Effective treatments can improve or restore bowel control.

Diet Certain foods can cause diarrhea and fecal incontinence. These include spicy foods, fatty and greasy foods, cured or smoked meat, and dairy products (especially if you are lactose intolerant). Caffeine-containing beverages, artificial sweeteners (e.g., sugar-free gum and diet soda) can stimulate bowels and act as laxatives. Thus, avoiding some of these foods may be worthwhile.

Drugs If you have diarrhea, your doctor may recommend an anti-diarrheal medication, such as loperamide (Imodium®) or diphenoxylate/atropine (Lomotil®), or fiber supplements to help bind stool. These drugs may help you to gain better control and to have more predictable bowel movements. Sometimes, hard stools block the rectum and cause watery stools to overflow. If so, stool softeners and laxatives may help.

Anal hygiene and skin care Stool can irritate and damage the sensitive anal skin. Applying a moisture-barrier cream such as calamine lotion with zinc oxide will prevent direct contact between irritated skin and stool. Ask your doctor to recommend a product. Make sure the area is clean and dry before you apply any cream. Non-medicated talcum powder or cornstarch also may help relieve anal discomfort. Wear cotton underwear and loose clothing and change your soiled underwear quickly. If you use pads or adult diapers, be sure they have an absorbent wicking layer on top; this layer wicks moisture away from your skin.

Behavioral therapy Certain behaviors will help increase awareness of bowel movements. Try to have a bowel movement after eating or at a set time of the day. Do not ignore even the slightest urge to have a bowel movement.

Biofeedback therapy This treatment program improves the awareness of having bowel movements and the ability to control bowel movements. It involves inserting a probe in the rectum to measure the strength of the anal muscles. The muscles strength is shown on a TV monitor and this provides a visual aid or feedback. By learning how to selectively squeeze the anal muscles, it is possible to improve the stamina and the strength of these muscles. Sometimes, a balloon is inflated in the rectum to mimic the arrival of stool. This simulation can improve the awareness for stool sensation.

Does surgery have a role?

Some people with fecal incontinence need surgery. A **sphincteroplasty** is an operation to repair a tear in the anal sphincter muscles. While the ability to hold stool often improves after a sphincteroplasty, it often deteriorates over time. **Sacral nerve stimulation** is a new procedure in which the nerves of the rectum and anal sphincters are stimulated by an artificial "pacemaker". Clinical trials suggest that sacral nerve stimulation may help some patients with fecal incontinence. A **colostomy** is an operation that diverts stool through an opening in the abdomen. A special bag is attached to this opening to collect the stool. A colostomy is often a last resort to treat fecal incontinence.

Are there any new or experimental therapies?

Several new approaches are being tried to help patients with fecal incontinence. These include ointments to strengthen the anal sphincter muscles, new drugs to improve muscle strength, new behavioral approaches, new techniques of biofeedback therapy, and new surgical techniques to repair the anal sphincter, including injection of a bulking agent or gel into the anal canal. For more information visit the ANMS web site **www•motilitysociety•org** and NIH web site at **www•nih•gov**.

For a list of doctors in your area who specialize in gastrointestinal motility problems, go to our web site **www • motilitysociety • org**

Founded in 1980, the American Neurogastroenterology and Motility Society (ANMS) is a national organization dedicated to the study, training, and practice of gastrointestinal motility and neurogastroenterology. ANMS represents a broad group of academic and practicing physicians, scientists, trainees, technicians, and nurses. ANMS seeks to foster excellence in patient care and research, and to promote a better understanding and cure of disorders that affect gastrointestinal motility and function.

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Fecal Incontinence

An educational brochure for patients

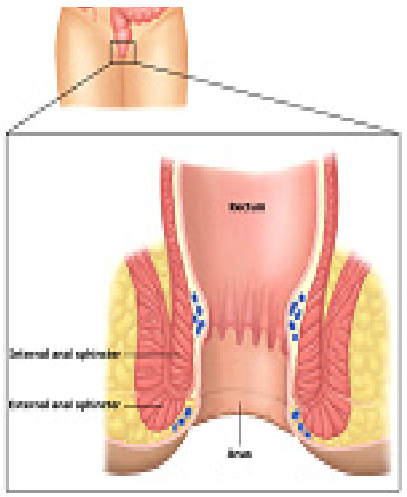
American Neurogastroenterology and Motility Society

What is fecal incontinence

Fecal incontinence is the unexpected leakage of stool (feces) or the inability to control bowel movements. It may also be called bowel or anal incontinence. Fecal incontinence can range from the occasional leakage of a small amount of stool or gas to a complete loss of bowel control.

The ability to control stool discharge (called continence) requires normal function of the muscles and nerves of the rectum and anus (see figure below). Specialized muscles in the wall of the anus (opening in the back passage) are responsible for holding stool; the outer muscle group (external anal sphincter) and the inner muscle group (internal anal sphincter) and the puborectalis. In addition, several factors help you to control your bowel movements:

- how you sense the presence of stool in the rectum (called rectal sensation)
- the ability of the rectum to relax and hold stool until you go to the toilet (called rectal compliance)
- your physical ability to go to the toilet in a timely manner
- the intactness of nerves that supply the anal muscles



How common is this condition?

More than 5.5 million Americans have fecal incontinence. It is more common in older people and in women. Most people are too embarrassed to talk about fecal incontinence, so it remains a silent and unvoiced problem. If you have not discussed this problem with a doctor or family member, you are not alone.

What are the symptoms of fecal incontinence?

Generally, adults don't experience fecal incontinence except during bouts of severe diarrhea. If you have fecal incontinence, you may have occasional or frequent accidents. There are a range of symptoms:

- unable to hold gas
- "silent" leakage of stool during daily activities or exertion, or after a meal
- unable to reach the toilet in time

Some people lose a full bowel movement without being aware of it. This may happen at night. Other symptoms may also be present: diarrhea, constipation, abdominal discomfort, urinary incontinence, and anal itching.

What causes fecal incontinence?

Fecal incontinence is commonly caused by a change in bowel habits (generally diarrhea) and by conditions that affect the ability of the rectum and anus to hold stool (e.g., weakness of the anal sphincter). The anal muscles and nerves can be damaged by childbirth and by trauma, including anal surgery and back surgery. Aging causes degeneration of the anal nerves and muscles, especially if they have been partly damaged when young. Certain conditions affect the ability of the rectum and anus to hold stool; for example, ulcerative colitis. Stool leakage may be a side effect of radiation treatment.

Excessive straining can damage the anal nerves, as can diabetes and stroke. Other conditions, such as rectal prolapse (where the rectum drops out of the body), or medications that weaken anal muscles or cause diarrhea may also cause fecal incontinence. Sometimes, severe diarrhea or stool impaction in the rectum, particularly in young children or older nursing home adults, may cause incontinence.

What can I do if I have fecal incontinence?

- You should seek professional advice from a health care provider.
- Your doctor may help you, or ask you to see a specialist who treats bowel problems, such as a gastroenterologist or a colorectal surgeon.
- Your doctor will talk to you about your symptoms and do a physical exam, including a rectal exam. Depending on your symptoms, your doctor may do one or more of the following tests.

What tests are used to diagnose fecal incontinence?

Anorectal manometry A probe placed in the rectum measures:

- strength of the anal sphincter muscles
- sensation or feeling in the rectum
- reflexes that control bowel movements
- movement of the rectal and anal muscles

Anorectal ultrasonography This test can determine if the anal muscles are torn. A small probe placed in the rectum takes ultrasound pictures of the anal sphincter. Magnetic resonance imaging (MRI) is also used to evaluate the anal sphincter.

Defecography This test checks how the rectum is working during a bowel movement. Barium paste is placed in the rectum. The patient is asked to cough, squeeze, and push the barium out and an x-ray is taken. Defecography may also be done by magnetic resonance imaging (MRI).

Proctosigmoidoscopy This procedure looks at the lining of the rectum and sigmoid – the lower part of the colon – for inflammation that may cause incontinence. It is done by passing a thin, flexible telescope into your colon.

Sometimes specialized muscle tests, such as anal electromyography (EMG), or specialized nerve tests are done to to see if there is nerve damage.