



A Part of Wheat Foods Council



## CEC Questions for:

### **“Is Low Carbohydrate the Way to Go or the Way to Bonk?”**

1. According to 2014 meta-analysis comparing different types of diets published in JAMA, which type of diet was most effective for weight loss after 12 months?
  - a. Low carbohydrate
  - b. Low fat
  - c. Both low carbohydrate and low fat diets were equally effective
  - d. Neither diet was effective
  
2. When participating at race pace in an endurance event, most people have about \_\_\_\_\_ hours of stored glycogen available.
  - a. 1 hour
  - b. 2 hours
  - c. 3 hours
  - d. 4 hours
  
3. In a fit man on a diet that is not carbohydrate restricted, the maximum rate of energy production when burning carbohydrate is:
  - a. About the same as that of fat
  - b. About 50% higher than that of fat
  - c. About 3-5 times higher than that of fat
  - d. About 10 times higher than that of fat
  
4. Which of the following statements is true about carbohydrates?
  - a. They can be burned faster than fat
  - b. They are the preferred fuel for high-intensity exercise
  - c. They replace muscle glycogen faster than other fuel sources after exercise
  - d. All of the above are true
  - e. None of the above is true
  
5. Which of the following best describes the relationship between carbohydrates and performance at race levels of intensity (>65% VO<sub>2</sub> max)?

- a. Low carbohydrate diets will improve performance
- b. Low carbohydrate diets will impair performance
- c. High carbohydrate diets will improve performance
- d. High carbohydrate diets will impair performance
- e. Both A & D are correct
- f. Both B & C are correct

6. Which of the following statements is/are true for athletes using the train “low,” race “high” principle?
  - a. Training occurs under “low” muscle glycogen conditions
  - b. Racing occurs under “high” muscle glycogen conditions
  - c. Both a and b are true
  - d. Neither a nor b are true
  
7. Training on a low-carbohydrate diet has been associated with which of the following?
  - a. Better performance measures when racing
  - b. Increased feelings of well-being and lower fatigue
  - c. Increased susceptibility to illness and infection
  - d. None of the above
  - e. All of the above
  
8. The vast majority of competitive endurance races:
  - a. Are performed within the “fat-burning” zone
  - b. Result in fat being burned at a faster rate than carbohydrates
  - c. Rely heavily on muscle glycogen as a fuel source
  - d. None of the above
  
9. High protein diets (>2g/kg BW/day) have been shown to
  - a. Increase the acid content of the blood
  - b. Decrease the time to exhaustion for high-intensity exercise conditions
  - c. Neither a or b is true
  - d. Both a and b are true
  
10. For an athlete competing in an event lasting longer than 2.5 to 3 hours, the recommended rate of carbohydrate intake during the event is
  - a. 30-60 g/kg per hour
  - b. 60 g/kg per hour
  - c. up to 90 g per hour
  - d. None of the above
  
11. Among the world’s best marathoners, what percentage of the calories in their diets come from carbohydrate?
  - a. Less than 25%
  - b. 30-40%
  - c. 50-60%
  - d. Greater than 60%
  
12. Where does the “fat-burning” zone occur as a percentage of  $VO_{2max}$ ?
  - a. 35-50%
  - b. 45-60%
  - c. 55-70%

- d. 65-80%
13. In most cohort studies, the relationship between body mass index (relative body weight) and carbohydrate intake can be described as
- a. Negative
  - b. Positive
  - c. Neutral
  - d. Can't be described because the relationship is exercise dependent.
14. Which of the following is considered a pitfall (downside) of training under conditions of low carbohydrate availability?
- a. Inability to maintain desired training intensity
  - b. Possible impairment of capacity to utilize carbohydrate consumed during competition
  - c. Possible increase in muscle protein breakdown
  - d. All of the above
15. The daily target for carbohydrate intake for athletes who train at moderate-to-vigorous intensities for 1-3 hours per day is:
- a. 1-2 grams/kg body weight
  - b. 2-3 grams/kg body weight
  - c. 6-10 grams/kg body weight
  - d. There is no carbohydrate recommendation because moderate-to-vigorous exercise lasting 1-3 hours uses mostly fat as a fuel

**Once you have taken this CEC quiz, please BOLD your answers and send this document to**

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**Your CEC certificate will be emailed back to you.**