

Micturition

Urethra

- Muscular tube that:
 - Drains urine from the bladder
 - Conveys it out of the body
- Sphincters keep the urethra closed when urine is not being passed
 - Internal urethral sphincter – involuntary sphincter at the bladder-urethra junction
 - External urethral sphincter – voluntary sphincter surrounding the urethra as it passes through the urogenital diaphragm
 - Levator ani muscle – voluntary urethral sphincter

Urethra

- The female urethra is tightly bound to the anterior vaginal wall
- Its external opening lies anterior to the vaginal opening and posterior to the clitoris
- The male urethra has three named regions
 - Prostatic urethra – runs within the prostate gland
 - Membranous urethra – runs through the urogenital diaphragm
 - Spongy (penile) urethra – passes through the penis and opens via the external urethral orifice

Urethra

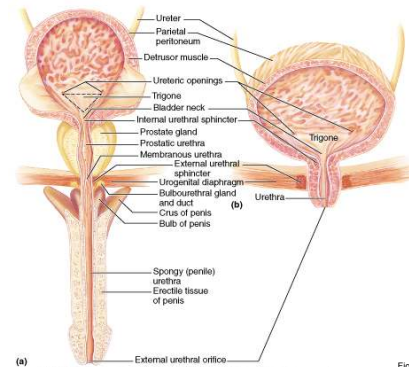


Figure 24.18a, b

Micturition (Voiding or Urination)

- The act of emptying the bladder
- Distension of bladder walls initiates spinal reflexes that:
 - Stimulate contraction of the external urethral sphincter
 - Inhibit the detrusor muscle and internal sphincter (temporarily)
- Voiding reflexes:
 - Stimulate the detrusor muscle to contract
 - Inhibit the internal and external sphincters

Micturition (Voiding or Urination)

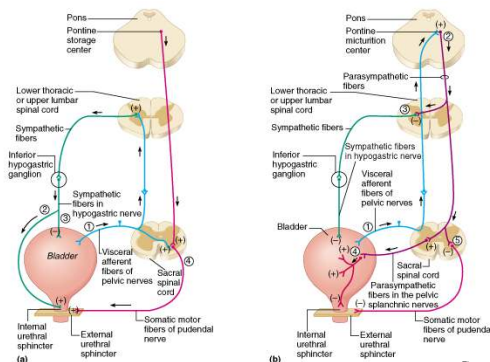


Figure 24.20