

CHAPTER ONE: A PUBLIC HEALTH APPROACH - PROMOTE BONE HEALTH

1. Physical activity, calcium and vitamin _____ intake are now known to be major contributors to bone health for individuals of all ages.
A E B D C K D A
2. There are roughly _____ million Americans over age 50 with osteoporosis.
A 10 B 7 C 4 D 2
3. The _____ concluded that racial and ethnic minorities tend to receive lower-quality health care than does the majority population.
A FDA B HRSA C Institute of Medicine D CDC
4. Most bone disease does not strike until people are on Medicare.
A True B False
5. A group was formed by the Surgeon General for this report with members of the Agency for Healthcare _____ and Quality (AHRQ).
A Refinement B Reconstruction C Regulation D Research

CHAPTER TWO: THE BASICS OF BONE HEALTH AND DISEASE

6. The skeleton is also a storehouse for two minerals, calcium and:
A phosphorus B sodium C iron D iodine
7. To provide the body with a frame that is both light and strong, bones are:
A dense throughout B hollow C dense only centrally D always very vascular
8. Both modeling and remodeling involve the cells that form bone called osteoblasts and the cells that break down bone, called:
A osteotraits B osteoridges C osteoclasts D osteolytics
9. Regarding bone modeling and remodeling, the activation and resorption phases are followed by a brief _____ phase.
A static B formation C osteolytic D reversal
10. Some elements of bone health are determined largely by genes, and errors in signaling by these genes can result in birth defects.
A True B False
11. Calcitriol is the hormone produced from vitamin:
A D B A C C D B
12. A deficiency of the growth hormone IGF - _____ system can inhibit growth, leading to short stature.
A 1 B 2 C 3 D 4
13. Stimulation of bone formation cannot reverse skeletal fragility.
A True B False
14. The osteoblastic cells produce macrophage _____ stimulating factor (M-CSF).
A calcitonin B calcitriol C colony D calcimimetic agents

CHAPTER THREE: DISEASES OF BONE

15. The WHO has defined osteoporosis as a bone mineral density value more than _____ below the mean for normal young White women.
A 2 standard deviations B 2.5 standard deviations C 3 standard deviations D 3.5 standard deviations
16. Juvenile osteoporosis affects previously healthy children between the ages of 8 and:
A 10 B 12 C 13 D 14
17. The rapid phase of bone loss alone in women results in losses of _____ percent of cortical bone.
A 3 B 50-60 C 5-10 D 22-28
18. _____ osteoporosis refers to young and older adults who get osteoporosis as a byproduct of another condition or medication use.
A Compounding B Secondary C Induced D Tertiary
19. Patients with cystic fibrosis have _____ bone density and increased fracture rates.
A markedly decreased B markedly increased C slightly decreased D slightly increased
20. One study found that _____ of women with systemic lupus erythematosus reported at least one fracture since the onset of disease.
A 5 percent B 24 percent C 12 percent D 3 percent

41. Regarding the life span approach introduced in this chapter, the "———" phase occurs during young to middle adulthood.
 A mid-life bone loss B maintenance C growth D frailty
42. After age 40–50, both sexes may lose a total of —— percent of bone.
 A 5 B 25 C 15 D 10
43. The Institute of Medicine recommends 210 mg of calcium per day in infants and —— mg per day in those between 9–18 years of age.
 A 700 B 900 C 1,100 D 1,300
44. The main source of vitamin D is:
 A green vegetables B fruit C sunlight D milk
45. The Institute of Medicine has established a tolerable upper limit for dietary vitamin D intake of —— IU per day.
 A 500 B 1,000 C 1,500 D 2,000
46. Trial studies concluded that vitamin D supplements reduced the risk of spine fractures by approximately —— percent.
 A 12 B 24 C 37 D 4
47. About —— percent of the body's phosphorus and 60 percent of the body's magnesium are found in the skeleton.
 A 85 B 62 C 44 D 31
48. Bone mass is responsive to the mechanical loads placed on the skeleton.
 A True B False
49. Only —— of those age 12–21 exercise vigorously on a regular basis and 25 percent report no exercise at all.
 A 30 percent B half C 20 percent D 40 percent
50. Only —— percent of elementary schools provide physical education on a daily basis.
 A 24 B 8 C 43 D 65
51. The period of puberty represents a 2- to 3-year window when, on average, —— percent of total body adult bone mass is gained.
 A 15 B 25-30 C 35-42 D 50
52. On average, —— percent of muscle mass is lost per decade after age 30 and this loss may accelerate after age 65.
 A 2 B 3 C 4 D 5
53. Falls account for —— percent of visits to emergency room visits and 6 percent of urgent hospitalizations in the elderly.
 A 3 B 7 C 10 D 14
54. Bilateral oophorectomy in postmenopausal women results in a 54 percent increase in fractures of the hip, spine, and:
 A wrist B ankle C elbow D feet
- CHAPTER SEVEN: LIFESTYLE APPROACHES TO PROMOTE BONE HEALTH**
55. Dietary Guidelines for Americans urge individuals to eat 2–3 servings of —— or other calcium-rich foods each day.
 A fruits B grain C dairy D vegetables
56. Most Americans above age —— on average do not consume recommended levels of calcium.
 A 9 B 12 C 15 D 21
57. Regarding vitamin D intake, it is recommended that those age 50–70 take —— IU per day.
 A 100 B 200 C 300 D 400
58. —— stimulates the formation of new bone.
 A Iron B Copper C Fluoride D Potassium
59. People who smoke need —— mg more Vitamin C than the RDA.
 A 35 B 30 C 25 D 20
60. The foundation of a good daily physical activity regimen for adults involves at least —— minutes of moderate physical activity.
 A 15 B 30 C 45 D 60

61. Those who have been inactive should begin with _____ per day and a pre-exercise evaluation by a physician may be advised.
 A 1-5 minutes of activity B 5-10 minutes of activity C 15-20 minutes of activity D 30 minutes of activity
62. Weight-bearing/low impact activities for adults include all the following except:
 A rowing machines B water aerobics C yoga D stair-step machines
63. Those who have fallen one or more times should ask their health care providers about the need for a test of their balance/ability to walk.
 A True B False

CHAPTER EIGHT: ASSESSING THE RISK OF BONE DISEASE AND FRACTURE

64. Billions of dollars are spent _____ to treat bone-disease-related fractures that often result in reduced function and quality of life.
 A every 2 years B every four years C each decade D each year
65. A family history of bone disease warrants further assessment for osteoporosis or other bone diseases.
 A True B False
66. High serum calcium concentration in an otherwise healthy patient most often indicates primary:
 A lactose intolerance B gastroparesis C hyperparathyroidism D pancreatitis
67. The Osteoporosis Risk Assessment _____ (ORAI) is a risk-factor assessment tool for bone health.
 A Instructor B Illuminator C Instrument D Indicator
68. Regarding the risk factors for hip fracture among elderly white women, a history of hyperthyroidism increases the risk by:
 A 50% B 60% C 70% D 80%
69. Regarding the risk factors for hip fracture among elderly white women, a history of any fracture since age 50 increases the risk by:
 A 50% B 60% C 70% D 80%
70. The U.S. Preventive Services Task _____ (USPSTF) recommends bone density screening for all women age 65 and older.
 A for Families B Force C Foundation D Firm
71. _____ DXA (pDXA) uses scaled down DXA instrumentation to measure sites such as the forearm, heel, or finger.
 A Pan- B Proportional C Precision D Peripheral
72. _____ ultrasound (QUS) uses sound waves to assess bone mass and thus does not use radiation.
 A Qualitative B Quip C Quick-wave D Quantitative
73. One study found that a drug that reduced bone resorption by 70% would decrease the risk of non-spine fractures by _____.
 A 30 B 40 C 50 D 60

CHAPTER NINE: PREVENTION AND TREATMENT FOR . . . BONE DISEASES

74. In a large study of older adults, _____ hip or wrist fracture patients did not receive any treatment (testing or therapy) after the fracture.
 A 2 out of 5 B 3 out of 5 C 4 out of 5 D 1 out of 5
75. Vitamin D is synthesized in the skin through sunlight exposure.
 A True B False
76. _____ represent(s) perhaps the biggest threat to the bone health and the functional independence of older individuals.
 A Falls B Low dietary vitamin D C Low dietary calcium D Lactose intolerance
77. One form of drug therapy involves the use of antiresorptive agents, which are drugs that _____ bone loss.
 A reverse B reduce C mimic D magnify
78. Another form of drug therapy involves the use of anabolic agents, which are drugs that _____ bone.
 A build B break down C seal exterior D affect only vertebrae
79. Studies have found that risedronate increases spine BMD by approximately _____ percent.
 A 2 B 8 C 12 D 5
80. Studies have shown that postmenopausal hormone therapy has an effect on BMD in the spine (_____ percent).
 A 3.5-7 B 10 C 1.2-2 D 15

81. _____ estrogen receptor modulators or SERMS are agents that selectively act on estrogen receptors in bone, breast, and other tissues.
 A Simulation B Segmental C Sheath D Selective
82. Human recombinant PTH (1-34), known as teriparatide, was developed in the:
 A 1960s B 1970s C 1980s D 1990s

83. Spine fractures usually occur in the _____ section of the back as a result of minor strain, such as lifting a grocery bag.
 A upper B upper or lower C middle or lower D lower
84. _____ disease of bone is localized, excessive bone remodeling that leads to increased bone resorption and formation.
 A Osteogenesis B Jonet's C Paget's D Pirelli's

CHAPTER TEN: PUTTING IT ALL TOGETHER . . .

85. The largest influx of calcium into the fetal skeleton occurs during the _____ trimester of human pregnancy.
 A first B first 1/2 of the second C second 1/2 of the second D last
86. Children between 1 and 3 years old should get _____ mg per day of calcium.
 A 500 B 600 C 300 D 200
87. Calcium intake should be _____ mg per day during early and middle adulthood.
 A 400 B 1,000 C 1,200 D 800
88. Sunscreen with an SPF above _____ will block the ultraviolet B radiation that stimulates vitamin D production.
 A eight B four C three D six
89. In short-term studies, low protein intakes have been shown to result in _____ calcium absorption.
 A slight increased B no change to C decreased D marked increased
90. Excessive alcohol and tobacco use increases the risk for fracture.
 A True B False
91. The Osteoporosis _____ Tool (OST) has low specificity.
 A Safety B Sure-Test C Self-Assessment D Sign

92. According to the report, measuring bone density at the hip by _____ is the best predictor of hip fracture.
 A TNA B DXA C ultrasound D QCT

CHAPTER ELEVEN: SYTEMS-BASED APPROACHES TO BONE HEALTH

93. The National Guideline _____ (NGC) serves as a comprehensive source for credible guidelines related to bone disease.
 A Clearinghouse B Consortium C Committee D Congressional (Agency)
94. The _____ Care of Vulnerable Elders (ACOVE) project developed a strategy for physicians to help improve bone health in patients.
 A Administrative B Assessing C Assigning D Applicable
95. Medical groups can use rapid-cycle improvement techniques (to improve patient care) such as the "_____, Do, Study, Act" (PDSA) cycle.
 A Participate B Program C Plan D Pre-define
96. Under the Balanced Budget Act of 1997, Medicare must cover BMD testing every _____ for people at risk of developing osteoporosis.
 A 3 years B 6 months C 2 years D year
97. The Medicare _____ Act (MMA) was signed into law in 2003.
 A Mobility B Mandate C Mesia D Modernization
98. The National Committee for Quality _____ (NCQA) is an oversight organization that seeks to improve osteoporosis care.
 A Assessment B Alertness C Activities D Assurance
99. Regarding ACOVE-2, quality indicator 2 has to do with:
 A treatment of osteoporosis B prevention C smoking cessation D pharmacologic therapy
100. The National Health Care Purchasing Institute identified _____ potential provider incentive models for improving quality of care.
 A 11 B 9 C 4 D 17

101. Men are a population of concern for osteoporosis, as they account for roughly _____ % of all hip fractures.

- A 10 B 20 C 30 D 40

CHAPTER TWELVE: POPULATION-BASED APPROACHES . . .

102. The Task Force on Community Preventive Services found that community-wide campaigns are recommended based on:

- A 10 qualifying studies B 4 qualifying studies C 6 qualifying studies D 8 qualifying studies

103. The Task Force on Community Preventive Services found that smoking bans and restrictions are recommended based on:

- A 4 qualifying studies B 10 qualifying studies C 6 qualifying studies D 8 qualifying studies

104. Regarding population-based interventions, social marketing involves the “four Ps” including all the following except:

- A product B price C plot D promotion

105. Several surveys have demonstrated that consumers take action as a result of direct to consumer advertising (DTCA).

- A True B False

106. The National Bone Health Campaign (NBHC) is a multiyear national campaign created in _____ by congressional mandate.

- A 2002 B 2005 C 1995 D 1998

107. The National Asian Women’s Health _____’s (NAWHO) program raises osteoporosis awareness among Asian-American women.

- A Operation B Office C Order D Organization

108. The Michigan Osteoporosis Strategic Plan, released in 1999, had _____ to reduce society’s burden of osteoporosis.

- A 7 recommendations B 12 recommendations C 18 recommendations D 4 recommendations

109. The Milk _____ campaign included “A Crash Course on Calcium” - an inschool program to teach teens about bone health.

- A Mania B Matters C for Everyone D it Up

110. “Bone Up on Bone Loss!” is a one-page brochure for _____ to distribute to parents and children.

- A health care professionals B only doctors C only doctors or nurses D orthopedists

CHAPTER THIRTEEN: A VISION FOR THE FUTURE

111. One of the “Key Action Steps” this report is to: Change the paradigm of preventing and treating:

- A bone disease B fractures C calcium deficiency D vitamin D deficiency

112. One of the “Key Action Steps” this report is to: Act now, as we know:

- A more than 10 years ago B more than enough C as much as we can now D all we need to know

113. According to the report, voluntary health organizations do *not* play important roles in promoting bone health.

- A True B False

APPENDIX A: CONGRESSIONAL LANGUAGE . . .

114. More than _____ million Americans suffer from some form of bone disease, including osteoporosis and others.

- A 10 B 20 C 30 D 40

APPENDIX B: HOW DO WE KNOW WHAT WE KNOW . . .

115. Study participants are observed and measurements are made at one point in time in a _____ study.

- A cross-sectional B observational C meta-analysis D randomized

116. Camp Calcium is a unique study supported by the National Institutes of Health and conducted by _____ University.

- A Purdue B Indiana C Yale D Columbia

ABBREVIATIONS AND ACRONYMS

117. The _____ x-ray absorptiometry (DXA) scan is used to measure BMD.

- A daily B direct C dual D dietary

118. The National Center for Health _____ (NCHS) rich source of information about America’s health.

- A Simulation B Standards C Statistics D Surveys

119. The _____ Calculated Osteoporosis Risk Estimation (SCORE) identifies particular women that should be screened for osteoporosis.

- A Selected B Simple C Standard D Simulated

120. _____ x-ray absorptiometry (SXA) may be used to measure heel and forearm bone density.

- A Single B Standard C Simple D Simulated

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1	25	49	73	97
2	26	50	74	98
3	27	51	75	99
4	28	52	76	100
5	29	53	77	101
6	30	54	78	102
7	31	55	79	103
8	32	56	80	104
9	33	57	81	105
10	34	58	82	106
11	35	59	83	107
12	36	60	84	108
13	37	61	85	109
14	38	62	86	110
15	39	63	87	111
16	40	64	88	112
17	41	65	89	113
18	42	66	90	114
19	43	67	91	115
20	44	68	92	116
21	45	69	93	117
22	46	70	94	118
23	47	71	95	119
24	48	72	96	120