

Anorectal Physiology and Testing

Normal Rectal Function involves the following sequence of events:

- **Rectal Filling:** As stool enters the rectum, from the sigmoid colon, it causes the rectum to relax and stretch so that it can “fill up”
- **Feeling the Urge:** Nerves in the rectum wall, known as stretch receptors, send signals to the brain triggering the urge to poop.
- **Automatic Relaxation:** The internal anal sphincter automatically relaxes in response to the urge.
- **Hold or Release Decision:** The external anal sphincter contracts to hold onto the stool until you're ready, or want to use your bowels.
- **Voluntary Control:** You can command the external anal sphincter to squeeze, relax, or push voluntarily.
- **Coordination during Defecation:** When you attempt to defecate, the pressure in the rectum increases, signalling the external anal sphincter to relax, allowing the stool to pass.

If any step in this process does not function correctly it can lead to symptoms of

- Constipation
- Difficulties evacuating your motion
- Faecal Incontinence

Anorectal Physiology Studies assess each element to identify potential issues with the muscles and nerves involved in defecation.

This helps pinpoint specific problems and guides targeted treatments for better outcomes.

Anorectal Manometry

During the procedure, you will be positioned on your left side.

A digital (Finger) rectal examination will be conducted.

Then a small tube will be inserted into your rectum.

Throughout the procedure, you will be prompted to squeeze, relax, and cough.

Then a small amount of air will be introduced into the balloon at the tube's end, and the volume will be increased slowly.

During this part of the test, you will be asked when you:

- First feel any sensation
- First feel the urge to defecate
- Maximum tolerable volume

Surface EMG

Surface EMG is a test that looks at the electrical activity of the puborectalis muscle to understand how well it's working and coordinating with other muscles.

The puborectalis muscle forms a sling around the rectum, keeping the anus closed to prevent accidental bowel movements.

This muscle is essential for coordinating bowel movements and relaxing when needed for passing stool.

Pudendal Nerve Latency Testing

The pudendal nerve controls both muscle function and sensation of the anal sphincter, anus, and perineum. Testing involves stimulating the right and left pudendal nerves to detect for nerve damage contributing to your symptoms.

Endoanal Ultrasound

An ultrasound probe is inserted into the anus or rectum.

It is used to look at the layers of the anal sphincter muscle and to identify possible injuries to the sphincter (usually from childbirth)

How should I prepare for anorectal manometry?

No bowel preparation or the use of laxatives, enemas, or suppositories is necessary before the procedure.

Fasting is also not required prior to anorectal physiology testing.

As anorectal physiology testing doesn't involve sedation or anaesthesia, you'll be able to drive both before and after your appointment.