Nebraska Urology

Patient Education – Urodynamics

What is Urodynamics?

Your healthcare provider has ordered a Urodynamics study. Urodynamics is a group of tests that allow us to look at how your lower urinary tract works. Your lower urinary tract includes the bladder which stores the urine, and the urethra with is the tube that carries urine from your bladder to the outside.

How does the lower urinary tract work?

The bladder's responsibility is to store and empty your urine. The bladder is made up of muscle that should work to do this in a way that keeps urine from backing up to the kidneys and causing damage to the kidneys. In other words, as the kidneys fill the bladder, the urine is stored there. The bladder muscle should stretch easily to allow the bladder to fill. The sphincter muscles at the bottom of the bladder should be tight and not let urine out. Urine can leak out for several reasons. Sometimes it is because the sphincter muscles are weak or because the bladder is overactive. When the bladder is full, a message is sent to the brain that it is time for you to empty your bladder. Your bladder muscles then squeeze while the sphincter muscles relax and let the urine out. Sometimes a blockage in the urine tube or urethra can cause the urine flow to be weak. Different things, such as enlarged prostate or a bladder that has dropped, can cause this. After your bladder empties, your sphincter muscles tighten up again so that the urine stays in the bladder.

Why do I need Urodynamics?

Your health care provider has spent some time going over your symptoms and complaints. He or she has also done a physical exam and some simple urine tests. Sometimes this information doesn't clearly spell out the problem.

Urodynamics helps identify specific problems related to:

- Controlling your urine
- Not emptying your bladder completely
- Feeling of frequent and/or urgent need to urinate
- Weak or intermittent (stopping and starting) urine flow
- Frequent urinary tract infections.

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What should I expect?

There are several pieces that make up a Urodynamics study. You should plan to arrive with a full bladder. You will be asked to urinate into a special commode chair. This will measure how much urine comes out and how fast it comes out. This test is called a ***Uroflow***.

Next, a catheter (a small soft tube) will be placed into your bladder to drain out all the leftover urine. This will show how well your bladder emptied. Through a catheter, your bladder will be filled and the pressure of your bladder muscle and its response to being filled will be measured. At the same time, an estimate of the pressures outside the bladder will be measured by inserting another small soft tube, or catheter into the rectum or the vagina. This tube is about the size of a spaghetti noodle. It doesn't do anything but measure pressure. The measurement of the bladder pressure is called a ***Cystometrogram (or CMG).*** As the bladder fills, the different pressure measurements will be recorded and you may be asked to cough and push or bear down to check for any leakage. You will also be asked about the way your bladder feels as it is filling. Your bladder will be filled with a sterile water type fluid. When you feel your bladder is full, you will be asked to empty your bladder into the special commode chair again. This time you will urinate with the tubes in place. The tube in your bladder is a special kind of catheter and will let the urine or fluid come out around it. This lets us look at your bladder function as it tries to empty. This is called a ***Voiding Pressure Study or a Pressure Flow Study.*** Before and or after your test you may receive an antibiotic as a precaution to prevent infection.

Your Results...

After your healthcare provider has reviewed all the information, he or she will discuss the results with you. You and your healthcare provider will then decide on the best plan of treatment for you.