

# 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.



# Tri-sets

Training systems can provide useful applications for many exercise programs when properly aligned with the desired adaptation. Pyramid sets, strip/drop sets, and supersets all provide distinctive benefits when programmed in accordance with scientific principles. Historically, each training system has been uniquely employed for an adaptation-specific purpose, but novel uses have expanded the utility of some of these systems for newer training techniques. Looking at the scientific support helps gauge the use of the training system and when it is most applicable to positive adaptations in a program.

Pyramid training for instance, is ideal for improving strength gains by taking advantage of heightened neural alterations associated with progressive loading over reduced time-under-tension. It is commonly employed using heavy compound lifts such as the bench press, back squat, and deadlift. Each progressive load provides a neural “warm-up” for the next set; enhancing recruitment dynamics which consequently improve the potential for force production. Strip/drop sets are a very popular training system used among bodybuilders or those looking for localized hypertrophy due to the exhaustive use of the same muscle during repeated (no rest) sets. The time-under-tension and accommodating load provides repetition ranges to volitional failure which function to increase motor unit recruitment in the working tissue as well as create appropriate disruption for anabolic hormone responses. When combined with prior loading on the same muscle, the overall tissue recruited for

---

*In most cases, tri-sets serve as an excellent adjunct along with other training systems to help safely attain goals in a shorter period of time.*

---

work can be elevated (maximized use of all fibers within the muscle belly).

Other training systems allow for a bit more adaptation variety. Supersets are likely the most versatile of the group due to the potential diversity in training benefits and time-saving advantages when employed correctly. Supersets offer the greatest variety due to the options they present; same-muscle supersets can be used for hypertrophy training, contrasting loads and speeds of the same action can create recruitment benefits for power enhancements, agonist/antagonist relationships can be used for strength and fitness-related adaptations, and kinetic chain relationships may be employed for functional improvements. The advantage of supersets is the combined work is well-tolerated; in most cases the time-under-tension does not reach anaerobic capacity. For example, a dip and supine row superset performed to volitional failure will likely total close to 60 seconds of work, with 10-15 seconds of transitional rest between modalities. Both can be maximized without a significant drop in effort across the

work time. This differs from circuit training as the total number of exercises contributes to a cumulative decline in force capabilities over time. However, circuits do not function well with higher loads as the body’s metabolic stress is progressively increased due to the tension-time-recovery relationship. In most cases, circuits use 50-70% of one’s maximal load for each specific exercise, depending on the goal of the circuit.

Regardless of the nature of the circuit training program, the actions provide fewer benefits for strength and muscle development among trained individuals; but certainly contribute to caloric expenditure, muscle activation, and metabolic enhancements. While some individuals attempt to lift heavy loads or train ballistically within circuits, the risk for technique compromise and injury make them unjustified for health and fitness. A happy middle ground can be reached by blending the two concepts; the tri-set. The tri-set is essentially a three-exercise superset that allows for enhanced loading compared to a circuit, adds volume to the training program, and increases metabolic demands while saving time. Bodybuilders term a three-set superset a “giant set” which uses three subsequent exercises aimed at the same muscle group such as a bench press, dumbbell (DB) fly and a push-up performed in sequence without rest. For personal training, a giant set has far less application but three-exercise supersets can still be used safely and effectively for a variety of purposes. If basic strength is the goal a squat, bench, and row could be combined; hypertrophy training may employ

a leg curl, calf raise, and tuck jumps (due to the overlap in musculature used); and a MB goodmorning, MB rotational lunge, and lateral lunge with MB reach combination may be used as a functional warm-up. Each of these tri-sets has a different purpose but adds intensity and time-saving convenience to the workout plan.

The first step in the exercise-selection process is determining the tri-set sequence purpose. If strength is a goal, the sequence will likely not allow for overlap of muscle-stability segments. For example, an upper body push/pull is often combined with a lower body extension or flexion. The order is dependent on the difficulty of each exercise. Hypertrophy sequences will purposely use overlap within the musculature, but it must be consistent with the client's capabilities. Flexion and extension and ab/adduction sequences often are well-tolerated. A third method is to use multi-planar movements such as a separate action in the sagittal, frontal, and transverse planes. Functional tri-

sets may also involve use of the sling systems such as anterior/posterior/lateral sling combinations; as seen during a reverse lunge with band row, forward lunge with band press, and step-up with MB rotation combo. The benefit of the grouping is related to the added work at a suitable intensity which cannot be attained with circuits.

Set and rep schematics should be generally consistent with the purpose and load. It is unrealistic to expect the body to function at 100% capacity over three consecutive exercises, so the repetition sequence should be adjusted to a more tolerable weight. For instance, a squat/bench/row tri-set performed at an 8RM intensity (~80%1RM) would likely lead to a form compromise or missed repetitions at the end of the latter exercises. In this case, a 2.5-5% reduction in the load is recommended due to the prolonged demands, which will progressively decrease pH levels in the working tissues in response to the time-under-tension of three consecutive sets. If a repetition lasts three (3) seconds, and 24-36 reps are

performed; the work level has reached the upper limits of human performance (when the loads used are at relative maximal capacity). Recovery is usually set at a 1:1-1:1.5 ratio depending on the training status of the client. While the intent is to train harder, safety and technique should not be compromised by programmatic selections. If either are in question, an easy strategy is to simply dial back on the effort by reducing the load or repetitions, or increasing recovery between the exercises. The specific decision for adjustment is again based on the goal of the training.

When tri-sets are built into a comprehensive program they can be performed at the beginning of the workout as part of a warm-up or neural preparation, or used towards the end of a workout as a metabolic component. It is plausible to use multiple tri-sets throughout a workout, but the client must be adequately vetted for this level of training. In most cases, tri-sets serve as an excellent adjunct along with other training systems to help safely attain goals in a shorter period of time.

## Receive Your **NCSF E-News**

This monthly publication is delivered directly to your email and contains featured articles on topics such as nutrition, training instruction, exercise programming, flexibility training as well as business. Additionally, the NCSF E-News provides you with the latest industry news, research findings, and features a video exercise of the month.

*Be sure to keep your membership and email up-to-date in order to receive this valuable publication.*



# CEU Quiz

## Tri-sets

- Pyramid training is ideal for improving which of the following?**
  - Power
  - Lactate threshold
  - Neural speed
  - Strength
- True or False? Each set using progressive loads during pyramid training functions as a specific metabolic warm-up for the next set.**
  - True
  - False
- Which of the following training systems would be most useful for a bodybuilder seeking localized hypertrophy gains?**
  - Contrast sets
  - Pyramid training
  - Strip sets
  - Complex sets
- Which of the following combinations of activities can be utilized during a superset?**
  - Exercises that challenge the same muscle group
  - Exercises that reflect agonist/antagonist relationships
  - Exercises that require varying movement speeds and loads
  - All of the above
- Which of the following supersets would be the best selection for a program focusing on improving strength?**
  - Bicep curls and calf raises
  - Bench press and DB bent-over row
  - Quad extensions and tuck jumps
  - None of the above would be appropriate
- In most cases, circuits involve the use of loads equal to \_\_\_\_\_ of the participant's 1RM due to the tension-time-recovery relationship.**
  - 30-50%
  - 50-70%
  - 65-80%
  - 70-90%
- True or False? Circuit training can provide greater strength and muscle-development related benefits than supersets or tri-sets because of the metabolic enhancements promoted from the training stress.**
  - True
  - False
- All of the following statements concerning tri-sets are correct, except:**
  - Tri-sets can allow for enhanced loading compared to circuits
  - Tri-sets are useful for adding volume to a training program as well as saving time
  - Tri-sets function in the same manner as pyramid training except for the use of intermittent rest periods
  - Tri-sets involve the use of three different exercises in a superset fashion for a variety of training goals
- Recovery periods following tri-sets are usually set at a \_\_\_\_\_ ratio, depending on the training status of the client.**
  - 1:1-1:1.5
  - 2:1-2:4
  - 3:2-3:2.5
  - 1:6-1:10
- During a tri-set focused on improving strength, a reduction in the load of the second and third exercise of \_\_\_\_\_ should be employed to ensure all of the activities are performed safely and effectively.**
  - 2.5-5%
  - 5-10%
  - 10-15%
  - ~25%

### CEU Quiz Answer Sheet

### Tri-sets

**Directions:** 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. Mail a copy of the completed quiz with a check or money order for \$15 to NCSF, Attn: CEU department, 5915 Ponce de Leon Blvd, Suite 60, Coral Gables, FL 33146

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_

5. \_\_\_\_\_ 6. \_\_\_\_\_ 7. \_\_\_\_\_ 8. \_\_\_\_\_

9. \_\_\_\_\_ 10. \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone \_\_\_\_\_

**Questions? 800-772-NCSF**

# 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