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## **ANORECTAL PHYSIOLOGY STUDIES**

### **(ANORECTAL TESTING)**

#### **What are anorectal studies?**

They are a series of tests to study the function of the rectum, anus and pelvic floor. The goal of these studies is to provide your physicians with objective data for the appropriate medical and surgical treatment of your condition.

#### **How many tests does it involve?**

This depends on the types of questions that your physician wants answered. The tests currently performed are manometry (ARM), anal sensory electromyography (EMG), pudendal nerve terminal motor latency (PNTML), and endorectal ultrasound (ERUS). A cystodefecography may also be ordered and this study will be performed in the radiology department. You may be scheduled for one or more of these tests. The physician conducting the study will explain which of these tests will be performed.

#### **What is manometry (ARM)?**

This is a test to study the anal sphincters and rectal wall function. It enables us to examine the coordination and strength of the muscles of the anus and rectum. The test is done by placing a small tube (smaller than a drinking straw) with a balloon at the end of it, into the anal canal and measuring the pressure changes at various locations along the length of the anal and rectal canal.

#### **What is anal sensory electromyography (EMG)?**

This study uses a sensory probe placed at the anal opening to detect the voltage activity of the anus during rest, squeeze and push. It enables us to see how well you are able to coordinate your anal sphincter relaxation and evacuation.

#### **What is pudendal nerve terminal motor latency study?**

This study enables us to evaluate the integrity of the pudendal nerve, which is one of the two important pelvic nerves responsible for the innervation and coordination of anal sphincter activity and helps maintain continence. A nerve probe is placed at the end of the examiner's index finger and placed in the anal canal, where the pudendal nerve is stimulated at various regions adjacent to the anorectum, and the activity of the anal sphincter muscle is then recorded. The delay in the conduction of the stimulus and response of the anal sphincter helps us determine the integrity of the nerves.

#### **What is endorectal ultrasound?**

This is an imaging tool using sound waves to look at the muscles of the anal sphincters, tumors and infections in the rectum. A probe (about the size of a thumb) with a balloon or cap at the end of the probe is passed into the rectum. The wall of the rectum and anus is scanned to look for defects, depth of tumor invasion and extent of infections.

If your endorectal ultrasound study is aimed at evaluating tumor and infections, you may be sedated and will not be able to drive home on your own. Please arrange for a driver.

### **What can I expect?**

There is mild discomfort with the procedures, but they are not painful. After you have been scheduled at the Endoscopy or Medical Procedure Unit (MPU) you will need to check in at the hospital one hour before the procedure. When you get there, you will meet a nurse who will get you prepared for the procedure. You may need to receive two enemas prior to the procedure. This helps clean out the rectum in preparation for the study. You may choose to do this at home one hour prior to the procedure. The physician, or assistant, conducting the test may interview you and explain the procedure to you. In order to get an accurate evaluation of the anorectal function, these tests are done without pain meds or sedation. You may therefore drive home after the procedures. Those patients that do require sedation for staging of tumors or evaluation for infections will need someone to drive them home.

### **How long is the examination?**

In general, the process of coming in and leaving the test center is about 2-3 hours. The procedure itself usually takes about 20-40 minutes. The number of tests and the need for sedation may affect the time to complete the study.

### **When can I find out about the test results?**

It usually takes about five to seven days for your physician to get the results. We recommend that you call your physician prior to the office visit to confirm that he or she has received the results and wish for you to come in for a discussion. In some circumstances, your physician may wish to have you come back for a discussion of the findings; you will need to call the office at 503-216-5380 to schedule an appointment. Please don't hesitate to call if you have any questions. The results are best explained in person with the use of diagrams and pictures.

### **What is cystodefecography?**

This is a test completed in the radiology department. It demonstrates how well the various pelvic organs (anus rectum, vagina, uterus, and bladder) are supported. The test involves the placement of contrast in the rectum, vagina, and bladder, in addition to the consumption of oral contrast to fill the small bowel. The bladder is usually not filled if the study ordered is defecography only. After the contrast is placed, you are then asked to sit on a commode. Under radiologic evaluation, you will be asked to do a series of maneuvers to allow the visualization your pelvic organs. Their overall support and function will be assessed.

Please feel free to call the office at 971-257-9884 if you have any questions. Many of your questions will be answered at the time of the studies.