



THE INTERNATIONAL ASSOCIATION OF YOGA THERAPISTS

Research Summary for Yoga Therapists: Yoga Therapy for Lower-Back Pain

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Research Summaries for Yoga Therapists are a service provided by IAYT to help yoga therapists navigate the twists and turns of the research landscape. The full reference can be found here:

Roseen, E. J., Saper, R. B., & Sherman, K. J. (2016). Yoga therapy for back conditions. In: S. B. S. Khalsa, L. Cohen, T. McCall, & S. Telles (Eds.), *The principles and practice of yoga in health care*, 137–161. Pencaitland, United Kingdom: Handspring Publishing.

Definition of the disorder

Back disorders include structural abnormalities as well as pain in the thoracic and lumbopelvic spine, including associated joints, muscles, ligaments, fascia, nerves, and other structures.

Nonspecific lower-back pain (LBP) lacks a clear anatomical cause in 85% of cases and is the main focus of this review. Other types of back pain attributed to specific causes, such as discogenic pain or spinal stenosis, account for 15% of all back pain.

LBP is considered acute if it lasts up to 6 weeks, subacute if it goes on for 6 to 12 weeks, and chronic LBP persists for at least 12 weeks.

Usual treatment options

Usual treatment options include spinal surgery, opioid painkillers, and steroid injections. However, in more recent reports, clinical guidelines have been revised to put more emphasis on mind-body movement practices, such as yoga and tai chi, and to de-emphasize the use of drugs and invasive procedures (with the exception of extreme cases).

Prevalence (How common is the condition?)

- Most adults in the West experience LBP at least once in their lifetime.
- LBP is the fifth most common reason for visits to primary care physicians.
- LBP is the most common reason for the use of complementary and integrative therapies.

- Chronic LBP is the leading cause of pain and disability in the United States.

Rationale for yoga

Yoga as a multifaceted practice—including physical asana, breathing, and meditation—may be applied to the multiple domains in LBP, such as physical, mental, emotional, social, cultural, and spiritual, and is considered well-suited for managing LBP. Mechanisms by which yoga can effect changes are still poorly understood; however, plausible contributors include physical activity, enhanced body awareness, reduced maladaptive movements, correction of postural strain, and relief of physical and mental stress.

General methods

The authors conducted a review of published randomized controlled trials (RCTs) on yoga for nonspecific LBP. Nonrandomized and single-group studies were excluded. Search terms were “yoga” and “low back pain” or “back pain.” Twelve RCTs were identified and included in this review.



Who was studied?

Participants were predominantly female with an age range of 18 to 66. All participants included in the study were diagnosed with nonspecific LBP of varying durations from 3 weeks to 6 months.

How were the studies conducted?

- Yoga styles mostly encompassed asana and pranayama, including Hatha, Iyengar, Viniyoga, Kundalini, and Vivekananda Yoga Anusandhana Samsthana (VYASA). Half of the trials included components of yogic philosophy or lifestyle.
- Control groups included no treatment, usual care, education, and exercise or stretching classes.
- Outcomes used were primarily self-reported pain intensity and back-related disability. Secondary outcomes included health-related quality of life; functional measures; participant satisfaction; and psychological symptoms, such as anxiety and depression.
- Sample sizes ranged from 12 to 331 with a total of 1,221 participants.
- Most RCTs recommended 20 to 60 minutes of daily home practice.
- The duration of the yoga intervention ranged from a 1-week residential retreat to a 24-week outpatient program. Ten RCTs included programs of 12 weeks or longer. Frequency of yoga classes ranged from once per week to 1 or 2 times per week. Class duration ranged from 60 to 90 minutes.

What did the researchers find?

Primary outcomes

- In the short term (programs of 1 to 12 weeks), strong evidence was reported for reduced pain and back-related disability after a yoga program.
- In the long term (programs longer than 12 weeks), moderate (less strong) evidence was reported for reduced pain and improved back-related disability after a yoga program, suggesting the effects are sustained with continued practice.
- No evidence of improved quality of life was found for either short- or long-term treatments.

Secondary outcomes

- Two studies showed significant improvements in mood in the yoga groups compared to the control groups.
- One study showed significant improvements in self-efficacy for the yoga group.
- One study reported an increase in active and passive range of motion when assessing lumbar spine flexibility and conducting the straight-leg-raise test for the yoga group compared to the control group.

Were adverse events reported?

Adverse effects were reported in eight of the RCTs. Some adverse events were reported relating to mild exacerbation of symptoms; however, it was determined that yoga for chronic LBP was relatively safe.

What were the limitations of the studies?

The studies differed substantially in design, population, yoga intervention, frequency, and duration, making it difficult to compare studies and limiting the generalizability of findings to clinical populations.

What is the takeaway message from this review?

The data on nonspecific LBP as a whole present some of the best evidence in support of yoga for managing back problems in adults.

Clinical relevance

A number of RCTs offer support for the idea that yoga can benefit people with nonspecific LBP. Both pain and disability rates appear to be strongly reduced in subjects practicing yoga, although ongoing practice may be necessary to maintain the benefits. Nonsurgical conventional medical approaches have often proven to be unsatisfactory, and drug therapy can cause serious side-effects. Surgical approaches mostly lack scientific evidence despite their widespread use, invasive nature, and high cost. These factors, alongside the growing evidence for the effectiveness of mind-body approaches including yoga, have led to changes in recent practice guidelines for doctors and other healthcare practitioners to encourage the use of complementary approaches. As various styles of yoga appear to be of benefit and no studies have compared approaches, yoga therapists should continue to base their recommendations to clients on the tradition(s) they have trained in as well as on their clinical experience.