This report defines standards for diagnosing useful anorectal issues (ie, fecal incontinence, anorectal ache, and issues of defecation).

Functional fecal incontinence is defined because the uncontrolled passage of fecal materials recurring for >3 months in an individual with a developmental age of >4 years that is associated with:

1. irregular functioning of normally innervated and structurally intact muscles, and/or
2. no or minor abnormalities of sphincter construction and/or innervation inadequate to elucidate fecal incontinence, and/or
3. normal or disordered bowel habits (ie, fecal retention or diarrhea), and/or
4. psychological causes.

However, circumstances wherein structural and/or neurogenic abnormalities explain the symptom, or are part of a generalized process (eg, diabetic neuropathy) are not included within functional fecal incontinence.

- Functional fecal incontinence is a standard, however underrecognized symptom, which is equally prevalent in men and women, and can often cause considerable misery.
- The scientific features are helpful for guiding diagnostic testing and therapy.
- Functional anorectal ache syndromes include proctalgia fugax (fleeting pain) and chronic proctalgia; chronic proctalgia may be subdivided into levator ani syndrome and unspecified anorectal pain, that are redefined by arbitrary clinical standards.

Functional defecation problems are characterized by 2 or more signs of constipation, with >2 of the following features throughout defecation: impaired evacuation, inappropriate contraction of the pelvic ground muscles, and inadequate propulsive forces.

**Functional issues of defecation may be amenable to pelvic floor retraining by biofeedback remedy (such as dyssynergic defecation).**

Consistent with the other issues encompassed in this supplement, the anorectal problems are outlined by specific symptoms, and in a single occasion (functional issues of defecation), additionally by abnormal diagnostic tests.

Our concepts of the pathophysiology of anorectal issues continue to evolve with an growing array of subtle instruments that can characterize anorectal structure and performance. These assessments may reveal disturbances of anorectal structure and/or operate in sufferers who have been hitherto considered to have an “idiopathic” or “functional” disorder.
Likewise, the distinction between “organic” and “functional” anorectal problems may be tough to make in individual sufferers as a outcome of (1) the causal relationship between structural abnormalities and anorectal operate or bowel symptoms could also be unclear because such abnormalities (eg, small anal sphincter defects, rectoceles) are often observed in asymptomatic subjects. (2)

**Organic lesions are influenced by behavioral variations.**
For instance, repeated straining to defecate could contribute to rectal prolapse or pudendal nerve damage. (3) Patients could have a quantity of structural or useful disturbances, each of which can contribute to but can’t solely explain signs.

For example, diarreacould lead to fecal incontinence in patients with beforehand asymptomatic sphincter weak spot. The useful anorectal problems are defined totally on the basis of signs (Table 1).2 Because sufferers might not accurately recall bowel signs,3 reliability of symptom reviews could be improved by prospectively obtained symptom diaries.

- This report and the associated recommendations are based mostly on a evaluation of the world literature by investigators with longstanding curiosity in anorectal issues.
- The diagnostic criteria embrace a minimum length of signs so as to avoid the inclusion of self-limited circumstances F1.
- Functional Fecal Incontinence: Fecal incontinence (FI) is outlined as uncontrolled passage of fecal materials recurring for 3 months.
- Leakage of flatus alone should not be characterised as FI, partly as a result of it’s tough to define when passage of flatus is abnormal.

FI should not be thought-about a medical downside earlier than age Abbreviations used in this paper: EMG, electromyography; FI, fecal incontinence.© 2006 by the American Gastroenterological Association Institute 0016-5085/06/$32.00 doi:10.1053/j.gastro.2005.11.064

Table 1. Functional Gastrointestinal Disorders

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<th>F1. Functional fecal incontinence</th>
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<td>F2. Functional anorectal pain</td>
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<td>F2a. Chronic proctalgia</td>
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<td>F2a1. Levator ani syndrome</td>
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<td>F3. Functional defecation disorders</td>
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<td>F3a. Dyssynergic defecation</td>
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<td>F3b. Inadequate defecatory propulsion</td>
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**GASTROENTEROLOGY 2006;** a hundred thirty:1510 – 1518 four years. FI can be related to organic disorders (eg, dementia, a number of sclerosis, Crohn’s disease). Epidemiology: FI is a typical drawback with a prevalence starting from 2.2%–15% in the neighborhood, and as much as 46% in nursing properties. Differences in prevalence charges amongst studies may be defined by variation in survey methods, definitions of FI, and age distribution of population surveyed.
In a latest group survey of adults aged forty years and older in the UK, 1.4% reported main FI and 0.7% had main FI with bowel symptoms that had an impact on quality of life.5 Despite this influence, patients may not disclose the symptom to their physician unless they are asked about it, partly out of embarrassment.

**Age, gender, physical limitations, and basicwell being are threat elements for FI in the neighborhood.**

Other recognized danger elements include diarrhea and rectal urgency.6 Among the aged, cognitive and mobility impairment, diarrhea, and fecal retention are significant threat components for useful FI.7,8 The extent to which different risk factors (eg, obstetric or iatrogenic anal sphincter trauma) contribute to FI in the community is unclear. F1. Diagnostic Criteria* for Functional Fecal Incontinence1.

Recurrent uncontrolled passage of fecal material in an individual with a developmental age of at least four years and 1 or more of the next: a. Abnormal functioning of normally innervated and structurally intact muscles b. Minor abnormalities of sphincter structure and/or innervation; and/or c. Normal or disordered bowel habits (fecal retention or diarrhea); and/or d. Psychological causes AND2. Exclusion of the entire following: a. Abnormal innervation caused by lesion(s) throughout the brain (eg, dementia), spinal twineor sacral nerve roots or blended lesions (eg, a quantity of sclerosis), or as part of a generalized peripheral or autonomic neuropathy (eg, owing to diabetes) b. Anal sphincter abnormalities associated with a multisystem illness (eg, scleroderma). c. Structural or neurogenic abnormalities believed to be the major or major cause of FI.*Criteria fulfilled for the final 3 months Rationale for Changes in Diagnostic Criteria The spectrum of “functional” FI is broader compared to the Rome II criteria as a outcome of 1.

The relationship of structural disturbances (eg, anal sphincter defects visualized by imaging) to FI is usually unclear because even asymptomatic women could have small anal sphincter defects. Therefore, structural abnormalities are not necessarily inconsistent with the prognosis of practical FI.

1. Limitations of testing hinder a precise assessment of sure dysfunctions (eg, pudendal neuropathy).
2. Anal sphincter electromyography (EMG), the only correct technique for assessing not directly for a pudendal neuropathy, is not extensively out there.
3. The revised standards acknowledge that many sufferers with anal sphincter weak spot may exhibit evidence of denervation/reinnervation changes.

Such patients are included throughout the category of functional FI, offered they do not have a generalized illness course of (eg, diabetes with peripheral neuropathy) that may trigger a
pudendal neuropathy. The demonstration of gentle anal sphincter denervation/reinnervation changes does not show causality of FI, particularly in the presence of coexistent small sphincter defects.

**Clinical Evaluation**

Organic causes of FI (eg, diabetes with peripheral neuropathy, scleroderma, neurologic disorders) are typically recognized by detailed scientific evaluation. A complete clinical evaluation is helpful to elucidate the etiology and pathophysiology of FI, consider severity of incontinence, establish rapport with the affected person, and information testing and treatment.

The historical past should characterize the kind and frequency of FI, bowel patterns, consciousness of the want to defecate previous to FI, and establish danger factors for anorectal harm. Staining, soiling, and seepage reflect the nature and severity of FI.

5 Soiling signifies extra leakage than staining of underwear; soiling may be specified further, specifically, of underwear, outer clothing, or furnishings/bedding. Seepage refers to leakage of small quantities of stool.

**Symptoms also present clues to the pathophysiology of FI.**

Incontinence for strong stool suggests more severe sphincter weakness than does liquid stool alone.

Urge incontinence (ie, an exaggerated sensation of the desire to defecate earlier than leakage) is associated with reduced squeeze pressures and squeeze length, lowered rectal capability, and increased perception of rectal balloon distention.

11 In contrast, passive incontinence (ie, incontinence without awareness of the need to defecate) is related to lower resting pressures. The severity of FI and its impact on high quality of life could be summarized by specialised scales.

**Diagnostic testing.**

Diagnostic testing is tailored to the patient’s age, probable etiologic elements, symptom severity, influence on quality of life, and response to conservative medical administration.

Endoscopic evaluation of the rectosigmoid mucosa, with biopsies if necessary, must be thought of in sufferers who’ve diarrhea or a recent change in bowel habit; a colonoscopy could also be
fascinating in sure circumstances (eg, if the differential prognosis contains colon most cancers or age appropriate colon most cancers screening).

Manometry assesses continence and defecatory mechanisms by figuring out the (1) resting anal stress; (2) amplitude and duration of the squeeze response; (3) rectoanal inhibitory reflex; (4) threshold quantity of rectal distention required to elicit the primary sensation of distention, as sustained feeling of urgency to defecate, and the pain threshold or most tolerable quantity; and (5) recto-anal strain changes throughout tried defecation (see below).

The strategies for conducting and analyzing anorectal manometry are detailed elsewhere.

14 Anal endosonography identifies anal sphincter thinning and defects, which are often clinically unrecognized and may be amenable to surgical restore. Endosonography reliably identifies anatomic defects or thinning of the inner sphincter.

17 Interpretation of exterior sphincter photographs is rather more subjective, operator dependent, and confounded by regular anatomic variations of the external sphincter. Defecography information anorectal anatomy and pelvic floor motion at relaxation, and through coughing, squeezing, and straining to expel barium from the rectum.

1. Methods for testing and interpretation are incompletely standardized, and some findings (eg, pelvic floor prolapse and rectoceles) are relatively frequent in asymptomatic older women.
2. Defecography is beneficial just for chosen patients with FI, specifically, to identify or verify rectal prolapse, extreme perineal descent, a big rectocele, an enterocele, or internal rectal intussusception, significantly prior to surgery.

Pelvic magnetic resonance imaging (MRI) is the imaging modality that can visualize each anal sphincter anatomy and global pelvic floor motion in actual time without radiation publicity. Endosonography is the primary selection for anal sphincter imaging in FI, because it is widely available, moderately accurate for identifying internal and external sphincter abnormalities, and less costly than MRI.

Endoanal MRI could additionally be helpful for identifying exterior sphincter atrophy, notably prior to surgical restore of exterior sphincter defects.

Pudendal nerve terminal motor latencies are of questionable utility for identifying a pudendal neuropathy; an American Gastroenterological Association technical review recommended that pudendal nerve terminal motor latencies should not be used for evaluating sufferers with FI.

Needle EMG can establish myogenic, neurogenic, or mixed (neurogenic and myogenic) harm affecting the external anal sphincter, and is really helpful when there is a scientific suspicion of a proximal neurogenic lesion, that’s, involving the sacral roots, conus, or cauda.

Surface EMG is used as a biofeedback signal for pelvic flooring retraining of the exterior anal sphincter in FI. Physiologic Factors Fecal continence is maintained by anatomic elements (the
pelvic barrier, rectal curvatures, and transverse rectal folds), recto-anal sensation, rectal compliance and fecal consistency, and delivery to the rectum.

Decreased anal resting strain may be associated with structural or functional disturbances (defects and/or thinning) of the interior sphincter. External anal sphincter weakness might result from sphincter damage, neuropathy, myopathy, or decreased corticospinal input. In addition to the anal sphincters, puborectalis function may also be impaired in FI.

21 The significance of rectal compliance and/or sensation for sustaining continence is emphasized by the discovering that sphincter pressures alone don’t always distinguish continent from incontinent topics.

**Reduced rectal sensation allows stool to leak by way of the anal canal before the exterior sphincter contracts.**

22, 23 Decreased rectal sensitivity and elevated rectal compliance can also contribute to fecal retention by lowering the frequency and intensity of the urge (and therefore the motivation) to defecate. Increased rectal perception in some patients with FI could additionally be a marker of coexistent irritable bowel syndrome, or could additionally be associated with reduced rectal compliance 23, 24 or lowered rectal capability.

11 Therefore, FI is a heterogeneous dysfunction during which sufferers usually exhibit 1 deficit. Treatment management of practical FI ought to be tailor-made to medical manifestations. Restoring normal bowel habits by antidiarrheal agents (e.g., loperamide) for diarrhea, and laxatives and/or suppositories for constipation, is commonly the cornerstone to effectively managing incontinence.

Although uncontrolled research report improved continence in 70% of sufferers with FI after biofeedback remedy, 20 a managed examine reported comparable symptom improvement (50%) in incontinent sufferers random 1512 BHARUCHA ET AL GASTROENTEROLOGY Vol. 130, No. 5