

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.

Popular Diets do not Lead to Weight Loss

According to the Boston Medical Center, approximately 15% of the population attempts to lose weight each year, mainly through dieting. That same group will spend \$33 billion on weight-loss products and countless dollars on books and magazines advertising dietary solutions. For their time and effort, only about 2% of these people will attain and maintain long-term weight loss as a result of dietary restraint. For those who add exercise to the mix, however, the likelihood of both weight loss and weight maintenance improve. According to researchers at Beth Israel Deaconess Medical Center, obese patients can lose weight and keep it off using the most traditional method of eating less and exercising more. In an article published April 10 in the *American Journal of Preventive Medicine*, Nicklas and colleagues analyzed data culled from more than 4,000 obese (BMI >30) individuals. Of those surveyed, 63% reported that they had attempted weight loss. Of the 2,500 individuals in this category, 45% reported they were able to lose more than 5% of their body weight, and another 20% lost 10% or more of their body weight.

Consistent with prior research findings, the data suggests that among those surveyed, a combination of diet, exercise, and additional support mechanisms were the leading contributors to successful weight loss. “Those who exercised more and ate less fat were significantly more likely to lose weight,” says Nicklas. “Additionally, we found a correlation between joining weight-loss programs and greater reported weight loss, which may speak to the importance of structure in a weight-loss regimen.” In contrast, the authors found that, “self-reported use of popular diets, liquid diets, nonprescription weight-loss pills and diet foods/products were not associated with weight loss.” The data was collected from the 2001-2006 National Health and Nutrition Examination Survey (NHANES) conducted by the Centers for Disease Control and Prevention to assess the

health and nutritional status of adults in the United States.

Decades of research support the importance of physical activity and exercise in increasing energy expenditure and positively altering energy balance. It is well-documented that reducing energy intake and increasing energy expenditure alters fat mass and reduces inflammatory cytokines, which are cellular secretions that can cause disease. The aforementioned study found people were most successful at weight loss when they increased activity and reduced fat intake, particularly when they had the support of other individuals. This makes sense for several reasons: 1) Exercise and physical activity enhance the metabolic activity of muscle and contribute to greater caloric expenditure; 2) Fat is high in calories and often associated with poor food selections. Monitoring fat intake helps people identify what they are actually eating, which in turn assists in improving food consumption practices; 3) It is well-documented that support systems enhance compliance and motivate participants to maintain consistency as it relates to behavior modification; 4) Research has indicated people are much better at sticking with diets that emphasize a particular nutrient over total caloric emphasis, and when it comes to reducing their total calories, people prefer reducing their consumption of fat over other nutrients.

Along with controlling caloric intake, properly managing insulin levels assists with weight loss. Many people do not realize that not all carbohydrates impede weight loss goals; rather, it is the type of carb consumed and the subsequent insulin response that can influence weight management success. Insulin release is subject to the rate and quantity of carbohydrates entering the blood, and it increases fat storage by inhibiting lipase when elevated in circulation. Therefore, cutting fat but eating processed carbohydrates is not an ideal strategy.

Emphasizing real food selections over those that are man-made, tracking the natural fiber in foods, and choosing fruits and vegetables whenever they are available are all viable options that help to optimize insulin dynamics. Exercise also plays a key role in insulin management because it increases the sensitivity of cells to the metabolic environment and helps manage blood glucose, which in turn promotes a reduced insulin response and optimizes fat utilization through appropriate carbohydrate management.

Physical activity in general needs to be tracked separately from exercise for ongoing weight-loss success. Movement helps via three mechanisms: it increases caloric expenditure, helps manage blood glucose, and burns off stored fat. Research has shown that from a weight management standpoint, exercising three times a week does not equate to being physically active every day. Low-level movements such as walking are fueled by fat; therefore, the more we move in a day, the more likely we are to reduce storage fat and manage circulating lipids and glucose, particularly when caloric consumption is controlled. However, this is not to say that exercise is unnecessary. The inclusion of a structured regimen helps with weight loss and should reflect approximately 1,000 calories a week burned independent of physical activity.

Exercise influences adipose tissue both acutely and in the long run. When the actions are aerobically based, continuous steady-state exercise stimulates adipose tissue blood flow and fat mobilization, resulting in delivery of fatty acids to skeletal muscles at a rate consistent with metabolic requirements. Increasing the intensity by incorporating activities such as interval training will elevate caloric expenditures to an even greater extent than steady-state training. Following an exercise bout, physiological disruption perpetuates fat loss; fatty acids are directed away from adipose tissue to other tissues such as skeletal muscle, reducing the storage rate in fat cells. Many people are

surprised to learn that resistance training actually has a greater effect on improved body composition than aerobic training, but it is this mechanism that makes muscle, and resistance training, so important. Adding muscle, and keeping it moving, significantly increases daily expenditure. Accumulating 1,000 kcal in caloric expenditure via exercise (along with daily physical activity equaling an additional 1,000 kcal a week) makes a huge difference in the amount of fat storage associated with age. To put this in perspective, Americans are likely to double their body fat levels between the ages of 20 and 50.

Anaerobic training does not burn fat per se, but consistent aerobic exercise has been shown to have a profound effect on the use of fat beyond its basic energy contributions. With routine exercise, there are changes in adipose tissue physiology, particularly via enhanced fat mobilization and improved metabolism. Epidemiological observations support the idea that physically active people maintain healthier levels of fat mass, and intervention studies tend to show that chronic exercise reduces fat mass (particularly visceral storage). For this reason alone, it is important to introduce exercise and caloric control into individuals' everyday lives to reduce visceral fat and prevent the regional additions associated with age. Research published in the *Physiological Review* (2012) suggests that in addition to the regulation of fat mass, exercise may contribute to metabolic health through beneficial dynamic changes within adipose tissue in response to each activity bout. These changes are associated with a reduced risk for disease and better weight maintenance over a lifespan.

In addition to the benefits of exercise on physiological function, exercise may also be the key to overcoming the adverse genetic effects passed on to offspring by overweight mothers. Research published in the journal *Nutrition, Metabolism and Cardiovascular Disease* (2012) suggests for the first time that genetic risk

factors can be almost completely reversed through physical activity.

Females make up a large percentage of obese Americans, and an obese mother can cause physiological impairments in her offspring, such as altered central appetite circuits and an increase in fat deposits, glucose intolerance, and risk for metabolic disease. A rodent study performed at the University of New South Wales (UNSW) found rats that exercised significantly impacted the health outcomes of their offspring compared to those that were sedentary. Not surprisingly, the reversal was most pronounced in juveniles who both exercised and consumed a low-fat diet. In the study, offspring from obese female rats were 12% heavier three weeks after birth than the control offspring. They also recorded higher fat deposits, plasma lipids, and blood pressure, and increased glucose intolerance. When the sedentary young rats also consumed a high-fat diet, the weight gap increased to 37%. However, the rats born to obese mothers that exercised benefitted from a reduction in fat mass, plasma lipids, blood pressure, and insulin resistance. Additionally, the offspring who ate healthy foods and concurrently engaged in exercise reached metabolic levels similar to control rats born to normal weight mothers. Clearly, exercise demonstrated a profound effect on the potentially detrimental genetic consequences of maternal obesity.

According to Morris, the primary researcher in the study, “Eating well is obviously a good thing, but exercise is the key. Our previous studies showed that offspring of obese mothers who ate well but were sedentary weren’t able to reverse the metabolic risk factors. It was only in this study when exercise was introduced that improvement was recorded.” He continued, “What these latest findings on exercise show is that most, if not all, of the negative consequences of maternal obesity can be reversed through voluntary exercise in the next generation.”

Previous research has demonstrated that the genes controlling obesity can be affected with increased levels of weekly physical activity, and these findings further support the powerful effect of exercise on the metabolic system. According to researchers, given the global obesity epidemic, the relevance of getting children and adults to exercise cannot be overstated, nor can the benefits exercise has for the increasing number of overweight women entering pregnancy. Currently, obesity accounts for more than 20% of all health care costs; a larger population of obese females will increase that cost as they pass the risks of excess weight to their offspring. Consistent exercise, increased physical activity, and a healthy diet all seem to be the tools that can reverse this trend at all ages.

Popular Diets do not Lead to Weight Loss

CEU Quiz

1. Optimizing insulin dynamics can be best achieved through all but which of the following options?
 - a. Increasing consumption of fruits and vegetables
 - b. Consuming real food options rather than processed
 - c. Consuming only low-fat foods
 - d. Tracking one's consumption of fiber
2. Approximately _____ calories a week should be burned via exercise.
 - a. 500
 - b. 1,000
 - c. 1,500
 - d. 2,000
3. Approximately what percent of the population is able to achieve and maintain weight loss through dietary restraint?
 - a. 2%
 - b. 4%
 - c. 8%
 - d. 20%
4. When it comes to reducing total caloric intake, people prefer to cut calories from which nutrient listed?
 - a. Carbohydrates
 - b. Protein
 - c. Fat
 - d. Alcohol
5. Routine exercise affects adipose tissue physiology, especially through:
 - a. Enhanced fat mobilization
 - b. Decreased metabolism
 - c. Enhanced carbohydrate storage
 - d. Increased release of insulin

6. An obese mother can have all but which of the following physiological effects on her offspring:
 - a. Increased risk of metabolic diseases
 - b. Increased fat deposits
 - c. Increased glucose intolerance
 - d. Increased protein storage

7. Resistance training is even more important than aerobic training in altering body composition because it adds muscle, causing an increase in:
 - a. Insulin insensitivity
 - b. Daily caloric expenditure
 - c. Fat storage
 - d. The conversion of glucose to fat

8. People are most likely to lose weight (and keep it off) via a combination of:
 - a. Reduced caloric intake alone
 - b. Reduced caloric intake and exercise three days a week
 - c. Exercise alone
 - d. Reduced caloric intake, consistent exercise, and the support of friends and family

9. How does insulin increase fat storage?
 - a. It inhibits the release of lipase when levels are elevated
 - b. It inhibits the release of cortisol in response to stress
 - c. It increases the release of leptin when levels are decreased
 - d. It increases the release of ghrelin, reducing hunger levels

10. Increased movement helps with weight maintenance through all but which of the options listed?
 - a. It increases caloric expenditure
 - b. It helps to burn stored fat
 - c. It helps to manage blood glucose levels
 - d. It helps encourage the storage of glycogen

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