

do an anoscopy to look at the lower few inches of the bowel. Or you may need a colonoscopy, which is an examination of the entire length of the colon. Sometimes a barium X-ray of your colon is required.

The following tests can identify a disorder of colonic or anorectal function that may cause constipation or stool leakage:

**Colonic transit study:** This test measures the speed at which stool moves through the colon. An X-ray is taken after several small plastic rings are swallowed. This study can also be done by swallowing a wireless capsule.

**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).

**Balloon expulsion test:** This test measures the ability to pass a balloon or stool-like device from the rectum.

**Anorectal ultrasound:** This test finds out if there is a tear in the anal sphincter muscles that may be the cause of stool leakage. It is done by placing a 3- to 4-inch-long ultrasound tube into your rectum to look at the muscles.

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For a list of doctors in your area who specialize in gastrointestinal motility problems, go to our web site:

[www • motilitysociety • org](http://www.motilitysociety.org)

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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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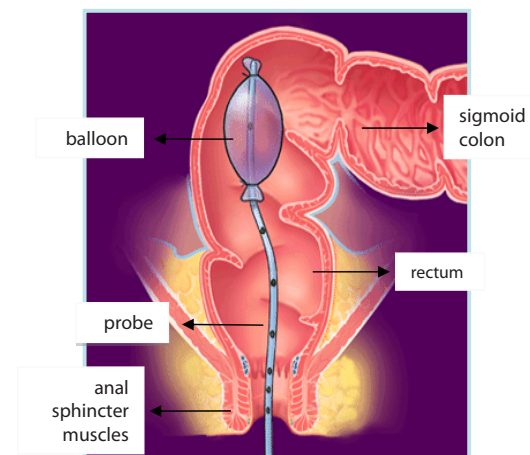
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# Anorectal Manometry

An educational brochure for patients



American Neurogastroenterology and Motility Society

### What is anorectal manometry?

Anorectal manometry (pressure measurement) is a test of the muscles around the anal opening, as well as the reflexes and sensation or feeling inside the rectum. Patients with constipation or stool leakage may have this test. It is usually done in an outpatient clinic.

### What does it measure?

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

### Do I need anorectal manometry?

Anorectal manometry can help find the cause of the following conditions:

- **constipation**, particularly if it is difficult to pass stool; a condition that is known as dyssynergic defecation
- **stool leakage**, which is also called fecal incontinence
- **Hirschsprung disease** (a childhood disorder)

Anorectal manometry may also be used before or after bowel surgery. It is used to check how the muscles in the anal and rectal region are working.

### How do I prepare for anorectal manometry?

Do not eat anything during the 2 hours before the test. If you have diabetes, ask your doctor how to take your diabetic medicines. You may take your regular medicines with small sips of water at least 2 hours before the test. Some centers recommend a Fleet® enema 2 hours before the test. You can buy a Fleet® enema from the pharmacy or supermarket. You are awake for the test. You may drive yourself to and from the test. After the test, you may return to your normal activities.

### How is anorectal manometry done?

The test takes about 30 minutes. You will be asked to change into a hospital gown. A technician or nurse will explain the test, ask you a few questions about your health, and answer any questions you might have. You will be asked to lie down on your left side. A digital rectal examination is done. If there is a large amount of stool in your rectum, you may be given an enema.

Then, a thin, flexible tube is placed in your rectum. This tube is connected to a computer and a recording device that measures the pressure and **strength** of your anal and rectal muscles. The nurse or technician may ask you to perform certain movements, such as to squeeze or to relax, or to push as if to pass stool. To squeeze, you will be asked to tighten the anal sphincter muscles as if you are trying to prevent stool from coming out of your rectum. To push or bear down, you will be asked to strain as if you are trying to have a bowel movement.

During the test, a small balloon attached to the tube may be inflated in your rectum. This is done to measure your normal **reflexes** and to find out what **sensation or feeling** you have of stool in your rectum.

Sometimes, other tests are done; such as anal sphincter electromyography (EMG), which checks how the anal muscle and nerves are working, or a balloon expulsion test, which checks how well you can pass a balloon from your rectum.

### What are the risks of anorectal manometry?

Anorectal manometry is a safe test. It shouldn't be painful. Complications are rare. There may be some minor bleeding from the rectum. If you are allergic to latex, tell the nurse or technician before the test so that a latex-free balloon can be used. It is natural for you to feel shy or embarrassed during the test. Remember that the nurse or technician and doctor will try to make you as comfortable as possible.



### What are the benefits of anorectal manometry?

The anal and rectal region has specialized muscles that help to control the passage of stool and to prevent stool leakage.

Normally, when stool enters the rectum, the anal sphincter muscle tightens so stool doesn't leak out. If the sphincter muscle is weak or if it doesn't tighten in a timely manner stool leakage may occur. Other causes of stool leakage include poor sensation or feeling in the rectum or impaired function of the nerves that supply the rectum. Some of these problems can be treated with drugs, special exercises to strengthen the pelvic floor muscles, or biofeedback therapy to improve muscle strength and improve sensation or feeling in the rectum. Sometimes surgery is required.

There are many causes of constipation. Some involve sluggish movement of stool through the whole colon. Others involve the sense you have of stool in your rectum or how your anal sphincter muscles are working. Normally, when you push or bear down to have a bowel movement, the anal sphincter muscles relax. If the anal sphincter muscles tighten, the passage of stool is blocked, and constipation results. Biofeedback therapy may be used to retrain these muscles to relax.

Sometimes your doctor will ask you to have an anorectal manometry test before bowel surgery. It is a good test to check how the muscles in your anal and rectal region are working.

### What other tests are used to assess bowel disorders?

Your doctor may order blood tests to look for an underactive thyroid gland or diabetes. An X-ray of the abdomen may be taken to look for retained stool in the intestine. Your doctor may