WHAT IS URODYNAMIC TESTING?

Urodynamic tests are done to determine how well your lower urinary tract is working. The lower urinary tract includes your bladder and the tube that empties your bladder (urethra).

When your kidneys filter your blood, urine is stored in your bladder until you feel the urge to pass urine (urinate). Urination requires coordination between the nerves and muscles of your bladder and urethra. When your lower urinary tract is working well, you should be able to:

- Start urinating when your bladder is full.
- Empty your bladder completely.
- Control the flow of your urine.

WHY DO I NEED URODYNAMIC TESTING?

You may need urodynamic testing if you:

- Are leaking urine (incontinence).
- Have problems starting or stopping your urine flow.
- Have frequent or painful urination.
- Have frequent urinary tract infections.
- Cannot empty your bladder completely.
- Have strong urges to pass urine (urgency).
- Have a weak flow of urine.

HOW IS URODYNAMIC TESTING DONE?

Urodynamic tests may be done separately or all during one testing visit. These tests may be done at your health care provider's office, a clinic, or a hospital. You may be given an antibiotic medicine before or after testing to prevent infection.

Ask your health care provider if you should:

- Stop taking any of your regular medicines.
- Arrive for the test with a full bladder.

The urodynamic tests you may have done include:

Uroflowmetry

This test measures how much urine you pass and how long it takes to pass.
- You sit on a special toilet to urinate.
- The toilet measures the volume and the time of your urine flow.
- These measurements are sent to a computer that creates a graph of your urine flow.

Postvoid residual measurement

This test measures how much urine is left in your bladder after you urinate.
- It uses sound waves (ultrasound) to create an image of your bladder.
- The test can also be done by inserting a thin, flexible tube (catheter) into your bladder after you urinate.
- Remaining urine is measured in milliliters (mL). If you have more than 100 mL left in your bladder after you urinate, your bladder is not emptying as it should.

Cystometric testing

This test uses a special bladder catheter that can measure pressure.
- A numbing medicine (local anesthetic) may be used.
- First, a normal catheter is used to empty your bladder completely.
- Then the measuring catheter is placed, and your bladder is filled with warm, germ-free (sterile) water.
Pressure measurements will be taken:
- As your bladder fills.
- When you feel the need to urinate.
- As your bladder is emptied.
- You may be asked to cough or bear down to check for leakage.
- In some cases, your bladder may be filled with a material that shows up on X-rays (contrast material) so that X-ray pictures can be taken during the test.

Electromyography

This test measures the electrical activity of the nerves and muscles of your bladder and the opening of your urethra.
- It tells how well your nerves are communicating with your muscles.
- Sticky patches are placed near your rectum and urethra to measure electrical activity.

WHAT ARE THE RISKS OF THIS TESTING?

Generally, these tests are safe. However, problems can occur and include:
- Discomfort.
- Frequent urge to urinate.
- Bleeding.
- Infection.
- An allergic reaction to contrast material, if contrast material is used.

WHAT HAPPENS AFTER THE TESTING?

- You should be able to go home right away and do your usual activities.
- You may be instructed to drink a tall glass of water every 30 minutes for the first 2 hours you are home.
- Taking a warm bath or using a warm compress may relieve any discomfort near your urethra.

Let your health care provider know if you have:
- Pain.
- Blood in your urine.
- Chills.
- Fever.

WHAT DO MY TEST RESULTS MEAN?

Discuss the results of your urodynamic tests with your health care provider. Your health care provider will use the results of these and other tests, along with your signs and symptoms, to make a diagnosis. Some common causes for abnormal results from urodynamic tests include:
- Enlarged prostate in men.
- Overactive bladder.
- Urinary tract infection.
- Nervous system diseases.
- Spinal cord damage.

This information is not intended to replace advice given to you by your health care provider. Make sure you discuss any questions you have with your health care provider.