

# Male Urinary Catheterisation & Catheter Care

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# Good practice



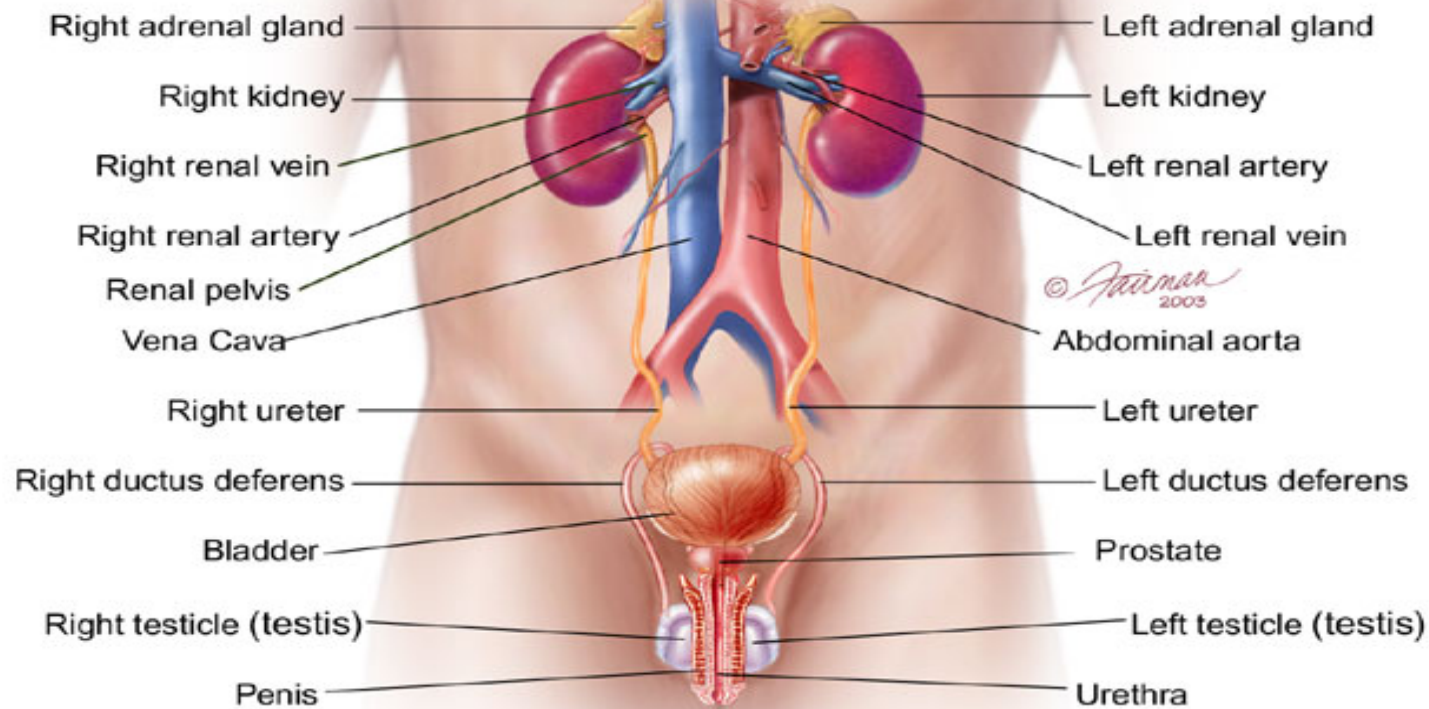
- Consent – gain informed consent.
- Who can catheterise – any Registered Nurse who feels both confident and competent in this clinical procedure.
  - Competence is usually measured by attendance at an educational workshop followed by observation and supervision in practice. Refer to local guidelines.

# Urinary Catheterisation

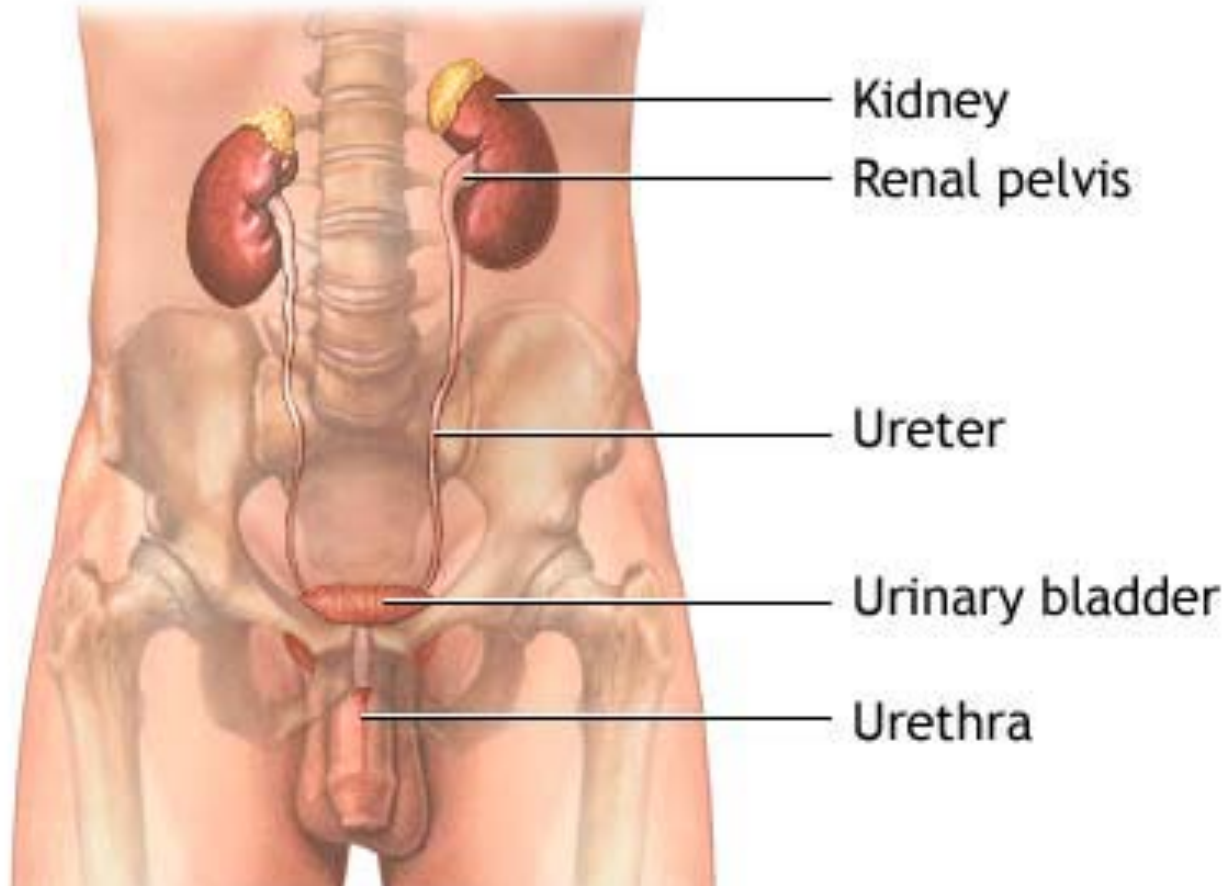


- A urethral catheter is a hollow tube inserted into the urinary bladder for the purpose of draining urine or instilling fluids as part of medical treatment.

# Male Urinary System

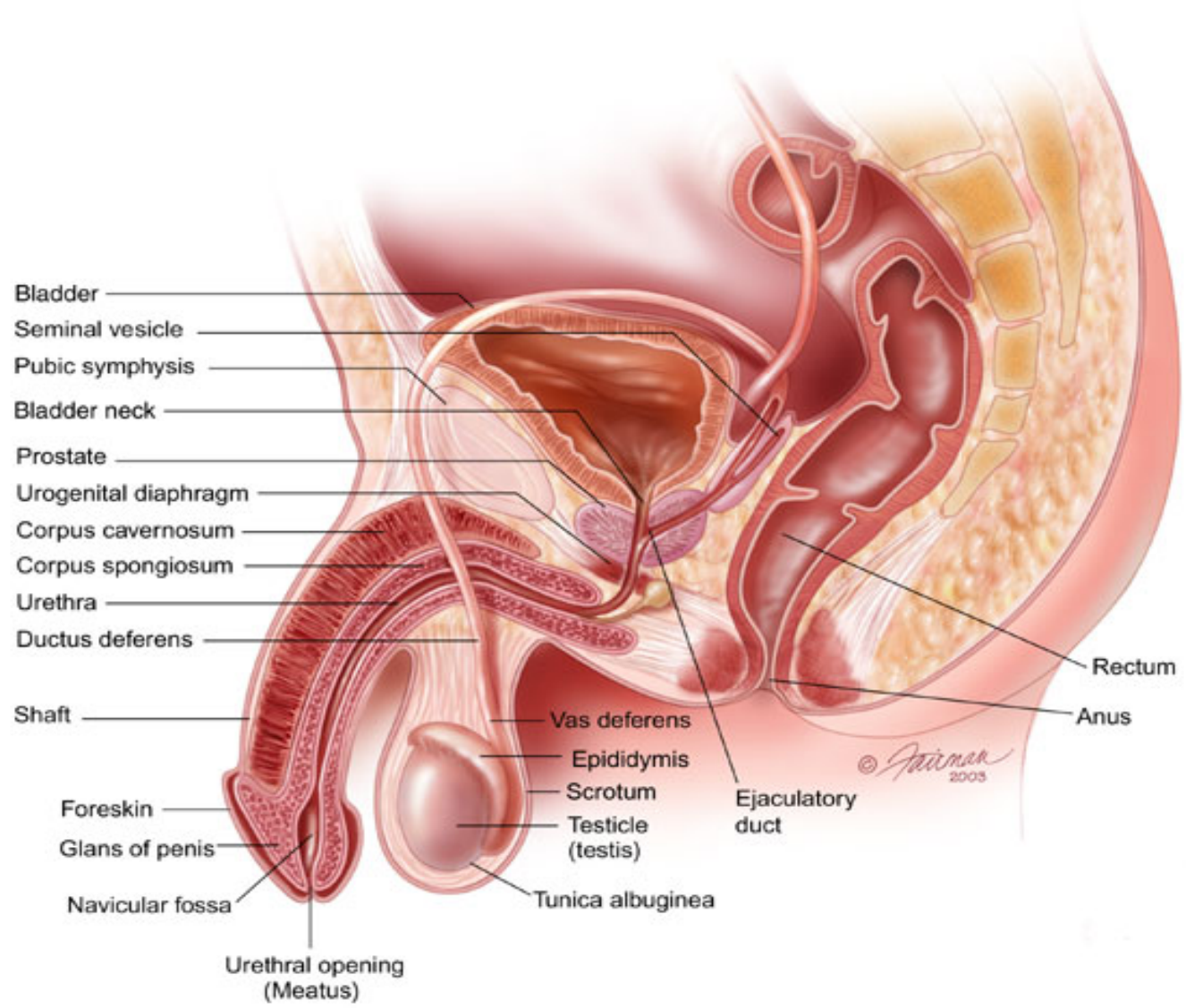


# Male Urinary System

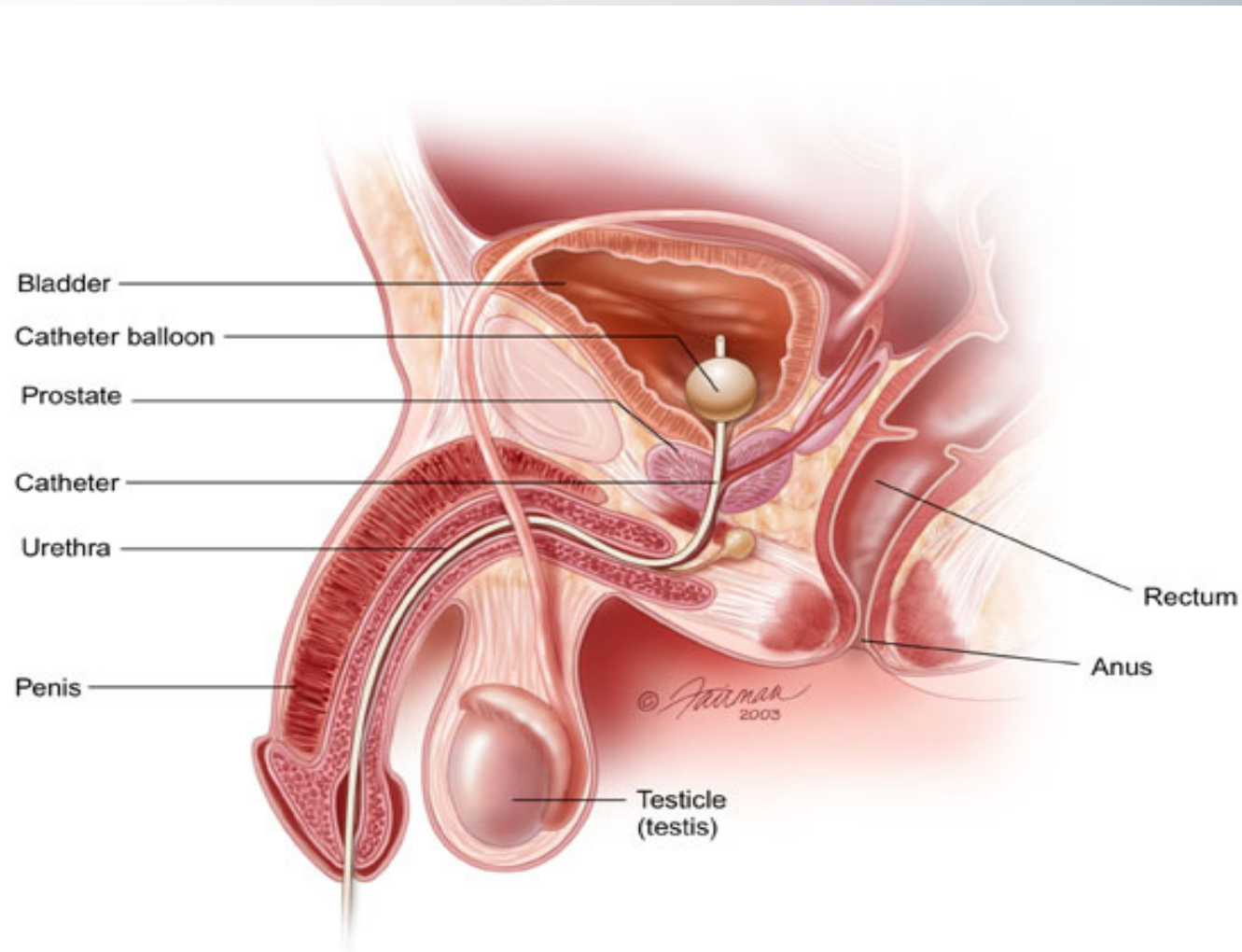




# Male Pelvis



# Male Catheterisation



# Indications for Urethral Catheterisation



Drainage	<ul style="list-style-type: none"><li>• Prostatic hyperplasia</li><li>• Acute or chronic retention</li><li>• Hypotonic bladder</li><li>• Pre &amp; post pelvic surgery</li><li>• Measurement of urine output</li><li>• To empty the bladder during labour</li></ul>
Investigations	<ul style="list-style-type: none"><li>• To obtain an uncontaminated urine specimen</li><li>• In Urodynamic investigations</li><li>• X ray investigations</li></ul>
Instillation	<ul style="list-style-type: none"><li>• To irrigate the bladder</li><li>• Chemotherapy</li></ul>
Management of intractable incontinence	To be used <b>ONLY</b> when all other methods have been tried





# Catheter Selection

- It is important to choose the correct catheter for the individual patient.
- Considerations include;
  - Material, size, length and balloon infill volume.
- The make, type, length, Ch/Fg size and balloon size should be specified on the prescription.



# Catheter Selection

- The Foley catheter is an indwelling catheter that is retained by inflating an integral balloon.
- Catheters without the inflating balloon are usually used for intermittent catheterisation.
- The material determines the length of time a catheter can remain in situ.
- However the nurse must always refer to the manufacturers guidelines.

# Catheter Selection - Material



- Short Term (7 to 28 days).
  - Plastic/PVC should not be left in for more than 7 days.
  - Uncoated latex/silicone treated should not be left in situ for more than 7 days.
  - Polytetrafluoroethylene (PTFE) bonded latex (Teflon) should not be left in situ for more than 28 days.

# Catheter Selection - Material



- Long Term (up to 12 weeks).
  - Silicone elastomer coated latex (combines advantages of silicone and latex).
  - Hydrogel coated latex (combines advantages of hydrogel and silicone) these are the only catheters suitable for patients with a latex allergy.



# Catheter Selection - Size

- The internal diameter of a catheter is measured in Charriere (Ch) – one Ch equals 1/3 mm, therefore 12 Ch equals 4 mm.
- Catheter sizes for men are between 12Ch & 16Ch.
- The smallest size should be chosen to provide adequate drainage.
- Larger sizes can cause irritation & bypassing of urine around the catheter.
- Larger sizes are used for clot drainage (post operatively) and stricture dilatation.



# Catheter Selection - Length



- Male catheter (Standard) is approximately 43cms.
- Female catheter is approximately 26cms.

# Catheter Selection – Balloon Size



- Routine 10mls.
- Post Prostatic surgery 30mls.
  - 30ml balloons should only be used in specific circumstances such as post prostatic surgery.
  - The heavier weight and larger balloon may cause bladder spasm and irritation of the Trigone.
  - Catheter balloons should be filled as specified by the manufacturer.
  - Over or under filling may interfere with drainage.

# Catheter Selection – Balloon Size



- The balloon should always be filled with sterile water **NEVER**;
  - Air, as the balloon would float above the urine, preventing drainage.
  - Tap water, as it contains soluble salts that may precipitate out of the solution and block the inflation channel.
  - Saline, as crystals of salt may form in the inflation channel preventing deflation of the balloon at a later stage.

# Principles of Catheterisation



- Meatal cleansing to remove exudates or smegma.
- Aseptic technique – to avoid introducing infection.
- Lubrication – to avoid trauma.
- Anaesthetic gel – to reduce pain and discomfort.

# Principles of catheter management



- Trauma

- Catheter tubing should be fixed to the leg or abdomen to avoid kinking of the tubing and pulling on the bladder neck.
- Avoid tape as the glue solvents may damage the catheter material – use leg straps or other support mechanisms e.g. cloths and suspensory systems for comfort and to prevent damage to the bladder neck.



# Principles of catheter management



- Bag position
  - Drainage bags must be positioned below the level of the bladder as the urine will not drain upwards and urine may drain back into the bladder causing infection.
  - Incorrect positioning is link to higher rates of bacteriuria.

# Principles of catheter management



- Bag emptying.
  - The patient should be encouraged to empty their own bag whenever possible.
  - Whenever a nurse empties a catheter bag gloves must be worn to prevent cross infection.
  - It is important not to contaminate the tap by touch or the environment by spillage.
  - Bags should be emptied when they are approximately three-quarters full to avoid traction due to the weight.
  - It is important not to break the closed system more than is necessary.

# Principles of catheter management



- Bathing.
  - A patient can take a bath or a shower.
  - It is important to remove meatal secretions that can lead to infection. This should be done twice a day with soap and water but particularly following bowel action.

# Principles of catheter management



- Bag change.
  - This should be done in accordance with the manufacturers recommendations, DOH guidelines and local policy.
  - Generally 5-7 days or earlier if the bag is damaged.
  - Too frequent and the closed system is open to the risk of infection.

# Principles of catheter management



- Fluids

- These should be encouraged – approx 1.5 litres in 24 hours unless restricted for medical reasons.
- This maintains a flow of urine through the bladder and prevents constipation.
- Little evidence of long term benefit of drinking cranberry juice.





# Drainage systems

- Based on an individual assessment and identified needs.
  - Bags with a fabric backing are more comfortable as they absorb perspiration. However, they can get wet in the bath and may need more frequent changing. A leg sleeve should be considered.
  - Ambulant patients should be encouraged to have leg bags (available in 350, 500 & 750 ml bags).
  - Bag volume and tube length are specified on the prescription. Correct tube length prevents kinking or dragging of the catheter or tubing.



# Drainage systems

- Bags should be secured with leg straps or a leg sleeve.
- Non-ambulatory patients normally have a bed bag attached directly to the catheter. This should then be well supported on a catheter stand.
- Care must be taken when moving and handling the patient so that the catheter does not get pulled.

# Drainage systems – link system



- For patients with a leg bag in the day and a higher capacity bag at night.
- The leg bag is not disconnected from the catheter but the night bag is connected to the tap of the leg bag.
- To prevent infection (in hospital, residential and nursing home environments) the night bag must be disposed of after each use.
- For home use the patient can wash the night bag through with soap and water and left to dry. This bag can then be used for between 5 – 7 nights (remains controversial).

# Catheter removal



- Planned procedure.
- Based on patient assessment, circumstances and needs.
- Documented in patient notes.
  - No clear evidence if to use catheter maintenance solutions to improve patency or remove problem catheter.
  - Solutions – may prolong catheter life but can cause trauma to the bladder mucosa.
  - Removal – increase trauma but more effective use of nursing time.
- Deflate balloon before removing the catheter.

# Catheter maintenance



- Use of catheter solutions continues to be a contentious issue.
- Catheter maintenance solutions are prescription only medication (POM).
- NMC (2004) states that nurses are accountable for their own actions. It is important that nurses follow accepted local and/or national guidelines to ensure safe practice.
- Catheter maintenance solutions have been developed to assist nurses in managing persistently blocking catheters.





# Resources

- Pomfret I (1996) Catheters: design, selection and management. **British Journal of Nursing**. 5 (4): 245-251.
- Pomfret I (1999) Catheter care. **Nursing Standard**. 9:5, 29-36.
- Rew M (1999) Use of catheter maintenance solutions for long term catheters. **British Journal of Nursing**. 8 (11): 708-715.