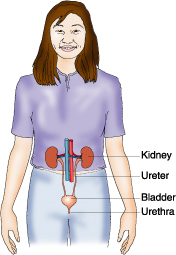
# Answers to Questions in the Workbook, Chapter 37, The Urinary System

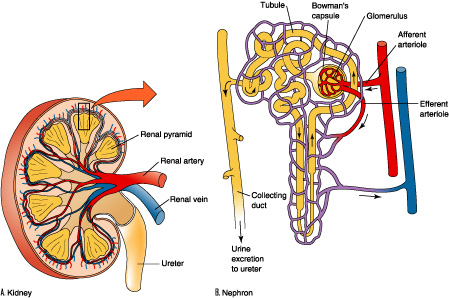
Activity A LABEL AND DESCRIBE  


1. Kidney: Filters the blood to remove waste products

2. Ureter: Carries urine from the kidneys to the bladder

3. Bladder: Stores the urine

4. Urethra: Carries urine from the bladder to the outside of the body

Activity B LABEL THE FIGURE AND REARRANGE  


6

1

7

3

8

2

4

5

Activity C TRUE OR FALSE

* 1. T
  2. F. The job of the kidneys is to remove LIQUID waste from the body.
  3. F. The URETER is approximately 10 to 13 inches (25 to 32 cm) long, and carries urine from the kidneys to the bladder.
  4. F. The TRIGONE keeps urine from flowing back into the ureters after it has emptied into the bladder.

Activity D FILL IN THE BLANKS

1. The blood flow through the renal arteries, which are branches of the aorta, is so efficient, that the kidneys are able to filter all of the body’s blood every half hour.

2. The ureters are wide at the top where they connect to the renal pelvis, but they quickly become very narrow where they enter the bladder.

3. Each nephron consists of a glomerulus and a tubule. The glomerulus is a capillary bed, enclosed within a structure called Bowman capsule.

4. The kidneys produce 160 to 180 L of filtrate each day, but only about 1 to 1.5 L is excreted from the body in the form of urine.

Activity E SHORT ANSWER

A person feels the urge to urinate when the bladder contains about 200 to 300 mL of urine. At this point, the internal sphincter opens and allows urine to flood the upper segment of the urethra. This lets us know that we need to urinate. Although it is possible to delay urination for some time, the bladder continues to fill with urine, and eventually, the bladder will empty itself automatically.

Activity F FILL IN THE BLANKS

1. A moderately full bladder usually contains about 1 pint (470 mL) of urine.

2. When about 200 to 300 mL of urine collects in the bladder, the internal sphincter opens and allows urine to flood the upper segment of the urethra.

3. Acid is a normal by-product of cellular metabolism.

4. Human blood is slightly above a 7 on the pH scale, which ranges from 1 to 14.

Activity G TRUE OR FALSE

1. F. The urinary system maintains the level of FLUIDS in the body.

2. T

3. F. The urinary system regulates the levels of minerals such as POTASSIUM, CALCIUM, and SODIUM by either saving them or releasing them through urine.

Activity H MATCHING

1. b

2. c

3. a

Activity I MATCHING

1. e

2. d

3. a

4. f

* 1. b
  2. c
  3. h
  4. g

Activity J SHORT ANSWER

When providing perineal care for a female, it is important to wipe from front to back because the urethral opening in females is located close to the anus. Because feces, which contain bacteria from the digestive tract, exit the body at the anus, this area is often contaminated with microbes that could cause a bladder infection. Also, the female urethra is short and straight, which means that once microbes gain access to the urinary tract, they do not have far to travel to infect the bladder.

Activity K SHORT ANSWER

Signs and symptoms that could indicate a urinary tract infection include urinary frequency, urinary urgency, dysuria, fever, and urine that is cloudy or foul smelling.

Activity L TRUE OR FALSE

1. T

2. F. In older people, symptoms of urinary tract infections MAY include urinary frequency, burning, and cramping.

3. F. The most common causes of CHRONIC renal failure are hypertension and diabetes.

4. T

5. F. In lithotripsy, the kidney stone is removed by USING SOUND WAVES TO DISSOLVE IT AND THEN PASSING IT THROUGH THE URINARY TRACT.

6. T

7. T

8. F. Usually early in acute renal failure, because the kidneys cannot reabsorb filtrate back into the bloodstream, the person may become DEHYDRATED.

9. F. A person with a neurogenic bladder may have an underactive bladder that is FLACCID, OR UNABLE TO CONTRACT FORCEFULLY.

Activity M SHORT ANSWER

Mrs. Grande’s complaint about the pain in the upper back region could be because of a kidney stone. The increased pain on urination and the blood in the urine may be a sign that Mrs. Grande’s kidney stone has started to move downward and its rough edges are causing the mucosal lining of the ureter or urethra to bleed.

Activity N IDENTIFY

A. Ureterostomy

B. Urostomy (ileal conduit)

Activity O SHORT ANSWER

When caring for a person who has had a urinary diversion procedure done, the nursing assistant should remember the following: (1) Good skin care around the ostomy site is essential. If urine is allowed to leak around the appliance, skin irritation and breakdown are very likely. (2) The urostomy bags need to be emptied regularly and the urine may need to be measured and recorded. (3) As always, the urine needs to be observed for any changes that might indicate infection or other urinary tract disorders.

Activity P FILL IN THE BLANKS

1. During hemodialysis, the person’s blood is drawn intravenously, passed through a machine with filters and solutions that clean the blood of waste, and then returned to the person’s body through another vessel.
2. During peritoneal dialysis, solutions that absorb waste products are instilled into a person’s abdominal cavity so that waste products can be absorbed into the solution through the membrane lining the abdominal cavity.
3. Do not place a blood pressure cuff on an arm that has a dialysis shunt.
4. Tumors of the bladder are common among people who have smoked cigarettes.
5. Bladder cancer is a common reason for a person to have a ureterostomy or urostomy.
6. Congenital conditions such as spina bifida can result in a person having a urinary diversion procedure done.

Activity Q MATCHING

1. d
2. c
3. a
4. b

Activity R SHORT ANSWER

When caring for a person who is about to have a diagnostic test done to evaluate the urinary system, the nursing assistant may be asked to collect and measure urine for testing. The nursing assistant is also responsible for following specific instructions related to the person’s care, such as keeping the person on NPO status, restricting or encouraging fluids, or straining urine.

Activity S JUMBLED WORDS

1. RENAL

2. FILTRATE

3. CYSTITIS

4. DIALYSIS

5. NEPHRON