

# URODYNAMIC STUDY

## What is this and why am I having this procedure ?

If you have a problem with urine leakage or blocked urine flow, your doctor may recommend urodynamic testing. Any procedure designed to provide information about a bladder problem can be called a urodynamic test. This is a special investigation performed by Dr Bergersen in the x-ray department of the Sydney Adventist Hospital. Urodynamic tests help your doctor see how well your bladder and sphincter muscles work and can help explain symptoms such as

- incontinence
- frequent urination
- sudden, strong urges to urinate
- problems starting a urine stream
- painful urination
- problems emptying your bladder completely
- recurrent urinary tract infections

## Preparing for the Test

Depending on the test, you may be asked to come with a full bladder or an empty one. Also, ask whether you should change your diet or skip your regular medicines and for how long. — *always full?* — *required?*

- Urine test – must be free of infection
- Come with a full bladder for the initial urine flow test
- Imaging – bring all your scans
- Day of Surgery – present to hospital reception for directions.

## Taking the Test

The patient first voids and a urinary flow rate is recorded. A fine urinary catheter is placed as well as a fine tube within the rectum. The patient's bladder is filled and then he/she is asked to pass urine. While passing urine, x-rays are taken. During the filling and voiding phases, a pressure tracing is recorded via transducers that are present within the bladder and rectal lines. The relationship between the prostate outlet and the bladder as a storage organ can be established. This is used in men and women for prostate problems, urinary leakage, neuropathic bladders and those with mixed symptoms when the underlying cause is unclear.

### Uroflowmetry (Measurement of Urine Speed and Volume)

A uroflowmeter automatically measures the amount of urine and the flow rate—that is, how fast the urine comes out. This equipment creates a graph that shows changes in flow rate from second to second so the doctor can see the peak flow rate and how many seconds it took to get there. Results of this test will be abnormal if the bladder muscle is weak or urine flow is obstructed. Your doctor can also get some idea of your bladder function by using a stopwatch to time you as you urinate into a graduated container.

### Measurement of Postvoid Residual

After you have finished, you may still have some urine remaining in your bladder. To measure this postvoid residual, the doctor may use a catheter, a thin tube that can be gently glided into the urethra. He can also measure the postvoid residual with ultrasound equipment that uses harmless sound waves to create a picture of the bladder. A postvoid residual of more than 200 mL is a clear sign of a problem. Even 100 mL, about half a cup, requires further evaluation. However, the amount of postvoid residual can be different each time you urinate.

*May not want all of this detail?*