What is urodynamic testing?After having urodynamic tests, you may feel mild discomfort for a few hours when urinating.Testing may be recommended if you leak urine go to the bathroom frequently feel pain while urinating feel a sudden, strong urge to use the bathroom have trouble starting to urinate have problems emptying your bladder completely have repeated urinary tract infections What urodynamic tests do health care professionals use?A pressure flow study can help identify any bladder outlet blockage that may be caused by prostate enlargement; an anterior vaginal wall prolapse, also known as a cystocele; or urinary incontinence correction surgery.Health care professional may use the following tests uroflowmetry postvoid residual urine measurement cystometric test leak point pressure measurement pressure flow study electromyography video urodynamic tests Uroflowmetry Uroflowmetry measures how much urine is in your bladder and how fast the urine comes out, also known as flow rate.A cystometric test can also identify if your bladder contracts when it's not supposed to. View full-sized imageSide view drawing of the female urinary tract with catheters inserted through the urethra to the bladder.Uroflowmetry equipment Postvoid residual measurement This urodynamic test measures how much urine is left in your bladder after you urinate.Video urodynamic tests Video urodynamic tests use x-rays NIH external link or ultrasound to take pictures and videos of your bladder while it fills and empties.View full-sized imageIllustration of the urinary tract, including kidneys, ureter, bladder, and urethra.This test can be conducted with an ultrasound NIH external link or by feeding a catheter into your bladder to drain and measure remaining urine.Cystometric test A cystometric test measures how much urine your bladder can hold how much pressure builds up inside your bladder as it stores urine how full your bladder is when you start feeling the urge to urinate First, a catheter is used to empty your bladder completely.Your health care professional may recommend taking a warm bath or holding a warm, damp washcloth over the urethral opening to relieve discomfort might prescribe an antibiotic to prevent infection If you show any signs of infection--including pain, chills, or fever--call your health care professional immediately.Urodynamic testing is any procedure that looks at how well parts of the lower urinary tract--the bladder, sphincters, and urethra--work to store and release urine.All parts of the urinary tract--the kidneys, ureters, bladder, and urethra--must work together to urinate normally.Your flow rate can also be measured by recording how long it takes to urinate into a special container that accurately measures how much urine you release.These actions help your health care professional evaluate the sphincters that help keep your urine in. Pressure flow study A pressure flow study measures how much pressure your bladder needs to urinate and how quickly your urine flows at that pressure.The patterns of the nerve impulses show whether the messages sent to your bladder and pelvic floor muscles are coordinating correctly.During a uroflowmetry test, you urinate into a special toilet or funnel that has two parts: a container for collecting the urine and a scale.Bladder ultrasounds are performed by a specially trained technician in a health care professional's office, radiology center, or hospital.A manometer measures the pressure inside your bladder when this leakage occurs, identifying the leak point pressure.Electromyography uses special sensors to measure the electrical activity of the muscles and nerves in and around your bladder and sphincters.The sensors are placed on your skin near the urethra and rectum or on a urethral or rectal catheter.A numbing gel is used to reduce discomfort if the sensors are on a catheter rather than on your skin.If you had a catheter inserted into

your bladder, you may have a slight risk of developing a bladder infection (UTI).A trained technician may use a catheter to fill your bladder with contrast or dye for a better picture.Urodynamic tests can also show whether your bladder is contracting when it's not supposed to, causing urine to leak.Urodynamic tests are used to determine if there are problems with your lower urinary tract.The results of this test can show if your bladder muscles are weak or if urine flow is blocked.The uroflowmetry equipment creates a graph that shows changes in the flow rate while you urinate.A curtain separates the computer from a special toilet attached to a container for catching and measuring urine.If you have 100–150 milliliters of urine or more left in your bladder, your bladder is not emptying completely.When you start feeling that urge, the volume of water and the bladder pressure are recorded.The catheters, urethra, and bladder are labeled.Two catheters are placed into the bladder during a cystometric test––one to empty the urine and one to fill the bladder with warm water.After the cystometric test, you will be asked to empty your bladder while a manometer measures your bladder pressure and flow rate.Electromyography A health care professional may recommend a electromyography NIH external link if your urinary problem is likely related to nerve or muscle damage.Most urodynamic tests focus on how well your bladder can hold and empty urine.This catheter has a pressure–measuring device called a manometer.Another catheter may be placed in the rectum or vagina to record pressure there.You'll be asked to describe how the bladder feels and when you feel the need to start urinating.You may be asked to cough or strain during this procedure to see if the bladder pressure changes or if you leak urine.Why do health care professionals use urodynamic tests?