

Kidney Stones: 100-Question Multiple-Choice Quiz

1. What are kidney stones primarily made of?

- A. Muscle tissue
- B. Hardened minerals and salts
- C. Fat deposits
- D. Blood clots

2. Which organ is most directly affected by kidney stones?

- A. Liver
- B. Pancreas
- C. Kidneys
- D. Lungs

3. What is the medical term for kidney stones?

- A. Nephrolithiasis
- B. Hepatitis
- C. Gastritis
- D. Arthritis

4. Which symptom is most commonly associated with kidney stones?

- A. Chest pain
- B. Severe flank pain
- C. Skin rash
- D. Earache

5. What is the most common type of kidney stone?

- A. Cystine stones
- B. Struvite stones
- C. Calcium oxalate stones
- D. Uric acid stones

Answer: C. Calcium oxalate stones

Explanation: Calcium oxalate stones are the most frequently occurring kidney stones.

6. Which dietary factor increases kidney stone risk?

- A. High water intake
- B. Excess sodium consumption
- C. Eating vegetables
- D. Low sugar intake

Answer: B. Excess sodium consumption

Explanation: High sodium intake increases calcium in the urine, raising the risk of stone formation.

7. Which beverage helps reduce kidney stone risk?

- A. Water
- B. Soda
- C. Energy drinks
- D. Alcohol

Answer: A. Water

Explanation: Staying well-hydrated dilutes urine and helps prevent crystal formation.

8. Which mineral is commonly found in kidney stones?

- A. Iron
- B. Calcium
- C. Zinc
- D. Magnesium

Answer: B. Calcium

Explanation: Many kidney stones contain calcium, especially calcium oxalate stones.

9. What color may urine become if kidney stones cause bleeding?

- A. Green
- B. Purple
- C. Pink or red
- D. White

Answer: C. Pink or red

Explanation: Blood in the urine, called hematuria, may give urine a pink, red, or brown appearance.

10. Which test is commonly used to diagnose kidney stones?

- A. EEG
- B. CT scan
- C. Colonoscopy
- D. Mammogram

Answer: B. CT scan

Explanation: CT scans are highly effective at detecting kidney stones and determining their size and location.

11. What is hematuria?

- A. Kidney infection
- B. Blood in the urine
- C. High blood pressure
- D. Swelling of the kidneys

Answer: B. Blood in the urine

Explanation: Hematuria refers to the presence of blood in urine, often caused by kidney stones irritating the urinary tract.

12. Which condition increases the likelihood of kidney stones?

- A. Dehydration
- B. Low blood pressure
- C. Nearsightedness
- D. Asthma

Answer: A. Dehydration

Explanation: Dehydration concentrates the urine, making crystal formation more likely.

13. Which stone type is associated with gout?

- A. Calcium oxalate stones
- B. Uric acid stones
- C. Struvite stones
- D. Cystine stones

Answer: B. Uric acid stones

Explanation: Gout increases uric acid levels, contributing to uric acid stone formation.

14. What is the primary function of the kidneys?

- A. Produce insulin
- B. Filter waste from blood
- C. Digest food
- D. Pump blood

Answer: B. Filter waste from blood

Explanation: The kidneys remove waste products and excess fluid from the bloodstream to form urine.

15. Which symptom may occur when a stone blocks urine flow?

- A. Frequent painful urination
- B. Hair loss
- C. Blurred vision

D. Sneezing

Answer: A. Frequent painful urination

Explanation: Stones near the bladder can cause urinary urgency and pain.

16. What size of kidney stone is most likely to pass naturally?

- A. Smaller than 5 mm
- B. Larger than 20 mm
- C. Exactly 15 mm
- D. Over 30 mm

Answer: A. Smaller than 5 mm

Explanation: Small stones often pass through the urinary tract without surgery.

17. Which food is high in oxalates?

- A. Spinach
- B. Chicken
- C. Rice
- D. Yogurt

Answer: A. Spinach

Explanation: Spinach contains high levels of oxalates, which can contribute to calcium oxalate stones.

18. Which symptom often accompanies severe kidney stone pain?

- A. Nausea and vomiting
- B. Hearing loss
- C. Toothache
- D. Rash

Answer: A. Nausea and vomiting

Explanation: Intense pain from kidney stones may trigger nausea and vomiting.

19. What is lithotripsy?

- A. Kidney transplant surgery
- B. Stone-breaking treatment using sound waves
- C. A blood test
- D. A type of medication

Answer: B. Stone-breaking treatment using sound waves

Explanation: Extracorporeal shock wave lithotripsy uses sound waves to break stones into smaller pieces.

20. Which type of kidney stone is linked to recurrent urinary tract infections?

- A. Calcium stones
- B. Uric acid stones
- C. Struvite stones
- D. Cystine stones

Answer: C. Struvite stones

Explanation: Struvite stones commonly develop in response to chronic urinary tract infections.

21. Which imaging test avoids radiation exposure?

- A. Ultrasound
- B. CT scan
- C. X-ray
- D. PET scan

Answer: A. Ultrasound

Explanation: Ultrasound uses sound waves instead of radiation and may be preferred in certain patients.

22. Which factor increases kidney stone recurrence?

- A. Drinking plenty of water
- B. Previous history of stones
- C. Regular exercise
- D. Low salt intake

Answer: B. Previous history of stones

Explanation: Individuals who have had kidney stones are more likely to develop them again.

23. Which medication may help pass kidney stones?

- A. Antibiotics only
- B. Alpha blockers
- C. Antidepressants
- D. Antihistamines

Answer: B. Alpha blockers

Explanation: Alpha blockers relax muscles in the urinary tract, helping stones pass more easily.

24. Which type of stone is caused by a rare inherited disorder?

- A. Struvite stones
- B. Calcium stones
- C. Cystine stones
- D. Uric acid stones

Answer: C. Cystine stones

Explanation: Cystine stones occur in people with cystinuria, a genetic disorder.

25. What is a common location for kidney stone pain?

- A. Lower back
- B. Shoulder
- C. Jaw
- D. Wrist

Answer: A. Lower back

Explanation: Kidney stone pain often begins in the back or side below the ribs.

26. Which fluid intake recommendation helps prevent stones?

- A. Less than 1 liter daily
- B. 2–3 liters daily
- C. No fluids after noon
- D. Only coffee

Answer: B. 2–3 liters daily

Explanation: Adequate hydration helps dilute substances that form stones.

27. Which condition may result if a kidney stone blocks urine completely?

- A. Kidney damage
- B. Improved kidney function
- C. Faster metabolism
- D. Better vision

Answer: A. Kidney damage

Explanation: Untreated obstruction can damage the kidneys over time.

28. Which age group most commonly develops kidney stones?

- A. Infants only
- B. Adults aged 30–60
- C. Teenagers only
- D. People over 100

Answer: B. Adults aged 30–60

Explanation: Kidney stones are most common in middle-aged adults.

29. Which gender is slightly more likely to develop kidney stones?

- A. Females only
- B. Males
- C. Both equally in all ages
- D. Children

Answer: B. Males

Explanation: Men historically have higher rates of kidney stones, though rates in women are increasing.

30. What does a urinalysis help detect?

- A. Bone fractures
- B. Blood and crystals in urine
- C. Brain tumors
- D. Heart rhythm problems

Answer: B. Blood and crystals in urine

Explanation: Urinalysis can reveal blood, crystals, infection, and other signs of kidney stones.

31. Which vitamin in excessive amounts may increase kidney stone risk?

- A. Vitamin C
- B. Vitamin K

- C. Vitamin B12
- D. Vitamin D only

Answer: A. Vitamin C

Explanation: High doses of vitamin C can increase oxalate production in the body.

32. Which medical specialist commonly treats kidney stones?

- A. Dermatologist
- B. Urologist
- C. Ophthalmologist
- D. Neurologist

Answer: B. Urologist

Explanation: Urologists specialize in diseases of the urinary tract and male and female reproductive systems.

33. What is renal colic?

- A. Mild headache
- B. Severe pain caused by kidney stones
- C. Stomach ulcer
- D. Liver swelling

Answer: B. Severe pain caused by kidney stones

Explanation: Renal colic refers to intense pain when a stone obstructs urine flow.

34. Which dietary habit may help prevent calcium stones?

- A. Eliminating all calcium
- B. Eating moderate dietary calcium
- C. Avoiding all vegetables
- D. Consuming excessive salt

Answer: B. Eating moderate dietary calcium

Explanation: Normal calcium intake can help bind oxalate in the intestines and reduce stone risk.

35. Which symptom may indicate infection with a kidney stone?

- A. Fever and chills
- B. Dry skin
- C. Nosebleeds
- D. Hair thinning

Answer: A. Fever and chills

Explanation: Fever and chills may signal a urinary tract infection, which can become serious if combined with obstruction.

36. Which stone type forms in acidic urine?

- A. Uric acid stones
- B. Struvite stones
- C. Calcium phosphate stones
- D. Infection stones only

Answer: A. Uric acid stones

Explanation: Acidic urine promotes the formation of uric acid stones.

37. Which imaging test is fastest in emergencies?

- A. CT scan
- B. Colonoscopy
- C. MRI of the knee
- D. Echocardiogram

Answer: A. CT scan

Explanation: CT scans provide rapid and detailed images useful in diagnosing kidney stones.

38. What is the ureter?

- A. Tube connecting kidney to bladder
- B. Blood vessel in the heart
- C. Lung airway
- D. Digestive organ

Answer: A. Tube connecting kidney to bladder

Explanation: The ureter carries urine from each kidney to the bladder.

39. Which factor increases stone risk during hot weather?

- A. Increased sweating
- B. Cold temperatures
- C. Less sunlight
- D. Improved hydration

Answer: A. Increased sweating

Explanation: Sweating can cause dehydration, concentrating the urine.

40. Which procedure uses a scope to remove stones?

- A. Ureteroscopy
- B. Appendectomy
- C. Bronchoscopy
- D. Endoscopy of stomach only

Answer: A. Ureteroscopy

Explanation: Ureteroscopy involves inserting a small scope into the urinary tract to remove or break stones.

41. Which urine characteristic raises stone risk?

- A. Dilute urine
- B. Concentrated urine
- C. Clear urine only
- D. Sweet-smelling urine

Answer: B. Concentrated urine

Explanation: Concentrated urine allows minerals to crystallize more easily.

42. Which mineral should often be limited in high-risk individuals?

- A. Sodium
- B. Potassium
- C. Phosphorus
- D. Iron

Answer: A. Sodium

Explanation: Too much sodium increases calcium excretion into the urine.

43. What is a staghorn calculus?

- A. Tiny stone in the bladder
- B. Large branching kidney stone
- C. Bone disorder
- D. Liver cyst

Answer: B. Large branching kidney stone

Explanation: Staghorn stones fill parts of the kidney and can impair kidney function.

44. Which stone may form in alkaline urine?

- A. Uric acid stone

- B. Calcium oxalate stone only
- C. Struvite stone
- D. Cholesterol stone

Answer: C. Struvite stone

Explanation: Struvite stones often form in alkaline urine during infections.

45. What does passing a kidney stone often feel like?

- A. Painless relaxation
- B. Sharp cramping pain
- C. Mild itching
- D. Numbness in fingers

Answer: B. Sharp cramping pain

Explanation: Kidney stones commonly cause severe cramping pain as they move through the ureter.

46. Which test can identify stone composition?

- A. Stone analysis
- B. Vision screening
- C. EEG
- D. Skin biopsy

Answer: A. Stone analysis

Explanation: Laboratory analysis of passed stones helps determine their chemical makeup.

47. Which diet may increase uric acid stone risk?

- A. High-protein diet
- B. Vegetarian diet
- C. Low-sodium diet
- D. High-fiber diet

Answer: A. High-protein diet

Explanation: Excess animal protein can increase uric acid levels.

48. Which urinary symptom may occur with stones?

- A. Burning during urination
- B. Improved urination flow
- C. No urge to urinate ever
- D. Increased hearing

Answer: A. Burning during urination

Explanation: Stones can irritate the urinary tract, causing discomfort during urination.

49. Which population is at increased risk of cystine stones?

- A. People with cystinuria
- B. People with asthma only
- C. Individuals with eczema
- D. People with migraines

Answer: A. People with cystinuria

Explanation: Cystinuria is an inherited condition causing excess cystine in urine.

50. What is hydronephrosis?

- A. Swelling of the kidney from urine buildup
- B. Kidney infection only
- C. Bone disease
- D. Skin infection

Answer: A. Swelling of the kidney from urine buildup

Explanation: A blocked ureter can cause urine to back up and enlarge the kidney.

51. Which over-the-counter medication may help pain from stones?

- A. Ibuprofen
- B. Antibiotics
- C. Insulin
- D. Antacids only

Answer: A. Ibuprofen

Explanation: Nonsteroidal anti-inflammatory drugs may help reduce kidney stone pain.

52. Which factor can contribute to dehydration?

- A. Excessive exercise without fluids
- B. Drinking water regularly
- C. Eating fruit
- D. Sleeping normally

Answer: A. Excessive exercise without fluids

Explanation: Heavy sweating without replacing fluids increases dehydration risk.

53. Which symptom suggests a medical emergency with kidney stones?

- A. Fever and inability to urinate
- B. Mild fatigue only
- C. Sneezing
- D. Mild hiccups

Answer: A. Fever and inability to urinate

Explanation: Obstruction with infection can become life-threatening and needs urgent care.

54. Which beverage may increase stone risk in some people?

- A. Sugary soda
- B. Water
- C. Lemon water
- D. Milk in moderation

Answer: A. Sugary soda

Explanation: Some sodas contain substances linked to increased stone risk.

55. What role does citrate play in stone prevention?

- A. Promotes stone formation
- B. Helps prevent crystals from forming
- C. Causes infections
- D. Increases sodium levels

Answer: B. Helps prevent crystals from forming

Explanation: Citrate binds calcium and reduces stone formation.

56. Which fruit is often recommended because of citrate content?

- A. Lemon
- B. Banana
- C. Apple only
- D. Pear only

Answer: A. Lemon

Explanation: Lemons contain citrate, which may help reduce stone formation.

57. Which condition may develop from untreated kidney stones?

- A. Kidney infection

- B. Improved digestion
- C. Better lung function
- D. Hair growth

Answer: A. Kidney infection

Explanation: Blocked urine flow can increase infection risk.

58. Which imaging method uses sound waves?

- A. Ultrasound
- B. CT scan
- C. X-ray only
- D. PET scan

Answer: A. Ultrasound

Explanation: Ultrasound creates images using sound waves.

59. Which factor can increase calcium in urine?

- A. High salt intake
- B. Low sodium diet
- C. Drinking water
- D. Walking daily

Answer: A. High salt intake

Explanation: Sodium causes the kidneys to excrete more calcium.

60. What is the bladder's main function?

- A. Filter blood
- B. Store urine
- C. Produce hormones
- D. Digest food

Answer: B. Store urine

Explanation: The bladder stores urine until urination occurs.

61. Which test may show kidney function?

- A. Blood creatinine test
- B. Eye exam
- C. Hearing test
- D. Allergy test

Answer: A. Blood creatinine test

Explanation: Creatinine levels help evaluate kidney function.

62. Which stone type is often associated with infections by certain bacteria?

- A. Struvite stones
- B. Uric acid stones
- C. Cystine stones
- D. Cholesterol stones

Answer: A. Struvite stones

Explanation: Certain bacteria produce ammonia, promoting struvite stone formation.

63. Which urinary change may occur during stone passage?

- A. Cloudy urine
- B. Blue urine
- C. Completely odorless urine always
- D. No urine production in all cases

Answer: A. Cloudy urine

Explanation: Infection or crystals may make urine appear cloudy.

64. Which factor increases kidney stone risk after bariatric surgery?

- A. Changes in absorption
- B. Increased hydration
- C. Better calcium balance
- D. Reduced oxalate absorption

Answer: A. Changes in absorption

Explanation: Some surgeries increase oxalate absorption and stone risk.

65. Which occupation may have higher stone risk due to heat exposure?

- A. Construction worker
- B. Librarian
- C. Music teacher
- D. Accountant

Answer: A. Construction worker

Explanation: Working in hot conditions may increase dehydration risk.

66. What is the urethra?

- A. Tube carrying urine out of the body
- B. Kidney tissue
- C. Blood vessel
- D. Digestive organ

Answer: A. Tube carrying urine out of the body

Explanation: The urethra transports urine from the bladder to outside the body.

67. Which symptom is least likely from kidney stones?

- A. Side pain
- B. Blood in urine

- C. Fever with infection
- D. Skin blistering

Answer: D. Skin blistering

Explanation: Skin blistering is not a typical kidney stone symptom.

68. Which condition may mimic kidney stone pain?

- A. Appendicitis
- B. Healthy digestion
- C. Seasonal allergies
- D. Nearsightedness

Answer: A. Appendicitis

Explanation: Several abdominal conditions can resemble kidney stone pain.

69. What is the goal of increased fluid intake?

- A. Concentrate urine
- B. Produce more dilute urine
- C. Eliminate calcium entirely
- D. Stop kidney function

Answer: B. Produce more dilute urine

Explanation: Diluting urine lowers the chance of crystal formation.

70. Which mineral imbalance may contribute to stones?

- A. High urinary calcium
- B. Low oxygen levels only
- C. Low vitamin B12
- D. High iron only

Answer: A. High urinary calcium

Explanation: Excess calcium in urine is a major risk factor for stones.

71. Which dietary item should often be moderated for stone prevention?

- A. Salt
- B. Water
- C. Fruits
- D. Vegetables entirely

Answer: A. Salt

Explanation: Lowering salt intake helps reduce calcium excretion.

72. Which symptom often comes in waves with kidney stones?

- A. Pain
- B. Vision changes
- C. Sneezing
- D. Hair loss

Answer: A. Pain

Explanation: Kidney stone pain often fluctuates as the stone moves.

73. Which urine pH favors uric acid stones?

- A. Acidic urine
- B. Alkaline urine
- C. Neutral urine only
- D. Any pH equally

Answer: A. Acidic urine

Explanation: Acidic urine promotes uric acid crystallization.

74. Which treatment may require anesthesia?

- A. Ureteroscopy
- B. Drinking water
- C. Urinalysis
- D. Blood pressure check

Answer: A. Ureteroscopy

Explanation: Ureteroscopy is a surgical procedure typically performed under anesthesia.

75. Which nutrient should not usually be eliminated entirely?

- A. Dietary calcium
- B. Added sugar
- C. Excess sodium
- D. Processed foods

Answer: A. Dietary calcium

Explanation: Normal calcium intake may actually help prevent calcium oxalate stones.

76. Which urinary tract structure connects to the kidneys?

- A. Ureters
- B. Bronchi
- C. Esophagus
- D. Colon

Answer: A. Ureters

Explanation: The ureters transport urine from the kidneys.

77. Which condition may cause repeated stone formation?

- A. Hyperparathyroidism
- B. Common cold
- C. Seasonal allergies
- D. Nearsightedness

Answer: A. Hyperparathyroidism

Explanation: Excess parathyroid hormone can increase calcium levels and stone risk.

78. Which symptom may indicate a stone near the bladder?

- A. Frequent urination
- B. Improved sleep
- C. Shoulder stiffness
- D. Hair thinning

Answer: A. Frequent urination

Explanation: Stones near the bladder may create urgency and frequency.

79. What is one purpose of a kidney stone prevention diet?

- A. Reduce crystal formation
- B. Stop all urination
- C. Increase sodium levels
- D. Eliminate all minerals

Answer: A. Reduce crystal formation

Explanation: Dietary changes aim to lower the concentration of stone-forming substances.

80. Which imaging test may miss very small stones compared with CT?

- A. Ultrasound
- B. CT scan
- C. MRI only
- D. PET scan

Answer: A. Ultrasound

Explanation: Ultrasound is less sensitive than CT for tiny stones.

81. Which factor is important after passing a stone?

- A. Stone analysis
- B. Ignoring symptoms
- C. Stopping fluids
- D. Avoiding all medical care

Answer: A. Stone analysis

Explanation: Identifying stone type helps guide prevention strategies.

82. Which condition may occur if both kidneys are blocked?

- A. Kidney failure
- B. Improved filtration
- C. Better hydration
- D. Faster healing

Answer: A. Kidney failure

Explanation: Bilateral obstruction can severely impair kidney function.

83. Which stone type is least common?

- A. Cystine stones
- B. Calcium stones
- C. Uric acid stones
- D. Struvite stones

Answer: A. Cystine stones

Explanation: Cystine stones are rare and linked to inherited disease.

84. Which lifestyle habit helps reduce recurrence?

- A. Staying hydrated
- B. Avoiding all fluids
- C. Excess soda intake
- D. High sodium diet

Answer: A. Staying hydrated

Explanation: Hydration is one of the most effective prevention methods.

85. Which symptom may worsen as the stone moves?

- A. Cramping pain
- B. Improved appetite only
- C. Better hearing
- D. Skin dryness

Answer: A. Cramping pain

Explanation: Movement through the ureter can intensify pain.

86. Which mineral combines with oxalate in common stones?

- A. Calcium
- B. Potassium
- C. Iron
- D. Copper

Answer: A. Calcium

Explanation: Calcium oxalate stones are the most common type.

87. Which condition is a risk factor for uric acid stones?

- A. Gout
- B. Asthma
- C. Eczema
- D. Cataracts

Answer: A. Gout

Explanation: Gout increases uric acid levels in the body.

88. Which fluid is best for hydration in stone prevention?

- A. Water
- B. Sugary soda
- C. Energy drinks
- D. Alcohol only

Answer: A. Water

Explanation: Water dilutes urine and reduces stone-forming concentration.

89. Which symptom requires urgent medical attention?

- A. Fever with severe pain
- B. Mild thirst
- C. Occasional hiccups
- D. Dry lips only

Answer: A. Fever with severe pain

Explanation: This combination may indicate an obstructed infected urinary tract.

90. Which condition may increase urinary calcium?

- A. Hyperparathyroidism
- B. Seasonal allergies
- C. Motion sickness
- D. Ear infection

Answer: A. Hyperparathyroidism

Explanation: Excess parathyroid hormone increases calcium release into the blood and urine.

91. Which urine finding may suggest stone formation?

- A. Crystals
- B. Normal hydration only
- C. No urine color
- D. Hair fragments

Answer: A. Crystals

Explanation: Urinary crystals may indicate substances capable of forming stones.

92. Which preventive strategy may help recurrent stone formers?

- A. Dietary counseling
- B. Complete fasting
- C. Avoiding all exercise
- D. Sleeping less

Answer: A. Dietary counseling

Explanation: Nutrition changes can significantly reduce recurrence risk.

93. Which body system contains the kidneys?

- A. Urinary system
- B. Respiratory system
- C. Nervous system
- D. Skeletal system

Answer: A. Urinary system

Explanation: The kidneys are part of the urinary tract.

94. Which factor may increase oxalate absorption?

- A. Certain intestinal disorders
- B. Adequate hydration
- C. Low sodium intake
- D. Moderate calcium intake

Answer: A. Certain intestinal disorders

Explanation: Digestive disorders can alter absorption and raise oxalate levels.

95. Which symptom is common when a stone enters the ureter?

- A. Severe intermittent pain
- B. Complete numbness
- C. Hearing loss
- D. Skin itching

Answer: A. Severe intermittent pain

Explanation: Ureteral spasms cause intense waves of pain.

96. Which dietary approach may help lower uric acid stones?

- A. Reducing animal protein
- B. Increasing salt intake
- C. Eliminating water
- D. Eating more processed foods

Answer: A. Reducing animal protein

Explanation: Lowering purine-rich foods can reduce uric acid production.

97. Which stone-related complication may cause sepsis?

- A. Infected obstructed stone
- B. Mild dehydration
- C. Low appetite

D. Small painless stone

Answer: A. Infected obstructed stone

Explanation: Infection behind a blockage can spread into the bloodstream.

98. Which procedure may place a temporary tube for drainage?

- A. Ureteral stent placement
- B. Eye surgery
- C. Colonoscopy
- D. Skin biopsy

Answer: A. Ureteral stent placement

Explanation: A stent keeps urine flowing past an obstruction.

99. Which habit is best for long-term prevention?

- A. Consistent hydration
- B. Avoiding all calcium
- C. Drinking only soda
- D. High sodium intake

Answer: A. Consistent hydration

Explanation: Regular hydration is essential to preventing recurrence.

100. Why is early treatment of kidney stones important?

- A. To prevent complications and kidney damage
- B. To improve eyesight
- C. To strengthen bones directly
- D. To cure allergies

Answer: A. To prevent complications and kidney damage

Explanation: Prompt treatment can relieve pain, prevent infection, and protect kidney function.