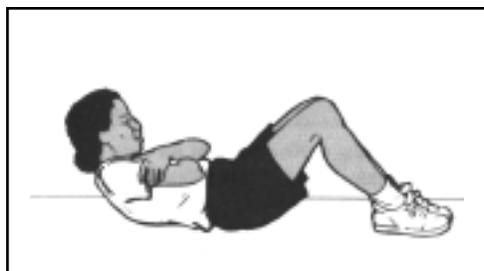


Relieving Low-Back Pain with Exercise

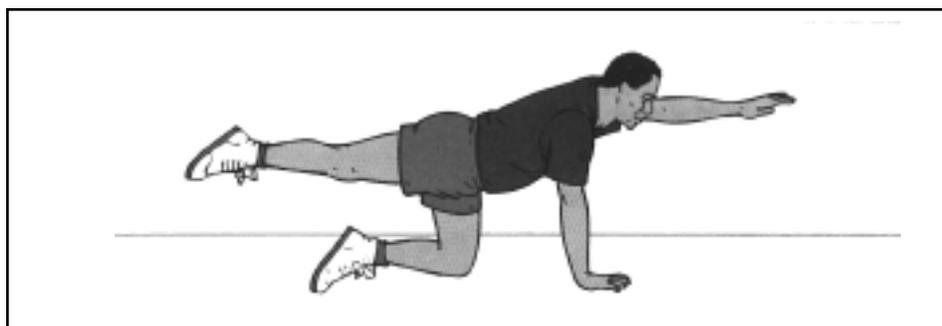
If you suffer from low-back pain, the most important part of your treatment is something only you can give yourself: exercise. Regular workouts make pain go away faster. By strengthening the muscles that support your back and improving your back's flexibility, exercise reduces the chances of another acute attack.

A full program has two parts. The first component is aerobic exercise to get your whole body in good condition (aerobic exercise like walking or biking uses large muscles and increases your heart and breathing rates). The second component is made up of specific exercises designed to strengthen your back muscles and increase or maintain flexibility. *Dr. Re will advise you as to when to begin each type of exercise.*

In addition to your exercise program, Dr. Re may suggest learning about the importance of posture and proper technique for sitting, lifting, and other activities. You may also need the help of a physical therapist or other professional, and may need medication for some period of time. But none of these can replace exercise, which is vital to recovery.



1. Curl-Up . (To Strengthen abdominal muscles.) Lying on your back, cross your arms lightly over your chest. Flatten your back by tightening your buttocks and stomach muscles. Slowly lift only your head and shoulders off the floor, to a height that feels comfortable. DO NOT PERFORM A FULLSIT-UP. Hold to the count of three. Repeat 8 times. Gradually increase to 20 repetitions.



2. Arm-and-Leg Extension: (To strengthen and stabilize trunk muscles). On all fours, keep your stomach muscles tight and lower back in "neutral position" (not arched or flat), and raise your right leg and left arm simultaneously. Hold to the count of three. Repeat the exercise with your left leg and right arm. Repeat the whole cycle eight to ten times. Over a period of four to six weeks, increase to 20 repetitions.

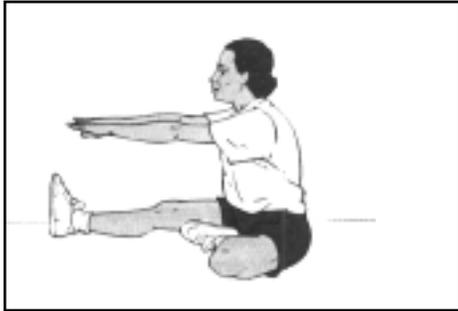
Aerobic Exercise

The best aerobic exercises for people who have low-back pain are walking, swimming, and biking (perhaps on a stationary exercise bicycle). These allow you to work out without subject your back to the repeated impact produced by jogging or aerobic dance.

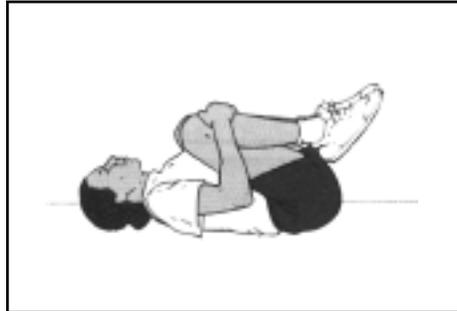
To keep your back and whole body (including your heart and lungs) in top condition, build up to a regular schedule of 20 to 40 minutes of

exercise 3 to 5 days per week. Your workout should be strenuous enough to raise your pulse to 60% to 85% of your maximum heart rate. (To estimate your rate, subtract your age from 220.)

Relieving Low-Back Pain *(Continued)*



3. Hamstring Stretch (For flexibility in the muscles at the back of the thigh.) Sit on the floor, one leg forward, the other bent so the foot rests inside the knee. Lean forward pointing your fingertips toward – but above – your toes, until you feel a slight pull, but not a sharp pain in the muscle behind your knee. Keep your back straight; do not arch your back or hunch your shoulders. Relax and breathe comfortably as you hold this position or 15 to 20 seconds. Repeat 5 to 7 times on each side. **IMPORTANT:** Avoid this stretch if you are having shooting pains in your legs or buttocks.



4. Knee-Chest Stretch (For back muscle flexibility.) Lying on your back, pull both knees toward your chest until you feel a gentle stretch in your lower back. Hold for 30 seconds. Relax. Repeat. Perform this stretch twice per day until the muscles become flexible, then once per day.

Back Exercises

A good back exercise program helps your back in two ways: first, it strengthens and stabilizes the muscles of the back and abdomen so they can support your back and protect it from strain. Second, it keeps your back and hamstring (back of the thigh) muscles flexible. Tight back muscles are more vulnerable to injury; tight hamstrings can lead to low-back strain or sprain.

Figures 1 through 4 show exercises that many patients find helpful. However, the causes of back pain are highly individual, so Dr. Re may modify or add to these exercises. Dr. Re may want you to have an aide or physical therapist work with you to make sure you know how to do the exercises correctly.

Following the guidelines below will help you succeed:

Pacing. If you aren't used to exercise start slowly. Any activity is better than none. Try to walk, at a comfortable pace, the distance of 2 to 3 short city blocks). With your doctor's approval, increase the pace and distance gradually: Within 3 months you should be able to achieve the full schedule

Posture. **IMPORTANT:** Good posture is essential to minimize strain on your back while you exercise: if you bike, adjust the pedals and handlebars to sit up straight, without leaning forward. Avoid racing bikes. If you walk, stand comfortably straight without slouching. Preserve a slight arch in the lower back, and keep stomach muscles slightly tensed.

Be sure to follow these guidelines as you start your program:

- A little discomfort in the low-back area is natural as you get your back in condition, but sharp pain means you're pushing too hard.
- Always warm up before back exercises by walking or doing gentle calisthenics.
- Many people find that applying heat before exercise and ice afterward keeps discomfort to a minimum. (Some people use the reverse order; do what feels best for you).
- Doing the exercises with proper form maximizes benefits and minimizes strain.
- **IMPORTANT:** Stretches must be gentle; never push beyond the comfort zone. Hold stretches, *do not bounce*.