

# Urinary Catheters

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اختصاص الجراحة البولية

كلية طب الكندي - جامعة بغداد

## Urinary Catheter Types



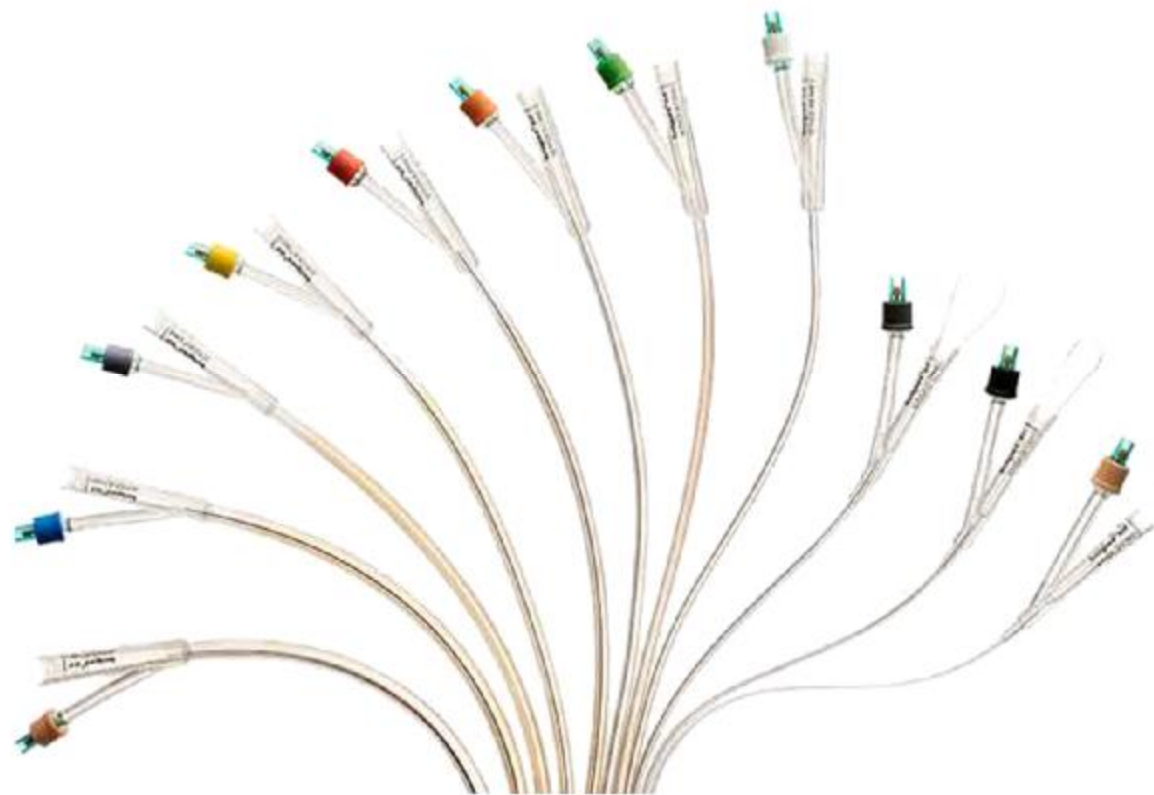
Indwelling  
Catheter



Intermittent  
Catheter



External  
Catheter



# Cannula Sizes



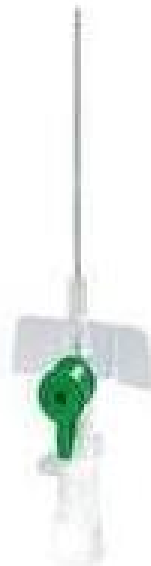
14G

Orange



16G

Grey



18G

Green



20G

Pink



22G

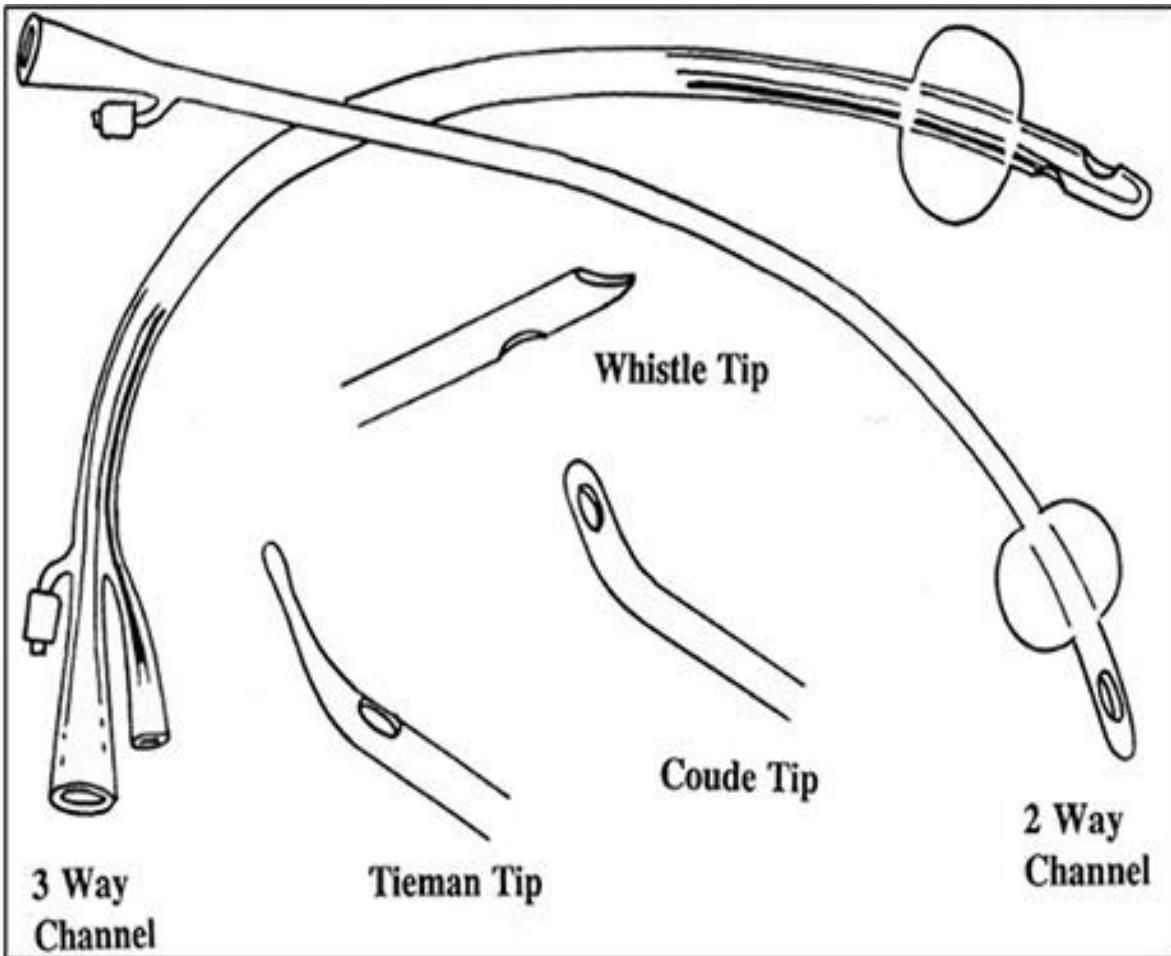
Blue



24G

Yellow

	<b>Color</b>	<b>Size French</b>	<b>Size Millimeter</b>
	Green	6	2.0
	Blue	8	2.7
	Black	10	3.3
	White	12	4.0
	Green	14	4.7
	Orange	16	5.3
	Red	18	6.0
	Yellow	20	6.7
	Purple	22	7.3
	Blue	24	8.0
	Black	26	8.7



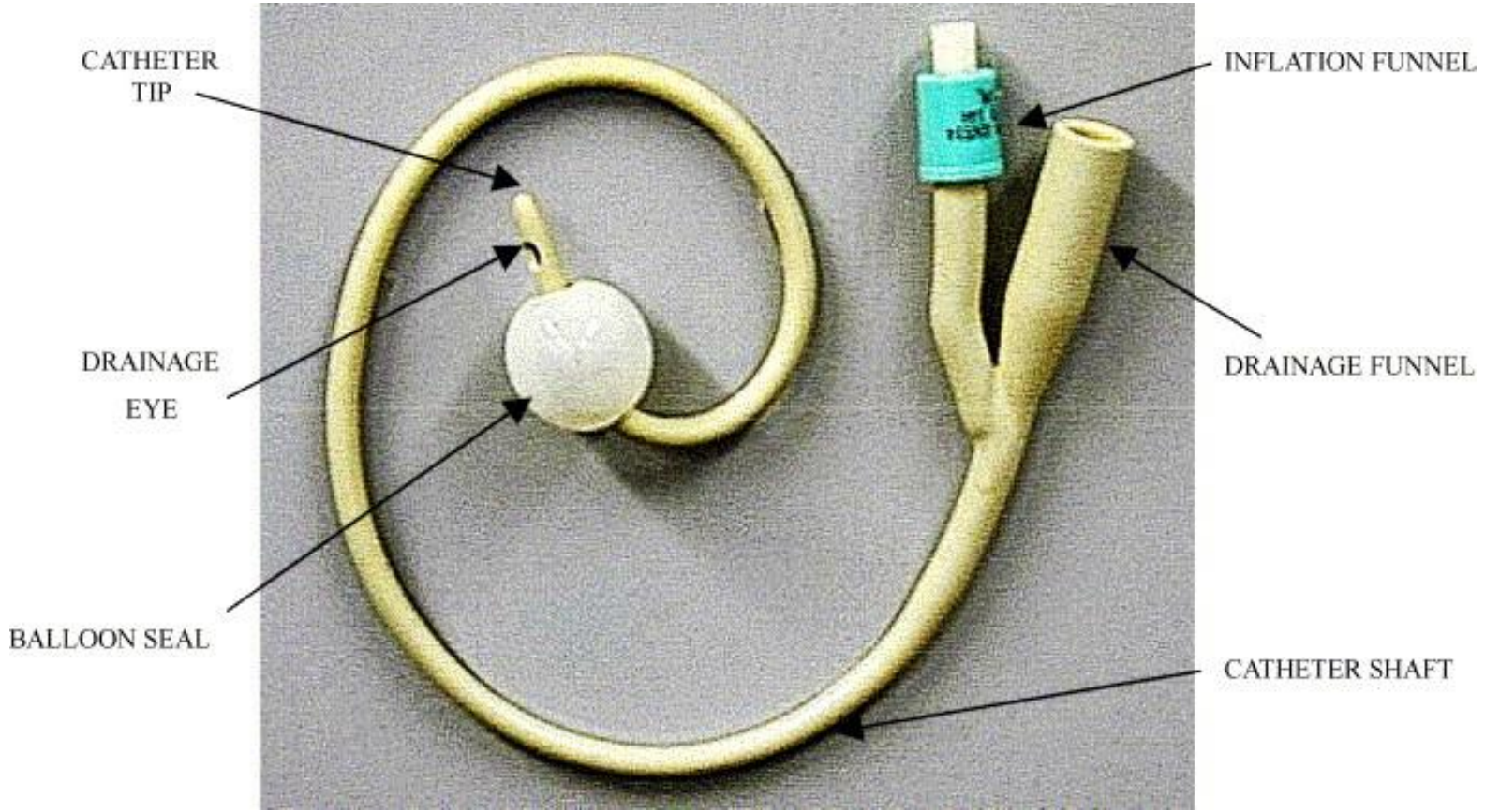
- 6 Fr
  - 8 Fr
  - 10 Fr
  - 12 Fr
  - 14 Fr
  - 16 Fr
  - 18 Fr
  - 20 Fr
  - 22 Fr
- Paediatric: 6-10Fr
- Adult Female: 12-14Fr
- Adult Male: 14-18Fr
- Clot Retention: 20-22Fr

**Catheter Lengths:**

Paediatric – 30cm

Female – 26cm

Male – 43cm



CATHETER TIP

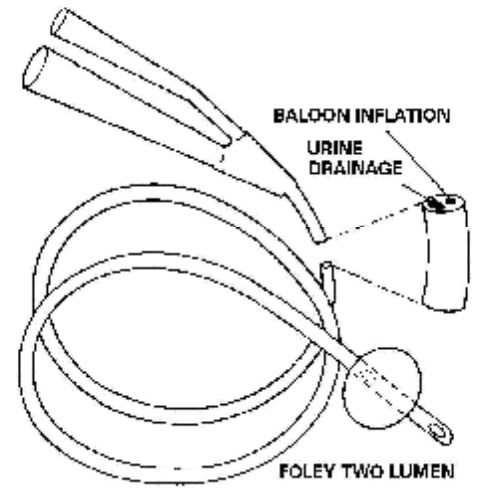
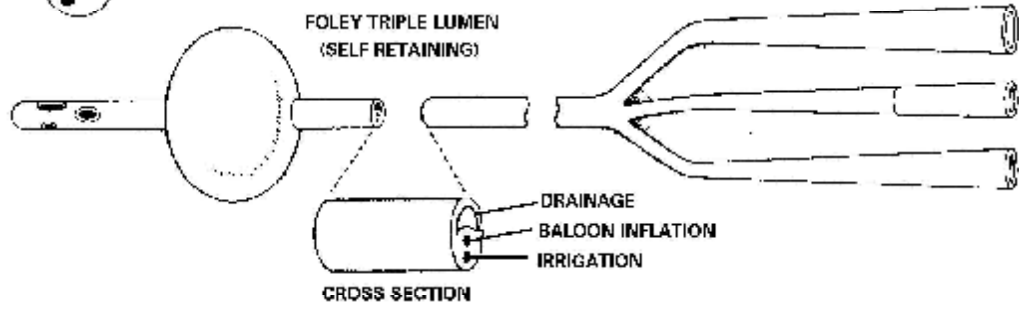
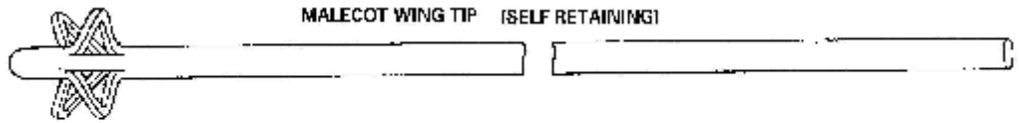
DRAINAGE EYE

BALLOON SEAL

INFLATION FUNNEL

DRAINAGE FUNNEL

CATHETER SHAFT





Robinson catheter (plain straight catheter with 2 eyes)



Whistle-tip catheter



Pezzer catheter (self-retaining)



Malecot catheter (self-retaining)



Foley catheter (self-retaining)



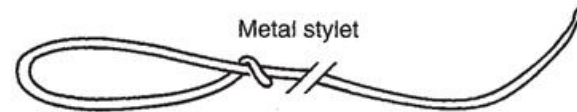
Three-way Foley catheter (self-retaining)



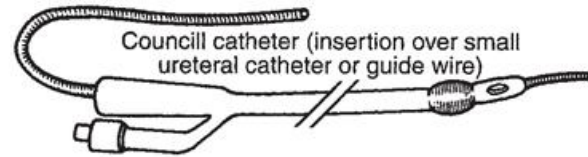
Coudé catheter (elbow, self-retaining)



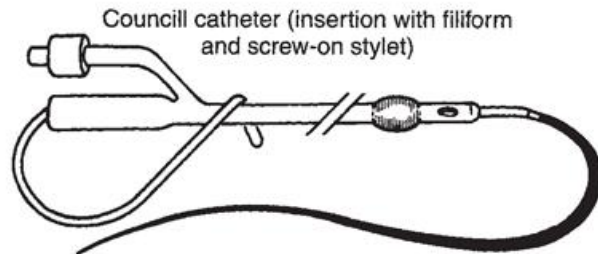
Metal stilet



Councill catheter (insertion over small ureteral catheter or guide wire)



Councill catheter (insertion with filiform and screw-on stilet)

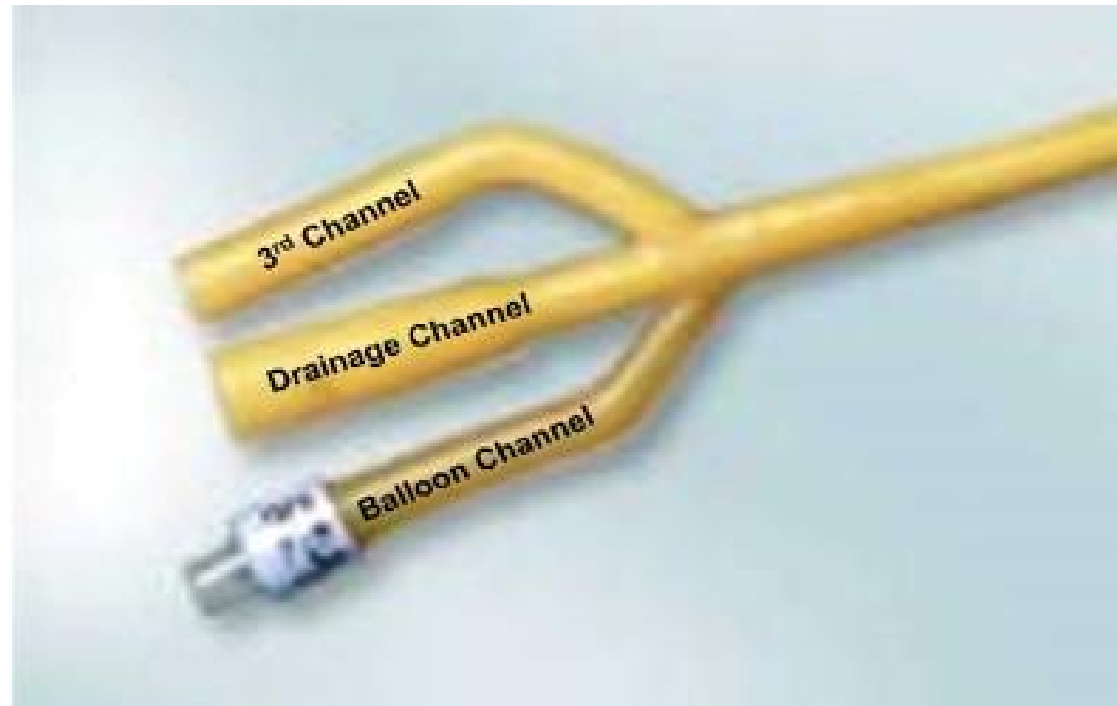


Source: McAninch JW, Lue TF: *Smith & Tanagho's General Urology*, 18th Edition: [www.accessmedicine.com](http://www.accessmedicine.com)

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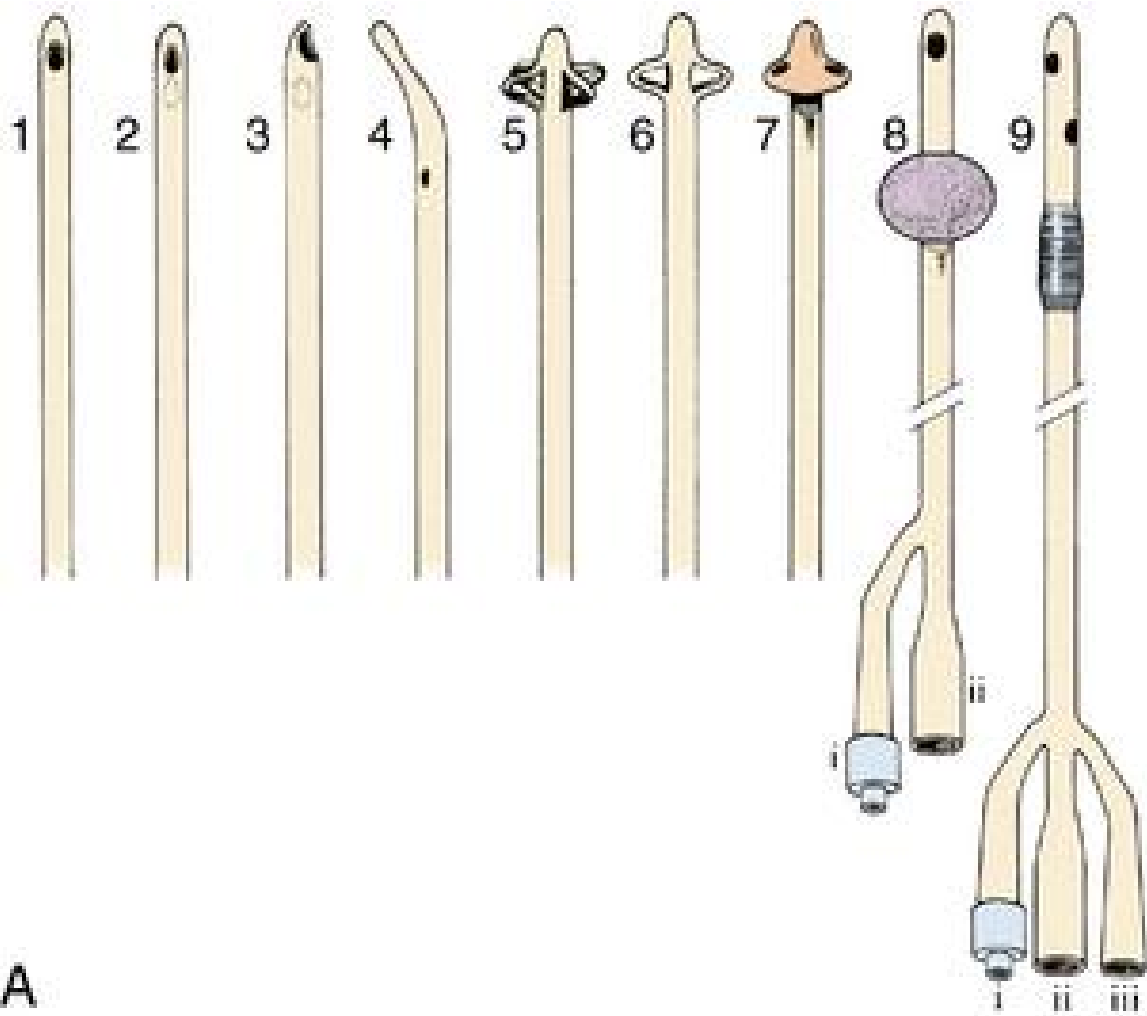




**Urethral Catheter Bard®  
Robinson / Nelaton Tip Red Rubber  
16 Fr. 16 Inch - 277716**



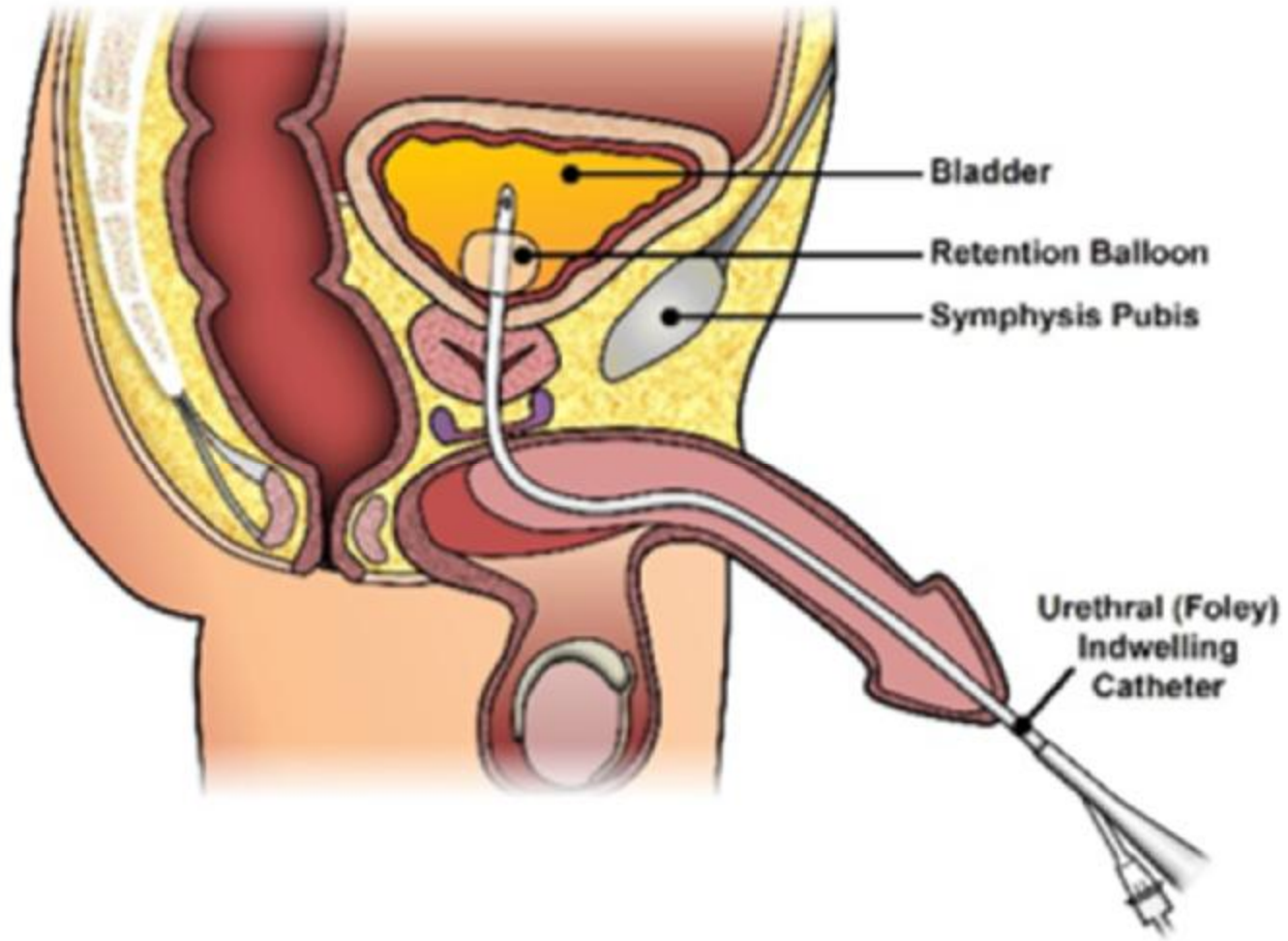
**EAU**  
History  
Office



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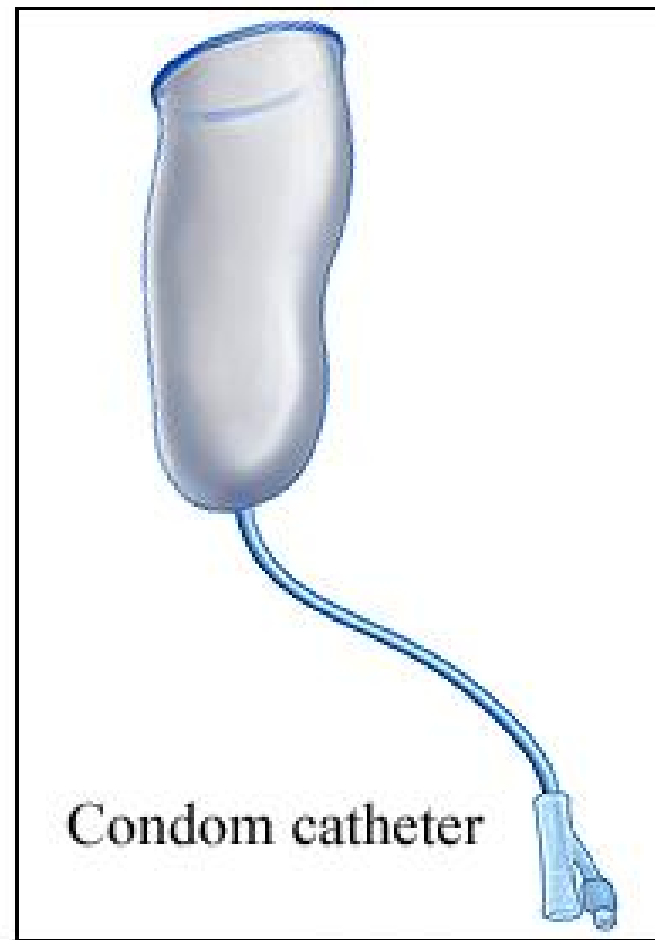










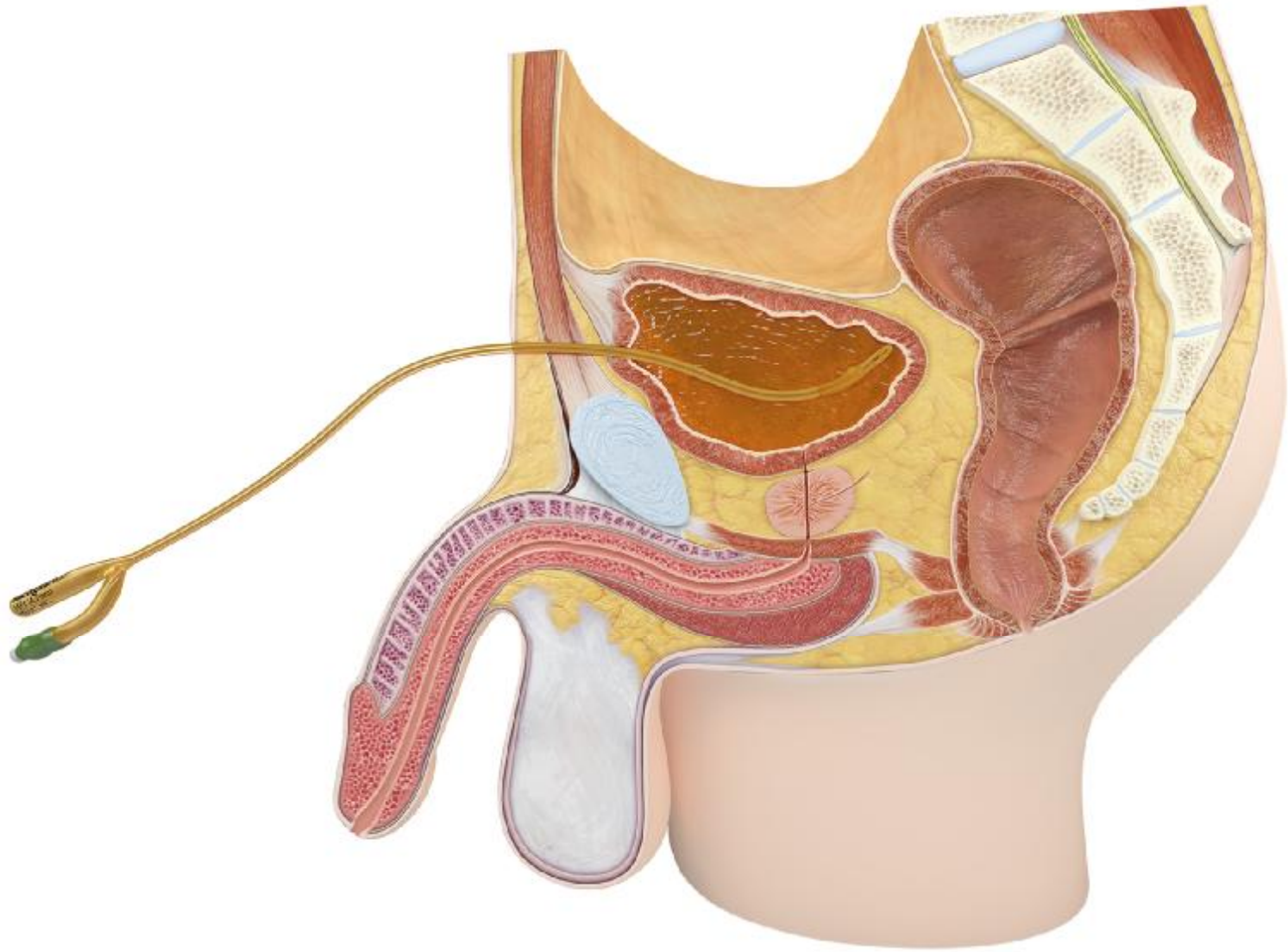


Condom catheter











## Indications of urethral catheterization

therapeutic	acute and chronic retention
	installation of intravesical medications
	management of minor urethral and extravesical bladder injuries
	evacuates and irrigate the bladder in case of clot retention
diagnostic	assessing the PVRV
	installation of intravesical contrast
	obtaining sterile urine sample
	urodynamic study
	bladder distension ppprior to ppelvic U/S
monitoring	intensive care setting including critical patients and intraoperative monitoring
as a part of surgical procedure	decompresses and localizes the bladder in pelvic surgeries
	protects and irrigates the bladder after TURT and TURP
	protects and stents the anastomosis in urethral surgeries
	localizes the urethra in perineal surgeries
palliative	facilitates nursing
	diverts the urine away from wounded or infected area

## contaminations of urethral catheterization

urethral trauma: established or suspected	suggestive history blood in the meatus high-riding prostate on DRE butterfly perineal hematoma
Acute infection	perineal or urethral abscess acute prostatitis
failure of catheterization	urethral stricture severely distorted urethra by BPH or CAP or pelvic or perineal mass lesion
allergy to the material of the catheter	e.g. latex rubber allergy

## complications of urethral catheters

Short-term	urethral trauma: urethral rupture, tear, false passage or hematuria. bladder trauma UTI retained catheter bladder irritation and discomfort catheter blockade leakage from the catheter, urine bag, or around the catheter sexual dysfunction
long-term	colonization
	malignancy
	encrustation and calculi formation
	hematuria
	stricture
	urethral sloughing
	acquired hypospadias
	damage of urethral sphincter

