



All Bent Out of Shape? Yoga for Lower Back Pain

Jennifer Fink, BScH; and Mel Borins, MD, CCFP, FCFP

Back pain continues to be one of the most common reasons for physician visits. Most new onset of lower back pain settles down in time, but only about one in three cases resolves completely over a 12-month period. Back pain and the slow recovery time can be difficult for patients to cope with and challenging for physicians to manage. More than ever before, patients are turning to complementary and alternative medicine (CAM) as part of the answer for their pain.

Over the years, yoga has been gaining popularity as a treatment for lower back pain and is particularly attractive in view of its:

- non-pharmacological nature,
- minimal side-effects and
- international acceptance.

An estimated 14.9 million Americans practice yoga, 21% of which use it for treating neck and back pain.¹ Despite its greater prevalence of use than other CAM therapies (e.g., acupuncture and homeopathy), yoga receives less coverage in Western medical literature and there have only been limited studies conducted using rigorous methodological approaches.

Yoga has become a huge fad as a result of celebrity endorsements and a collective need to spice up the gym routine. But what are the roles of yoga as a therapy for medical conditions and what is the evidence?

What is yoga?

Yoga is an ancient practice that began in India an estimated 5,000 years ago. The word “yoga” is derived from the Sanskrit word “yuj,”

meaning joining or union. It is the joining or uniting of the mind, body and spirit which is the goal of yoga and it is through the breath that this can be accomplished. Both the body and the mind become flexible and relaxed through the practice of yoga.

There are six major types of yoga:

- Raja (highest form of yoga)
- Karma (selfless action yoga)
- Bhakti (devotional yoga)
- Jnana (knowledge yoga)
- Kundalini (chakra yoga)
- Hatha (physical yoga)

All paths share common elements; however, some focus more on postures (asanas) and breathing exercises (pranayamas), whereas others have a greater focus on:

- meditation,
- spirituality,
- knowledge and
- chanting.

Hatha yoga is the most commonly practiced yoga in North America and Europe. It focuses on the postures and breathing techniques and is the popular practice for achieving:

- fitness,
- relaxation and
- health.

To date, most of the clinical literature on yoga has evaluated some form of hatha yoga.

How does yoga work?

It is believed that the effects of yoga on health and relaxation can be explained by an alteration of autonomic function with a reduction in

sympathetic tone and activation of antagonistic neuromuscular systems. This is consistent with the findings that heart rate, respiratory rate and energy expenditure decrease with yoga.²

The evidence

In 2005, a randomized control trial (RCT) by Williams, *et al*³ compared the effects of Iyengar yoga therapy (a form of hatha yoga with an emphasis on structural alignment and the use of props) on chronic back pain compared with education. It was demonstrated that the 16 week yoga therapy intervention was associated with a significant reduction in self-reported disability and pain, along with a reduced use of pain medication compared to the group in the educational program. These significant reductions were maintained at the three-month follow-up. One of the limitations of this study was a small sample size of only 44 patients.

Is it possible that yoga only benefits patients with back pain simply because it involves exercise?

In 2005, Sherman, *et al*⁴ conducted a RCT with 101 adults to determine whether a 12 week yoga program was more effective than conventional therapeutic exercise or a self-care book for patients with chronic lower back pain. Back-related function in the yoga group was

Ms. Fink is a Third Year Medical Student, Faculty of Medicine, University of Toronto, Toronto, Ontario.


Dr. Borins is an Associate Professor, Faculty of Medicine, University of Toronto and a Staff Member, St. Joseph's Health Centre, Toronto, Ontario. www.melborins.com.

An estimated 14.9 million Americans practice yoga, 21% of which use it for treating neck and back pain.

found to be superior to the book group ($p < 0.001$) and the exercise groups ($p = 0.034$) at 12 weeks. "Bothersomeness" of symptoms decreased in all treatment groups during the 12 week intervention period. However, between weeks 12 and 26, only the yoga group continued to have an improvement in symptoms, whereas participants in the exercise and book groups experienced a worsening of their symptoms.

Final thoughts

There is some evidence that yoga can be a beneficial therapy in lower back pain. It is safe, easy to learn and requires very little in the way of equipment.

Although exercise is a recognized treatment for back pain, there seems to be an added therapeutic effect with the use of yoga. 

References

1. Saper R, Eisenberg D, David R, et al: Prevalence and patterns of adult yoga use in the United States: Results of a national survey. *Altern Ther Health Med* 2004; 10(2):44-9.
2. Chaya M, Kurpad A, Nagendra H, et al: The effect of long term combined yoga practice on the basal metabolic rate of healthy adults. *BMC Complement Altern Med* 2006; 6:28.
3. Williams K, Petronis J, Smith D, et al: Effect of Iyengar yoga therapy for chronic low back pain. *Pain* 2005; 115(1-2):107-17.
4. Sherman K, Cherkin D, Erro J, et al: Comparing yoga, exercise and a self-care book for chronic low back pain: A randomized, controlled trial. *Ann Intern Med* 2005; 143(12):849-56.