

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.

Low Back PAIN

The statistics surrounding Low Back Pain (LBP) are staggering. At any given time, 31 million Americans experience some level of LBP. Experts estimate that at some point in their lives, 80% of the American population will experience LBP ranging from acute discomfort to chronic disability. Each year, Americans spend approximately \$50 billion on relief for back pain (and that's only the easily calculated costs associated with the condition). Back pain is the 2nd most common reason for doctor's visits after upper respiratory infections and is one of the leading causes of absenteeism (missed days of work). Chances are that working as a personal trainer will involve training clients who have, had, or will have lower back pain. It is important that you understand the condition thoroughly to identify the causes, need for referral, activities that contribute to LBP, and develop an understanding of both pre-habilitative as well as rehabilitative exercises.

The lower back has the potential for many issues due to the complex nature of the physio-mechanical properties. The lower back (skeleton) contains the 5 lumbar vertebrae (L1 – L5) and the sacrum and coccyx, a group of fused bones at the base of the spine. The most common sites for a lower back injury are between L4 – L5 and L5 – S1 (first sacral vertebrae). This is most likely due to the natural high frictional coefficient of the area, biomechanical dynamics between the spine and the pelvis and the potential for excessive stress placed on this region of the body from loading and poor biomechanics. In many cases the dysfunction is multi-faceted as individuals chronically have poor posture, or surrounding tightness and weakness which cause the lower

back to absorb the stress of activities inappropriately due to inefficient positioning. Each spinal articulation site is complemented by an intervertebral disc forming a motion segment. The discs are composed of spongy pads of cartilage that sit between each vertebra to allow for flexibility and movement and to provide shock absorption. When the vertebrae are stacked one on top of another they form a column housing the spinal cord. The nerves run off the central nervous system as a network of communication pathways to drive the systems of the body. The bony framework is supported by the ligaments, tendons, and muscles which contribute to stability and motor action. The two requisites to the static and dynamic activities of the body are flexibility strength (or weakness) and function.

Due to the large number of structures contained within the region, the exact cause of why an individual experiences low back pain can be difficult to pinpoint as it is likely a combination of several factors. Many

people are surprised to find out there are an exorbitant number of causes of low back pain

– most are controllable and are relatively easy to fix or manage but it is

important to note back pain can

be associated with more serious causes including cancer.

For this reason a medical doctor should make the diagnosis. Some of the more

common causes of low back pain include being over-

weight, having poor posture, a lack of physical activity,

poor flexibility, decreased strength, poor sleeping posi-

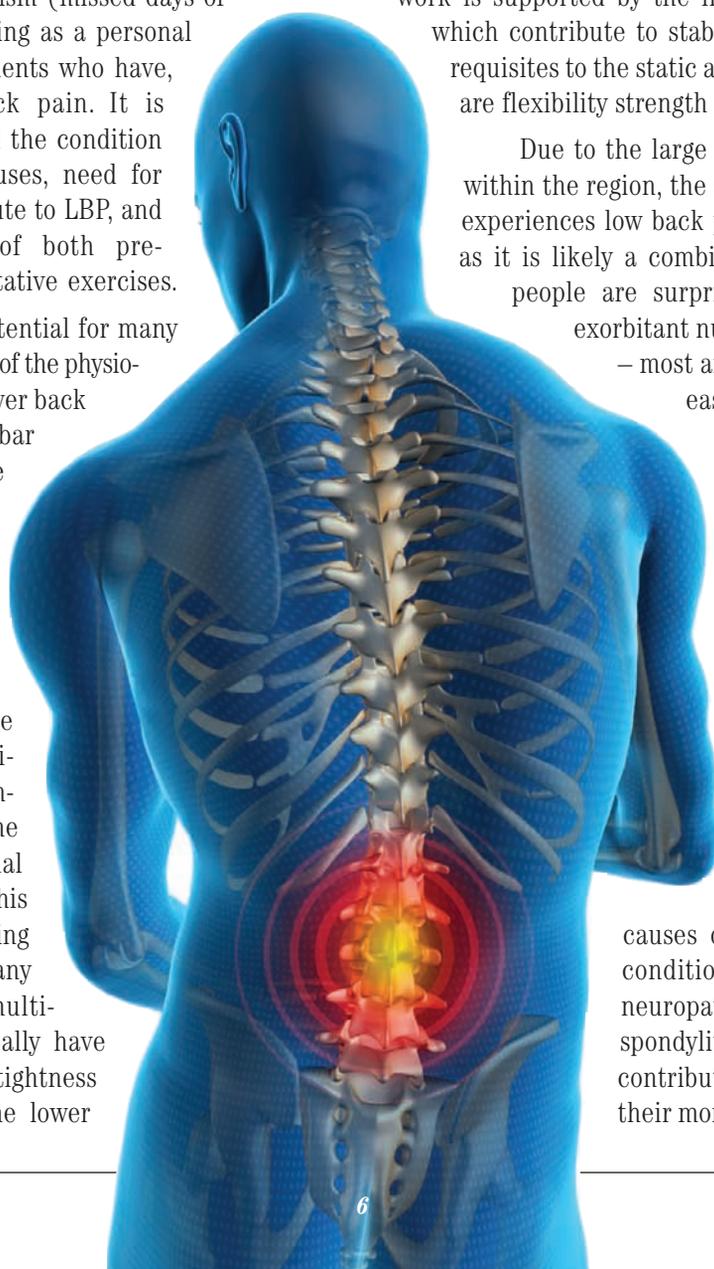
tion, stress, or acute trauma.

In addition to the more likely

causes of low back pain, more serious conditions such as a pinched nerve,

neuropathy, spinal stenosis, osteoporosis, spondylitis, and sciatica can certainly

contribute to low back pain and due to their more serious nature, should be diag-



nosed and treated by a physician. However, when the cause of low back pain stems from musculoskeletal dysfunction, the role of the personal trainer can be paramount in protecting, strengthening, and stretching this area of the body.

Personal trainers working with clients who are experiencing low back pain will want to focus on a few of the key contributors to LBP. Firstly, ensuring that proper biomechanics/posture is utilized throughout all ranges of motion of daily tasks and exercise is vital. For many sufferers weight loss should also be a focus. As with any weight management plan place an emphasis on shifting the energy balance to the negative side through better nutrition. Aerobic activity also helps with low back pain and increased physical activity should ultimately lead to weight loss and a reduced risk for LBP. Stretching of traditionally tight muscles of the hip such as the hip flexors, rotators, extensors and abductors, (iliopsoas, piriformis, rectus femoris) while strengthening the commonly weak hip extensors such as the glutes, will go a long way toward improving pelvic control and stability, thereby reducing the likelihood of LBP. In addition to strengthening these muscles that flex/extend the hip,

particular attention should be paid to strengthening the core stabilizers, the abdominal muscles and the muscles of the lower back.

The efficiency of the spine and pelvis comes from proper management of force. Therefore, alleviating pulling stress from tight muscles while developing balanced pull strength between agonist and antagonist muscles should be the primary goal. These actions allow for a more functional skeleton. When the spine is effectively stabilized and lumbopelvic actions function efficiently most common contributors to back pain go away. Sectioning the prevention/rehabilitation plan into these areas will better ensure all contributing factors are accounted for properly. The exercises that follow are divided into groupings for Beginner, Intermediate, and Advanced exercisers. The movements are designed to focus on the key areas that affect pelvic positioning consequently contributing to low back pain, or as is the case with improvements in strength and flexibility, decreasing the risk and occurrence of low back pain. If pain is experienced during any of the exercises or stretches, discontinue the activity as it may aggravate the condition. ●

Lower Back Exercises • Beginner

Supine Pelvic Tilt



Opposite Raise



Supine Hip Extension



Lower Back Exercises • Intermediate

Leg Cross Hip Extension



Start



End

Bird Dog



Start



End



Start



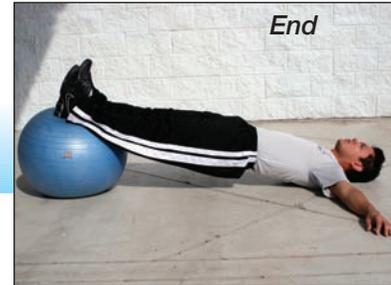
End

Lower Back Exercises • Advanced

Hip Extension feet on ball



Start



End

Opposite Raise on ball



Start

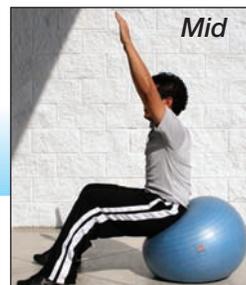


End

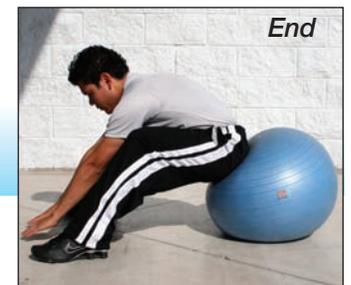
Stretch Low Back Reach and Roll/Hip Flexor



Start



Mid



End

CEU Quiz

Low Back Pain

1. According to experts, approximately ____ of Americans will experience low back pain at some point in their lives.
 - a. 25%
 - b. 50%
 - c. 80%
 - d. 100%
2. Low back pain is the ____ most common reason for doctor's visits
 - a. 1st
 - b. 2nd
 - c. 3rd
 - d. 4th
3. The ____ spine is comprised of ____ vertebrae.
 - a. Cervical; 12
 - b. Lumbar; 12
 - c. Thoracic; 5
 - d. Lumbar; 5
4. The most common sites for low back injury occur between which vertebrae?
 - a. C6-C7, and C7-T1
 - b. T7-T8, and T8-T9
 - c. L4-L5, and L5-S1
 - d. S4-S5, and S5-S6
5. Intervertebral discs are comprised of _____ and allow for _____.
 - a. Cartilage; flexibility and movement
 - b. Tendons; stability
 - c. Muscles; shock absorption
 - d. Bone; restriction of movement
6. Although most causes of low back pain are controllable and relatively easy to fix, there may be more serious causes, including cancer.
 - a. True
 - b. False
7. Which of the following may be a cause of low back pain
 - a. Overweight
 - b. Lack of physical activity
 - c. Poor flexibility
 - d. All of the above are possible causes
8. Personal Trainers working with clients who have low back pain will often incorporate _____.
 - a. heavy resistance training
 - b. weight loss
 - c. only aerobic activities aimed at improving VO₂max
 - d. upper body exercises
9. The iliopsoas and rectus femoris are _____.
 - a. Hip flexors that are traditionally tight and therefore contribute to Low Back Pain
 - b. Muscles that extend the hip
 - c. Muscles that act directly on the spinal segments, attaching to the thoracic vertebrae
 - d. Cartilaginous structures responsible for spine stability
10. Selecting exercises that _____ will ultimately result in a more functional skeleton and reduced risk of low back pain
 - a. Balance the pull between agonist and antagonist muscles
 - b. Develop an imbalance between agonist and antagonist muscles
 - c. Tighten the hip flexors and do not engage the abdominals
 - d. Primarily work the muscles of the upper body

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