

Review: Yoga reduces low back pain and back-specific disability

Cramer H, Lauche R, Haller H, Dobos G. *A systematic review and meta-analysis of yoga for low back pain.* *Clin J Pain.* 2013;29:450-60.

Clinical impact ratings: **GM** ★★★★★☆ **PR** ★★★★★☆

Question

What is the efficacy of yoga for patients with low back pain?

Review scope

Included studies compared yoga with no treatment, usual care, or active treatment in adults > 18 years of age with low back pain and assessed ≥ 1 of pain, back-related disabilities, health-related quality of life, generic disability, and global improvement. Yoga had to include a physical component and had to be the main intervention rather than part of a multimodal intervention, although cointerventions were allowed.

Review methods

MEDLINE, EMBASE/Excerpta Medica, Cochrane Library, PsycINFO, CAMBASE (all to Jan 2012), and reference lists of identified original studies and reviews were searched for randomized controlled trials (RCTs) published as full papers. 10 RCTs ($n = 967$, mean age 44 to 48 y, 45% to 83% women) met the inclusion criteria. Programs varied from daily interventions over 1 week to twice-weekly interventions over 24 weeks. Yoga was compared with usual care in 2 RCTs, education in 7 RCTs, and exercise programs in 3 RCTs. 8 trials had low risk for bias (score ≥ 6 out of 12 and no serious flaw) and 2 had high risk for bias (score < 6 or a serious flaw) according to the Cochrane Back Review Group Risk of Bias Tool.

Main results

Meta-analysis showed that yoga reduced short-term (approximately 12 wk) and long-term (approximately 12 mo) pain and back-specific disability more than control, but groups did not differ for health-related quality of life (Table).

Conclusion

Yoga reduces short-term and long-term pain and back-specific disability more than control in patients with low back pain.

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Commentary

Low back pain is one of the most common presenting symptoms of adults in primary care (1). In addition to antiinflammatory drugs and opioids, multidisciplinary therapies have been successful for motivated patients (2). The rigorous review by Cramer and colleagues included 10 RCTs and showed that yoga, in its exercise form, reduced short- and long-term pain and back-specific disability. Physicians and mid-level providers can offer yoga with confidence that, for motivated patients, it can provide nonpharmacologic benefit.

The specifics of the patient populations in these trials—mostly women and a combination of Caucasian and Asian ethnicities—were not well-defined. Further studies of yoga are needed in men and other patients with comorbid conditions in which back pain is a contributing factor to poor health (e.g., patients with diabetes where peripheral neuropathies complicate the sense of balance, or obese persons where physical mass impedes movement).

Other physical modalities, when taught by professionals well-grounded in movement and body kinetics, might offer similar or even superior benefits: pilates, Gyrotonic, Franklin method, and Feldenkrais movement. However, extensive studies of these alternative exercise movements are yet to be conducted. In addition, gentle osteopathic manipulative treatment performed by well-trained osteopathic physicians has been shown to be effective for acute and chronic low back pain (3, 4).

A key to all of these alternative methods is the level of expertise of the professional conducting the sessions. This can vary widely because professional standards for training, practicum, licensure, and continuing education are not evenly established.

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Yoga vs control (usual care, education, or exercise) for low back pain*

Follow-up duration	Outcomes	Number of trials (n)	Standardized mean difference (95% CI)
Short-term	Pain	6 (584)	-0.48 (-0.65 to -0.31)†
	Back-specific disability	8 (689)	-0.59 (-0.87 to -0.30)†
	Health-related quality of life	4 (388)	0.41 (-0.11 to 0.93)‡
Long-term	Pain	5 (564)	-0.33 (-0.59 to -0.07)†
	Back-specific disability	5 (574)	-0.35 (-0.55 to -0.15)†
	Health-related quality of life	2 (287)	0.18 (-0.05 to 0.41)‡

*CI defined in Glossary.

†Negative difference favors yoga.

‡Positive difference favors yoga.

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