Yoga and Low Back Pain

OBJECTIVES: To systematically review and meta-analyze the effectiveness of yoga for low back pain.

METHODS: MEDLINE, the Cochrane Library, EMBASE, CAMBASE, and PsycINFO, were screened through January 2012. Randomized controlled trials comparing yoga to control conditions in patients with low back pain were included. Two authors independently assessed risk of bias using the risk of bias tool recommended by the Cochrane Back Review Group. Main outcome measures were pain, back-specific disability, generic disability, health-related quality of life, and global improvement. For each outcome, standardized mean differences (SMD) and 95% confidence intervals (CI) were calculated.

RESULTS: Ten randomized controlled trials with a total of 967 chronic low back pain patients were included. Eight studies had low risk of bias. There was strong evidence for short-term effects on pain (SMD=-0.48; 95% CI, -0.65 to -0.31; P<0.01), back-specific disability (SMD=-0.59; 95% CI, -0.87 to -0.30; P<0.01), and global improvement (risk ratio=3.27; 95% CI, 1.89-5.66; P<0.01). There was strong evidence for a long-term effect on pain (SMD=-0.33; 95% CI, -0.59 to -0.07; P=0.01) and moderate evidence for a long-term effect on back-specific disability (SMD=-0.35; 95% CI, -0.55 to -0.15; P<0.01). There was no evidence for either short-term or long-term effects on health-related quality of life. Yoga was not associated with serious adverse events.

DISCUSSION: This systematic review found strong evidence for short-term effectiveness and moderate evidence for long-term effectiveness of yoga for chronic low back pain in the most important patient-centered outcomes. Yoga can be recommended as an additional therapy to chronic low back pain patients.