

Quiz Policies

Eligibility

The NCSF online quizzes are open to any currently certified fitness professional, 18 years or older.

Deadlines

Course completion deadlines correspond with the NCSF Certified Professionals certification expiration date. Students can obtain their expiration dates by reviewing either their certification diploma or certification ID card.

Cancellation/Refund

All NCSF continued education course studies are non-refundable.

General Quiz Rules

- You may not have your quiz back after sending it in.
- Individuals can only take a specific quiz once for continued education units.
- Impersonation of another candidate will result in disqualification from the program without refund.

Disqualification

If disqualified for any of the above-mentioned reasons you may appeal the decision in writing within two weeks of the disqualification date.

Reporting Policy

You will receive your scores within 4 weeks following the quiz. If you do not receive the results after 4 weeks please contact the NCSF Certifying Agency.

Re-testing Procedure

Students who do not successfully pass an online quiz have the option of re-taking. The fees associated with this procedure total \$15 (U.S) per request. There are no limits as to the number of times a student may re-test.

Special Needs

If special needs are required to take the quiz please contact the NCSF so that appropriate measures can be taken for your consideration.

Quiz Rules

What Do I Mail Back to the NCSF?

Students are required to submit the quiz answer form.

What do I Need to Score on the Quiz?

In order to gain the .5 NCSF continued education units students need to score 80% (8 out of 10) or greater on the CEU quiz.

Where Do I Mail My Quiz Answer Form?

You will mail your completed answer form to:

NCSF

Attn: Dept. of Continuing Education

5915 Ponce de Leon Blvd., Suite 60

Coral Gables, FL 33146

How Many CEUs Will I Gain?

Professionals who successfully complete the any continuing education quiz will gain .5 NCSF CEUs per quiz.

How Much does each quiz cost?

Each quiz costs the student \$15.00.

What Will I Receive When The Course Is Completed?

Students who successfully pass any of the NCSF online quizzes will receive their exam scores, and a confirmation letter.

How Many Times Can I Take The Quizzes For CEUs?

Individuals can take each NCSF quiz once for continuing education credits.

Bodyweight Variations and Metabolic Compensations

Weight loss is likely the most sought after goal exercise programs. Self-proclaimed gurus and DVD divas are constantly coming up with new movements and methods to optimize caloric expenditure per given time segment. And while some programs falsely flaunt +1,000 kcal/hour workouts, research has indicated these claims are simply not true. In a recent study published in *Obesity* (2012), investigators cited the less than expected caloric expenditure associated with common exercise regimens. Weight loss expectations remain high when engaging in routine physical activity but weight loss resulting from an exercise intervention tends to be significantly lower than predicted. Additionally, repeated studies have shown that many people who begin an exercise program lose little or no weight while others actually gain weight. Researchers comparing weight loss to actual expenditure conclude that the small magnitude of weight loss observed from the majority of evaluated exercise interventions is primarily due to low doses of prescribed exercise energy expenditures compounded by a concomitant increase in caloric intake. So while some people believe they should lose weight because they perform exercise, most of them do not engage in enough exercise to offset the calories consumed.

In a recent study to analyze the hunter-gather concept researchers fitted African tribesmen with GPS units, to measure how many miles each walked in daily pursuits of food. The metabolic activity of the tribesmen and women was monitored using doubly-labeled water to more precisely determine energy expenditure and metabolic rate. The researchers gathered data over an 11 day period to calculate each subject's average daily physical activity, energy expenditure and resting metabolic rates. These values were then compared to the numbers taken from similar individuals living western lifestyles.

It would reason the hunter-gatherer lifestyle involves considerable physical activity, and therefore results in significant caloric expenditure during daily activities to survive. It is presumed this number far exceeds those expended by the average American office worker each day. And based on the study data, the scientists determined that the tribesmen and women in general moved more than most Americans do; with the men walking about seven miles a day and the women walking about three. Somewhat surprising was that fact that the tribesman did not significantly exceed the metabolic output of their American counterparts. In fact, the scientists calculated the Africans' average metabolic rate being about the same as the average metabolic rate for Westerners. This suggests that simply being active may not be enough to offset the calories commonly found in the American diet. And of further interest, an active lifestyle is often associated with increased consumption of food rather than a concurrent reduction in calories. That is, even active people will add fat mass if they eat like an average American. The bottom line is exercise alone is not the answer – so the question begs “why were the African tribesmen all thin?”

According to Dr. Timothy Church of the Pennington Biomedical Research Center in Louisiana, who has long studied exercise and weight control, “It's been known for some time that, calorie for calorie, it's easier to lose weight by dieting than by exercise,” he says. There are likely two explanations for this which both support modern theories of weight loss. The first is insulin management. When low-calorie foods are consumed throughout the day the impact on fat storage is increased compared to the same calories consumed in fewer meals due to changes in the glycemic load. Likewise, when natural foods are consumed over processed sources the total calories and glycemic effect are

lower, while the thermic effect may be equal or higher. For instance, a half a cup of orange juice is equated to an orange serving for nutrient quality but the internal dynamics between the two are dramatically different. Of additional relevance is human metabolism appears to be less affected by activity than was once believed. “There’s this expectation that if you exercise, your metabolism won’t drop as you lose weight or will even speed up,” says Diana Thomas, a professor of mathematics at Montclair State University in New Jersey, who led the study. But this is not true and explains a second concept of weight loss, survival balance. The concept of survival balance is related to losing too much weight when either; activity levels remain constant while calories are reduced, or calories remain the same and energy expenditure increases dramatically. As a natural defense to starvation, metabolism seems to decrease with weight loss. It should therefore not be surprising that the study found subjects’ basal metabolic rates dropped as they lost weight, even though they engaged in daily physical activity. The idea in the past was that continuous exercise expenditure would lead to predictable and consistent weight loss. In this study, even though the subjects were burning significant calories due to activity, their total daily caloric expenditure was lower than it would have been had their metabolism remained constant; consequently reducing the weight loss effect compared to predicted expectations. Because

there is an amortization process within basal metabolism along with a given loss of bodyweight, the actual loss of fat (associated with the same energy expenditure) is not constant over an extended period.

Based on these findings, Dr. Thomas has begun to recalibrate weight loss formulas, taking into account the drop in metabolism. Using her new formulas, which can be accessed from the Pennington Biomedical Research Center website at <http://www.pbrc.edu/research-and-faculty/calculators/weight-loss-predictor/>, she’s working with test subjects to improve predictions about how much weight they can expect to lose from exercise. And while the actual numbers are lower, Thomas suggests, “It’s better to meet lower expectations, than to be disappointed that you’re not losing what you supposedly should.”

Based on this information it is apparent that resistance exercise aimed at lean mass maintenance, a calorie-controlled hunter and gather eating technique, and routine physical activity all function synergistically to create an effective weight loss matrix. The next goal is getting clients to understand and believe in this process. The “secret pill” is actually consistency in behaviors and an ability to avoid over-eating. It appears that will and motivation are important, but controlling expectations seems to be a major part of the equation.

Bodyweight Variations and Metabolic Compensations CEU Quiz

1. Research published in *Obesity* (2012) cites that regular participation in common exercise programs will burn _____.
 - A. more calories than usually advertised
 - B. less calories than usually advertised
 - C. more than 1,000 kcals/hr
 - D. muscle and not fat
2. True or False? Studies show that many individuals who begin an exercise program lose little or no weight while some actually gain weight.
 - A. True
 - B. False
3. Based on the study cited in the article that followed individuals from an African tribe, what was the average distance walked per day by the males?
 - A. 3 miles
 - B. 7 miles
 - C. 10 miles
 - D. 13 miles
4. According to the article, what was one somewhat surprising conclusion from the study that followed the individuals from the African tribe?
 - A. women walked an average of 3 miles per day
 - B. men (on average) walked more than the women each day
 - C. the average energy expenditure (kcals/day) for the tribesmen did NOT significantly exceed the average output of an American
 - D. the average energy expenditure (kcal/day) was significantly higher for the tribesmen compared with an average American
5. According to the research an active lifestyle is often linked with _____.
 - A. increased eating
 - B. decreased eating
 - C. central adiposity
 - D. decreased energy expenditure

6. Fat storage can be positively affected by _____
- A. eating less frequent, larger meals throughout the day
 - B. consuming more simple sugars and trans fatty acids
 - C. eating low-calorie, smaller meals, more often throughout the day
 - D. nothing can significantly affect fat storage
7. Eating natural foods instead of processed foods can _____.
- A. reduce the glycemic effect
 - B. reduce the number of calories consumed
 - C. increase the thermic effect
 - D. all of the above are correct
8. Metabolism will _____ with weight loss as part of a natural defense mechanism against starvation.
- A. increase
 - B. remain the same
 - C. decrease
 - D. none of the above
9. Individuals from the study cited in the article experienced _____.
- A. a drop in basal metabolic rate as they lost weight
 - B. a rise in basal metabolic rate as they lost weight
 - C. a loss of weight greater than anticipated when factoring in physical activity and caloric intakes
 - D. feelings of starvation as they lost weight
10. Based on the research findings, new formulas are being developed to more accurately predict weight loss based on physical activity and caloric intake. The new formulas will _____.
- A. lower expectations due to reductions in basal metabolic rate experienced with weight loss
 - B. decrease the likelihood of achieving a weight-loss goal
 - C. help fitness professionals sell their services by increasing expected weight loss
 - D. not factor in changing dynamics associated with metabolic rates

Quiz Answer Form

FIRST NAME _____ LAST NAME _____ M.I. _____

TITLE _____

ADDRESS _____ APT. _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

COUNTRY _____ POSTAL CODE _____

CERTIFICATION NO. _____ CERTIFICATION EXP. ____/____/____

MEMBERSHIP NO. _____ MEMBERSHIP EXP. ____/____/____

Quiz Name	Member Price	Total
	\$15	



Discover



Visa



Mastercard



Amex



Check/Money Order

Account No. _____

Exp. Date _____

Security Code _____

Signature _____

Date _____

Quiz Answers

1. _____

6. _____

2. _____

7. _____

3. _____

8. _____

4. _____

9. _____

5. _____

10. _____

Fill in each blank with the correct choice on the answer sheet. To receive 0.5 CEUs, you must answer 8 of the 10 questions correctly.

Please mail this Quiz answer form along with the proper enclosed payment to:

NCSF
5915 Ponce de Leon Blvd., Suite 60
Coral Gables, FL 33146

Questions? 800-772-NCSF