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.

Active-Assisted Stretches

Adequate flexibility is fundamental to a functional musculoskeletal system which represents the foundation of movement efficiency. Therefore a commitment toward appropriate levels of flexibility should be part of every comprehensive exercise program. Due to the limited changes in body aesthetics associated with its inclusion, many fitness enthusiasts forego the stretching segment for activities that may have a greater affect on vanity or perceived performance. However, appropriate flexibility is linked to improved joint function, reduced movement restriction, a reduced risk of low back pain or injury.

There are two major categories of flexibility training: dynamic and static. Where dynamic stretching represents full range of motion (ROM) during movement, static stretching suggests a stretch and hold action where time-under-tension becomes a more relevant factor. Static stretching presents the greatest diversity in methodology including active stretching, active assisted, active isolation and proprioceptive neuromuscular facilitation. Regardless of the technique, static stretches should always follow an adequate warm-up and generally will be employed at the end of a training session to avoid reduced activation in working tissues.

Active-assisted stretches can be a useful tool for enhancing functional ROM at a given joint over basic active stretching due to the increased tension. Active stretches require muscle force to attain and hold a position, whereas active-assisted stretching employs additional leverage to provide greater relative ROM during the stretch. The forces may come from external resources such as a partner or may be produced internally via use of a stretching device (e.g., stretching strap or towel). The protocol for employment is similar to that of active stretching where positional holds may last 30-45 seconds depending on tolerance of discomfort. Caution must be taken to not overstretch associated tissue by using excessive force; this is particularly relevant during partner-assisted variations. The following are a few relatively uncommon examples that a client could be taught to perform on their own for enhanced performance measures and reduced risk of injury.

Supine Hamstrings Self-Stretch

Tight hamstrings create a host of issues upon the kinetic chain including pelvic instability and compromised lumbar integrity during hip flexion. During most forms of locomotion they can restrict fluid movement and lead to an increased risk for injury. Tightness has been associated with lower back and knee pain, limb length differences, and compromised form during various exercises.

During the supine hamstrings self-stretch, the participant attains the starting position by lying on their back and fully extending the knee at the greatest degree of attainable hip flexion. The hips must remain neutral and the entire upper leg must maintain contact with the ground to avoid posterior tilting of the pelvis. An externally rotated hip in the downward leg is a common error as it allows the pelvis to adjust in a manner

that reduces tension on the hamstring. For extremely tight individuals, this leg can be bent at the knee so that the foot rests flat on the ground. Using a towel or stretching strap wrapped around the arch of the foot, slowly contract the hip flexors while lightly pulling the leg towards the chest and keeping the knee straight.

Seated Piriformis Self-Stretch

When the piriformis is tight or hypertonic it will restrict internal rotation of the hip. Tightness can contribute to toe-out gait, and negatively affect hip stability due to a medial pull on the pelvis toward the spine. Tightness in this muscle can be associated with low back pain.

During the seated piriformis self-stretch, the participant sits on the edge of a chair and crosses the ankle of the upward leg over the opposite knee. The back should be kept straight while the hips are bent until a stretch is felt deep in the hips. The stretch position can be more effectively stabilized during the forward lean by holding the ankle and pressing down on the inside portion of the knee with the hands. Be aware that many individuals may feel pain during this movement if they overstretch the tissue.

Standing Hip Abductors Self-Stretch

The primary hip abductors are the tensor fasciae latae and the gluteus medius and minimus. Tightness can contribute to pelvic instability and imbalances which can lead to pain in the hips, lower back and knee.

During the standing hip abductor self-stretch, the participant stands parallel to a wall or other vertical object, about an arm's length away. The participant should place the closest hand against the wall or object while crossing the ipsilateral leg behind the other as far as possible while keeping the foot flat on the floor. The hip is then laterally translated to apply pressure. This can be accomplished by slowly leaning towards the wall or object to attain a maximal stretch of the tissue.

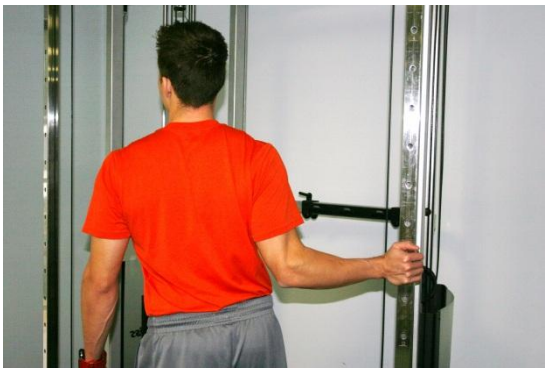
Lunge Position Rectus Femoris & Iliopsoas Self-Stretch

The rectus femoris acts as a knee extensor and hip flexor as it crosses both joints. Tightness in this muscle group can contribute to low back pain and is usually involved in any type of knee pain or instability.

During the rectus femoris self-stretch, the participant first attains a pronounced lunge position with the front hip and knee bent a 90° and back hip opened broader than 90°. A towel or stretching strap is wrapped around the dorsal aspect of the trailing foot which is held by the ipsilateral hand. The rear foot should be drawn toward the gluteals via light pulling on the towel or strap as well as active knee flexion. Once maximal knee flexion has been attained, the hip should then be extended forward to maximize the stretch of the tissues.

Standing Subscapularis Self-Stretch

The subscapularis is one of four muscles that comprise the rotator cuff. It is an internal rotator which assists in stabilizing the humerus in the glenoid fossa of the scapula during all shoulder movements. Tightness can result in numerous issues within the shoulder complex that lead to injury or dysfunction.



During the standing subscapularis self-stretch, the participant stands adjacent a doorway or exercise rack with the arm held tight to the side, the elbow flexed to 90°, and the humerus externally rotated as far as possible. While maintaining this shoulder and arm position, the participant engages the stretch by leaning against the stable upright object to increase external rotation at the shoulder. The body may face further away from the hand, but the shoulder and arm must be maintained in the same position – rotating within the joint.

Standing Infraspinatus and Teres Minor Self-Stretch

The infraspinatus and teres minor are both external rotators within the rotator cuff. They also assist in stabilizing the humerus and the scapula during shoulder actions. Tightness can result in many issues within the shoulder complex that lead to injury or dysfunction.

During this external rotator stretch, the participant must first attain what is referred to as a “hammerlock” position. To achieve this, the participant starts in a flexed-hip position; the arm associated with the tissues to be stretched is positioned behind the back with the elbow flexed to 90°. The participant holds onto a stable vertical object (such as a towel wrapped around an exercise rack) with the “hammer-locked” hand and slowly pulls the forearm away from the hips by taking a step or two forward and extending the hips.

Serratus Anterior Self-Stretch

The serratus anterior acts as a stabilizer for the shoulder complex and functions to protract and laterally rotate the scapula. Tightness can result in a protracted or slightly winged scapula, even in a resting position, which has negative effects on humeroscapular rhythm and shoulder complex functionality. It is relatively difficult to stretch this muscle, but with proper technique it can be addressed.

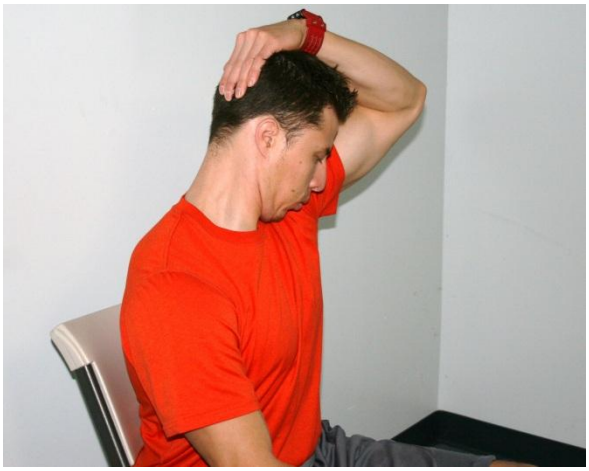
During the serratus anterior self-stretch, the participant should stand in front of a wall or vertical object that can be safely pressed upon. The palm should be placed flat against the wall at shoulder height, with the arm fully extended. The ipsilateral scapula should then be fully retracted (via activation of the rhomboids) while the torso is leaned forward and rotated away from the extended arm to engage a maximal stretch on the serratus anterior.

Standing Pectoralis Minor Self-Stretch

The pectoralis minor acts as a stabilizer of the scapula by drawing it anteriorly and superiorly against the thoracic wall. For this reason, tightness contributes to rounded shoulders as part of the upper cross syndrome, which can lead to lax and underactive rhomboids.

During the standing pectoralis minor self-stretch, the participant must stand up straight with the hands clasped behind the back (palms facing upward). From this stance the scapula should be depressed as far as possible, which will result in the shoulders rolling posteriorly. It may be useful to instruct the participant to “put their shoulder blades in their back pockets” to maximize the stretch.

Seated Levator Scapulae Self-Stretch



The levator scapula functions bilaterally to extend the head and neck and assist in scapular elevation. It also functions unilaterally to assist in scapular rotation as well as lateral flexion and rotation of the neck. Tightness can result in pain, discomfort and stiffness in the neck, especially when rotation is limited. Stretching can improve neck mobility and help normalize the position of the scapula on the back.

During the seated levator scapulae self-stretch, the proper starting position is slightly difficult to attain. The participant must sit up straight, depress the scapula, drop the head to the chest and rotate 45° away from the levator scapulae to be stretched, and finally place the contralateral hand on top of the head above the tissue to be addressed. The stretch is engaged by lightly pulling downward and forward on the head to drive the chin towards the armpit. The head position may need to be modified from the 45° angle based on body structure to maximize the stretch.

Seated Trunk Rotators Self-Stretch

The major trunk rotators include the internal and external obliques. Besides acting as trunk rotators, the obliques assist in increasing intra-abdominal pressure and performing trunk flexion and lateral flexion. Tightness can contribute to back pain and reduced functionality of the trunk. During a rotational stretch in either direction, the ipsilateral external oblique and contralateral internal oblique is stretched.

During the seated trunk rotator self-stretch, the participant should sit in a straight-back chair and make sure to maintain the head in a neutral position at all times. The participant should twist as far as possible using the chair to reach the greatest attainable ROM. Take a deep breath and exhale; during the exhale, the participant should attempt to twist farther in the same direction by rotating the trunk (not pulling with the arms).

Standing Latissimus Dorsi Self-Stretch

The latissimus dorsi participates in numerous actions involving the shoulder joint and scapula. It is often overlooked as a contributing factor in back pain and shoulder complex dysfunction. Tightness will limit shoulder function and can increase the risk for injury during many upper body actions such as overhead pressing. Proper stretches can alleviate this risk by increasing range of motion through flexion and

external rotation of the humerus. The stretch described in the following text can be performed seated or standing, but the seated position stabilizes the hips and therefore optimizes biomechanics and isolation of the tissue to be stretched.

During the standing latissimus dorsi self-stretch, the back and neck must remain straight at all times. The starting position is attained by bringing the ipsilateral arm (in reference to the latissimus dorsi to be stretched) behind the head and grabbing the elbow of the arm with the opposite hand. The stretch is engaged by pulling on the elbow in the frontal plane to draw the ipsilateral arm further towards the opposite shoulder. The stretch can be further increased by laterally flexing at the trunk in the same direction as the pull on the elbow.

Active-Assisted Stretches
CEU Quiz

1. In what way are active assisted stretches different from basic static stretches?

a. A partner must be used
b. Additional force is employed
c. Proprioceptors are manipulated
d. The antagonist muscle is activated

2. Tight hamstrings can contribute to which of the following issues?

a. Knee pain
b. Leg length differences
c. Lower back pain
d. All of the above

3. Which of the following stretches could reduce the presentation of toe-out gait, which has a negative impact on hip stability?

a. Standing subscapularis stretch
b. Lunge position rectus femoris stretch
c. Seated trunk rotators stretch
d. Seated piriformis stretch

4. Tightness in which muscles can result in a protracted or winged scapulae even when it is in a resting position?

a. Serratus anterior
b. Latissimus dorsi
c. Anterior head of the deltoid
d. Posterior head of the deltoid

5. Tightness in which muscle would most likely contribute to rounded shoulders?

a. Teres minor
b. Pectoralis minor
c. Infraspinatus
d. Latissimus dorsi

6. During the seated levator scapulae self-stretch, how far should the head be rotated away from the midline to maximize its effect?

a. 15°
b. 30°
c. 45°
d. 70°

7. Performance of a seated trunk rotator self-stretch to the right would stretch which of the following muscles to the greatest extent?

a. The contralateral fibers of the rectus abdominis
b. The contralateral internal oblique
c. The contralateral external oblique
d. All of the above

8. Which of the following stretches can improve range of motion through flexion and external rotation of the humerus?

a. Seated piriformis stretch
b. Standing subscapularis stretch
c. Standing serratus anterior stretch
d. Seated latissimus dorsi stretch

9. Which of the following warrants placing the arm into a "hammerlock" position to maximize the stretch on associated tissues?

a. Standing infraspinatus and teres minor stretch
b. Standing subscapularis
c. Standing hip abductor stretch
d. Standing pectoralis minor stretch

10. During the lunge position rectus femoris and iliopsoas self-stretch, what can be performed after full knee flexion has been attained to maximize the stretch?

a. The trunk should be laterally flexed
b. Both shoulders should be extended
c. The trunk should be rotated
d. The hip should be extended forward

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	



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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