Defaecating proctogram (figure 5)** This is an embarrassing and intrusive test that is normally requested when the presenting problem is difficulty with evacuation. It may also be useful to establish the presence of an occult prolapse or rectal intussusception.

#### **Nerve studies**

Nerve studies are a measure of the pudendal nerve innervation of the external anal sphincter. They can be performed by two methods. A needle electromyogram can be obtained by inserting an electrode into the external anal sphincter. This is painful, and the alternative method of pudendal nerve terminal motor latency (PNTML) is preferred.

This involves a digital rectal examination in which a combined stimulating and recording electrode is taped to the gloved index finger. The pudendal nerve is stimulated with a small electric current at the level of the ischial spine. This produces a contraction of the external anal sphincter.

The PNTML is the time from delivery of the stimulation to the onset of the contraction. This is analogous to nerve conduction studies for carpal tunnel syndrome.

## Management — a multidisciplinary approach

MANAGEMENT of faecal incontinence requires a team approach. A GP, colorectal surgeon, pelvic floor physiotherapist, continence nurse advisers, dietitians and occasionally a stomal therapist may all be involved in the care.

Rarely is a patient with faecal incontinence 'cured' of their incontinence. The aim of any treatment is to improve symptoms and help patients maintain their normal lifestyle. This will vary, depending on the patient. An active young woman with small children may have different expectations than an elderly person in a nursing home. The patient should be counselled about this early in the process.

Non-operative management will rarely, if ever, make a patient symptomatically worse. Surgery, on the other hand, has the problems of complications, a false expectation of 'cure' and can potentially render the patient worse off.

The number of patients having a surgical procedure for faecal incontinence is proportionally small compared with those managed non-operatively. Surgical outcomes may regress over time. This has been particularly shown with procedures such as direct overlapping sphincter repair.

#### **Non-operative** management

Counselling

It is important for a person with faecal incontinence to understand that they are not alone and that there are a variety of management options to assist them. It will not be possible to get an instant response, and a combination of approaches may be required.

#### **Dietary alteration**

Aim to 'thicken' the bowel motion or slightly constipate the bowel. A weakened sphincter may better hold onto a firmer stool. A diet with reduced roughage and increased complex carbohydrate and starch (pasta, potato and rice) will achieve this. This is contrary to most dietary advice given.

It is important for a person with faecal incontinence to understand that they are not alone and that there are a variety of management options to assist them.

Figure 6: Artificial anal sphincter implant. Because complications are common and the procedure is costly, it is rarely done.



measures, improve continence. Loperamide (eg, Imodium) is a synthetic opiate that acts by dampening peristalsis through the gut and has also been shown to increase anal sphincter tone. Great benefit can be obtained with small doses (one 2mg tablet/day). Doses can be increased up to 16mg/day with effect.

The dose required for any individual is found through trial and error. Alternatively people may only use loperamide when planning to go out and when away from their home environment. The drug is expensive when bought over the counter without a prescription, but can be obtained more cheaply with an authority prescription.

Other drugs in this category include atropine sulfate/diphenoxylate hydrochloride (eg, Lomotil) and codeine. These may be tried but are less efficacious and have concerning side effects.

**Hormone replacement therapy** The pelvic floor in women is oestrogen dependent and its strength — and hence symptoms of incontinence, either urinary or faecal have been shown to improve with oestrogen treatment in the postmenopausal woman. the pelvic floor. There is good evidence for its efficacy. Feedback to the patient during a physical therapy may be motor or sensory and will improve the uptake of a response. This is often given by a physiotherapist, but simple home units can be purchased.

#### **Magnetic chair**

This device delivers a pulsed magnetic field to the pelvic floor muscles of an incontinent patient. It is easy to use, with no known side effects. The patient remains fully clothed and simply sits in a chair in which it is contained. For urine incontinence there are some encouraging reports. Its efficacy in faecal incontinence is being trialled.

#### **Anal plugs**

These are tampon-like devices that can be inserted into the anal canal so that they lie in the lower rectum and prevent seepage or losses through the anus. They may be useful in certain patients.

ation may be complicated by wound breakdown, and rarely an ano-vaginal fistula can occur.

#### **Directed injections into the** anal sphincter

Various agents have been trialled as injections into the anal sphincter, including autologous fat, Teflon, collagen, silicone and zirconium oxide beads. They are thought to increase resting anal pressure via a cushionlike effect but may also reduce anal canal compliance.

Patients ideally suited to this technique are those with isolated internal anal sphincter defects. The largest study (82 patients) with this form of treatment comes from Australia. Significantly improved continence and quality of life scores were recorded.

Procedures are relatively comfortable and can usually be performed as a day procedure. Potential problems with this technique include pain and ulceration at the injection sites. Such injections are becoming more popular. However, further evaluation is necessary and there is a considerable cost for some of these products (up to \$8000).

#### **Postanal repair**

This tightens the anal sphincter and puborectalis muscles from a posterior approach. In concept it is thought to increase the anorectal angle and so improve continence. The results are not good, especially over time, and so the procedure is now rarely performed.

#### **Rectal prolapse surgery**

This may be done via an abdominal or perineal approach. Correction of the prolapse may not always result in restoration of continence, and additional nonoperative or operative measures may need to be taken.

#### **Stimulated graciloplasty** The gracilis muscle is transposed from the medial thigh and wrapped around the

anus creating a muscular

**Bowel and lifestyle management** Incontinence may occur at specific times of the day. A patient may have fewer symptoms if their bowel is empty. Mini-enemas or suppositories to empty the bowel in the morning may prevent incontinence episodes later in the day.

#### **Medication**

Drugs to thicken the bowel motion are particularly useful and, very often in combination with other **Pelvic floor physiotherapy** Pelvic floor physiotherapy improves muscle strength, posture, co-ordination and reflexes. Retraining of toilet habits can be helpful. Many patients obtain great benefit from these efforts.

**Biofeedback** Biofeedback is a sophisticated form of retraining of

**Sphincter-enhancing agents** Phenylephrine anal gel and oral sodium valproate have been trialled in patients with faecal incontinence. Such agents are experimental, having only undergone limited evaluation, but initial results are encouraging.

#### **Operative management**

The operations discussed below are performed commonly. They are not exclusive of each other and can be performed sequentially. A simpler procedure such as direct sphincter repair may

desired, it would be possible to progress to an operation such as creating a new sphincter with muscle (graciloplasty) or implanting an artificial anal sphincter.

**Management principles** 

GI disorders, eg, lactose

Exclude colorectal and

Diagnose and treat

specific causes of the

Liaise with other health

and continence nurse

Liaise with specialists —

this may be a colorectal

surgeon; a gynaecological

or urological opinion may

be sought if there are

associated problems.

operative treatments fail

or produce inadequate

Consider surgical options

treatments fail or produce

an inadequate response.

and informed consent for

be performed initially. If the

result is not as good as

only if non-operative

Adequate counselling

surgical options.

Investigate if non-

response.

professionals, such as a

physiotherapist, dietitian

intolerance.

incontinence.

adviser

#### **Direct sphincter repair**

A documented external anal sphincter defect on anal ultrasound is repaired via a trans-perineal or trans-vaginal approach. An improvement in symptoms can be expected in more than 70% of patients. There is evidence with longer follow-up that any success may deteriorate over time. The operneo-sphincter. The muscle's nerve supply is connected with electrodes to a pacemaker. This enables it to be retrained to act as a slow twitch muscle, with tone and the ability to contract for longer without fatigue. The pacemaker can be turned on or off by the patient with a magnet to allow for defaecation.

This is a complex procedure and the retraining of the muscle is arduous. A temporary stoma may be required. Improved symptoms can be expected. Cure is seldom achieved. Complications such as erosion and infection of the electrodes may cause failure of the procedure. Reoperation for complications is common. The operation is expensive with the hardware costing more than \$15,000.

#### Artificial anal sphincter (figure 6, left)

A plastic sleeve is implanted around the anus. This is connected via a valve to a fluidfilled reservoir. The valve allows fluid in the sleeve to be emptied back into the reservoir, reducing the pressure around the anus, allowing defaecation. The reservoir naturally refills the sleeve, enabling the patient to remain continent.

Problems with this device are infection and extrusion, which then require removal. As complications are common, this procedure is rarely performed. The cost is similar to that for stimulated graciloplasty.

## Spinal sacral nerve stimulation

This is a new procedure under evaluation. Electrodes are inserted through the skin into one of the posterior



Figure 7: Although often seen as a last resort colostomy has the potential to make an incontinent

sacral foramina to stimulate the nerve supply of the anal sphincter (S2-4). Initially these are placed temporarily, with the pacemaker external. The effect is

assessed at one week. If improved symptoms are noted, permanent electrodes can be implanted and connected to a permanent subcutaneous pacemaker.

The beauty of this procedure is that there is an initial temporary assessment of its efficacy before committing to the expense (more than \$15,000) of the final permanent situation. Also, the operation is carried out well away from the anus, with reduced chance of infection. Good short- and mediumterm outcomes are being reported. Despite the cost this procedure is an attractive option in the treatment of faecal incontinence.

#### Stoma (figure 7)

This is often viewed as the last resort for a patient with faecal incontinence. Patients are often frightened that this is what they will get from the outset if they see a colorectal surgeon for management. However, a stoma is rarely performed, usually only after failure of other management options and when the patient symptoms are severe enough to warrant it.

Nevertheless, a stoma can transform a patient's life. It can potentially transpose someone from severe incontinence to a more manageable situation.

## Author's case studies

## Obstetric injury to the anal sphincter

A 35-YEAR-old woman delivers her first baby vaginally and sustains a fourth-degree tear. This is repaired after the delivery but the repair breaks down and she is symptomatic with a low ano-vaginal fistula.

Three months later this is repaired without success — symptoms of pervagina passage of flatus and faeces continue as well as anal faecal incontinence. At six months a loop sigmoid colostomy is constructed laparoscopically. Another attempt at local direct repair fails.

Eighteen months after the birth of the baby the fistula is repaired with a gracilis myocutaneous flap. This technique uses the long gracilis muscle from the leg and wraps it around the anal sphincter. Skin is transposed with the muscle to fill the defect in the skin and mucosa between the anus and vagina. This is successful and the stoma is planned for reversal. Non-operative management will rarely, if ever, make a patient symptomatically worse. Surgery, on the other hand, has the problems of complications, a false expectation of 'cure' and can potentially render the patient worse off. Under sedation and local anaesthetic she undergoes silicone injection into the anal intersphincteric space at three sites around the anal canal.

At three and six months after the procedure she is pleased with the result, with only minor symptoms of faecal urgency persisting and no staining.

#### The efficacy of loperamide

A 41-year-old enrolled nurse presented with severe faecal urgency, flatus incontinence and daily faecal ooze. On two occasions in the past six months there had been a major accident of solid stool when she had not reached a toilet in time. She also had stress urine incontinence.

She had had three vaginal deliveries. A third-degree tear occurred with the first delivery, and episiotomies were performed with the two subsequent deliveries. Symptoms occurred after a haemorrhoidectomy 10 years ago, two years after the birth of the third child. Her mother had died of a cancer at the age of 67; the primary site was either lung or bowel. The patient's bowels were open 3-4 times a day and stools were soft in consistency. Examination revealed a patulous anus and reduced resting and squeeze pressure. A possible sphincter defect was felt anteriorly. Flexible sigmoidoscopy found no problem in the distal colon and rectum. Anal ultrasound showed an anterior external anal sphincter defect between 10 and 2 o'clock, consistent with an obstetric injury. Management involved reducing the amount of fibre in the diet and

using loperamide 1-3 times a day. This had a good symptomatic effect, with no further symptoms at review 18 months later. She was taking one loperamide tablet a day.

## Incontinence managed with a colostomy

An 81-year-old woman who lived at home with her husband presented with severe faecal incontinence. She had type 2 diabetes, severe cardiac and respiratory disease and took multiple medications, including warfarin. Her exercise tolerance was 20m.

In the past she had had three vaginal deliveries, one with forceps and one with a tear. She had previously had three bladder repairs for urine incontinence, without benefit.

Her bowel symptoms had begun about five years previously, getting worse in the past six months. Twice a day without warning she would get a major faecal ooze of soft stool. Up to three pads were used each

#### **References and further reading**

Available on request from julian.mcallan@ reedbusiness.com.au

#### **Useful resources**

- Continence Foundation of Australia — a national, non-government peak organisation representing the interests of people with incontinence, their carers and health professionals who treat and assist people with incontinence. The foundation can be contacted on 03 9347 2522 or www.continence.org.au
- National Continence
   Helpline a free and confidential service managed by The
   Continence Foundation of Australia. All people with incontinence, their families, carers and health service providers can contact the helpline.
   Interpreters and information leaflets are available. Phone 1800 33 00 66

Funding schemes A continence nurse or adviser can assist with product advice for different circumstances plus advice on financial support for products. Assistance can be gained through:

- Continence Aids
   Assistance Scheme (CAAS) to enable participation in the workforce for people aged 16-65 with a permanent disability that contributes to incontinence. No assistance is given when the incontinence is age related or a result of surgery, childbirth, medication or diabetes.
- Department of Veterans' Affairs will provide a range of products for incontinence to eligible veterans via the Rehabilitation Appliances Program.
- State government schemes also will assist with the provision of continence products. These vary from state to state and have different names. Generally they are Programs of Aid for Disabled People (PADP).

## latrogenic injury to the anal sphincter

A 45-year-old woman presents with anal incontinence. She has good health. Previously she had three vaginal deliveries and had stitches with the first. Nine years ago she had an internal anal sphincterotomy for anal fissure. Since that time she has had faecal urgency and daily staining of her underclothes, necessitating use of a pad.

Rectal examination is unremarkable. Anal ultrasound demonstrates an internal anal sphincter defect in the left lateral quadrant consistent with the previous sphincterotomy. day. Her stools were soft and occasionally watery.

Examination revealed a perineal scar. There was remarkably reduced resting and squeeze pressure. An initial trial of loperamide three times daily improved her symptoms. However, she was admitted to hospital because of worsening symptoms and being unable to manage at home. Colonoscopy was normal. After much deliberation and counselling it was decided that the best course of management was a colostomy. Twelve months later she remains in her home and is managing with the help of her husband and the district nurse.

### GP's contribution



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HOW TO TREAT Editor: Dr Heather Knox Co-ordinator: Julian McAllan Quiz: Dr Heather Knox

#### **Case study** HELEN is a 4

HELEN is a 49-year-old patient who was diagnosed with Parkinson's disease six years ago. This has been very distressing, particularly as she has three school-aged children. Along with Sinemet and, more recently, Cabaser, she was started on Efexor for depression.

Over the past 6-12 months, Helen has developed faecal incontinence, with an episode about once every two weeks, when she passes formed stool. She has no ability to control flatus and also experiences urinary urge incontinence.

She says she is concerned about faecal incontinence most of the time especially when she is walking, and is now feeling too frightened to leave the house, in case she has an accident. Not surprisingly her anxiety and depressive symptoms have also become more prominent.

Initially Helen was sent to a physiotherapist for pelvic floor exercises, but after several sessions she felt this did



The surgeon has recommended using loperamide before going out, a course of biofeedback and a low-fibre diet.

not help. She was then referred to a colorectal surgeon, who performed an ultrasound that did not show any defect in the anal sphincter, despite a large episiotomy scar.

Further anal manometry demonstrated "normal resting tone, but poor squeeze with paradoxical anal contraction". The surgeon has recommended using loperamide before going out, a course of biofeedback and a low-fibre diet.

**Questions for the author** Is it common to have faecal incontinence in Parkinson's



disease, or is this likely to have resulted because she may also have had obstetric injury?

Helen most likely has Parkinson's related multisystem atrophy (MSA). This is an autonomic nervous system dysfunction. This can result more commonly in urine incontinence but also faecal incontinence. Helen has had children, which may be contributing to her symptoms, but there is no defined sphincter defect on anal ultrasound.

#### Is better control of her Parkinson's likely to improve her symptoms?

MSA usually runs a severe course and generally is resistant to neuropharmacological treatments. However, better control of the Parkinson's will aid mobility and enable easier access to the toilet, particularly if there is associated faecal or urinary urgency.

#### What is involved in biofeedback, and how successful is it likely to be in this case?

Biofeedback is a physical therapy that improves the strength and co-ordination of the pelvic floor and sphincters (both urinary and anal). A simple method uses a transducer that measures

#### **CPD QUIZ UPDATE**

The RACGP now requires that a brief GP evaluation form be completed with every quiz to obtain category 2 CPD points for

pressure, which is inserted into the anus or vagina, allowing the patient to visualise the response to therapy (pelvic floor retraining) and hence better understand how the mechanics of their treatment works.

It also allows them to view the response to treatment over time, giving instant feedback and reassurance. Helen may benefit from this therapy and it will certainly do no harm.

Are there any problems (eg, constipation) associated with ongoing and frequent loperamide use for faecal incontinence that Helen needs to be aware of, particularly given her low-fibre diet?

Long-term loperamide for faecal incontinence is usually low dose and safe. The aim is to make her slightly constipated.

Is there any role for using enemas to evacuate the bowel regularly each morning to avoid faecal incontinence?

Yes — if the rectum and colon can be emptied at prescribed times in the privacy of her home when she is near a toilet, it will be unlikely that she will need a toilet for the rest of the day and so could go out with confidence.

When patients have faecal incontinence secondary to a prolapsed rectum, what is the likelihood the incontinence will improve with surgery? Is there a better outcome if the surgery is performed at an earlier stage?

Prolapse of the rectum can be associated with both incontinence and constipation. I tell patients having surgery for their prolapse that their symptoms will generally improve in twothirds of cases. Smaller and less severe or earlier prolapse has less incontinence symptom severity when presenting and so will usually respond better to surgical treatment.

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the 2008-10 triennium. You can complete this online along with the quiz at **www.australiandoctor.com.au** Because this is a requirement, we are no longer able to accept the quiz by fax.

**NEXT WEEK** Forefoot pain is a common clinical problem, especially in middle-aged women and the elderly. Frequently a source of frustration and distress, it can affect the ability to work and perform domestic duties, as well as social and sporting activities.

Put the boot into forefoot pain with next week's How to Treat on the causes, diagnostic clues and treatment of this condition. The author is **Dr Peter Lam**, an orthopaedic surgeon specialising in foot and ankle surgery who is in private practice in Sydney, NSW.

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