

Healthy Back Habits: Strength and Flexibility

The core muscles of the body, the stomach and back, must be strong and flexible to ensure that the body can stay in proper alignment to reduce the risk of back pain. Lifting, bending and reaching are easier when you are flexible, and a strong core will allow you to do these actions safely to protect the back from injury.

You can help to prevent back pain by adding just a few exercises to your day. Do two to three sets of 15 repetitions for each strengthening exercise. Hold each stretch for 10 to 30 seconds and repeat three to five times. Continue to breathe normally throughout all the movements.

- **Curl-up or Partial Sit-up** (for stomach, or abdominal, muscles)

- Lie on your back.
- Bend your knees and place your feet flat on the floor.
- Cross your arms over your chest.
- Curl your body off the floor just until your head and shoulders are lifted.
- Lower slowly and repeat.



- **Pelvic Raise or Bridge** (for lower back)

- Lie on your back.
- Bend your knees and place your feet flat on the floor.
- Lay your arms at your sides, with palms of the hands flat on the floor.
- Contract (tighten) your stomach muscles and your buttocks, squeezing tightly.
- As you contract, lift your hips off the floor and hold.
- Upper back, shoulders, and head should remain in contact with the floor throughout the movement.
- Hold for five seconds and return to starting position, repeat.



- **Alternating Arm and Leg Raises** (for lower back)

- Lie face down on the floor.
- Extend arms above the head (as if in swimming position).
- Keep your head neutral, with your face looking down.
- Slightly lift your right arm and left leg off the floor, and hold for five seconds.
- As you lift up, concentrate on lengthening the body, stretching out through your finger tips and toes.
- Lower the arm and leg, then lift your left arm and right leg and hold for 5 seconds.
- Lower and repeat, continuing to alternate the arm and leg being lifted.



- **Lower Back Stretch**

- Lie on your back on the floor.
- Bring knees into your chest.
- Hold your knees into your chest with your hands holding the legs at your shin or front of the lower leg.



- **Cat Stretch** (for lower back)
 - Position yourself on your hands and knees on the floor (crawling position).
 - Slowly round the back up as you contract your stomach muscles.
 - Hold and feel the stretch along the spine.
 - Release the stretch and return to a resting position.
 - Repeat and hold.



Heart-healthy exercise such as walking, jogging, or cycling, can also strengthen and improve the flexibility of back muscles. In addition, regular physical activity in general improves calorie burn, which can lead to weight loss or weight maintenance. Overweight or obesity can add strain and cause back pain. Staying at a healthy weight can help with the control of back pain.

Sources:

- U.S. Department of Health and Human Services, National Institutes of Health, Office of Research Services, Division of Safety, **Ergonomics Maintain Your Curves**, available online at <http://www.nih.gov/od/ors/ds/ergonomics/index.html>.
- Heyward, Vivian H., **Advanced Fitness Assessment & Exercise Prescription**, 3rd ed., Champaign: Human Kinetics, 1998.

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