

# Bladder Catheterization (Pediatrics)

## Indication

- Accurate determination of diuresis in patients with renal failure or in patients in critical condition
- quantification of residual in the bladder when USG is not available,
- urinary tract infection diagnosis,
- urine diversion in bladder retention.

## Procedure for boys

The child lies on his back, the paramedic fixes the abducted lower limbs. Under sterile precautions, we thoroughly disinfect the glans penis after retracting the foreskin and especially around the external orifice of the urethra. We can use 0.5% ajatin, Septonex or Borova water as a disinfectant. The use of sterile gloves is a matter of course. For single-use intubation, we use an NG neonatal feeding tube or a low-weight neonatal feeding tube. For permanent catheter insertion, we use special catheters for long-term advertising. We coat the tip of the catheter liberally with mesocaine gel (we never skimp on boys!), hold the erect penis with the left hand, and carefully insert the tip of the catheter into the mouth of the urethra with the right hand. When inserting the catheter, the penis is held straight with the thumb and forefinger of the left hand to align the folds of the urethral mucosa. If we feel resistance, it is necessary to "stretch" the penis even more in the long axis and then, by positioning the penis, insert the catheter into the lumen of the bladder. Sometimes it is also necessary to lower the penis into a horizontal position. The principle is patience and in no case must we vascularize through resistance.



Catheterization practice of the penis

## Procedure for girls

The position of the patient and the use of disinfection is identical. With the thumb and forefinger of the left hand, we spread the labia majora and minora in order to see the vestibule of the vagina and, above all, the entrance to the urethra, which is located immediately above the introit in the midline. We thoroughly disinfect the entire area. We carefully insert the catheter into the mouth of the urethra, which is just above the introit, until urine appears.

The sheath is deposited distally and is identified by the introit, which has rounded edges. The mouth of the urethra above it is sometimes very clearly visible, but the labia must always be adequately stretched. It may happen, however, that with greater distension we observe, as it were, one or two urethral openings lateral to the introit - in fact, these are recesses that have appeared as a result of excessive distension of the labia. Even in this case, the opening of the urethra should be expected in the midline above the introit, even if it is not visible at first glance. Even with girls, we never coil through resistance.

## Complication

- Getting an infection into the urinary tract,
- injury to the urethra, possibly with perforation,
- hematuria.

When using a feeding tube for a newborn/newborn with a low birth weight, we don't have to worry about injury, because in this way it can be catheterized very gently. On the contrary, the disadvantage of the tube for feeding a newborn with a low weight, i.e. the thinnest tube, is precisely its very thin diameter, which can sometimes lead to the coiling of the tube in the lumen of the urethra.

## Links

### Related articles

- Nursing procedure for catheter insertion
- Suprapubic puncture
- Insertion of a permanent urinary catheter

### Source

- HAVRÁNEK, Jiří: *Katetrizace močového měchýře*.

### External Links

- FEMALE URETHRAL CATHETERIZATION ([https://www.youtube.com/watch?v=LqCTFSow\\_bw&feature=related](https://www.youtube.com/watch?v=LqCTFSow_bw&feature=related)) –

Female cathetrization

- MALE URETHRAL CATHETERIZATION (<https://www.youtube.com/watch?v=x2a-s38rNns>) - Male catethrization
- Osacká Petronela: Vyprázdňovanie moču a stolice. Multimediálna podpora výučby klinických a zdravotníckych disciplín :: Portál Jesseniovej lekárskej fakulty Univerzity Komenského [online] 5.2.2011, posledná aktualizácia 2.12.2011 [cit. 2011-12-23] Dostupný z WWW: <<https://portal.jfmed.uniba.sk/clanky.php?aid=143>>. ISSN 1337-7396