

Patient Information on Anorectal Manometry

What is anorectal manometry?

Anorectal manometry is a test performed to evaluate patients with constipation or fecal incontinence. This test measures the pressures of the anal sphincter muscles, the sensation in the rectum, and the neural reflexes that are needed for normal bowel movements.

PREPARATION FOR THE PROCEDURE

Give yourself one or two Fleet[®] enemas 2 hours prior to your study. You can purchase the Fleet enema from a pharmacy or supermarket.

You should not eat anything during the two hours prior to the procedure. If you are diabetic, this may involve adjusting your diabetic medications.

You may take regular medications with small sips of water at least 2 hours prior to the study.

THE PROCEDURE

The test takes approximately 30 minutes. You will be asked to change into a hospital gown. A technician or nurse will explain the procedure to you, take a brief health history, and answer any questions you may have. The patient then lies on his or her left side. A small, flexible tube, about the size of a thermometer, with a balloon at the end is inserted into the rectum. The catheter is connected to a machine that measures the pressure. During the test, the small balloon attached to the catheter may be inflated in the rectum to assess the normal reflex pathways. The nurse or technician may also ask the person to squeeze, relax, and push at various times. The anal sphincter muscle pressures are measured during each of these maneuvers. To squeeze, the patient tightens the sphincter muscles as if trying to prevent anything from coming out. To push or bear down, the patient strains down as if trying to have a bowel movement. Two other tests may be done: first, an anal sphincter electromyography (EMG), a test to evaluate the nerve supply to the anal muscle; second, measurement of the time it takes to expel a balloon from the rectum. After the examination, you may drive yourself home and go about your normal activities.

Anal Sphincter EMG

Anal sphincter electromyography (EMG) is recorded with a small plug electrode placed in the anal canal. The patient then is asked to relax, squeeze and push at different times. The anal sphincter muscle electrical activity is recorded and displayed on a computer screen.

Anal sphincter EMG confirms the proper muscle contractions during squeezing and muscle relaxation during pushing. In people who paradoxically contract the sphincter and pelvic floor muscles, the tracing of electrical activity increases, instead of decreasing, during bearing down to simulate a bowel movement (defecation).

Normal anal EMG activity with low anal squeeze pressures on manometry may indicate a torn sphincter muscle that could be repaired.

Balloon Expulsion Test

For this procedure, a small balloon is inserted into the rectum and then inflated with water. The patient goes to the bathroom and tries to defecate (expel) the small balloon from the rectum. The amount of time it takes to expel the balloon is recorded. Prolonged balloon expulsion suggests a dysfunction in the anorectum area.

What can be learned from anorectal manometry?

The anal and rectal area contains specialized muscles that are helpful to regulate proper passage of bowel movements.

Normally, when stool enters the rectum, the anal sphincter muscle tightens to prevent passage of stool at an inconvenient time. If this muscle is weak or does not contract in a timely way, incontinence (leakage of stool) may occur.

Normally, when a person pushes or bears down to have a bowel movement, the anal sphincter muscles relax. This will cause the pressures to decrease allowing evacuation of stool. If the sphincter muscles tighten when pushing, this could contribute to constipation.

Anal manometry measures how strong the sphincter muscles are and whether they relax as they should during passing a stool. It provides helpful information to the doctor in treating patients with fecal incontinence or severe constipation.

There are many causes of fecal incontinence. Weak anal sphincter muscles or poor sensation in the rectum can contribute to fecal incontinence. If these abnormalities are present, they can be treated. Biofeedback techniques using anal manometry and special exercises of the pelvic floor muscles can strengthen the muscles and improve sensation. This can help treat fecal incontinence.

There are many causes of constipation. Some involve sluggish movement through the whole colon, whereas others involve the anal sphincter muscles. In some patients with constipation, the anal sphincter muscles do not relax appropriately when bearing down or pushing to have a bowel movement. This abnormal muscle function may cause a functional type of obstruction. Muscles that do not relax with bearing down can be retrained with biofeedback techniques using anal manometry.

Risks of Anorectal Manometry

Anorectal manometry is a safe, low risk procedure and is unlikely to cause any pain. Complications are rare: it is possible that a perforation (tearing) or bleeding of the rectum could occur. Equipment failure is a remote possibility. If you are allergic to latex, you should inform the nurse/technician before the test so that a latex free balloon can be used.