

This is an extremely distressing problem that remains pretty much a taboo subject and thus many sufferers fail to seek help.

It is, however, a problem for which there are a variety of measures that can be implemented to ameliorate the embarrassing and uncomfortable situation.

Faecal incontinence means loss of control of the passage of faeces and/or wind from the rectum.

There may be leakage of solid or liquid faeces or flatus (gas).

In the over-65s, prevalence tends to rise, but this is also a problem experienced by much younger groups: young women after difficult childbirth, patients with diabetes (usually night-time incontinence) and those with neurological conditions such as Multiple sclerosis or spinal injury.

The severity of the problem may range from inability to control passage of wind to total incontinence of solid stool. Although some patients are grossly incontinent, many will experience leakage, particularly if the stool is not formed (e.g. if there is diarrhoea for any reason).

### PHYSIOLOGY of FAECAL CONTINENCE:

Faecal continence is usually maintained by a combination of mechanisms:

1. The sigmo-rectal 'sphincter': the lower part of the rectum is normally empty. Passage of faeces from the sigmoid colon into the rectum usually involves a contraction of the rectum and relaxation of the anus which can be temporarily inhibited in a voluntary way.
2. The ano-rectal angle: the angle between the rectum and anus is normally kept acute by part of the pelvic floor; thereby helping to prevent passage of the stool into the anal canal. The tone of the pubo-rectalis muscle is maintained by innervation from the nerves which may be disrupted in traumatic childbirth, or the pelvic floor muscles become lax. Chronic straining to pass stool may cause similar problems.
3. The anal sphincters: internal (involuntary) and external (voluntary): damage to the nerve supply to these sphincters e.g. in MS, leads to dysfunction
4. Ano-rectal sensation: sensation is usually acute enough to distinguish between gas from faeces, allowing the passage of flatus without stool incontinence. However, if the rectal sensation is reduced (e.g. in chronic Cauda Equina Syndrome or other spinal damage) then this ability is lost and this may be particularly important if there is diarrhoea.

### CAUSES OF FAECAL INCONTINENCE:

- Constipation (including with 'spurious' i.e. overflow, diarrhoea)
- Diarrhoea of any cause
- Sphincter laxity (various causes)
- Severe haemorrhoids
- Rectal prolapse
- Tumours

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Disorders of sphincter and ano-rectal muscle control:

- Lower motor neuron and/or sensory nerve lesions e.g. Cauda Equina lesions: neuropathic incontinence
- Spinal cord lesions (UMN) e.g. spinal cord injury
- Associated with higher function impairment (e.g. dementia): neurogenic incontinence

Causes of Pelvic floor denervation:

- Primary: pudendal nerve neuropathy, chronic straining at stool; childbirth
- Secondary: injuries to spinal cord/Cauda Equina/pelvic floor nerves

SYMPTOMS:

As already stated, there is a spectrum of problems. Passage of flatus, with/without soiling of underwear may occur at any time of the day or soiling may happen after the bowels have already been opened, which tends to be unexpected and add to the difficulties of managing daily life.

If there is a condition which causes diarrhoea (see above) then the problem may be exacerbated. Occasionally, the condition is so severe that the entire, formed stool is passed without warning.

In people with spinal problems, it is possible that rectal sensation is diminished and this can combine with sphincter dysfunction, so that the incidence of incontinence comes on without warning.

Alternatively, in some patients, there may be visceral hyperpathia, in which

there is a delayed sensation threshold in the rectum, which means that rectal distension is not registered until it is at a greater pressure than normal people would sense; once the threshold is reached, there is a sudden and exaggerated sensation which may be very painful and the urge to defaecate comes on at the same time as the bowel begins to evacuate the stool: thereby again causing incontinence without any warning.

These problems can cause a tendency to isolate oneself, rather than risk 'accidents' in public.

### ASSESSMENT:

Although it is extremely embarrassing and distressing, it is vital for those who suffer from this problem to seek medical help.

The doctor will need to know how long the problem has been going on, whether there were any factors in the period just before it began, and how often and in what way the problem is currently affecting the patient.

He/she will also need to be aware of any other co-existing bowel problem, for example, Irritable Bowel Syndrome (IBS) which might cause altered stool consistency.

If there has been blood in the stool, it is important to mention this. Examination will need to include a digital rectal examination.

### Tests:

- Colonoscopy: to test for haemorrhoids, IBS, inflammatory bowel disease, tumours etc.
- Anal manometry: a balloon is inserted into the anal canal and the pressure inside is measured: this allows assessment of the function of the internal and external sphincters.

- Recto-anal reflex: when faeces enters the rectum, the internal anal sphincter should relax; this reflex is lost in a condition called Hirschsprung's disease.
- Rectal sensation: a balloon is placed into the rectum and inflated with air to detect at what pressure there is 'onset of sensation', then 'a call to stool' (desire to evacuate) and 'urgency of defaecation' (need to urgently evacuate) In some patients there may be diminished sensation (see above and in others there may be hypersensitivity, in which extreme urge is felt at quite low levels of rectal distension.
- Pudendal nerve latency: the external anal sphincter is innervated by the pudendal nerve that arises from the S2-4 region of the spine. An electrode is placed inside the rectum to stimulate the nerve and another picks up a signal when the sphincter reacts to the relayed impulse. Local damage to the nerve will lead to delayed or interrupted transmission of the signal. Pudendal nerve function (bilateral) can partially compensate for abnormal sphincter function
- Endoanal ultrasound: this allows an image of the anal canal and sphincters to be seen, and can detect visible anatomical damage to any of the structures, that may have arisen through childbirth or pelvic trauma.

### TREATMENT:

As there are various causes and types of problem, there must be an individually based therapy.

However, one can discuss broad aims:

1. regulate bowel habit
  2. solidify liquid or soft stool
  3. employ measures to manage incontinence episodes (pads etc.)
  4. biofeedback/sphincter exercises
  5. electrical stimulation
  6. surgery
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1. Modifying bowel habit to fit a planned regime is extremely helpful: measures such as diet (especially fibre content), fluid intake, maximum maintenance of mobility, defaecation posture, drug regimens (as discussed above) are all helpful in achieving a firm stool at regular intervals
  2. The aim is to avoid diarrhoea and thus reduce leakage

3. There are numerous measures that can be employed: a Continence Advisor is the best-placed professional to advise on the appropriate ones for the individual.
4. Examples include pads of various sizes and anal plugs.
5. Biofeedback using manometry or electromyography has been widely used but does not appear to be particularly effective in individuals with neuropathic incontinence.
6. Electrical stimulation: an electrical current mimicking that sent naturally to the external anal sphincter may be given via an electrode placed in the anal canal or skin electrodes around the sphincter.
7. Surgery: if clear damage to the external sphincter can be demonstrated on ultrasound, surgical repair can be successful in about 80% of patients. Postanal repair aiming to restore the anorectal angle, tends to be less successful (about 30%) but might be of use in patients who have sustained injury due to childbirth. If there is extensive sphincter damage, a new one may be constructed surgically using a leg muscle, often combined with an electrical stimulator: this may be about 75% successful. Alternatively, a synthetic device, an inflatable cuff, may be used, but has yet to be tested on a large scale

### USEFUL CONTACTS:

The Continence Foundation holds a database of all Continence Advisors in the UK. Helpline number is 0207 831 9831 Coloplast Ltd. Peterborough 01733 392000

Incontact (organisation of people affected by incontinence) Contact  
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