Fecal Incontinence

Fecal incontinence is the inability to control the passage of waste material from the body. It may be associated with constipation or diarrhea and typically occurs in older adults or children.

Your doctor will likely perform a physical exam – including a digital rectal exam – to evaluate your condition. Because fecal incontinence may be caused by a variety of underlying conditions, your doctor may order a variety of additional tests to evaluate the colon, rectum, anus, sphincter muscles and pelvic floor for abnormalities, dysfunction and disease. Treatment depends on the underlying cause and may include diet modifications, medication, physical therapy, surgery or other interventions to help restore function.

What is fecal incontinence?

An x-ray (radiograph) is a noninvasive medical test that helps physicians diagnose and treat medical conditions. Imaging with x-rays involves exposing a part of the body to a small dose of ionizing radiation to produce pictures of the inside of the body. X-rays are the oldest and most frequently used form of medical imaging.

Fecal or bowel incontinence is an involuntary passing of waste or an inability to control the passage of waste material, or feces, from the body. Fecal incontinence may be associated with constipation or diarrhea and typically occurs in older adults and children.

During a normal bowel movement, the rectum, anus, pelvic muscles and nervous system must work together. Fecal incontinence may occur as a result of:

- **Muscle or nerve damage.** Damage to the sensory nerves in the rectum or the sphincter muscles at the end of the rectum can cause a loss of control over bowel movements. This type of damage may occur during childbirth or as a result of constant straining during bowel movements, a spinal cord injury or a stroke. Some diseases, such as diabetes mellitus and multiple sclerosis, can also affect the nerves that control bowel movements.
- **Damage to the rectum.** The rectum can lose its elasticity and become stiff, causing fecal material to move quickly through the rectum. This type of damage may occur as a result of ulcerative colitis , radiation treatment or surgical procedures involving the rectum and anus.
- **Chronic (ongoing) constipation.** Chronic constipation may cause the muscles of the anus to stretch and weaken or to remain open. This can allow liquid or soft bowel movements to leak out.
- **Diarrhea.** Loose stools can cause or make fecal incontinence worse.

- **Other conditions.** Fecal incontinence can result if part of or the entire rectum wall slides out of place, sometimes protruding out of the anus (a condition called rectal prolapse). In women, it also can result from rectocele, a condition in which the thin wall of tissue that separates the rectum from the vagina weakens and allows the rectum to bulge into the vagina.

In children, there are two types of fecal incontinence:

- **True fecal incontinence.** This is a congenital condition — present at birth — in which normal bowel structures do not properly develop. As a result, children with true fecal incontinence are physically unable to control their bowel movements. This condition may be caused by spinal problems, spina bifida or an anorectal malformation – a congenital defect in which the anal opening, the rectum and/or the nerves that tell the body to defecate do not develop properly, thus preventing normal bowel movements. Or it may be caused by Hirschsprung disease, a congenital disease in which nerve cells are missing from the muscles in the rectum or colon, causing problems with passing stool. True fecal incontinence may involve a fast bowel, resulting in loose stools, or a slow bowel and constipation.
- **Encopresis or pseudoincontinence.** This condition occurs in children who resist having bowel movements, causing stool to collect in the colon and rectum. When stool becomes impacted or lodged in the colon, liquid feces may leak around this blockage and out of the body. Encopresis is typically a symptom of chronic constipation, which leads to stools that are infrequent or hard to pass, but it may also occur as a result of developmental or emotional issues.

How is fecal incontinence evaluated?

To determine the cause of fecal incontinence, your physician will perform a physical examination and ask you about your diet, prescriptions, and any over-the-counter medicines you are taking, including antacids and laxatives. Your physician will also perform:

- **A digital rectal exam**, in which the physician inserts a gloved and lubricated finger into the rectum to evaluate the strength of the sphincter muscles and to check for any abnormalities in the rectal area.

Additional tests may be ordered including:

- **Blood tests.**
- **Stool culture:** A small sample of fecal material is examined in a laboratory for signs of infection.
- **Abdominal x-ray** may be used to confirm the presence of impacted stool.
- **Anal manometry** assesses pressure in the anal canal and rectum and the strength of the two small sphincter muscles in the anus.
- **Endoanal ultrasound** uses an ultrasound probe inserted into the anus and rectum to produce images that help evaluate the structure of the sphincter and the thickness of the muscles

surrounding the anal canal. This test is also used to identify a tear in the sphincter muscles.

- **Barium enema** fills the colon and rectum with a contrast material called barium and uses a special form of real-time x-ray called fluoroscopy to allow the physician to view and assess the structure and function of the colon and rectum.
- **Defecating Proctography (Defecography)** fills the rectum with a semi-solid paste similar in consistency to soft stool. Contrast is also inserted into the small bowel and vagina (if applicable). The patient sits on a specially designed toilet that captures x-ray images and sometimes video of the pelvic floor and rectum during the defecation process: at rest, straining and squeezing. This study helps the physician to evaluate the anatomy, pathology and function of the pelvic floor.
- **Proctosigmoidoscopy** uses a thin, lighted instrument called a sigmoidoscope to examine the rectum and the lower colon for inflammation, tumors or scar tissue that may be causing fecal incontinence.
- **Colonoscopy** examines the rectum and the entire colon using a thin, lighted instrument called a colonoscope to find areas of inflammation or bleeding, ulcers, tumors or polyps.
- **Electromyography (EMG)** assesses the health of the anal sphincter and pelvic floor muscles and the nerve cells that control them by inserting a needle electrode directly into the muscle to record the amount of electrical activity.
- **Dynamic pelvic floor magnetic resonance imaging (MRI)** provides detailed pictures of the pelvic floor, a network of muscles that stretches between the pubic bone and spine, and the abdominal organs it supports. During this examination, images are obtained while the patient is resting and while contracting or squeezing the pelvic muscles. This imaging test provides a physician with information about the structure of the pelvic floor and how well the pelvic muscles are working.
- **Magnetic resonance imaging (MRI) defecography** uses magnetic resonance imaging to produce detailed images and information about the structure and function of the pelvic floor and rectum during a bowel movement. During this examination, images are obtained at various stages of defecation to provide the physician with information on how well the pelvic muscles are working during a bowel movement.
- **Balloon capacity test** uses a lubricated balloon-tipped catheter which is inserted into the rectum and slowly filled with warm water as measurements of volume and pressure are recorded. This test assesses the function of the rectum and its ability to expand and contract.
- **Balloon evacuation study** uses a lubricated balloon-tipped catheter which is inserted into the rectum and filled with water. The patient is then asked to push the balloon out of the rectum. This test helps assess the patient's ability to pass stool.

How is fecal incontinence treated?

Treatment for fecal incontinence will depend on the underlying condition and may include:

- Dietary modifications and enemas.
- Medications, including anti-diarrheal drugs when fecal incontinence is accompanied by diarrhea and laxatives for constipation-related fecal incontinence.
- Bowel retraining and pelvic floor exercises to strengthen and increase control over the sphincter muscles.
- Biofeedback to help patients learn to squeeze their sphincter muscles and to improve rectal sensation.
- Sacral nerve stimulation. A device is implanted inside the body to stimulate the nerves that maintain continence.
- Surgery to:
    - repair, improve or replace sphincter muscles.
    - correct rectal prolapse, a rectocele or hemorrhoids to reduce or eliminate fecal incontinence.
    - repair an anorectal malformation.
- Other interventions to:
    - strengthen the sphincter through muscle transplant.
    - create an artificial bowel sphincter.
    - perform a colostomy and divert stool to an external bag for collection.
    - build up the anal sphincter through gel injections.

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