



International Foundation for Functional Gastrointestinal Disorders

IFFGD

700 W. Virginia St., #201

Milwaukee, WI 53204

Phone: 414-964-1799

Toll-Free (In the U.S.): 888-964-2001

Fax: 414-964-7176

Internet: www.iffgd.org

Incontinence (306) © Copyright 1999-2012 by the International Foundation for Functional Gastrointestinal Disorders

Revised and Updated by Author, 2009

Medical Management of Fecal Incontinence

By: Ann C. Lowry, M.D., F.A.C.S., F.A.S.C.R.S.,
Adjunct Professor of Surgery, Division of Colon and Rectal Surgery,
University of Minnesota Medical School

IFFGD

700 W. Virginia St., #201

Milwaukee, WI 53204

Phone: 414-964-1799

Toll-free: 888-964-2001

Fax: 414-964-7176

www.iffgd.org

www.aboutincontinence.org

Medical Management of Fecal Incontinence

By: Ann C. Lowry, M.D., F.A.C.S., F.A.S.C.R.S., Adjunct Professor of Surgery, Division of Colon and Rectal Surgery, University of Minnesota Medical School

At a Glance

- There are many ways to help improve continence.
- Treatment depends on the cause and severity of incontinence.
- Non-surgical approaches may include:
 - Bowel management
 - Dietary measures
 - Skin care
 - Medicines
 - Biofeedback
 - Continence devices

Continence of stool is a complex process requiring a functional sphincter muscle, the ability to squeeze the anus shut, a compliant rectum that expands to hold stool, adequate sensation in the rectum to provide warning of the need to defecate, and physical mobility to reach the bathroom. Loose stool is more difficult to control than formed stool. If a large volume of stool arrives rapidly in the rectum, there may not be enough warning to reach a bathroom.

Fecal incontinence can result from a number of factors, such as structural damage or functional impairment of the muscles or nerves that control continence or processes that affect the consistency of the stool or elasticity of the rectum. These factors can arise for many reasons. For example, they can result from injury or trauma, disease, inflammation, congenital malformation, neurological conditions, radiation treatment, laxative abuse, and other reasons.

The cause as well as the severity of incontinence determines its treatment. Some people have a problem that can be corrected with surgery or specific medication. However, many do not. For those who do not have surgery, medical management is the initial treatment.

Depending on their cause, the volume and consistency of stool and the transit time through the intestine can be treated or altered to improve continence.

Diarrhea

Diarrhea or loose stool that enters the rectum rapidly can overwhelm marginally functioning sphincter muscles. Dietary changes may help improve the consistency and frequency of bowel movements. People with lactose

intolerance (intolerance to lactose [milk sugar] can cause symptoms such as gas or diarrhea) may improve if they avoid dairy products or add lactose enzyme to their diet.

Diet tips

- Caffeine may speed intestinal transit and stimulate the lower colon to evacuate; avoidance or reduction of caffeine may decrease incontinence.
- Alcohol and some fruit juices also speed intestinal transit.
- People may also be sensitive to gluten (wheat products) and fructose; appropriate testing by a physician is necessary to determine that.
- Prunes, rhubarb, figs and licorice are natural laxatives that may lead to diarrhea.
- Beans, broccoli, cauliflower, cabbage, green leafy vegetables, Brussels sprouts and spicy foods can also cause diarrhea.

Through trial and error, it is possible to identify and avoid foods that may cause problems.

Other foods, such as calcium-containing foods, may slow transit time and improve control. [Some non-dairy sources include: calcium fortified orange juice, salmon, sardines with bones, or tofu made with calcium.] Bananas, applesauce, rice, pasta, peanut butter, and yogurt may also help.

Diarrhea can also be treated with medications to slow transit time through the intestine. Fiber supplements and various medications can be used to increase the consistency of the stool and slow its transit. Although individual responses vary, for many people fiber supplements absorb the excess water in loose stool resulting in fewer and more formed bowel movements.

Loperamide (Imodium) affects absorption and motility of the intestine. It is available over the counter in 2-mg tablets or liquid. It is generally effective in reducing stool frequency and improving stool consistency. It can be taken long-term and physical dependency has not been reported. Loperamide has also been shown, in one study, to tighten the sphincter muscle—an increase in resting tone was noted. The exact mechanism of this action is unclear.

Diphenoxylate hydrochloride (Lomotil, Lonox), another anti-diarrhea agent, is a derivative of a narcotic and

requires a prescription. It works directly upon internal smooth muscle and decreases stool frequency.

Diphenoxylate hydrochloride works the same way as Loperamide except that it also contains atropine, which reduces diarrhea by another mechanism. However, the atropine component may also cause side effects of dry mouth and sometimes blurred vision.

Codeine, another narcotic, is also used to control diarrhea. It decreases motility in the small intestine allowing more time for absorption. Unfortunately, side effects of nausea, cramping and physical dependency are encountered frequently.

People with abnormal or surgically removed ileum (the last portion of the small intestine) may not absorb the bile acids secreted by the liver. After gallbladder removal, some people will also have trouble absorbing all the bile acids produced. Those bile acids are irritating to the colon and may produce diarrhea. Cholestyramine (Questran) is a prescription drug that binds with bile acids in the intestines and prevents their reabsorption so they do not reach the colon. It can be helpful in controlling diarrhea after the removal of the ileum or gallbladder.

Constipation

While diarrhea is a contributing factor for some incontinent people, constipation or incomplete evacuation is an issue for others. If the rectum does not empty completely with defecation, the remaining stool may later leak. At times, the rectum is so full of stool (fecal impaction) that loose stool from above leaks around the solid stool in the rectum (overflow incontinence). In some of these instances the loose stool leads to an incorrect diagnosis and treatment for diarrhea, which only worsens the underlying problem.

For people with constipation and incontinence, the first step is to increase their fiber intake to about 25 grams of fiber per day either through their diet or fiber supplements. Fiber works by holding water in the stool so it is important to have an adequate fluid intake (the usual recommendation is to drink eight 8-ounce glasses per day).

Planned daily evacuation through bowel training programs may also help people with overflow incontinence and regulate bowel habits. People are started on high fiber diets with high adequate fluid intake, and sometimes stool softeners. They are instructed to attempt defecation at a specified time, often after a meal. If they are unable to defecate, a suppository, enema or laxative is used.

Laxatives which pull water into the bowel (osmotic laxatives) are safer long term than stimulant laxatives. Examples of safe laxatives are polyethylene glycol and lactulose. If bowel regulation is successful people can

phase out the use of laxatives and suppositories. Daily exercise can be utilized to induce a regular bowel movement and to empty the rectum and anal canal.

For some people with both constipation and incontinence, retention of an enema is difficult. A possible alternative is a procedure called antegrade continent enema. A small opening in the intestine is constructed and connects to the skin. Fluid can then be administered through the opening functioning as an “enema from above” to help empty the lower colon. This procedure has been employed successfully in both children and adults.

Biofeedback

One approach to medical management of incontinence is to address stool volume and consistency. Another approach is to focus on the function of the sphincter muscle. Biofeedback is a training process in which people are provided information about a specific function as they attempt to change or improve that function. Biofeedback techniques are used successfully to treat incontinence. It can also be used to treat constipation and pain associated with spasms of the pelvic floor muscles.

In brief, a probe or balloon is inserted into the rectum and connected to a device that displays sphincter squeeze pressures or pelvic floor muscle tension on a computer screen. The device provides feedback information to the patient as he or she undergoes training to improve their rectal sensation and sphincter function. Done in an outpatient setting, the training is inexpensive and without complications. Improvement has been reported in 50–90% of people. To be a candidate for biofeedback, an individual must have some rectal sensation and sphincter muscle function and be able to comprehend the instructions.

Skin Protection

Protection of the skin around the anus is an important component of medical management. Residue or moisture remaining on the skin leads to irritation of the skin that often causes itching, pain, and small amounts of bleeding. After cleansing gently, the skin should be dried well. Barrier ointments such as those used for diaper rash are helpful to protect the skin; these products can be used indefinitely. If itching or irritation is a persistent problem your physician may suggest hydrocortisone ointments to soothe the area. Care should be taken that these ointments be used only for a short time as they can thin the skin and make it more vulnerable to injury.

Other Measures

Medical management improves continence in a significant number of persons. From recent studies, it appears that at least one-third of people with mild to moderate incontinence will improve with medical management

alone; biofeedback may result in additional improvement. Other simple measures might be helpful.

A variety of devices have been used to occlude (block) the rectal opening. "Plugs" were developed initially to control output from a colostomy but have also been used in the medical management of incontinence. They are expensive, however, and not well tolerated for long-term use. Solid mechanical plugs are available by prescription in the United Kingdom. New softer plugs are being tested. For some people, the use of a cotton ball placed at the rectal opening works as a simple plug to reduce leakage.

New incontinence devices are being studied and evaluated. One example consists of a catheter inserted into the rectum and held in place by a small balloon. A device, similar to a pager, worn on the person's waist signals the arrival of stool into the rectum. The individual then has adequate time to make it to the bathroom. These stool-sensing devices are currently experimental.

Wearing a protective pad can provide a sense of security when venturing out or in situations where the ready availability of a bathroom is uncertain. Pads in a variety of shapes and sizes are widely available. Most pads, however, are designed for urinary incontinence. Those manufactured in the United States contain chemicals to absorb or conduct liquid away from the skin; these chemicals may cause skin irritation. Natural cotton pads are available in other countries.

For individuals who fail to improve, corrective surgery may be an option for some. If corrective surgery is not appropriate and the incontinence significantly impacts the quality of life, some innovative options exist.

One option is the use of an artificial bowel sphincter that is now being tested in several centers in Europe and the United States. This is a plastic device filled with fluid and inserted surgically to function as the sphincter muscle. It is connected to a pump and balloon reservoir that allows deflation of the device when the person wishes to pass stool or flatus.

Investigation will begin soon of techniques to treat fecal incontinence by stimulating pelvic nerves to help strengthen the pelvic floor muscles. Several nerve stimulation devices have been used for treatment of urinary incontinence.

Summary

Appropriate treatment for fecal incontinence is dependent on the underlying cause and severity. Once a diagnosis is made, a primary care physician can often provide treatment. For those who do not find relief with medical or dietary management, referral to a specialist for further evaluation and treatment may be needed.

Treatment, other than surgery, may involve one or more measures such as dietary changes, bowel training or management techniques, biofeedback therapy, or the use of continence devices. Investigations of new, non-surgical treatment methods are underway.

Suggested Reading

Plummer, MK, Tries, J. *Biofeedback & bowel Disorders: Teaching Yourself to Live Without the Problem*. IFFGD. Fact Sheet No. 112.

Thompson, WG. *What You Can Do After. (Anal Discomfort and How to Deal With It)*. IFFGD. Fact Sheet No. 137.

Plummer, MK. *Strategies for Establishing Bowel Control*. IFFGD. Fact Sheet No. 302.

Opinions expressed are an author's own and not necessarily those of the International Foundation for Functional Gastrointestinal Disorders (IFFGD). IFFGD does not guarantee or endorse any product in this publication nor any claim made by an author and disclaims all liability relating thereto.

This article is in no way intended to replace the knowledge or diagnosis of your doctor. We advise seeing a physician whenever a health problem arises requiring an expert's care.

IFFGD is a nonprofit education and research organization. Our mission is to inform, assist, and support people affected by gastrointestinal disorders. For more information, or permission to reprint this article, write to IFFGD, 700 W. Virginia St., #201, Milwaukee, WI 53204. Toll-free (in the U.S.): 888-964-2001 or 414-964-1799. Visit our websites at: www.iffgd.org or www.aboutincontinence.org.