

Tillbrook HE, Cox H, et al. Yoga for Chronic Low Back Pain. *Ann Intern Med* 2011;155:569-578.

Design: Randomized clinical trial

Population/sample size/setting:

- 313 adults (93 men, 220 women, mean age 46) with chronic or recurrent low back pain treated at 13 non-NHS premises in the UK
- Eligible if they had a score of 4 or more on the Roland-Morris Disability Questionnaire (RMDQ), musculoskeletal pain bounded by the lowest ribs and gluteal folds, and ability to attend at least 1 yoga session
- Exclusion criteria were having performed yoga in previous 6 months, inability to get off the floor unaided, inability to use stairs, pregnancy, life-threatening comorbid conditions, previous spinal surgery, documented psychological problems or alcohol dependency, and evidence of spinal neurological problems

Main outcome measures:

- All patients received a back education booklet
- Randomized to either yoga (n=157) or usual care (n=156)
- Yoga was taught by 20 experienced instructors in nonmedical centers in the UK, delivered in 12 sessions of 75 minutes duration over a period of 12 weeks
  - o 10 instructors were from the British Wheel of Yoga association and 10 were from the Iyengar Yoga association; all teachers taught the same form of yoga, which targeted mobility, strength, and posture as ways of relieving pain
- Usual care group received a single session of yoga instruction after final follow-up
- Primary outcome was the RMDQ at 3 months after baseline; secondary outcomes included the 6 and 12 month RMDQ scores, the SF-12, back pain scores on the Aberdeen Back Pain Scale (ABPS), days in bed or with restricted activity, and medication use
- At baseline, 67% of participants expressed a preference for yoga, 4% for usual care, and 30% had no expressed preference
- 60% of yoga participants attended at least 3 of the first 6 classes; the analysis was done by intention-to-treat, and participants who did not attend at least 3 classes were analyzed in the yoga intervention group
- RMDQ scores at 3 months showed better back function in the yoga group; with an adjusted RMDQ score which was on average 2.17 points lower than the usual care group; at 6 months, the mean difference was 1.48 points, and at 12 months, the mean difference was 1.57 points
- Back pain and general health scores were not significantly different between groups at 3, 6, and 12 months
- There were 12 reported adverse events in the yoga group, mostly related to increased pain which was not serious; there were 2 reported adverse events in the usual care group

Authors' conclusions:

- 12 weeks of yoga instruction leads to greater improvement in back function than usual care, even though there were no significant group differences in back pain at 12 months
- A change of 1.1 to 2.5 points on the RMDQ is generally considered as clinically important
- Yoga is a safe and effective activity that could be considered for patients with a history of low back pain

Comments:

- About 40% of patients randomized to yoga did not attend at least 3 of the first 6 sessions (the criterion to consider them adherent to the protocol); it is possible that many patients who are offered yoga classes will not complete the recommended course of instruction
- Threats to internal validity are well-controlled, and there are no obvious sources of important bias
- The method of instruction is not fully described; half of the instructors were from the Iyengar yoga association, and Iyengar method probably formed much of the core of the classes, but this is not fully clear

Assessment: adequate for evidence that yoga instruction may be more effective than usual care in improving back function in patients with recurrent or chronic low back pain