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## **Fecal Incontinence**

Fecal incontinence refers to the involuntary loss of gas or liquid stool (called minor incontinence) or the involuntary loss of solid stool (called major incontinence). It affects between 2 and 7 percent of the general population, although the true incidence may be much higher since many people are hesitant to discuss this problem with a healthcare provider.

Causes of Fecal Incontinence. Continence requires the normal function of both the lower digestive tract and the nervous system. The anal sphincters, along with the pelvic muscles that surround the end of the digestive tract including the puborectalis muscle, ensure controlled movement of digestive tract contents. There are many possible causes of fecal incontinence; in most cases, incontinence results from some combination of these causes.

- **Damage to the anal sphincters** The internal and external anal sphincters are the muscles located at the end of the rectum (<u>figure 1</u>). These muscles and the surrounding pelvic muscles create a barrier that prevents the escape of feces. Any damage to or loss of control over these sphincters can lead to incontinence. Damage most commonly occurs during vaginal childbirth and anal surgery.
- Neurologic causes Neurologic disorders such as diabetes, multiple sclerosis, and spinal cord injury can decrease sensation and control over the lower digestive tract. Nerve damage during vaginal childbirth can also decrease anal sphincter function.
- **Decreased distensibility of the rectum** Conditions such as inflammatory bowel disease (eg, Crohn disease and ulcerative colitis) and radiation-induced inflammation of the rectum (radiation proctitis) can impair the rectum's ability to expand and store fecal matter.
- **Fecal impaction** When hardened feces accumulates in the rectum, this can cause the anal sphincters to relax and allow liquid stool to escape around the blockage. Fecal impaction is a common cause of incontinence in older adults. Factors that make impaction more likely include certain mental health conditions, immobility, and loss of rectal sensation.
- **Diarrhea** Diarrhea of various causes, including irritable bowel syndrome, active inflammatory bowel disease, or acute gastroenteritis, can lead to loss of liquid stool. In some cases, if the diarrhea is treated, the person will be able to control their incontinence.
- Unknown causes In some cases, the cause of fecal incontinence cannot be identified; this is called idiopathic incontinence. Idiopathic incontinence most commonly occurs in middle-aged and older women.

## **Treatment of Fecal Incontinence:**

- **Lifestyle modification** Choices you make can help with fecal incontinence.
  - Avoid foods and drinks that may cause loose or more frequent stools, which can worsen fecal incontinence. These can include dairy products (for people who are lactose intolerant), spicy foods, fatty or greasy foods, caffeinated beverages, diet foods or drinks, sugar-free gum or candy, and alcohol.
  - Eat smaller more frequent meals. In some people, eating a large meal triggers the urge to have a bowel movement, and sometimes cause diarrhea. Eating smaller and more frequent meals can reduce the frequency of bowel movements.



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- Increase fiber in the diet. Fiber increases stool bulk and often improves the consistency of stool. The recommend daily intake of fiber is 25 to 30 grams. The amount of fiber should be increased gradually over a few weeks to reduce the possibility of bloating and gas.
- **Medical therapy** Medical therapy includes medications that can reduce the frequency of incontinence and firm the stools, which can reduce or eliminate episodes of fecal leakage.
  - **Bulking substances** Substances that promote bulkier stools may help control diarrhea by thickening the stools. Methylcellulose (a form of fiber) is one type of bulking substance that is commonly used. Increasing dietary fiber may also help to bulk stools.
  - Medications that reduce stool frequency The frequency of stools can be reduced with medications that are usually prescribed for diarrhea, such as loperamide (Imodium) and diphenoxylate-atropine (Lomotil). Loperamide can also increase the tone (tightness) of the anal sphincter muscle. If you take loperamide, be careful to never exceed the dose on the label unless specifically instructed by your doctor. Taking more than the recommended dose has led to serious heart problems in some people.
  - Anticholinergic medications When taken before meals, anticholinergic medications (such as the prescription drug hyoscyamine) can decrease the incontinence that occurs after meals in some people. The medications work by reducing contractions in the colon.
  - Bile acid binder medications When fecal incontinence develops due to diarrhea after removal of the gall bladder, it can be due to bile acid malabsorption. This is treated with cholestyramine (Questran), colestipol (Colestid) or colesevelam (Welchol) prior to meals.
- Treatment of impaction and constipation People who have become impacted (when the rectum is full of hard stool) may need to have this stool removed in the office. After disimpaction, the person will be given one or more medications to keep the bowels moving on a regular basis.
- **Scheduled toileting program** This involves sitting on the toilet at a regular time every day, after a meal. Incontinence is less likely to occur if the person empties their bowels regularly.
- **Biofeedback** Biofeedback is a safe and noninvasive way of retraining muscles. During biofeedback training, sensors are used to help the person to identify and contract the anal sphincter muscles, which help maintain continence. This is usually done in a healthcare provider or physical therapist's office.
- **Anal plugs** Anal plugs (Procan-2, Renew Insert) are frequently used in conjunction with other treatments. Anal plugs come in different designs and sizes though they can be difficult to tolerate.
- Sacral nerve stimulation Electrical stimulation can eliminate leakage in up to 80 percent of people whose anal sphincter muscles are intact. An electrode is surgically inserted near a nerve in the sacrum (low back) and attached to a battery which is implanted in outpatient surgery. There is a test phase done in the office in which we determine if you are a candidate.
- **Surgery** Several different surgical procedures can help alleviate fecal incontinence. These included anal sphincter repair, muscle transfers from other areas of the body and colostomy. Colostomy is usually a last resort, after other treatments have failed. It may also be considered for people with intolerable symptoms who are not candidates for any other therapy.