

Osteoporosis Quiz: 100 Multiple-Choice Questions with Answers

1. What is osteoporosis?

- A. A muscle disease
- B. A condition causing weak and brittle bones
- C. A skin infection
- D. A heart disorder

Answer: B. A condition causing weak and brittle bones

Explanation: Osteoporosis is a disease in which bones become less dense and more fragile, increasing the risk of fractures.

2. Which mineral is most important for bone strength?

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

Answer: C. Calcium

Explanation: Calcium is essential for building and maintaining strong bones throughout life.

3. Which vitamin helps the body absorb calcium?

- A. Vitamin A
- B. Vitamin C
- C. Vitamin D
- D. Vitamin K

Answer: C. Vitamin D

Explanation: Vitamin D helps the body absorb calcium from food and supports bone health.

4. Osteoporosis most commonly affects which body part?

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

Answer: B. Bones

Explanation: Osteoporosis weakens bones, especially in the spine, hips, and wrists.

5. Which gender is more likely to develop osteoporosis?

- A. Men
- B. Women
- C. Children
- D. Teenagers

Answer: B. Women

Explanation: Women are at higher risk because they generally have smaller bones and experience hormonal changes after menopause.

6. What is a common symptom of osteoporosis in early stages?

- A. Severe pain
- B. Fever
- C. Usually no symptoms
- D. Rash

Answer: C. Usually no symptoms

Explanation: Osteoporosis is often called a "silent disease" because bone loss occurs without noticeable symptoms.

7. Which test is commonly used to diagnose osteoporosis?

- A. MRI
- B. Blood glucose test

- C. Bone density scan
- D. Vision test

Answer: C. Bone density scan

Explanation: A bone density scan, often called a DEXA scan, measures bone mineral density.

8. Which age group is most at risk for osteoporosis?

- A. Infants
- B. Teenagers
- C. Older adults
- D. Preschool children

Answer: C. Older adults

Explanation: Bone density decreases with age, making older adults more vulnerable.

9. What type of fracture is commonly linked to osteoporosis?

- A. Skull fracture
- B. Hip fracture
- C. Finger fracture
- D. Jaw fracture

Answer: B. Hip fracture

Explanation: Hip fractures are common and serious complications of osteoporosis.

10. Which lifestyle habit increases osteoporosis risk?

- A. Regular exercise
- B. Smoking
- C. Drinking water
- D. Sleeping well

Answer: B. Smoking

Explanation: Smoking weakens bones and decreases bone density over time.

11. Which nutrient works with calcium to support bone health?

- A. Protein
- B. Vitamin D
- C. Fiber
- D. Zinc

Answer: B. Vitamin D

Explanation: Vitamin D is necessary for proper calcium absorption.

12. What does a DEXA scan measure?

- A. Blood pressure
- B. Bone density
- C. Heart rhythm
- D. Muscle strength

Answer: B. Bone density

Explanation: DEXA scans evaluate bone mineral density to assess fracture risk.

13. Which beverage may contribute to bone loss if consumed excessively?

- A. Water
- B. Milk
- C. Soda
- D. Orange juice

Answer: C. Soda

Explanation: Excessive soda intake may negatively affect calcium balance and bone health.

14. Which exercise is beneficial for osteoporosis prevention?

- A. Weight-bearing exercise
- B. Sleeping
- C. Watching television
- D. Sitting for long periods

Answer: A. Weight-bearing exercise

Explanation: Activities like walking and jogging strengthen bones by stimulating bone formation.

15. Menopause increases osteoporosis risk because of reduced levels of which hormone?

- A. Insulin
- B. Estrogen
- C. Testosterone
- D. Cortisol

Answer: B. Estrogen

Explanation: Estrogen helps protect bone density, and its decline after menopause accelerates bone loss.

16. Which food is rich in calcium?

- A. Candy
- B. Cheese
- C. Soda
- D. Chips

Answer: B. Cheese

Explanation: Dairy products like cheese are excellent sources of calcium.

17. Osteoporosis mainly affects which tissue?

- A. Muscle tissue
- B. Bone tissue
- C. Skin tissue
- D. Nerve tissue

Answer: B. Bone tissue

Explanation: Osteoporosis weakens the internal structure of bones.

18. Which condition describes lower-than-normal bone density that is not yet osteoporosis?

- A. Arthritis
- B. Osteopenia
- C. Scoliosis
- D. Tendonitis

Answer: B. Osteopenia

Explanation: Osteopenia is mild bone loss that can progress to osteoporosis.

19. Which part of the skeleton is especially vulnerable to osteoporosis fractures?

- A. Toes
- B. Spine
- C. Elbows
- D. Jaw

Answer: B. Spine

Explanation: Vertebral fractures are common because spinal bones are sensitive to bone loss.

20. What is a possible sign of advanced osteoporosis?

- A. Increased height
- B. Curved posture
- C. Faster hair growth
- D. Improved vision

Answer: B. Curved posture

Explanation: Compression fractures in the spine can lead to stooped posture or loss of height.

21. Which medication type is commonly prescribed for osteoporosis?

- A. Antibiotics
- B. Bisphosphonates
- C. Antihistamines
- D. Antivirals

Answer: B. Bisphosphonates

Explanation: Bisphosphonates help slow bone breakdown and improve bone density.

22. Which mineral besides calcium also supports bone health?

- A. Magnesium
- B. Chlorine
- C. Sulfur
- D. Sodium

Answer: A. Magnesium

Explanation: Magnesium contributes to bone formation and helps regulate calcium balance.

23. Excessive alcohol use may do what to bones?

- A. Strengthen them

- B. Cause bone loss
- C. Increase flexibility only
- D. Make bones grow faster

Answer: B. Cause bone loss

Explanation: Heavy alcohol consumption interferes with bone formation and calcium absorption.

24. Which hormone disorder can contribute to osteoporosis?

- A. Hyperthyroidism
- B. Nearsightedness
- C. Eczema
- D. Asthma

Answer: A. Hyperthyroidism

Explanation: Excess thyroid hormone can speed up bone loss.

25. Which gender hormone helps maintain bone density in men?

- A. Estrogen only
- B. Testosterone
- C. Insulin
- D. Adrenaline

Answer: B. Testosterone

Explanation: Testosterone contributes to bone strength in men.

26. What is the main purpose of osteoporosis treatment?

- A. Cure all fractures instantly
- B. Prevent fractures and bone loss
- C. Improve eyesight
- D. Lower blood sugar

Answer: B. Prevent fractures and bone loss

Explanation: Treatment focuses on maintaining bone strength and reducing fracture risk.

27. Which lifestyle factor protects against osteoporosis?

- A. Physical activity
- B. Smoking
- C. Excess alcohol
- D. Poor nutrition

Answer: A. Physical activity

Explanation: Exercise stimulates bone remodeling and helps maintain bone density.

28. Which vitamin deficiency is strongly associated with osteoporosis?

- A. Vitamin D deficiency
- B. Vitamin C deficiency
- C. Vitamin B12 deficiency
- D. Vitamin A deficiency

Answer: A. Vitamin D deficiency

Explanation: Without enough vitamin D, calcium absorption decreases, weakening bones.

29. Which ethnic group is generally at higher risk for osteoporosis?

- A. People of all backgrounds can develop it
- B. Only athletes
- C. Only children
- D. Only men

Answer: A. People of all backgrounds can develop it

Explanation: Osteoporosis can affect anyone, though risk levels vary.

30. What happens to bone density with aging?

- A. It always increases
- B. It generally decreases
- C. It disappears completely
- D. It remains unchanged

Answer: B. It generally decreases

Explanation: Aging reduces bone formation and increases bone breakdown.

31. Which imaging method is standard for osteoporosis screening?

- A. Ultrasound of the abdomen
- B. DEXA scan
- C. CT of the lungs
- D. ECG

Answer: B. DEXA scan

Explanation: DEXA scanning is the standard tool for assessing bone density.

32. What type of exercise improves balance and may reduce falls?

- A. Tai chi
- B. Sleeping
- C. Watching TV
- D. Typing

Answer: A. Tai chi

Explanation: Tai chi improves coordination and balance, lowering fall risk.

33. Which organ system is primarily affected in osteoporosis?

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

Answer: A. Skeletal system

Explanation: Osteoporosis affects bones, which are part of the skeletal system.

34. Which fracture can cause loss of height?

- A. Rib fracture
- B. Vertebral fracture
- C. Finger fracture
- D. Toe fracture

Answer: B. Vertebral fracture

Explanation: Collapsed vertebrae can shorten the spine and reduce height.

35. Which dietary habit supports strong bones?

- A. High calcium intake
- B. Skipping meals
- C. Eating only candy
- D. Drinking only soda

Answer: A. High calcium intake

Explanation: Calcium-rich diets help maintain healthy bone structure.

36. Which medication use may increase osteoporosis risk?

- A. Long-term corticosteroids

- B. Antibiotics for one week
- C. Eye drops
- D. Antacids occasionally

Answer: A. Long-term corticosteroids

Explanation: Corticosteroids can reduce bone formation and increase bone breakdown.

37. Which body process continuously renews bone tissue?

- A. Bone remodeling
- B. Digestion
- C. Respiration
- D. Sweating

Answer: A. Bone remodeling

Explanation: Bone remodeling replaces old bone with new bone throughout life.

38. What is a fragility fracture?

- A. A fracture from major trauma
- B. A fracture from a minor fall or injury
- C. A fracture only in athletes
- D. A fracture caused by infection

Answer: B. A fracture from a minor fall or injury

Explanation: Fragility fractures occur when weakened bones break easily.

39. Which habit may reduce osteoporosis risk?

- A. Quitting smoking
- B. Avoiding exercise
- C. Excessive drinking
- D. Poor diet

Answer: A. Quitting smoking

Explanation: Stopping smoking improves overall bone health.

40. Which nutrient is abundant in milk?

- A. Calcium
- B. Caffeine
- C. Iron
- D. Sodium

Answer: A. Calcium

Explanation: Milk is a major dietary source of calcium.

41. Which sex hormone decline is associated with male osteoporosis?

- A. Cortisol
- B. Testosterone
- C. Insulin
- D. Adrenaline

Answer: B. Testosterone

Explanation: Reduced testosterone levels can weaken bones in men.

42. Which vitamin is produced through sunlight exposure?

- A. Vitamin D
- B. Vitamin C
- C. Vitamin K
- D. Vitamin B1

Answer: A. Vitamin D

Explanation: Sunlight helps the skin produce vitamin D.

43. Which group should discuss bone density testing with a healthcare provider?

- A. Older adults
- B. Newborns only
- C. Toddlers only
- D. Healthy teens only

Answer: A. Older adults

Explanation: Older adults are at higher risk and may benefit from screening.

44. What is the role of osteoblasts?

- A. Break down bone
- B. Build bone
- C. Digest food
- D. Carry oxygen

Answer: B. Build bone

Explanation: Osteoblasts are cells responsible for forming new bone tissue.

45. What is the role of osteoclasts?

- A. Build bone
- B. Break down bone
- C. Produce insulin
- D. Fight infection

Answer: B. Break down bone

Explanation: Osteoclasts remove old bone during remodeling.

46. Which condition increases fracture risk?

- A. Strong bones

- B. Osteoporosis
- C. Healthy diet
- D. Regular exercise

Answer: B. Osteoporosis

Explanation: Weak bones are more likely to break.

47. Which type of calcium supplement is commonly used?

- A. Calcium carbonate
- B. Iron sulfate
- C. Potassium nitrate
- D. Sodium chloride

Answer: A. Calcium carbonate

Explanation: Calcium carbonate is a widely used calcium supplement.

48. Which nutrient-rich food supports bone health?

- A. Yogurt
- B. Candy
- C. Fried chips
- D. Soda

Answer: A. Yogurt

Explanation: Yogurt provides calcium and often vitamin D.

49. What is the purpose of fall prevention in osteoporosis care?

- A. Increase fractures
- B. Reduce injury risk
- C. Improve hair growth
- D. Cure osteoporosis instantly

Answer: B. Reduce injury risk

Explanation: Preventing falls helps lower fracture risk.

50. Which body structure stores most calcium?

- A. Bones
- B. Liver
- C. Skin
- D. Lungs

Answer: A. Bones

Explanation: Bones contain the majority of the body's calcium supply.

51. Which factor is nonmodifiable in osteoporosis risk?

- A. Age
- B. Smoking
- C. Diet
- D. Exercise level

Answer: A. Age

Explanation: Aging naturally affects bone density and cannot be changed.

52. Which disease may coexist with osteoporosis in older adults?

- A. Arthritis
- B. Common cold
- C. Ear infection
- D. Pink eye

Answer: A. Arthritis

Explanation: Arthritis and osteoporosis commonly occur together in aging populations.

53. What is a major goal of calcium intake during childhood?

- A. Prevent cavities only
- B. Build peak bone mass
- C. Improve hearing
- D. Reduce fever

Answer: B. Build peak bone mass

Explanation: Strong bones developed in youth help reduce osteoporosis risk later.

54. Which type of fracture is common in osteoporosis?

- A. Compression fracture
- B. Burn injury
- C. Muscle tear
- D. Sprain

Answer: A. Compression fracture

Explanation: Weak vertebrae may collapse, causing compression fractures.

55. Which body habitus increases osteoporosis risk?

- A. Very small body frame
- B. Muscular build
- C. Average height
- D. Athletic training

Answer: A. Very small body frame

Explanation: Smaller bones may have less bone mass reserve.

56. Which type of doctor often treats osteoporosis?

- A. Orthopedist
- B. Dermatologist

- C. Ophthalmologist
- D. Dentist

Answer: A. Orthopedist

Explanation: Orthopedists specialize in bones and fractures.

57. Which mineral density score compares a patient to a healthy young adult?

- A. Blood score
- B. T-score
- C. Oxygen score
- D. Heart score

Answer: B. T-score

Explanation: T-scores help classify bone density results.

58. What T-score indicates osteoporosis?

- A. Above +2.5
- B. -2.5 or lower
- C. 0 only
- D. +1 only

Answer: B. -2.5 or lower

Explanation: A T-score of -2.5 or lower meets the diagnostic criteria for osteoporosis.

59. Which activity may increase fall risk in older adults?

- A. Poor lighting at home
- B. Using handrails
- C. Wearing proper shoes
- D. Exercise

Answer: A. Poor lighting at home

Explanation: Poor lighting can contribute to trips and falls.

60. Which nutrient is found in leafy green vegetables and supports bones?

- A. Vitamin K
- B. Vitamin C
- C. Vitamin E
- D. Vitamin B6

Answer: A. Vitamin K

Explanation: Vitamin K plays a role in bone metabolism.

61. Which medical condition may cause secondary osteoporosis?

- A. Rheumatoid arthritis
- B. Common cold
- C. Sunburn
- D. Migraine

Answer: A. Rheumatoid arthritis

Explanation: Chronic inflammatory diseases can contribute to bone loss.

62. What is the recommended strategy for preventing osteoporosis?

- A. Healthy lifestyle habits
- B. Avoiding all exercise
- C. Smoking regularly
- D. Skipping meals

Answer: A. Healthy lifestyle habits

Explanation: Proper nutrition, exercise, and avoiding smoking support bone health.

63. Which type of exercise strengthens muscles and bones?

- A. Resistance training
- B. Sleeping
- C. Sitting
- D. Watching TV

Answer: A. Resistance training

Explanation: Resistance exercises stimulate muscle and bone growth.

64. Why are hip fractures dangerous in older adults?

- A. They never heal
- B. They may reduce mobility and independence
- C. They only affect athletes
- D. They improve posture

Answer: B. They may reduce mobility and independence

Explanation: Hip fractures can lead to disability and complications.

65. Which hormone therapy may sometimes help postmenopausal bone health?

- A. Estrogen therapy
- B. Insulin therapy
- C. Antibiotic therapy
- D. Radiation therapy

Answer: A. Estrogen therapy

Explanation: Estrogen therapy may slow bone loss in some postmenopausal women.

66. Which body system provides movement support along with bones?

- A. Muscular system
- B. Digestive system
- C. Respiratory system
- D. Immune system

Answer: A. Muscular system

Explanation: Muscles and bones work together for movement and stability.

67. Which dietary issue can weaken bones?

- A. Low calcium intake
- B. Eating vegetables
- C. Drinking water
- D. Balanced meals

Answer: A. Low calcium intake

Explanation: Insufficient calcium reduces the body's ability to maintain strong bones.

68. Which symptom may appear after a vertebral fracture?

- A. Back pain
- B. Improved flexibility
- C. Better posture
- D. Increased height

Answer: A. Back pain

Explanation: Vertebral fractures often cause pain and posture changes.

69. What is peak bone mass?

- A. The lowest bone density
- B. Maximum bone strength reached in early adulthood
- C. Bone loss after aging

D. Bone infection

Answer: B. Maximum bone strength reached in early adulthood

Explanation: Higher peak bone mass lowers future osteoporosis risk.

70. Which food source may contain vitamin D?

- A. Fortified milk
- B. Candy
- C. Potato chips
- D. Soda

Answer: A. Fortified milk

Explanation: Many dairy products are fortified with vitamin D.

71. Which condition can result from severe osteoporosis?

- A. Frequent fractures
- B. Improved balance
- C. Stronger muscles
- D. Better vision

Answer: A. Frequent fractures

Explanation: Severe bone weakness increases fracture frequency.

72. Which lifestyle change helps maintain balance and strength?

- A. Regular exercise
- B. Bed rest all day
- C. Smoking
- D. Excess alcohol use

Answer: A. Regular exercise

Explanation: Exercise supports balance, coordination, and muscle strength.

73. Which type of doctor may specialize in hormone-related osteoporosis?

- A. Endocrinologist
- B. Dentist
- C. Podiatrist
- D. Audiologist

Answer: A. Endocrinologist

Explanation: Endocrinologists treat hormone conditions affecting bones.

74. Which nutrient is essential for muscle function and bone health?

- A. Calcium
- B. Sugar
- C. Sodium only
- D. Cholesterol

Answer: A. Calcium

Explanation: Calcium supports both bones and muscle contraction.

75. Which factor may lower bone density in women?

- A. Early menopause
- B. Exercise
- C. Balanced nutrition
- D. Sunlight exposure

Answer: A. Early menopause

Explanation: Earlier estrogen loss increases bone loss risk.

76. Which fracture site is common in osteoporosis besides the hip and spine?

- A. Wrist
- B. Nose
- C. Jaw
- D. Ankle only

Answer: A. Wrist

Explanation: Wrist fractures commonly occur after falls in people with osteoporosis.

77. Which term refers to porous bones?

- A. Osteoporosis
- B. Hypertension
- C. Pneumonia
- D. Diabetes

Answer: A. Osteoporosis

Explanation: The word osteoporosis literally refers to porous or weakened bones.

78. Which mineral is important for bone mineralization?

- A. Calcium
- B. Copper
- C. Chloride
- D. Sodium

Answer: A. Calcium

Explanation: Calcium is deposited into bones to maintain strength.

79. Which habit can improve bone density over time?

- A. Weight training

- B. Smoking
- C. Long-term inactivity
- D. Excess soda intake

Answer: A. Weight training

Explanation: Resistance training stimulates bone growth and strength.

80. Which body change may indicate spinal osteoporosis?

- A. Loss of height
- B. Longer legs
- C. Improved posture
- D. Larger hands

Answer: A. Loss of height

Explanation: Collapsed vertebrae can shorten overall height.

81. Which supplement may be recommended with calcium?

- A. Vitamin D
- B. Caffeine
- C. Sugar
- D. Sodium

Answer: A. Vitamin D

Explanation: Vitamin D enhances calcium absorption.

82. Which risk factor can be modified?

- A. Smoking
- B. Age
- C. Family history
- D. Gender

Answer: A. Smoking

Explanation: Lifestyle factors such as smoking can be changed to reduce risk.

83. Which imaging result suggests weaker bones?

- A. Low bone density
- B. High blood sugar
- C. Strong heartbeat
- D. Clear lungs

Answer: A. Low bone density

Explanation: Reduced bone density increases fracture risk.

84. Which exercise type is best avoided if fracture risk is high?

- A. High-impact unsafe activity
- B. Gentle walking
- C. Tai chi
- D. Supervised exercise

Answer: A. High-impact unsafe activity

Explanation: Certain high-impact movements may increase injury risk in fragile bones.

85. What is one complication of vertebral fractures?

- A. Breathing difficulties
- B. Improved balance
- C. Increased height
- D. Better flexibility

Answer: A. Breathing difficulties

Explanation: Severe spinal curvature can affect lung expansion.

86. Which type of calcium-rich food is dairy-based?

- A. Yogurt
- B. Apples
- C. Bread
- D. Rice

Answer: A. Yogurt

Explanation: Yogurt is rich in calcium and supports bone health.

87. Why is exercise important for osteoporosis prevention?

- A. It weakens bones
- B. It improves bone strength and balance
- C. It lowers intelligence
- D. It causes fractures automatically

Answer: B. It improves bone strength and balance

Explanation: Physical activity stimulates bone maintenance and reduces fall risk.

88. Which factor may increase falls in older adults?

- A. Weak muscles
- B. Good balance
- C. Exercise training
- D. Safe footwear

Answer: A. Weak muscles

Explanation: Muscle weakness contributes to instability and falls.

89. Which healthcare recommendation supports osteoporosis prevention?

- A. Adequate calcium intake
- B. Smoking daily
- C. Avoiding movement

D. Excessive alcohol use

Answer: A. Adequate calcium intake

Explanation: Sufficient calcium intake supports lifelong bone health.

90. Which body cells maintain bone turnover balance?

- A. Osteoblasts and osteoclasts
- B. Red blood cells only
- C. White blood cells only
- D. Skin cells only

Answer: A. Osteoblasts and osteoclasts

Explanation: Bone health depends on the balance between bone formation and breakdown.

91. Which bone disease is characterized by reduced bone mass?

- A. Osteoporosis
- B. Influenza
- C. Tuberculosis
- D. Bronchitis

Answer: A. Osteoporosis

Explanation: Osteoporosis involves decreased bone density and structural weakness.

92. Which medical imaging technology uses low-dose X-rays to assess bones?

- A. DEXA scan
- B. Ultrasound only
- C. ECG
- D. Endoscopy

Answer: A. DEXA scan

Explanation: DEXA scanning measures bone mineral density with low radiation exposure.

93. Which age-related change contributes to osteoporosis?

- A. Slower bone formation
- B. Faster hair growth
- C. Improved vision
- D. Increased tooth growth

Answer: A. Slower bone formation

Explanation: Aging reduces the body's ability to replace bone efficiently.

94. Which food is commonly fortified with vitamin D?

- A. Milk
- B. Candy
- C. Cookies
- D. Chips

Answer: A. Milk

Explanation: Many milk products are fortified to support bone health.

95. Which statement about osteoporosis is true?

- A. It only affects women
- B. It can affect both men and women
- C. It only affects children
- D. It is contagious

Answer: B. It can affect both men and women

Explanation: Although more common in women, men can also develop osteoporosis.

96. Which type of activity can help reduce fall risk?

- A. Balance training
- B. Bed rest
- C. Smoking
- D. Excessive drinking

Answer: A. Balance training

Explanation: Balance exercises improve stability and coordination.

97. Which nutrient deficiency may weaken bones over time?

- A. Calcium deficiency
- B. Sugar deficiency
- C. Salt deficiency
- D. Water deficiency

Answer: A. Calcium deficiency

Explanation: Calcium is essential for maintaining bone mineral density.

98. Which medical history factor increases osteoporosis risk?

- A. Family history of osteoporosis
- B. Frequent reading
- C. Good hydration
- D. Wearing glasses

Answer: A. Family history of osteoporosis

Explanation: Genetics influence bone density and fracture risk.

99. What is the best description of osteoporosis prevention?

- A. Maintaining healthy bones throughout life
- B. Avoiding all activity

- C. Drinking soda daily
- D. Ignoring nutrition

Answer: A. Maintaining healthy bones throughout life

Explanation: Prevention includes exercise, nutrition, and healthy lifestyle choices.

100. Why is osteoporosis considered a major public health issue?

- A. It causes widespread fractures and disability
- B. It improves mobility
- C. It only affects a few people
- D. It is harmless

Answer: A. It causes widespread fractures and disability

Explanation: Osteoporosis can lead to serious fractures, reduced independence, and increased healthcare needs.