

Urinary Anatomy Quiz Answer Key PDF

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What is the main function of the urinary bladder?

- A. Filter blood
- B. Store urine ✓**
- C. Transport urine
- D. Reabsorb nutrients

What is the structural and functional unit of the kidney?

- A. Alveolus
- B. Nephron ✓**
- C. Glomerulus
- D. Tubule

What is the primary role of the urethra?

- A. Store urine
- B. Filter blood
- C. Conduct urine out of the body ✓**
- D. Reabsorb water

Which part of the nephron is responsible for filtering blood?

- A. Loop of Henley
- B. Proximal tubule
- C. Glomerulus ✓**
- D. Distal tubule

Which of the following are functions of the kidneys? (Select all that apply)

- A. Regulate blood pressure ✓**
- B. Produce insulin
- C. Remove waste from the blood ✓**
- D. Regulate electrolyte balance ✓**

Explain the role of the kidneys in maintaining homeostasis in the body.

The kidneys maintain homeostasis by filtering blood to remove waste products, regulating water and electrolyte balance, and controlling blood pressure through the renin-angiotensin-aldosterone system.

Which structures are part of the nephron? (Select all that apply)

- A. Glomerulus ✓**
- B. Loop of Henley ✓**
- C. Alveoli
- D. Distal tubule ✓**

Describe the process of filtration in the nephron and its significance.

Filtration occurs in the nephron at the glomerulus, where blood pressure forces water, ions, and small solutes through the glomerular membrane into the Bowman's capsule, while larger molecules and blood cells remain in circulation.

How does the hormone aldosterone affect kidney function and blood pressure?

Aldosterone affects kidney function by promoting sodium reabsorption and potassium excretion, which increases blood volume and raises blood pressure.

Discuss how the structure of the urinary bladder supports its function.

The urinary bladder's structure, characterized by a muscular wall (detrusor muscle) and a lining of transitional epithelium, supports its function by enabling it to stretch to hold urine and contract to expel it.

Which hormone is primarily responsible for regulating water balance in the kidneys?

- A. Insulin
- B. Thyroxine
- C. Antidiuretic hormone (ADH) ✓**
- D. Glucagon

What processes are involved in urine formation? (Select all that apply)

- A. Filtration ✓**
- B. Digestion
- C. Reabsorption ✓**
- D. Secretion ✓**

Which of the following are symptoms of a urinary tract infection (UTI)? (Select all that apply)

- A. Frequent urination ✓**
- B. High blood sugar
- C. Burn sensation during urination ✓**
- D. Cloudy urine ✓**

Outline the steps involved in diagnosing a urinary tract infection.

1. Take a detailed patient history to identify symptoms such as frequent urination, burning sensation, and lower abdominal pain. 2. Conduct a physical examination to check for tenderness in the abdomen or back. 3. Perform a urinalysis to detect the presence of bacteria, white blood cells, and red blood cells in the urine. 4. If necessary, obtain a urine culture to identify the specific bacteria causing the infection and determine the appropriate antibiotic treatment.

Which condition is characterized by the formation of solid deposits in the kidneys?

- A. Urinary Tract Infection
- B. Chronic Kidney Disease
- C. Kidneys Stones ✓**
- D. Glomerulonephritis

Which hormones influence kidney function? (Select all that apply)

- A. Aldosterone ✓**
- B. Cortisol

C. Antidiuretic hormone (ADH) ✓

D. Estrogen

What are the potential causes and treatments for kidney stones?

Potential causes of kidney stones include dehydration, high dietary oxalate, high salt intake, obesity, and certain medical conditions like hyperparathyroidism. Treatments may involve increasing fluid intake, dietary modifications, medications to manage pain or prevent stone formation, and procedures like lithotripsy or surgery for larger stones.

Which organ is primarily responsible for filtering blood in the urinary system?

A. Ureter

B. Bladder

C. Kidneys ✓

D. Urethra

Where are the kidneys located in the body?

A. In the thoracic cavity

B. Retroperitoneally ✓

C. In the cranio cavity

D. In the abdominal cavity

Which diagnostic tools are used to assess urinary system health? (Select all that apply)

A. Urinalysis ✓

B. MRI

C. Blood tests ✓

D. X-ray ✓