



Leak Point Pressures

What are leak point pressures?

The leak point pressure (LLP) is a urodynamic test. It is a test of how much pressure is inside the bladder when urine leaks out. Bladder leak point pressures are measured periodically on patients with bladder dysfunction. Most often, these are people with spina bifida or some type of spinal cord injury. The leak point pressure is part of a study called a cystometrogram (CMG).

For this test we place a small catheter (tube) into the bladder and empty the urine that is there. We then fill the bladder with water while measuring the bladder pressure at the same time. We measure the pressures in the bladder during filling and after leaking and note the volume of water that the bladder will hold before leaking. The pressure at the point where the bladder starts to leak is the leak point pressure.

Why are the leak point pressures important?

Leak point pressures are one of the most important ways to assess the health of the kidneys (in patients with bladder dysfunction). Kidney damage can occur if the leak point pressure is too high, and nothing is done to correct it. By measuring the leak point pressure regularly, we can take care of problems before the kidneys are damaged by high pressures. In the past, before leak point pressures were measured, many children with bladder dysfunction developed severe kidney damage and even kidney failure, now this is rarely the case.

In infants and young children we may need to measure the leak point pressures as often as every 3 to 6 months. By adulthood we would probably measure only every 1 to 3 years.

How is a high leak point pressure treated?

High leak point pressure is typically treated with medications and intermittent catheterization. Cases that are extremely difficult to treat may require surgery, but this is not done very often.

What is the necessary after-care?

After a leak point pressure test is done, your child may feel some slight discomfort or burning. You may also see slightly blood-tinged urine the day after the test, so do not be alarmed if you see it. The patient typically takes antibiotics for several days after the test to prevent any infection from occurring. Call the pediatric urology office if your child has any signs of infection such as:

- back pain
- fever
- pus
- more than slightly blood-tinged urine

What is the number to call?

- During business hours, weekdays between 8-5 pm call the Urology Call Center (734) 936-7030 or (866) URO-MICH (876-6424)
- After hours and on weekends and holidays call (734) 936-6267 (Michigan Medicine Operator) and ask for the Urology resident on call

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