

Comparison of Yoga, Exercise, and Education for the Treatment of Chronic Low Back Pain

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The full report is titled “Comparing Yoga, Exercise, and a Self-Care Book for Chronic Low Back Pain. A Randomized, Controlled Trial.” It is in the 20 December 2005 issue of *Annals of Internal Medicine* (volume 143, pages 849-856). The authors are K.J. Sherman, D.C. Cherkin, J. Erro, D.L. Miglioretti, and R.A. Deyo.

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

Low back pain is a common problem that often goes away after several days or weeks but can also be chronic, lasting for months or years. Treatment goals include decreasing pain and improving function so that patients can do their normal activities. Treatment options include educating patients about ways to prevent back injury and to deal with back pain, drugs (pain killers, anti-inflammatory drugs, and muscle relaxants), and exercise. We do not know which particular types of exercise will best improve outcomes for patients with low back pain. Yoga is an activity that combines physical exercise with relaxation techniques. Although many people with chronic low back pain use yoga, little is known about its effectiveness for this condition.

Why did the researchers do this particular study?

To compare the effectiveness of yoga, traditional exercise, and an educational book for people with chronic low back pain.

Who was studied?

101 patients between 20 and 64 years of age who visited a primary care doctor in the past 3 to 15 months for chronic low back pain. All patients were members of the insurance plan Group Health in Seattle, Washington. To be in the study, patients had to rate their pain as being at least 3 on a scale of 0 (no pain) to 10 (worst pain). Patients who had major illnesses or conditions (cancer, pregnancy, bone fractures, previous back surgery) that could explain the back pain could not participate in the study.

How was the study done?

The researchers assigned patients at random to receive 1) 12 weekly 75-minute yoga classes designed for patients with back pain and instructions to practice daily at home; 2) 12 weekly 75-minute sessions of aerobic, strengthening, and stretching exercises, which were developed by a physical therapist, and instructions to practice daily at home; or 3) a personal copy of *The Back Pain Helpbook* by Jim Moore and colleagues (Reading, MA: Perseus Books; 1999). Study patients could use drugs, such as anti-inflammatory agents or acetaminophen, as needed. Interviewers, who did not know which treatment each patient received, called patients after 6, 12, and 26 weeks and used standard questions to collect information on pain and dysfunction.

What did the researchers find?

After 12 weeks, patients in the yoga group had better back-related function than patients in the exercise or education groups. Reports of pain were similar in all 3 groups. At 26 weeks, patients in the yoga group reported better back-related function and less pain.

What were the limitations of the study?

The study followed patients for about 6 months, so this study does not tell us about the effectiveness of yoga over longer periods. The study involved only 1 yoga instructor and 1 exercise instructor. Other instructors might have achieved different results. The study was too small to come to firm conclusions about the safety of yoga for patients with low back pain.

What are the implications of the study?

Over 3 to 6 months, yoga appears to be more effective than traditional exercise or an educational book for improving function and pain in patients with chronic low back pain.

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