

7. Greenhill LL. Safety and Efficacy of OROS MPH in Adolescents with ADHD. Program and Abstracts of the American Psychiatric Association, 156th Annual Meeting; Scientific and Clinical Reports. May 17-22, 2003; San Francisco, Calif. Abstract S&CR12-37.
8. Greenhill LL, Pliszka S, Dulcan MK, et al. Practice parameter for the use of stimulant medications in the treatment of children, adolescents, and adults. *J Am Acad Child Adolesc Psychiatry* 2002; 41(2 Suppl):26S-49S.

Does yoga speed healing for patients with low back pain?

■ EVIDENCE-BASED ANSWER

The use of yoga is consistent with recommendations for activity, as tolerated, for patients with low back pain. Literature evaluating the effectiveness of yoga for low back pain is scant, so it is unclear if yoga is equivalent to, or superior to, standard therapies (strength of recommendation: C, based on 1 randomized pilot study and limited case series).

■ EVIDENCE SUMMARY

Yoga, through static physical postures (or *asanas*), uses stretching to improve muscular strength and flexibility, which could be beneficial for low-back-related pain management.¹ Hatha yoga, which incorporates breathing and movement, has provided limited benefit in musculoskeletal-related pain.² Hatha yoga is distinguished from other yoga practices in that it is based on the knowledge, development, and balance of psychophysical energies. A large systematic review of yoga used for various medical conditions found over 120 studies.³ Anecdotal reports were excluded. The authors reported no studies directly evaluating effect of yoga on back pain.

A randomized controlled trial studied a 6-week modified hatha yoga protocol with 22 patients.⁴ The yoga group spent an hour with a certified instructor twice weekly, while the control group received the same intervention delayed until the study phase was completed. This underpowered pilot study found trends in functional measure-

ment scores for improved balance and flexibility, as well as decreased disability and depression in the yoga group, but the sample size was too small to detect significant changes.

Patients who practice hatha yoga say it is valuable for preventing and managing stress-related chronic health problems, including low back pain. In a survey of 3000 people receiving yoga for health ailments (1142 [38%] with back pain), 98% claimed that yoga benefited them.⁵

In a case series of 16 patients using various *asanas* for rehabilitation, 11 (69%) reported significant improvement, with near normal mobility and absence of pain.⁶ Those who reported recurring back pain also reported irregular practice of yoga. In another case series, 21 women aged ≥ 60 years (mean age, 75) with hyperkyphosis, participated in twice-weekly 1-hour sessions of hatha yoga for 12 weeks. Measured height increased by a mean of 0.52 cm, forward curvature diminished, patients were able to get out of chairs faster, and they had longer functional reach. Eleven patients (48%) reported increased postural awareness/improvement and improved well-being; 58% perceived improvement in their physical functioning.⁷

Clearly, more studies are required to determine the effects of yoga on lower back pain. Larger randomized sample sizes, group and individualized formats, and longer follow-up are needed. Control groups should involve both group and nongroup settings, to detect any benefit that may be derived from group support. No reports of harm from yoga in low-back pain therapy were reported in the few studies found.

■ RECOMMENDATIONS FROM OTHERS

The Philadelphia Panel formulated evidence-based guidelines for selected rehabilitation interventions in the management of low back pain for outpatient adults.⁸ Continuation of normal activity improves rate of return to work compared with enforced bed rest. Randomized controlled trials demonstrate no clinically important effect (15% improvement compared

CONTINUED

with control) with stretching or strengthening exercises, mechanical traction, or TENS. The panel found insufficient evidence to support the use of mechanical traction for patient global improvement and return to work. Therapeutic exercise—including stretching, strengthening, and mobility exercises—significantly reduces pain and improves function for chronic low back pain (longer than 12 weeks); but there was no clinical benefit in facilitating return to work. No specific comments on yoga appeared in their recommendations.

The US Preventive Services Task Force reports that evidence is insufficient to recommend for or against counseling patients to exercise to prevent low back pain; it makes no mention about yoga.⁹

Nathan Graves, MD, Martin Krepcho, PhD, Helen G. Mayo, MLS, University of Texas Southwestern Medical Center at Dallas

■ CLINICAL COMMENTARY:

Information suggests yoga—and all exercise—effective for low back pain

Good evidence supports the concept that activity is more effective than bed rest for acute low back pain. Recent studies in the rehabilitation and physical therapy literature have emphasized core stability exercises for acute and chronic back pain. As balance, strength, and flexibility improve, the episodes and intensity of acute low back pain diminish.

It stands to reason that activities such as hatha yoga that improve muscular strength, flexibility, and balance would similarly improve function and decrease low back pain. The available information would lead me to recommend yoga for my patients with low back pain. Yoga may well be effective, and no reports in the literature show harm.

John Hill, MD, Rose Family Medicine Residency, Denver, Colo

REFERENCES

1. Luskin FM, Newell KA, Griffith M, et al. A review of mind/body therapies in the treatment of musculoskeletal

disorders with implications for the elderly. *Altern Ther Health Med* 2000; 6:46–56.

2. Hudson S. Yoga aids in back pain. *Aust Nurs J* 1998; 5(9):27.
3. Raub JA. Psychophysiologic effects of Hatha Yoga on musculoskeletal and cardiopulmonary function: a literature review. *J Altern Complement Med* 2002; 8:797–812.
4. Galantino ML, Bzdewka TM, Eissler-Russo J, et al. The impact of modified Hatha yoga on chronic low back pain: a pilot study. *Altern Ther Health Med* 2004; 10:56–58.
5. Burton Goldberg Group. *Alternative Medicine: The Definitive Guide*. Puyallup, Wash: Future Medicine Publications; 1993.
6. Ananthanarayanan TV, Srinivasan TM. Asana-based exercises for the management of low-back pain. *J Int Assoc Yoga Therapists* 1994; 4:6–15.
7. Greendale GA, McDivit A, Carpenter A, Seeger L, Huang MH. Yoga for women with hyperkyphosis: results of a pilot study. *Am J Public Health*, 2002; 92:1611–1614.
8. Philadelphia Panel. Philadelphia Panel evidence-based clinical practice guidelines on selected rehabilitation interventions for low back pain. *Phys Ther* 2001; 81:1641–1674.
9. US Preventive Services Task Force. Primary care interventions to prevent low back pain. Rockville, Md: US Preventive Services Task Force; 2004. Available at: www.ahrq.gov/clinic/uspstf/uspstfback.htm. Accessed on July 8, 2004.

TYPE II CLINICAL INQUIRIES

Do inhaled beta-agonists control cough in URIs or acute bronchitis?

■ EVIDENCE-BASED ANSWER

Patients who receive inhaled beta-agonists for cough due to acute upper respiratory infections (URI) are just as likely to report a productive cough at 7 days compared with patients treated with placebo (strength of recommendation [SOR]: **A**, based on a systematic review).

One trial, however, showed a reduction in overall cough at 7 days (number needed to treat [NNT]=3, SOR: **B**, a small randomized controlled trial), and another trial found a reduction in overall symptom score in smokers and those with wheezing on initial exam (SOR: **B**, based on a small randomized controlled trial).