

# Flex Therapist CEUs

## Low Back Pain: Ideas for Exercise

### Chronic Low Back Pain - The Exercise Prescription

**1. The American Council on Exercise recognizes exercise as a first line intervention for those with chronic low back pain.**

- A. True
  - B. False
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**2. Core muscles strengthen and stabilize the spine, pelvis, and shoulders, and include all of the following, except:**

- A. Gracilis
  - B. Erector spinae
  - C. Multifidus
  - D. Hip flexors
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**3. Individuals with chronic low back pain have been found to exhibit less trunk muscle activity and observed stiffness during exercises in the frontal, sagittal, and transverse planes.**

- A. True
  - B. False
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**4. Significant improvement on self reported measures of pain, disability, and function were documented with which intervention?**

- A. Pilates
  - B. Core strengthening exercise
  - C. Both Pilates and core strengthening exercise
  - D. Neither Pilates nor core strengthening exercise resulted in significant improvement
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**5. The Mayo Clinic recommends which of the following for core strengthening?**

- A. The pike
  - B. The Superman
  - C. The modified bridge
  - D. The Rainbow
-

# **Effects of a Twelve-Week Program of Lumbar-Stabilization Exercises on Multifidus Muscles, Isokinetic Peak Torque and Pain for Women with Chronic Low Back Pain**

**6. There is evidence that patients with chronic low back pain have a smaller cross-sectional area of the multifidus muscles compared to healthy volunteers.**

- A. True
  - B. False
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**7. Which of the following has been shown to increase lumbar muscle strength and is therefore an effective treatment for chronic low back pain?**

- A. Lumbar extension training with pelvic stabilization.
  - B. Lumbar extension training without pelvic stabilization.
  - C. Lumbar extension training with or without pelvic stabilization increases lumbar muscle strength.
  - D. Lumbar extension training, with or without pelvic stabilization, is not an effective treatment for chronic low back pain.
- 

**8. Which of the following was found to decrease after the 12-week lumbar stabilization exercise program?**

- A. Multifidus muscle cross-sectional area
  - B. Trunk muscle isokinetic peak torque
  - C. Oswestry Disability Index
  - D. All of the above increased after the intervention
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**9. After 1 month without the lumbar stabilization exercise program, pain intensity significantly depended on the:**

- A. Ratio of isokinetic trunk extension and flexion strength
  - B. Maximal isometric flexion strength
  - C. Both the maximal isometric flexion strength and the ratio of isokinetic trunk extension and flexion strength
  - D. Neither the maximal isometric flexion strength nor the ratio of isokinetic trunk extension and flexion strength
- 

**10. The most important factor for the treatment of chronic low back pain, ensuring improvements in the patients' functional state and maintaining its lasting effect is:**

- A. Abdominal and back muscle static endurance
- B. Isometric abdominal muscle strength

- C. Similarity between trunk flexion and extension strength
  - D. All of the above
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## **Effects of Core Strengthening on Cardiovascular Fitness, Flexibility and Strength of Patients with Low Back Pain**

**11. Low back pain problems linked to lifestyle indicates:**

- A. Stress
  - B. Lack of exercise
  - C. Poor posture
  - D. All of the above
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**12. Weakness in any of the core muscles can affect spinal stability and leave the lower back vulnerable to injury.**

- A. True
  - B. False
- 

**13. Strength of core muscles are found to be affected in the patients with low back pain and most commonly \_\_\_\_\_ muscles are found to be atrophied.**

- A. Multifidi
  - B. Erector spinae
  - C. Piriformis
  - D. Rectus abdominis
- 

**14. Core exercises increase utilization of motor units during muscle contractions, thus increasing the size and strength of slow-twitch muscle fibers from a high-resistance program.**

- A. True
  - B. False
- 

**15. Which type of core exercises increase blood supply to muscles?**

- A. High-resistance
  - B. High-repetition
  - C. Both high-resistance and high-repetition
  - D. Neither high-resistance nor high-repetition
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