



# Urinary Catheterization

## **Definition**

Introducing a catheter into urinary bladder through urethra using aseptic techniques for the purpose of emptying the bladder.

# **Types**

1. Intermittent Catheterization

Purposes

- To relieve bladder retention
- To assess for residual urine for voiding
- To obtain a sterile specimen
- To empty bladder prior to delivery or abdominal surgery

# 2. Indwelling Catheterization

#### Purposes

- To facilitate urinary elimination in incontinent patients.
- To facilitate continuous bladder drainage after injury or surgery on urinary tract or other major surgeries.
- To splint urethra to promote healing after urological surgeries.
- To release acute or chronic urinary retention.
- To prevent urine from containing an incision after perineal surgery.

#### **Articles Used**

- 1. flash light / drop light
- 2. Basin with water, soap, wash cloth, bed pan, towel etc.
- 3. A Clean tray containing
  - Disposable gloves
  - Kidney tray
  - Antiseptic solution
  - Sterile saline
  - Adhesive tape and scissors
  - Specimen container
  - Water soluble lubricant

#### 4. A Sterile Tray Contains

- Sterile gloves
- Sterile drape / fenestrated towel
- Small bowel
- Cotton swabs
- Catheter [ Indwelling / straight of appropriate size
- Kidney tray
- Artery forceps
- Dissecting forceps
- Sterile Syringe 20 ml distilled water [ in case of retention catheter]

# **Procedure**

Nursing action	Rationale
1. Review physicians order and nursing care plan	Helps in identifying the reason for catheterization
2 Identify the patient and assess patient for time of last voiding, level of awareness mobility, physical limitation and pathological condition eg: prostate enlargement, bladder distension etc	Proper assessment helps in identifying patients ability to cooperate during procedure and any possible obstructions in passing catheter

3. Explain procedure to the patient to emphasizing how she/he has to cooperate	Reduces anxiety and promotes cooperation which ensure smooth insertion of the catheter
4. Arrange for help if needed for maintaining position of the patient	Promotes safety and roper body mechanics
5. Provide privacy	Reduces embarrassment to the patient
6. Wash hands	Reduces risk of transmission of micro-organisms

7. Raise bed appropriate working level. Stand on right side of the patient and shift the patient closer to you	Promotes use of correct body mechanics
8. Position the patient	
a. Female :- Dorsal recumbent with knees flexed and thigh externally rotated	Provides good view of perineal structures
b. Males :- Supine position with thighs slightly abducted	Prevents tension of abdominal and pelvic muscles

9. Wash pereineal area / Cleaning reduces the genitalia with soap and number of microorganisms around urinary meatus and water possibility of introducing microorganisms with the catheter 10. Adjust droplight /flash light to view urinary meatus clearly

11. Open the sterile tray, pour antiseptic solution into the bowel, open outer cover of the catheter and place in the tray if pre packed	Keeping all articles ready for use helps in saving time and prevents chance of contamination
12. Open lubricant squeeze and discard first drop and after that drop some on a sterile gauze in the tray	First drop of the lubricant may be contaminated
13. Don sterile gloves	Helps in preventing spread of microorganisms
14. Drape perineal area	

15. Place sterile tray on drape between the patients thighs	Provide easy access to supplies
16. If doing retention catheterization fill the syringe with sterile water if not already prefilled and test balloon of catheter by inflating it Deflate and keep catheter aside with syringe attached to it	Provides easy access to supplies.  Checking balloon helps in identifying leaks in balloon

17. Open sterile specimen bottle and sterile urine receiver ready for use in the sterile tray

18. Lubricate tip of the catheter liberally and place it in the sterile tray ready for use

Lubrication aids in easy insertion of catheter by reducing friction

19. Clean meatus with antiseptic solution if recommended by agency

#### Female:-

 with non dominant hand carefully retract labia fully and expose urethral meatus.
 Maintain position through out the procedure Labia coming over meatus before catheter is in situ will cause contamination

 Using dominant hand, take sterile cotton swabs and clean perineal area from clitoris towards anus in the following sequence meatus, labia minora and then labia majora. Use one swab for each wipe Disinfectant can be irritating to skin and mucus membrane

 Repeat cleaning with cotton swabs dipped in sterile normal saline in same sequence

#### Male

a. Grasp penis firmly below glans with non-dominant hand. Retract the foreskin and hold it retracted till the end of the procedure	Foreskin coming back into position before catheter is in situ will cause contamination
b. With dominant hand use sterile swabs dipped in antiseptic solution to clean meatus and moving out in circular motion	
c. Use one swab foe each wipe	
d. Repeat cleaning using sterile saline in same sequence	Disinfectant can be irritating to skin and mucus membrane

#### **Procedure**

20. Insert catheter for 15 -20 cms in males and 2.5 -5 cms in female patients until urine begins to flow, do not force catheter, if met with resistance twist catheter and wait for some time to allow spincture to relax. Encourage the patient to take deep breaths while inserting

Male urethra is very narrow and forcing catheter can traumatize spincture and urethra.

Deep breathing can aid in muscle relaxation

21. Collect al urine in the sterile kidney tray if needed collect urine specimen in the specimen container

Collecting urine helps in assessing volume of urine drained

22. Remove catheter if intermittent catheterization is done	
23. If retention catheterization is performed introduce sterile distilled water to inflate balloon	Inflated balloon helps in retaining catheter inside the bladder
24. Pull the catheter outward lightly to ascertain stability	
25. Connect catheter to urosac tied to bed below the level of the bladder	Urosac above the level of the bladder lead to back flow of urine and cause risk of infection

26. Fix catheter to thigh using adhesive tapes. Ensure adequate length to avoid traction.	Traction on catheter can lead to injury to urinary meatus
27. Clean and replace equipments and remove gloves	Keeps equipment ready for next use
28. Wash hands	reduces the risk of transmission of microorganisms
29. Record the procedure and observations in patients chart	Promotes communication between staff members

#### **Special Considerations**

Catheter has to be changed periodically as per agency policy

# CONCLUSION



# QUESTIONS



