

## Physiotherapist-Directed Exercise, Advice, or Both for Low Back Pain

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The full report is titled “Physiotherapist-Directed Exercise, Advice, or Both for Subacute Low Back Pain. A Randomized Trial.” It is in the 5 June 2007 issue of *Annals of Internal Medicine* (volume 146, pages 787-796). The authors are L.H.M. Pengel, K.M. Refshauge, C.G. Maher, M.K. Nicholas, R.D. Herbert, and P. McNair.

### What is the problem and what is known about it so far?

Low back pain is a common condition. The main goal of treatment for recent-onset back pain is to decrease pain so that patients can return to their normal activities. Traditional treatments for low back pain include drugs (painkillers, anti-inflammatory drugs, and muscle relaxants); physical therapies, such as exercise, massage, and manipulation; and education about the back and advice about ways to deal with back pain. Although exercise and advice are commonly recommended, the effectiveness of these treatments in recent-onset low back pain is unclear.

### Why did the researchers do this particular study?

To determine whether there were benefits of physiotherapist-directed exercise, advice about back pain, or both for patients with low back pain.

### Who was studied?

259 adults with subacute low back pain. Subacute low back pain is back pain that has been present for at least 6 weeks but no longer than 3 months. Patients who were pregnant, had previous spine surgery, had serious conditions that caused the low back pain, or could not exercise could not participate in the study.

### How was the study done?

The researchers assigned patients to receive either 12 real or 12 pretend exercise sessions and either 3 real or 3 pretend advice sessions over 6 weeks. Physiotherapists (physical therapists) provided the treatments in this study. Physiotherapists are trained professionals who use physical therapies, such as exercise, manipulation, or massage, to restore or maintain mobility and function.

The researchers measured patients' pain and function after 6 weeks and 12 months of treatment. During real exercise sessions, a physiotherapist used a personalized exercise program to improve patients' ability to do activities made difficult by back pain. During the pretend exercise sessions, a physiotherapist pretended to give ultrasound treatments by using a nonworking machine. During real advice sessions, a physiotherapist gave a standard educational program on low back pain. During the pretend advice sessions, the physiotherapists talked with patients about low back pain but did not give them advice. The pretend exercise and advice sessions let all patients spend time with physiotherapists. This is important because contact with the physiotherapist alone might make people feel better even if the exercise and advice programs did not help.

### What did the researchers find?

Patients who received both exercise and advice had the most benefit at 6 weeks. At 12 months, most of the benefits were no longer present.

### What were the limitations of the study?

These results do not apply to exercise or advice that is not delivered by a physiotherapist or to patients with back pain that has been present for less than 6 weeks (acute) or more than 3 months (chronic). The study also did not compare exercise and advice to specific types of drugs or to other treatments for low back pain.

### What are the implications of the study?

A combination of physiotherapist-directed exercise and advice seems to improve pain and function in the short term (6 weeks) for patients with subacute low back pain more than no treatment or either exercise or advice alone.

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