Yoga and the Knees

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The contents of this bibliography do not provide medical advice and should not be so interpreted. Before beginning any exercise program, see your physician for clearance.


“If you regularly experience knee, shoulder, or lower back pain, you may be suffering from the effects of tight hip muscles.”


From the publisher: "By time she was in her early twenties, Sandy Blaine was facing multiple traumatic knee injuries that left her in constant pain. After enduring extensive physical therapy with limited results, Blaine was amazed when a six-month exploration of Iyengar yoga caused her knee pain to disappear completely. Spurred by curiosity and gratitude to find out how this was possible, Blaine made a thorough investigation into recovering from knee pain through the practice of yoga. Her discoveries are revealed in Yoga for Healthy Knees. The book features 17 unique yoga poses tuned specifically to knee health and a complete index and covers knee problems such as hyperextension and tightness, features an extensive section on the best yoga poses for knee pain prevention and rehabilitation, and outlines a daily knee maintenance plan. Blaine explains how to incorporate use of simple props like blankets and towels, and shares safety guidelines that encourage readers to establish good habits, making healthy knees a part of everyday life."


“By learning basic anatomical principles, you can teach your students how to safely open their hips without injuring their knees.”
Dewees, Suzanne. Responds to a query regarding Yoga practice following knee replacement surgery (Suzanne had just undergone the surgery). Communicated to KIN-Yoga mailing list, 21 Mar 2002. (IAYT has this communication on file.)


Gilmore, Ruth. Answers the question, “I’ve been trying for some time to do padmasana (lotus posture), but it is far too painful for my knees. What can be done for a student whose stiff knees prevent them from doing this and related postures?” Yoga & Health, Mar 1998, p. 19.

__________. Answers the question, “I recently injured my knee while practicing Parsvakonasana (the extended side stretch) during an intensive weekend of practice. I felt a sharp pain on the inside of the knee of the straight leg, and the knee subsequently became quite swollen. It is starting to improve now, but I am keen to avoid a recurrence! My teacher has told me not to strive so hard and to be careful in this pose, but I would be grateful for more guidance if you can help.” Yoga & Health, Dec 2005, p. 34.


__________. The hyperextended knee: Overly flexible knees can cause injury, but yoga can help stabilize loose tendons and ligaments by strengthening the muscles around the joint. Yoga Journal, July/August 2003, pp. 133-135. Article available online: http://www.yogajournal.com/practice/997_1.cfm.

Guthrie, Catherine. Knee deep in yoga: Yoga can be a source of knee pain or the ideal therapy. Here’s a primer on keeping the joint healthy on and off the mat. Yoga Journal, January/February 2004, pp. 88-95, 138.


“Specially designed program for persons with chronic aches in feet, knees, and hip joints.”

Hillenmeyer, Katy. Senior class: Exercise for both body and mind has special benefits when you’re older. Ocala Star-Banner, 14 Dec 2004.

“After a 1995 knee replacement that didn’t heal properly, Claire Sapiro had trouble bending her knee and walked with a limp. But five years ago, she began taking a gentle yoga class, which she credits with improving her gait and mobility.

’Yoga has made me so much more agile and limber,’ said Sapiro, 82, of Kenwood, Calif.
‘It has kept me able to do so many things that I possibly wouldn’t be able to do today.’

“Sapiro still can’t kneel comfortably, yet she is among the growing ranks of seniors who are benefiting from the proliferation of mind/body exercise programs including yoga and tai chi. Her instructor, Pam Field, adapts poses that are too strenuous by using a folding chair or the wall in her Santa Rosa, Calif., studio to support Sapiro and other students who need extra help . . .”


Kate, Suhas, M.D. [Answers the question below.] *Yoga and Total Health*, Dec 2000, p. 7.

“Ekapadasana—does this lead to an undue pressure to the knee?”


The knee. *Yoga Rahasya*, 2000, 7(1).


Program Summary: “Exercise has been recognized as an essential component of the management of patients with a variety of rheumatic diseases. Previous work has demonstrated that exercise can reduce the pain and disability of osteoarthritis, but compliance with exercise programs can be difficult to maintain. Our preliminary work has suggested that yoga has benefits in osteoarthritis management and we are continuing our investigations into the potential mechanisms that may be involved, including analysis of gait.”

According to an article in the Mar/Apr 2003 issue of *AARP* magazine, this preliminary study found that two months of yoga cut pain by 50 percent among patients with knee osteoarthritis.


Lee, Cyndi. Answers the question: “I have tendonitis along the inside of my knee. When I perform Triangle Pose, I feel intense tightness in this area. Will Trikonasana eventually
strengthen and help heal this area or should I not practice this pose? *Yoga Journal.* Article available online: http://www.yogajournal.com/practice/718_1.cfm.


**McDowell, Dimity.** Are you weak in the knees? Regular yoga practice can turn your knees from one of the more delicate structures in your body to one of the most reliable. *Yoga Journal*, Mar/Apr 2000, pp. 67-69. Article available online: http://yogajournal.com/practice/190_1.cfm.


**Myers, Esther.** Answers the question: “My brother is a cyclist and is developing severe knee problems. Are there any poses that will help strengthen around his knees without straining them?” *Yoga Journal*, 2001. Article available online: http://yogajournal.com/practice/634_1.cfm.

___________. Answers the questions: “I have moderately hyperextended knees. In standing poses I try to keep my knees soft while firming my legs, as instructed. I try to lift my toes and press into the ball of my foot, which helps but also causes me to tighten in the hamstrings. Do you have any suggestions?” *Yoga Journal*, Nov 2002, p. 44.

**Oakes, Stephanie.** Answers the question: “I injured my knee in a yoga class (it might be the tendons or ligaments around my knee—I can’t really tell). Since then, I’ve continued with my yoga class and golfing but have stopped running. I’m trying to be careful about putting pressure on the knee. It sometimes pops when I walk, like it’s out of joint or something. There’s no swelling and no visible change in the muscle. What should I do to heal this injury?” *USA Weekend*, 15-17 Nov, 2002, p. 14.


“During the immediate recovery phase [from knee injury or surgery] rest from weight-bearing is usually necessary. Acute knee injuries, with or without surgery, usually result in some degree of inflammation of the synovial membrane (synovitis), and can lead to a joint which is swollen, stiff and painful. It may take two or three weeks before this
resolves, which is long enough for the thigh muscles to weaken significantly on the affected side.

“During the non-weight-bearing period, a rolled towel or a small bolster under the knee will allow it to relax when lying down or sitting with the leg(s) out front. During this time, when sitting in a chair, some of the thigh muscles can be worked without strain if the area just above the kneecap is tightened (as if to lift the kneecap), held for a few seconds and then relaxed. This should be repeated several times a day, providing it does not increase the pain.

“As the swelling reduces, the knee should gradually be able to bend a little more, at this time it is possible to lie on the back and, bending the leg at the hip, draw up the knee a little towards the chest, supported with the hands clasped behind (in the crook of) the knee. The hands can take much of the weight of the calf, thus supporting the knee. Other supine postures with the kneecap(s) drawn up and the feet on the floor (but not too near the hips) will encourage flexibility—e.g., easy bridge.

“When some weight can be taken on the leg, tadasana and the gentler standing postures (with the kneecaps lifted) are recommended. The gradual introduction of more flexed knee position should occur as the condition improves, but weight-bearing on the bent knee should not take place until the muscles are stronger and the original problem well-resolved. Then the gradual use of kneeling asanas and stronger standing postures can increase, until the most difficult postures, involving weight-bearing on the fully flexed knee—like vajrasana, hare pose, and pose of the child, with a thick pad or folded towel below the shins to reduce any pressure on the joint. At first a block (or blocks) may be needed also between the hips and heels, but gradually the thickness of this prop may be reduced.

“If the nature of the injury means that the individual will never have full mobility of the knee, postures can be adapted on a permanent basis, so that the individual may still benefit to the utmost. Needless to say, a therapist should never treat the knee condition on its own, but should offer from the outset a specially designed programme for the whole body, which takes in to account the special requirements if the knee(s), both in the short-term or in the longer term when needed.”


**Steinberg, Lois.** *Iyengar Yoga Therapeutics: The Knee*. Champaign-Urbana, Ill.: BKS Iyengar Yoga Institute of Champaign-Urbana. Author email: lsteinbe@uiuc.edu


**Strong body, strong soul, part 2: How to combine yoga with lower body strength training.** Article available online: http://allspiritfitness.com/library/features/aa042701a.shtml.


**Swami Vivekananda Yoga Research Foundation.** *Yoga for Knee Pain* video. Bangalore, India: Swami Vivekananda Yoga Research Foundation.


___________. Patello-femoral pain syndrome; Chondromalacia; Patellar tendinitis; Osteoarthritis of the knees; ACL deficiency (“trick knee”). Available online: http://yogatherapy.com/examples.html.

**Treating chronic ailments with yoga: Knee problems.** *Yoga Rahasya*, 1997, 4(1).

**Yoga Therapy for Knees and Shoulders.** Yoga International Reprint Series. Honesdale, Pa.: Yoga International. Tel.: 717-253-4929, email: yimag@epix.net.

This booklet includes the following articles: Know Your Knees: A Therapeutic Approach to Asana; Giving Your Knees Support: Therapy in Action; Wings of the Heart: Working with the Shoulders; Yoga Therapy for Shoulders; Don’t Let Osteoarthritis Get the Best of You.

Of Related Interest

Giving your knees what they need: Keeping these complex joints healthy and happy. Article available online: http://allspiritfitness.com/library/features/aa111702a.shtml.


“The anterior cruciate ligament—or ACL—supports the knee. Researchers like Lephart [Scott Lephart, Ph.D., a sports medicine researcher at University of Pittsburgh Medical Center] have seen an increasing number of ACL tears in women. Now, he’s trying to understand, first, why they happen. He says, ‘Our injury prevention model starts with identifying risk factors.’

“Some reasons are slower development of quadriceps and a reduced ability to sense where the joint is. ‘So, when the knee starts getting in this position of vulnerability, there’s a slower ability of the muscle to adapt to help protect it,’ Lephart tells Ivanhoe. With this information, he’s developed a program to reduce the risk of injury.

“Young athletes performed various exercises including one-legged squats, hops and jumping to help balance, strength and coordination. Lephart says, ‘We need to encourage coaches and strength trainers to incorporate the activities that we know induce these desirable adaptations and will likely reduce injury rates.’”


“The study has shown that adverse work related psychosocial factors, in particular aspects of job demand and control, influence the reporting of regional musculoskeletal pain [including back, shoulders, arms, and knees]. This occurs even after only short term exposure. The odds of reporting these adverse exposures are increased when pain is reported at multiple sites.”

Suttona, A. J., K. R. Muirb, S. Mockettc, and P. Fentemd. A case-control study to investigate the relation between low and moderate levels of physical activity and osteoarthritis of the knee using data collected as part of the Allied Dunbar National Fitness Survey. Annals of the Rheumatic Diseases, Aug 2001, 60:756-764. Correspondence to: Mr Sutton ajs22@le.ac.uk.
Abstract: Background: Physical activity is being recommended as an intervention for seemingly almost universal improvements to health. A potential concern with this recommendation for increased exercise is that some believe increased levels of activity may lead to increased incidence of osteoarthritis of the knee (knee OA), as a result of accelerated “wear and tear” of the major joints. Objective: To investigate the hypothesis that the occurrence of knee OA may be related to the duration of participation in some forms of sport and active recreation. Methods: The relation between habitual exercise, reported by a cross section of people surveyed in England, and self reported knee OA was investigated. Data were derived from the Allied Dunbar National Fitness Survey (1990-91). A matched retrospective case-control design was used and a new exposure classification system which categorized different grades of activities for different time periods for each subject’s lifetime participation in regular physical activities was developed. Additional data on knee injuries sustained and bodily composition were also included in a multivariate analysis. Results: From 4316 people originally interviewed, 216 eligible cases (66 men, 150 women) were identified (mean age 57.1). Each case was matched to four controls. When habitual sport/exercise participation were examined during a subject’s life, only exposure to regular long walks and being physically active between the ages of 20 and 24 suggested any association with developing knee OA later in life. The only strong association found was a greatly increased risk of knee OA having previously sustained a knee injury (p<0.01, odds ratio 8.0 (95% confidence interval 2.0 to 32.0)). Conclusions: There was little evidence to suggest that increased levels of regular physical activity throughout life lead to an increased risk of knee OA later in life. Previous knee injury was associated with an increased risk of knee OA. Additionally, most injuries were caused through participation in physical activities. Hence, when deciding on participation in activities, it is worth taking the likelihood of joint injury into consideration, as the chance of injury is greater in some activities than others.