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Chapter 1

1. The secondhand smoke is also known as _____.
A. environmental tobacco smoke
B. primary smoke
C. cancer smoke
D. none of the above

2. The secondhand smoke is a complex mixture of gases and particles that includes which of the following?
A. smoke from burning cigarettes
B. smoke from burning cigars and pipe tobacco
C. exhaled mainstream smoke
D. all of the above

3. According to the National Toxicology Program, sidestream smoke and mainstream smoke contain "at least _____ chemicals known to be toxic or carcinogenic"
A. 2
B. 20
C. 25
D. 250

4. In _____, the U.S. Office of the Surgeon General released its **first** statement on the public-health hazard to people suffering from coronary heart disease posed by secondhand smoke in The Health Consequences of Smoking.
A. 1960
B. 1972
C. 1980
D. 1990

5. Smoking cessation has been associated with reduced risk of coronary heart disease.
A. TRUE
B. FALSE

6. According to the Third National Health and Nutrition Examination Survey (NHANES III), about _____ of nonsmoking **children** and 37% of nonsmoking adults are exposed to secondhand smoke in the United States.
A. 10%
B. 20%
C. 43%
D. 80%

7. _____is anacute myocardial infarction, including both "ST elevation myocardial infarction" (STEMI) and "non-ST elevation myocardial infarction" (NSTEMI).
A. Acute coronary event
B. Alzheimer
C. Parkinson's diseases
D. Dementia

8. Which of the following is alegal mandate that **prohibits** use of lit tobacco products in designated public or private places?
A. designated smoking area
B. smoking ban
C. smoking restriction
D. none of the above

9. Which of the following are considered as sidestream smoke?
A. smoke from burning cigarettes
B. smoke from burning cigars
C. smoke from burning pipe tobacco
D. all of the above

Chapter 2
10. The **gas phase** of secondhand smokeis consists of which of the following?
A. air
B. carbon dioxide and carbon monoxide
C. many other chemicals including nicotine
D. all of the above

11. About ____ of secondhand smoke is composed of sidestream smoke emerging from the burning tip of the cigarette and the remainder is exhaled in mainstream smoke.
A. 10%
B. 20%
C. 43%
D. 85%

12. What is the average amount (per cigarette) of **carbon monoxide** present in secondhand smoke?
A. 1,000µg
B. 2,000µg
C. 20,000µg
D. 90,000µg

13. What is the average amount (per cigarette) of **nicotine** present in secondhand smoke?
A. 1,650µg
B. 5,000µg
C. 7,000µg
D. 9,000µg

14. Ambient nicotine can be measured accurately and sensitively, and cotinine can be measured in which of the following?
A. saliva
B. blood
C. urine
D. all of the above

15. Which of the following toxicants are peculiar to tobacco smoke and are known to have adverse health effects?
A. nicotine
B. nicotine-derived nitrosamine (NNK)
C. oxygen
D. A and B only

16. Because of smoking restrictions and bans in the United States in workplaces, restaurants, and other public places there is _____ decrease in serum cotinine concentrations in last 14 years.
A. 10%
B. 70%
C. 90%
D. 100%

17. Data from three countries demonstrated that smoking bans in restaurants led to greater than 90% reductions in _____.
A. airborne nicotine
B. oxygen
C. carbon dioxide
D. nitrogen

Chapter 3

18. Cigarette smoke, either mainstream or secondhand smoke, could produce cardiovascular disease by a number of interrelated modes of which of the following actions?
A. oxidative stress and hyperlipidemia
B. hemodyamic and autonomic effects
C. endothelial dysfunction, thrombosis and inflammation
D. all of the above

19. Which of the following is subacute and **chronic** effect of secondhand smoke?
A. vasoconstriction
B. inflammation
C. decrease heart rate
D. none of the above

20. Cigarette smoke could affect the cardiovascular system through the _____, associated hemodynamic effects, or both.
A. lymphatic system
B. digestive system
C. autonomic nervous system
D. reproductive system

21. Heart rate is regulated by the interaction between the _____ and parasympathetic nervous systems.
A. lymphatic
B. digestive
C. sympathetic
D. reproductive

22. Smoking can have **direct** effects on _____, and those effects are thought to be mediated by actions on the sympathetic component of the autonomic nervous system.
A. heart rate
B. liver
C. kidneys
D. prostate

23. Nicotine acts as a sympathomimetic drug in **increasing** which of the following?
A. heart rate and blood pressure
B. cardiac contractility
C. constriction of some blood vessels
D. all of the above

24. In people with coronary arterial disease, nicotine and cigarette smoke **decrease** _____.
A. coronary blood flow (CBF)
B. inflammation
C. cancer risk
D. asthma risk

25. Cigarette smoking is a **strong risk factor** for _____ vasospasm and for inadequacy of response to vasodilator medication.
A. renal

B. coronary
C. hepatic
D. cerebral

26. Endothelial dysfunction caused by cigarette smoke is one of the key early steps in the pathway to
_____.
A. diabetes
B. prostate problems
C. atherosclerosis
D. none of the above

27. A _____ exposure to secondhand smoke in a smoking room significantly **reduced** the coronary flow-velocity reserve in nonsmokers to a level similar to that seen in smokers before and after exposure to secondhand smoke.
A. 3 sec
B. 30 hours
C. 2 hours
D. 30 min

28. According to the study, _____ interact with subendothelial connective tissue, and damage endothelial cells also play a role in plaque formation due to secondhand smoke exposure.
A. platelets
B. bone marrow
C. insulin
D. calcium

29. _____ are cell derivatives that circulate in the blood and play a role in clot formation.
A. thrombocytes
B. erythrocytes
C. leukocytes
D. none of the above

30. Coagulation of platelets increases thrombus formation that is responsible for which of the following?
A.   disrupting the coronary artery lining
B.   speeding progression of atherosclerotic lesions
C.   increasing risk of ischemic heart disease
D.   all of the above

31. The acute cardiovascular effects of cigarette smoke result to a substantial degree from thrombosis-related events.
A. TRUE
B. FALSE

32. Smoking is associated with which of the following?
A.   higher polymorphonuclear (PMN) leukocyte counts
B.   C-reactive protein (CRP)
C.   fibrinogen and other inflammatory markers
D.   all of the above

33. Cigarette-smoking is associated with low high-density lipoprotein cholesterol (HDL-C), which is a risk factor for _____.
A.   renal failure
B.   atherogenesis
C.   diabetes
D.   none of the above

34. Smoking is believed to exert effects on lipids, at least in part, by the sympathomimetic effects of
_____.
A. nicotine
B. oxygen
C. insulin
D. calcium

35. Which of the following constituents of cigarette smoke has **higher** cardiovascular toxicity?
A. Acetaldehyde
B. Acetic acid
C. Nicotine
D. Nitrogen oxides

36. Which of the following constituents of cigarette smoke has **lower** cardiovascular toxicity?
A. Acetaldehyde
B. Crotonaldehyde
C. Cadmium
D. Lead

37. The lead in cigarette smoke is a risk factor for which of the following?
A. renal failure
B. hypertension
C. insulin resistance
D. thrombosis

38. _____ is a reactive component of the **vapor phase** of secondhand smoke and linked to cardiovascular diseases.
A. Butadiene
B. Nitrogen
C. Oxygen
D. none of the above

39. Sidestream tobacco smoke contains traces of metals including which of the following?
A. cadmium
B. chromium
C. lead and nickel
D. all of the above

40. Cadmium has been reported to be **highly** toxic to _____.
A. cardiovascular tissue
B. bones
C. erythrocytes
D. none of the above

41. Nicotine in amounts delivered in cigarette smoke acts as a sympathomimetic drug in **increasing** which of the following?
A. heart rate and blood pressure
B. cardiac contractility
C. constriction of some blood vessels
D. all of the above

42. Indoor particles due to secondhand smoke have been categorized as respirable, or "fine" particles that can be inhaled into the _____ and pose health concerns.
A. lungs
B. bones
C. throat
D. cardiovascular tissue

43. Acute cardiovascular effects of_____ in low concentrations are mild, and most data indicate that concentrations present in secondhand smoke do not affect cardiovascular function in healthy young adults.
A. carbon Monoxide
B. nicotine
C. lead
D. cadmium

44. The pathophysiology of induction of cardiovascular disease by cigarette smoking is complex and undoubtedly involves multiple chemical agents that are present in tobacco smoke.
A. TRUE
B. FALSE

45. Overall, data on the pathophysiology of secondhand smoke exposure in humans, animals, and cells are consistent with a role as a potential causative trigger for _____.
A. renal failure
B. acute coronary events
C. brain tumors
D. none of the above

Chapter 4
46. Extensive analyses of large cohorts show that the **major** risk factors for heart disease are which of the following?
A. smoking and diabetes
B. total cholesterol concentration
C. hypertension
D. all of the above

47. Which of the following are **additional**risk factors for cardiovascular disease?
A. obesity
B. family history of heart disease at an early age
C. left ventricular hypertrophy and C-reactive protein (CRP)
D. all of the above

48. The **INTERHEART** study examined the relationship between secondhand smoke exposure and acute_____.
A. renal failure
B. prostate cancer
C. myocardial infarction (MI)
D. none of the above

49. The results of case–control and cohort studies carried out in multiple populations consistently indicate exposure to secondhand smoke poses about a _____ increase in risk of coronary heart disease.
A. 1-5%
B. 5-7%
C. 25–30%
D. 60-70%

50. The excess risk is unlikely to be explained by misclassification bias, uncontrolled confounding effects, or publication bias.
A. TRUE
B. FALSE

Chapter 5
51. The **first** law in the United States requiring the labeling of cigarette packages with health warnings was passed in _____.
A. 1955
B. 1965
C. 1975
D. 1985

52. The 1969 Public Health Cigarette Smoking Act banned cigarette advertising on _____.
A. television
B. radio
C. internet
D. A and B only

53. In which of the following year, a congressionally **mandated** smoking ban took an effect on all domestic airline flights of 6 hours or less?
A. 1970
B. 1980
C. 1990
D. 2000

54. In 1993, which of the following city passed a ban on smoking in all restaurants?
A. Los Angeles
B. Dallas
C. New York city
D. Las Vegas

55. In 1997, president _____ signs an executive order establishing a smoke-free environment for federal employees and all members of the public visiting federally owned facilities.
A. Kennedy
B. Bush
C. Clinton
D. Obama

56. EPA concluded that environmental tobacco smoke (ETS) is "a human lung carcinogen, responsible for approximately 3,000 _____deaths annually in U.S. nonsmokers."
A. kidney cancer
B. lung cancer
C. breast cancer
D. thyroid cancer

57. The growing **global** support for reducing tobacco use and secondhand smoke exposure is evident from the _____ Framework Convention on Tobacco Control.
A. World Health Organization (WHO)
B. EPA
C. NASA
D. CDC

58. According to WHO report on the Global Tobacco Epidemic, 2008—The MPOWER Package, more than 8 million people a year will die from tobacco use by year _____.
A. 2020
B. 2025
C. 2030
D. 2070

59. All the epidemiologic studies being reviewed should be evaluated in light of the amount of contextual data that are taken into account, including measurements both before and after bans and measurements comparing locales with and without bans.
A. TRUE
B. FALSE

Chapter 6
60. Which of the following are addressed from key studies by the committee in this article?
A. The association between secondhand-smoke exposure and acute coronary events
B. The association between smoking bans and acute coronary events
C. Diabetes and life styles

D. A and B only

61. _____enacted and enforced legislation requiring smoke free workplaces and public places for the period June 5–December 3, 2002.
A. Dallas, Texas
B. Helena, Montana
C. Las Vegas, Nevada
D. Tampa, Florida

62. The study was done on the effect of the smoking-ban legislation on _____ for acute myocardial infarction (MI) in Helena, Montana.
A. hospital admissions
B. lung cancer
C. diabetes outcomes
D. asthma cases

63. On January 10, 2005, _____ implemented a nationwide smoking ban in all indoor public places, including offices, retail shops, cafés, bars, restaurants, and discotheques.
A. India
B. Greece
C. Italy
D. China

64. The city of Pueblo, Colorado, implemented a smoking ordinance, effective July 1, _____, that prohibited smoking in workplaces and all public buildings.
A. 2000
B. 2001
C. 2003
D. 2006

65. According to the data from Pueblo, Colorado study, hospitalizations for acute myocardial infarction (MI) _____ after smoking ban.
A. increased
B. decreased
C. no change
D. none of the above

66. Monroe County, Indiana, implemented a ban on smoking in all restaurants, retail stores, and workplaces effective August 1, 2003.
A. TRUE
B. FALSE

67. The committee was able to find any published information on decreased concentrations of secondhand-smoke components or compliance with the Monroe County ban.
A. TRUE
B. FALSE

68. The city of Bowling Green, Ohio, implemented a clean-indoor-air ordinance in March 2002 that banned smoking in all public places in the city **EXCEPT:**
A. bars
B. restaurants with bars in isolated areas
C. bowling alleys
D. all of the above

69. On July 24, 2003, New York implemented a _____ ban on smoking in all workplaces, including restaurants, bars, and gaming establishments.
A. citywide
B. countywide
C. statewide

D. none of the above

70. _____ measured indoor-air quality in hospitality venues in western New York before and after implementation of the 2003 ban.
A. CDC
B. EPA
C. FDA
D. AHA

71. Saskatoon, Saskatchewan, Canada implemented a smoking ban on July 1, _____.
A. 2000
B. 2001
C. 2004
D. 2006

72. Smoking prevalence in Saskatoon decreased from 24.1% in 2003 to _____ in 2005 but was unchanged in the province of Saskatchewan after the ban.
A. 18.2%
B. 5%
C. 3%
D. 1%

73. Scotland prohibited smoking in March 2006 in enclosed public places and workplaces including bars, restaurants, and cafes **EXCEPT:**
A. residential accommodation
B. designated rooms in hotels
C. care homes, hospices and psychiatric units
D. all of the above

74. In Scotland study, the number of **never-smokers** who reported no exposure to smoke increased from 57% before the ban to _____ after implementation.
A. 58%
B. 60%
C. 78%
D. 95%

75. The number of admissions for acute coronary syndrome decreased by 17% in Scotland and only a 4% reduction occurred during the same period in England where no ban was in place.
A. TRUE
B. FALSE

Chapter 7
76. Which of the following are some of the **limitations** and sources of uncertainty in key studies?
A. potential for publication bias
B. use of less-than-perfect comparison groups
C. lack of closed study populations
D. all of the above

77. Which of the following are **some of** the characteristics in smoking-ban study design?
A. Study population
B. Smoking-ban intervention
C. Exposure assessment and Outcome
D. all of the above

78. Which of the following is **research challenge** for investigators in smoking-ban intervention?
A. control over terms or timing of smoking-ban legislation
B. implementation
C. enforcement
D. all of the above

79. Which of the following is difficult to establish because intervention does not occur at clearly defined time (because of other activities concurrent with smoking ban)?
A. Time between implementation and effect
B. Smoking-ban intervention
C. Exposure assessment and Outcome
D. all of the above

80. The key studies discussed in this report are of necessity _____ and they are observational or surveillance studies that looked at the effects of a smoking ban on hospital outcomes.
A. nonexperimental
B. experimental
C. lab based
D. none of the above

81. The differences in the_____ **limit** the ability to quantitatively compare the changes in risk across the studies and, in some cases, limit the confidence in those studies.
A. experimental group
B. labgroup
C. study populations
D. none of the above

82. _____ group is used to compare acute cardiovascular events in a given population before and during smoking bans.
A. internal control
B. experimental
C. lab based
D. external control

83. Some of the study selected _____ group from an area that did not implement a ban, but otherwise was similar to the population where the intervention occurred.
A. internal control
B. experimental
C. lab based
D. external control

84. In order to do an exposure assessment, which of the following **must** be considered?
A. effects of smoking bans
B. effects of decreases in secondhand-smoke exposure
C. diabetes and life styles
D. A and B only

85. After a smoking ban is implemented, many smokers quit or decrease the number of cigarettes they smoke.
A. TRUE
B. FALSE

86. Which of the following from acute coronary events should be used as **outcomes** in considering the effect of a smoking ban?
A. Morbidity
B. Mortality
C. Animal testing
D. A and B only

87. _____ is the **most common** analytic approaches that divide an admission rate after implementation of a smoking ban by the admission rate before the ban.
A. Estimating rate ratios
B. Graphs
C. Charts

D. Tables & Figures

88. The committee constructed a data set for smoking ban by using **Medicare** billing claims data for a population of _____.
A. children
B. young adults
C. elderly people
D. teenagers

89. The 11 studies reviewed in this chapter were observational studies that used different analyses and showed decreases in the rate of acute MI after implementation of eight smoking bans.
A. TRUE
B. FALSE

90. The **strongest data** on reduction in secondhand smoke and a decrease in acute cardiovascular events in non smoker came from which of the following?
A. Monroe, Indiana
B. Scotland
C. Animal testing
D. A and B only

Chapter 8
91. To determine the effect of changes in exposure to secondhand smoke it is necessary to quantify changes in _____ studies.
A. epidemiologic
B. economical
C. psychological
D. sociological

92. Airborne concentration of _____ is a specific tracer for secondhand smoke.
A. oxygen
B. nicotine
C. lead
D. cadmium

93. The concentration of cotinine in which of the following is a specific indicator of integrated exposure to secondhand smoke?
A.   saliva
B.   serum
C.   urine
D.   all of the above

94. Airborne nicotine and Particulate matter (PM) concentrations in regulated venues such as workplaces, bars, and restaurants decreased by more than _____ in most studies.
A. 8%
B. 18%
C. 28%
D. 80%

95. Experimental studies in humans, animals, and cell cultures have demonstrated effects of secondhand smoke and/or its components on the cardiovascular system.
A. TRUE
B. FALSE

96. Studies have yielded sufficient evidence to support an inference that acute exposure to secondhand smoke induces which of the following?
A.   endothelial dysfunction and inflammation
B.   increases thrombosis
C.   potentially affects plaque stability adversely

D. all of the above

97. Which of the following is a **major** constituent of secondhand smoke and coronary heart disease?
A. oxygen
B. particulate matter (PM)
C. diet
D. not exercising

98. Studies that include _____ assessments of exposure to secondhand smoke **cannot** necessarily be compared with each other unless the survey instruments were similar.
A. self-reported
B. observational
C. written
D. sociological

99. Epidemiologic studies using serum cotinine concentration as a biomarker of overall exposure to secondhand smoke indicated that the relative risk (RR) of coronary heart disease associated with secondhand smoke is even greater than those estimates.
A. TRUE
B. FALSE

100. _____ key epidemiologic studies evaluated the effects of eight smoking bans on the incidence of acute coronary events.
A. 5
B. 11
C. 20
D. 45

101. The decreases in acute MIs in the 11 studies ranged from about _____, depending on characteristics of the study, including the method of statistical analysis.
A. 1 to 5%
B. 5 to 6%
C. 6 to 47%
D. 100%

102. The committee considered the _____ plausibility of a causal relationship between a decrease in secondhand-smoke exposure and a decrease in the incidence of acute MI.
A. biologic
B. observational
C. written
D. sociological

103. The plausibility of the _____ of the effect seen in the key epidemiologic studies after implementation of smoking bans by the committee.
A. biologic
B. observational
C. magnitude
D. sociological

104. The committee examined which of the following relationships?
A. secondhand-smoke exposure and cardiovascular disease
B. secondhand-smoke exposure and acute coronary events
C. smoking bans and acute coronary events
D. all of the above

105. Taking all that evidence together, the committee concurs with the conclusions in the 2006 surgeon general's report that "the evidence is sufficient to infer a causal relationship between exposure to secondhand smoke and increased risks of coronary heart disease morbidity and mortality among both men and women."

A. TRUE
B. FALSE

106. Studies showed **reductions** in the _____ of acute coronary events in nonsmokers when secondhand-smoke exposure was decreased after implementation of the bans.
A. tumor
B. relative risk (RR)
C. cancer
D. stroke

107. The effect seen after implementation of smoking bans is consistent with data from the INTERHEART study, a case–control study of 15,152 cases of first acute MI in 262 centers in _____ countries.
A. 52
B. 90
C. 100
D. 120

108. The indirect evidence obtained from studies of ambient PM supports the notion that exposure to PM present in secondhand smoke could trigger acute coronary events or induce arrhythmogenesis in a person with a vulnerable _____.
A. hepatitis
B. pancreatitis
C. myocardium
D. iron deficiency

109. The effectiveness of a smoking ban depends on which of the following?
A. societal actions that implement and enforce the ban
B. smoke reduction in homes
C. smoke reduction in cars and elsewhere
D. all of the above

110. Which of the following factors are likely to influence the effect of a smoking ban on the incidence and prevalence of acute coronary events in a population?
A. age, sex and diet
B. background risk factors
C. environmental factors
D. all of the above

111. The committee suggests that future research should examine the _____ of environmental chemicals including those in secondhand smoke.
A. cardiotoxicity
B. elements
C. components
D. formula

112. A better understanding of the factors that promote _____ and how they are influenced by tobacco smoke and PM would provide insight into the mechanisms underlying the cardiovascular effects of secondhand smoke.
A. tumor
B. plaque rupture
C. cancer
D. stroke

113. A _____ database that captures all cardiovascular end points would facilitate future epidemiologic studies by allowing the tracking of trends and identification of high-risk populations at a more granular level.
A. citywide
B. countywide
C. national
D. statewide

114. There is no _____ evidence that a relatively **brief** exposure to secondhand smoke can precipitate an acute coronary event.
A. direct
B. indirect
C. stochastic
D. non-stochastic

115. The key intervention studies that have evaluated the effects of indoor smoking bans consistently have shown a decreased risk of _____.
A. cirrhosis
B. heart attack
C. cancer
D. tumor

116. Which of the following are some of the **weaknesses** of the published population-based studies of the risk of MI after implementation of smoking bans?
A. use of a small study sample
B. lack of exposure-assessment criteria and measurements
C. differences between control and intervention groups
D. all of the above

117. Which of the following are **other risk factors** for acute coronary events?
A. obesity
B. diabetes
C. age
D. all of the above

118. The committee found a **lack** of a system for surveillance of the prevalence of cardiovascular disease and of the incidence of acute coronary events in_____.
A. China
B. India
C. United States
D. Mexico

119. Although some national databases and surveys include cardiovascular end points, a national database that tracks hospital admission rates and deaths from acute coronary events, similar to the _____ database for cancer, would improve epidemiologic studies.
A. PACS
B. Surveillance, Epidemiology and End Results (SEER)
C. HIS
D. RIS

120. Additional research is necessary to develop reliable biomarkers of early effects on plaque vulnerability to rupture and to improve the design of _____ of secondhand smoke that examine effects of exposure on plaque stability.
A. pathophysiologic studies
B. demographic studies
C. economical studies
D. non-smoker study