

*CME Test Questions***CARDIOMETABOLIC RISK MANAGEMENT**

1. Cardiovascular disease (CVD) is the leading cause of death for both men and women in the United States.
 - a. True
 - b. False
2. Data from the National Health and Nutrition Examination Survey (NHANES) indicate that the prevalence of obesity has increased from 22.9% in 1988–1994 to _____ in 1999–2000.
 - a. 25.4%
 - b. 27.5%
 - c. 29.2%
 - d. 30.5%
3. In the San Antonio Heart Study, participants who were not diabetic at baseline examination but went on to develop type 2 diabetes by 8-year follow-up had substantially higher _____ than subjects who did not develop type 2 diabetes.
 - a. total and LDL cholesterol
 - b. triglycerides
 - c. BMI
 - d. all of the above
4. An analysis of data from NHANES III demonstrated that BMI was more closely linked to CVD risk than was waist circumference.
 - a. True
 - b. False
5. Compared with normal-weight healthy men, the risks for CVD mortality in men with metabolic syndrome were _____ in obese men.
 - a. 2.06
 - b. 1.80
 - c. 2.83
 - d. 2.96
6. The EC system _____.
 - a. regulates food intake and fat accumulation
 - b. regulates glucose and lipid metabolism
 - c. helps the body to rest and relax
 - d. all of the above
7. Overactivation of the EC system can be a response to obesity, smoking, and excessive caloric intake, and can result in _____.
 - a. insulin resistance
 - b. congestive heart failure
 - c. hand-foot syndrome
 - d. all of the above
8. Δ^9 -THC, an exogenous cannabinoid, in a recent study of 139 AIDS-related anorexia patients, resulted in _____.
 - a. a 38% increase of appetite above baseline in non-placebo patients
 - b. a weight gain of ≥ 2 kg in 22% of nonplacebo patients
 - c. both a and b
 - d. neither a nor b
9. In obese rodents and humans, observed adipose tissue expression of TNF _____.
 - a. is increased
 - b. remains the same
 - c. is decreased
 - d. either a or c, depending upon insulin levels in the subject.
10. Which of these events was first in the chronology of the discovery of the EC system?
 - a. Cloning of the human CB₁ receptor
 - b. Discovery of anandamide
 - c. Isolation of Δ^9 -THC
 - d. Isolation of 2-arachidonoylglycerol in the brain
11. The clinical presentation of arterogenic dyslipidemia is characteristically seen as elevated serum triglycerides and _____.
 - a. a greater preponderance of large LDL particles and a decreased HDL level
 - b. a greater preponderance of small LDL particles and an increased HDL level
 - c. a greater preponderance of large LDL particles and an increased HDL level
 - d. a greater preponderance of small LDL particles and a decreased HDL level

12. The San Antonio Heart Study found a combination of BMI and waist circumference to be highly predictive of eventual development of metabolic syndrome. Patients with a baseline BMI ≥ 30 kg/m² or waist circumference ≥ 40 inches for men and ≥ 35 inches for women, compared with patients with a BMI < 25 kg/m² and a small waist circumference, showed what ratio of increased risk for metabolic syndrome?

- a. 2 to 6 times the risk
- b. 3 to 8 times the risk
- c. 4 to 10 times the risk
- d. 5 to 7 times the risk

13. The most recognized variant in adipose tissue distribution associated with the metabolic syndrome is _____.

- a. BMI
- b. lower-body obesity
- c. upper-body obesity
- d. Weir-Hardy syndrome

14. According to the ATP III, waist circumference levels defining a risk factor for metabolic syndrome are _____.

- a. 98 cm for men and 84 cm for women
- b. 100 cm for men and 86 cm for women
- c. 102 cm for men and 88 cm for women
- d. 104 cm for men and 90 cm for women

15. Compared with patients receiving placebo who lost a mean of 1.4 kg, patients on rimonabant 20 mg in the RIO-Diabetes 1-year study lost _____.

- a. a mean of 4.9 kg
- b. a mean of 5.3 kg
- c. a mean of 5.7 kg
- d. a mean of 6.1 kg

16. In the RIO-Diabetes study, changes in lipid levels were also studied. What were the changes in HDL and triglycerides for patients on rimonabant?

- a. HDL rose 3.3 mg/dL, and triglycerides fell 22.2 mg/dL.
- b. HDL rose 4.4 mg/dL, and triglycerides fell 25.2 mg/dL.
- c. HDL rose 5.5 mg/dL, and triglycerides fell 28.2 mg/dL.
- d. HDL rose 6.6 mg/dL, and triglycerides fell 31.2 mg/dL.

17. Metabolic syndrome is properly diagnosed in adolescents when _____.

- a. ≥ 2 risk factors are present
- b. ≥ 3 risk factors are present
- c. ≥ 4 risk factors are present
- d. None of the above

18. The ADA has recently modified the cutoff point for elevated fasting glucose. The new cutoff level is _____.

- a. ≥ 80 mg/dL
- b. ≥ 90 mg/dL
- c. ≥ 100 mg/dL
- d. ≥ 110 mg/dL

19. The Ueda et al study, published July 2005, studied the prevalence of ≥ 3 components of the metabolic syndrome and determined that _____.

- a. prevalence was higher than predicted mathematically
- b. prevalence was lower than predicted mathematically
- c. prevalence was higher when subjects were selected by BMI, rather than by waist circumference
- d. prevalence was higher when subjects were selected by waist circumference, rather than by BMI

20. Metabolic syndrome confers a risk of major CVD events in the short term. One tool for quantifying this risk is _____.

- a. AHA/NHLBI risk scoring
- b. Harvard risk scoring
- c. Framingham risk scoring
- d. Mayo risk scoring

21. The results of the cross-sectional NHANES III data show _____.

- a. 86% of the study population with diabetes also had metabolic syndrome
- b. of those in the study population with both metabolic syndrome and diabetes, 19% also had CHD
- c. 7.5% of the study population had diabetes but not metabolic syndrome
- d. all of the above

- 22. The main difference between the WHO definition of metabolic syndrome and the definition of the NCEP ATP III is _____.**
- larger waist circumference figures
 - presence of insulin resistance
 - inclusion of HDL/LDL ratio
 - both a and b
- 23. In patients who have undergone myocardial infarction, the presence of metabolic syndrome is associated with _____.**
- increased risk of death
 - increased risk of major CV events
 - both a and b
 - neither a nor b
- 24. The Framingham Offspring Study has suggested that in patients with metabolic syndrome, the number of small LDL particles may be _____.**
- disproportionately lower, as reflected by LDL cholesterol levels
 - disproportionately higher than is reflected by LDL cholesterol levels
 - a poor predictor of CV risk
 - a more accurate predictor of risk of associated hepatic disease
- 25. Fibrates are agonists of the peroxisome proliferator-activated receptor α pathway and are known to _____.**
- increase triglyceride production
 - decrease triglyceride production
 - increase insulin production
 - both a and c
- 26. Compared with patients without the disorder, patients with metabolic syndrome have _____.**
- a 1.5- to 3-fold increased risk of dying from atherosclerotic disease
 - a 2- to 4-fold increased risk of dying from atherosclerotic disease
 - a 2.5- to 5-fold increased risk of dying from atherosclerotic disease
 - a 3- to 6-fold increased risk of dying from atherosclerotic disease
- 27. The endocannabinoid system is believed to regulate _____.**
- energy balance and fat accumulation
 - lipid metabolism and glucose
 - both a and b
 - neither a nor b
- 28. The INTERHEART study identified 9 potentially modifiable risk factors. These risk factors include all of the following except _____.**
- abdominal obesity
 - diabetes
 - smoking
 - lower body obesity
- 29. Adipose tissue is now recognized as an endocrine organ, secreting a variety of cytokines which include all of the following except _____.**
- adiponectin
 - resistin
 - pepsin
 - leptin
- 30. The metabolic syndrome is a cluster of risk factors that precede(s) _____.**
- CVD and certain cancers
 - diabetes
 - both a and b
 - neither a nor b
- 31. Important aspects of the *Dietary Guidelines for Americans 2005* and the revised food pyramid plan are reflected in the acronym _____.**
- ARMSFARG—Avoid Red Meat Saturated Fats And Refined Grains
 - CQE—Cut calories, choose Quality foods and Exercise daily
 - RTFP—Remember The Food Pyramid
 - FLAVORD—Fruits, Lean meat And Vegetables Or Rice and Dairy
- 32. A BMI of 35.0–39.9 kg/m² corresponds with an obesity class index of _____.**
- 0
 - I
 - II
 - III
- 33. In defining metabolic syndrome, NCEP-ATP III and WHO/AACE differ. What is the nature of the discrepancy?**

- a. NCEP-ATP III criteria emphasize cardiovascular risk factors.
 - b. WHO and AACE focus on insulin resistance.
 - c. WHO and AACE provide regional-specific criteria.
 - d. both a and b.
- 34. Of Americans ≥ 20 years old, what percentage have 2 or more components of metabolic syndrome?**
- a. 23.9%
 - b. 33.9%
 - c. 43.9%
 - d. 53.9%
- 35. In the WOSCOPS, new-onset diabetes was more likely in men with metabolic syndrome, compared with those without metabolic syndrome. Which statement is correct?**
- a. Men with metabolic syndrome were 2.5 times more likely to develop new-onset diabetes than those without metabolic syndrome.
 - b. Men with metabolic syndrome were 3.5 times more likely to develop new-onset diabetes than those without metabolic syndrome.
 - c. Men with metabolic syndrome were 4.5 times more likely to develop new-onset diabetes than those without metabolic syndrome.
 - d. Men with metabolic syndrome were 5.5 times more likely to develop new-onset diabetes than those without metabolic syndrome.
- 36. Prediabetic patients with metabolic syndrome, treated with a combination of atorvastatin and fenofibrate, reduced their prevalent metabolic syndrome by _____.**
- a. 46%
 - b. 56%
 - c. 66%
 - d. 76%
- 37. Cardiovascular exercise 3 times weekly for 20 weeks decreased insulin resistance in most patients and alleviated metabolic syndrome in _____ of patients.**
- a. 27.3%
 - b. 30.5%
 - c. 33.7%
 - d. 37.1%

CME Test Questions
CARDIOMETABOLIC RISK MANAGEMENT
 Volume 7, Number 2/3

Release Date of Activity: December 30, 2005
Expiration Date of Activity for AMA PRA credit: December 31, 2007
Estimated Time to Complete this Activity: 8 hours
Expiration Date of Activity for AAFP Prescribed Credit: December 31, 2007

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Name: _____ Specialty: _____
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CME Credit Verification

I verify that I have spent ____ hours/ ____ minutes of actual time working on this CME activity.
 No more than ____ CME credit will be issued for this activity.

PRETEST ASSESSMENT: *Please rate your current knowledge of Cardiometabolic Risk Management on a scale of 1 to 5, with 1 the lowest and 5 the highest.* **1 2 3 4 5**

What educational goal(s) do you plan to achieve by completing this activity?

Please list:

1. _____
2. _____
3. _____

CME TEST

(Please circle correct answers)

- | | | | | | |
|------------|-------------|-------------|-------------|-------------|-------------|
| 1. a b | 8. a b c d | 15. a b c d | 22. a b c d | 29. a b c d | 36. a b c d |
| 2. a b c d | 9. a b c d | 16. a b c d | 23. a b c d | 30. a b c d | 37. a b c d |
| 3. a b c d | 10. a b c d | 17. a b c d | 24. a b c d | 31. a b c d | |
| 4. a b | 11. a b c d | 18. a b c d | 25. a b c d | 32. a b c d | |
| 5. a b c d | 12. a b c d | 19. a b c d | 26. a b c d | 33. a b c d | |
| 6. a b c d | 13. a b c d | 20. a b c d | 27. a b c d | 34. a b c d | |
| 7. a b c d | 14. a b c d | 21. a b c d | 28. a b c d | 35. a b c d | |

COURSE EVALUATION: *Please evaluate the effectiveness of this activity by circling your choice on a scale of 1 to 5, with 1 the lowest and 5 the highest.*

1. Did the material provide an adequate overview of determining CVD risk using standard NCEP-ATP III criteria? **1 2 3 4 5**



- 2. How well did the material explain obesity and atherogenic dyslipidemia as a precursor of the metabolic syndrome? | 2 3 4 5
- 3. How well did the material discuss and explain the endocannabinoid system? | 2 3 4 5
- 4. How do you rate the overall quality of the activity? | 2 3 4 5
- 5. How do you rate the educational content of the activity? | 2 3 4 5
- 6. Was the information presented to be fair, objective, balanced, and free of bias in the discussion of any commercial product or service? ___ Yes ___ No

If no, please describe: _____

7. Suggested topics for future activities: _____

8. Suggested authors for future activities: _____

- 9. After participation in this activity, have you decided to change one or more aspects of the treatment of your patients? ___ Yes ___ No

If yes, what changes will you make _____
If no, why? _____

- 10. Would you be willing to participate in follow-up evaluations? ___ Yes ___ No

The Elsevier Office of CME thanks you for participation in this CME activity. All information provided improves the scope and purpose of our programs and your patient's care.

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