

National Association For Continence is a national, private, non-profit 501(c)(3) organization dedicated to improving the quality of life of people with incontinence. NAFC's mission is threefold: 1) To educate the public about the causes, diagnosis categories, treatment options, and management alternatives for incontinence, nocturnal enuresis, voiding dysfunction and related pelvic floor disorders, 2) To network with other organizations and agencies to elevate the visibility and priority given to these health concerns, and 3) To advocate on behalf of consumers who suffer from such symptoms as a result of disease or other illness, obstetrical, surgical or other trauma, or deterioration due to the aging process itself.

For additional information, contact the
International Foundation for Functional
Gastrointestinal Disorders (IFFGD).
Toll Free: 1-888-964-2001
Web site: www.iffgd.org

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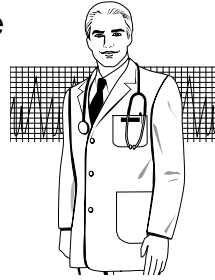
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Fecal Incontinence:

What are the
treatment
options?



Promoting Quality
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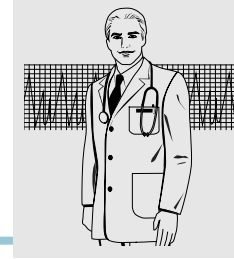
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Fecal Incontinence:

What are the
treatment options?



Fecal incontinence (FI) is the inability to control the passage of liquid and/or solid stool. FI ranges from the loss of an entire solid bowel movement in severe cases to the loss of a small amount of liquid waste. More than 6.5 millions Americans have FI.

A normal bowel movement requires the proper performance of the small and large intestines, rectum, anal sphincter muscles (the muscles around the anus), and the nervous system. Causes of FI include, but are not limited to: constipation, damage to the anal sphincter muscles or nerves during child delivery, anal surgery, spinal cord injury, stroke, systemic disease (such as multiple sclerosis and Parkinson's disease), rectal prolapse, and chronic diarrhea. Also, FI can be drug-induced by the overuse of laxatives or as a side effect of certain medications.

The most significant cause of FI in frail, older people is constipation. Chronic constipation is the passage of small amounts of hard, dry stool fewer than three times per week and is associated with both fecal and urinary incontinence. There may be leakage of liquid stool around hard impacted stool. Chronic constipation and the pressure and strain resulting from it may weaken the muscles supporting the pelvic organs. The impacted stool may also press on the bladder or the urethra (the tube that releases urine from the body) weakening urine flow, causing unnatural retention of urine, or heightening the urge to urinate.

Internal anal sphincter dysfunction largely contributes to FI among older people. This can be caused by the natural weakening of the anal sphincter muscles as a result of aging. FI is not an inevitable consequence of aging. FI often indicates a more serious underlying medical problem that should be investigated.

While incontinence affects both men and women, many studies show more women are affected because of injury to the anal sphincter muscles and nerves that can occur during childbirth. Researchers have concluded that more than one out of ten adult women in the general population has FI. Almost one in fifteen of these women has moderate to severe symptoms.

Recent data suggests that 2.2% of women who have delivered more than one child experience FI due to the stress of labor on sphincter muscles. Percentages of FI increase to 7% of 65 year-olds in healthy condition and to 23% of all stroke patients. Finally, 33% of elderly people at home or in a hospital experience bowel control problems.

The natural stress and pressure that occurs during childbirth can lead to pelvic floor damage and FI; therefore injury is not always preventable. FI may not present itself until decades later, when with normal aging, the muscles may lose ability to compensate for the injury and loss of feces occurs. The pelvic floor includes the urinary and anal sphincters and also supports organs such as the bladder, intestines, and uterus. Proper functioning of the pelvic floor is crucial to maintaining continence. It has been documented that a planned cesarean section prevents FI by protecting the pelvic floor. But a C-section is a surgery and as with any surgery, there is considerable risk. These concerns should be discussed between a woman and her healthcare provider prior to delivery.

Improper nerve functioning caused by injury to the nervous system may also lead to FI. These conditions include spinal cord injury, spina bifida, and diseases that damage nerves, such as multiple sclerosis, Parkinson’s disease, and stroke.

Sometimes even small lifestyle changes in diet or medications (a side effect of certain medications is diarrhea) can be helpful in regaining bowel control. The first steps to controlling incontinence are to normalize stool consistency with increased fiber intake, to bulk up stool, and to exercise the pelvic floor. Often, treatment includes both medical and behavioral therapy.

Lifestyle Modifications: If FI is associated with constipation, then good fluid intake, regular exercise, and regular bowel habits can be helpful.

While prevention is not always possible, leading a healthy lifestyle is recommended to improve pelvic and bowel health. Eating a balanced diet and regular exercise should help promote the regular cycles of the body. Constipation can be helped by consuming daily fiber (25-35 grams best obtained through fruits, vegetables, and whole grains) and water. Proper fluid intake is defined as 30ml per kilogram of body weight for a fairly active person in a mild climate. In cases of diarrhea, a suitable diet includes minimal alcohol, caffeine, spicy food, and leafy green vegetable consumption but instead more constipating foods such as cheese, yogurt, boiled white rice, pasta, bananas, and applesauce.

Exercise: Pelvic floor muscle exercises, or Kegel exercises, when performed regularly can greatly improve the anal sphincter muscle tone. This often leads to increased bowel control and a reduction or elimination of FI episodes within a few weeks.

Biofeedback: Biofeedback is a non-invasive technique that converts anal sphincter muscle contractions to a visual meter on a computer screen to help patients become more aware of their anal sphincter muscles. This can be used to teach exercises.



Thought Technology, Ltd.
U-Control Home Trainer, a biofeedback device

If experiencing FI, one should mention it to a primary care provider. At the initial visit one will need a detailed history of medical problems, medications, surgeries, childbirth history, and stool leakage. Keeping a record of habits in a symptom diary prior to the appointment may be helpful. Physical diagnostic procedures may also occur and possibly blood testing.

After their evaluation and initial recommendations, it may be advised to visit one of the following professionals:

- Gastroenterologist:** digestive & intestinal system
- Urogynecologist:** pelvic floor dysfunction in women
- Colon & Rectal Surgeon:** Colon, rectum and anal disease/disorder

The physician may order one or more of the following diagnostic procedures:

- Endosonography** (rectal ultrasound) involves a small, balloon-tipped ultrasound probe placed in the rectum to view anal sphincter muscles.
- Flexible sigmoidoscopy/Colonoscopy** is an examination of the lining of the lower digestive tract using a thin lighted tube inserted in the anus.
- Manometry** tests the pressure and strength of the anal muscles using a thin thermometer-sized tube.

Electromyography (EMG) tests nerve function with tiny needle electrodes inserted into muscles around the anus.

Defecography uses X-rays to look at the shape and position of the rectum as it empties.

Medications taken, whether prescribed or over-the-counter, will be reviewed by a provider to determine if any may be causing constipation. If constipated, then regular laxative and stool softeners as recommended by a provider will be important. In cases of diarrhea, supplements to firm stool can increase bowel control since firmer stool is usually easier to control than liquid stool. None of these should be taken without recommendation of a healthcare provider.

People who continue to experience FI despite other treatments may require surgery to regain control. Surgical options depend on the cause of the incontinence, severity of the problem, health and age of the patient, and clinical judgment of the surgeon.

Historically, used surgical options include:

- Sphincteroplasty:** Rectal sphincter repair was the first treatment developed to treat FI. It corrects a defect and involves re-attaching the rectal muscles to tighten and strengthen the sphincter.
- Artificial Anal Sphincter:** This synthetic sphincter is a small implant that imitates the natural function of the anal sphincter muscle and is manually controlled by the patient with a bulb pump placed discretely in the body.
- Colostomy:** This process involves a stoma, or a surgically created opening, in the abdominal wall through which the colon passes and where a bag is fitted to collect stool.

More recent, less-invasive surgical options offer promise for selected patients:

SECCA® Procedure: This is a recently approved treatment in which a physician delivers precisely

controlled radiofrequency energy to the anal canal to improve the function of the sphincter muscle.

Treatments undergoing testing:

Phenylephrine Gel: This is currently being tested for improvement in resting tone of anal muscles.

Injectable Bulking Agents: The technique of injecting non-absorbable materials around the anus which may bulk the muscle and improve sensation is currently performed by some surgeons.

Sacral Nerve Stimulation: Often compared to a cardiac pacemaker, this treatment involves electrical stimulation of sacral nerves from a matchstick-size device implanted at the base of the spine.

Management Options:

FI Collection Systems: With multiple options ranging from bags adhered directly to the skin to catheters and tubes attached to a collection bag, there are many management options for FI.

Absorbent Products: A variety of disposable or reusable absorbent products that may be used for management exist.

Skin Products: Fecal material can cause many problems including skin irritation and breakdown, which increase the risk of infection and are often painful. Many products help to keep skin healthy including cleansers, moisturizers, and moisture barriers that help protect the skin from irritants or moisture. Many include fragrances and anti-bacterial components which should be used with caution.

FI is a difficult condition to face. However, awareness has increased greatly over the past 10 years. Treatment continues to expand and provide patients and their healthcare provider options specific to their needs.