

a significant stretch

Timothy McCall Helps
Western Medicine Intersect
with Eastern Yoga



McCall's extensive explorations have led him to conclude that yoga can confer all kinds of health benefits. Here he demonstrates Side Plank Pose, or Vasisthasana.

by Scott Hainzinger

Spending a dozen years studying yoga techniques and outcomes has given Timothy McCall, MD '83, the flexibility to keep one foot planted in conventional Western medicine while embracing this ancient Eastern tradition. McCall currently commits the bulk of his energy—including his talents as a physician, author, teacher and researcher—to yoga. In the process, he's helping to solidify yoga as an activity that's appreciated by more and more people each year, physicians included.

Since 2002, McCall has been the medical editor of *Yoga Journal*, a popular magazine for yoga students and teachers that currently enjoys a readership of more than one million. In 2007, he published the book *Yoga as Medicine: The Yogic Prescription for Health and Healing*, which one reviewer calls "the current bible of therapeutic yoga." In it, McCall presents a science-based overview of the benefits of yoga, describes the various schools of practice and then devotes 20 chapters to specific conditions that can benefit from yoga, including asthma, insomnia, depression, carpal tunnel, heart disease and gastrointestinal problems.

McCall is also a frequent presenter at national yoga conferences. Last spring he spoke to scientists, clinicians and others who attended "Yoga Week," sponsored by three institutes that make up the National Institutes of Health (NIH) in Bethesda, Maryland. This first-ever NIH event was clear evidence that, following public interest, the medical community has begun to take note of yoga's therapeutic potential. In the fall,

McCall will conduct workshops on "Yoga as Medicine" for students and teachers as well as physicians in California, Florida, Massachusetts and New York before making a fifth pilgrimage to India to follow up on his yoga research.

This full-tilt foray down a less-traveled road is unlikely to surprise those who know McCall from his days in the independent study program (ISP) at UW medical school, which he attended after graduating as a member of Phi Beta Kappa from University of Wisconsin-Madison. Yoga was never mentioned in course work, says McCall, but students in the alternative ISP program, which the school instituted in the 1970s, generally had the freedom to pursue their studies in their own ways. After earning his medical degree, McCall headed to Boston for a 10-year stint.

He spent half his time there working as an independent internist on contract to several area primary care facilities, and the other half on health-related writing. A book called *Examining Your Doctor: A Patient's Guide to Avoiding Harmful Medical Care*, published in 1994, was one result, as were articles on topics ranging from resident physicians' long hours to corporate interests in healthcare, for publications such *New England Journal of Medicine*, *Journal of the American Medical Association*, *American Health*, *Redbook*, the *Boston Globe*, the *Philadelphia Inquirer* and the *Los Angeles Times*. He also produced regular columns for the newsletter *Bottom Line Health* and National Public Radio's "Marketplace."

McCall's fascination with yoga began in 1995, when a friend urged him to take an introductory class. He later learned that his instructor, Patricia Walden, was one of America's foremost yoga practitioners and teachers.



McCall conducts "Yoga as Medicine" workshops for students, teachers and physicians.

"I liked it from the beginning," he says. "But as someone who was basically a jock—and not a very flexible one, either—I'm about as far from being 'a natural' at yoga as you'll find. I was what you might call a remedial yoga student."

McCall wasn't used to being challenged so deeply; he was someone for whom success had come easy—as well as often.

"Yoga was one of the first things that I really put my heart and soul into, that I really wasn't getting stroked for being good at," he says. "In fact, I've been told that after seeing how much I struggled in my first yoga class, my instructor said, 'That guy will never come back.'"

But McCall says he learned something new about himself during those initial classes. Walden pointed out that his chest had a pronounced asymmetry, which was later linked to an undiagnosed spinal condition. No conventionally trained physicians had ever noticed the abnormality.

"Good yoga teachers 'see' anatomy in a way that goes beyond what we learn as physicians," McCall says. "I



came to realize that what we learn in medical school is static anatomy, while what we learn in yoga is more of a kinetic anatomy. This is especially true of Iyengar yoga, which is the type that Patricia teaches.”

McCall describes the Iyengar style as the least “new-agey,” the most conceptual form of yoga, one that is largely tied to the precise observation of anatomical details.

“To a rather skeptical physician, this was a great way to start,” he says.

So despite a very busy schedule, McCall made time for yoga classes and a daily home practice, which he considers essential to yoga’s therapeutic efficacy. And as he invested more energy in learning and practicing the asana, or yoga poses, he began to feel more attuned to the messages his body was sending. He slept better, felt better and was generally more relaxed. To deepen his practice, he learned to supplement the asana with breathing techniques and meditation.

As McCall increased his focus on yoga, he heard classmates talk about finding relief from incapacitating back pain, or instructors say that a certain pose was useful for sinus problems.

“I learned that when someone made a statement or claim, I needed to try to get them to differentiate their sources,” he says. “Which things are from science? Which are from personal experience? Which are from observation?”

When he tried to do his own literature review to examine research into yoga’s medical benefits, he found that most of it was published in India and was difficult to access in the U.S.

His search took him to India for the first time in 2002. During that trip, and the three others that were to follow, he interviewed experts, studied under yogis and visited major research institutions.



McCall has made four trips to India to interview yoga experts and visit research centers.

The India trips ended up broadening his perspective in a number of ways.

“In Iyengar yoga,” he says, “we pay a lot of attention to anatomical alignment, but I visited yoga centers where the asana were much less precise. Yet with multi-faceted programs that included meditation, chanting and yogic breathing, they were getting impressive therapeutic results.”

McCall says the experiences led him to think that the world is more complicated than we are usually led to believe.

“I came to understand that the various tools in the yoga toolbox, even ones that seemed strange to me, were not some nutty stuff that Easterners invented. Yoga is a body of knowledge we Westerners just don’t think about much, which takes advantage of features that are hard-wired into our bodies and nervous systems.”

McCall’s explorations have led him to conclude that yoga confers all kinds of benefits, from boosting immunity by reducing levels of cortisol and increasing the circulation of lymph to strengthening bones and joints and nourishing spinal discs by improving range of motion and helping deliver nutrients to cartilage.

Based on his experience and a review of the literature, McCall also is convinced that yoga can condition the heart and circulatory system, lower elevated blood sugars and artery-damaging hypertension and improve levels of cholesterol and triglycerides.

It can relieve pain due to arthritis, back problems, fibromyalgia and carpal tunnel syndrome by reducing muscle spasms, improving the alignment of bones in joints, and teaching people to separate actual pain from their emotional response to it. And yoga can help brain function by changing levels of various neurotransmitters and activating the left prefrontal cortex, a finding that has been correlated with greater happiness and resilience to stress.

McCall stresses that yoga should complement Western medicine, not replace it. And some yoga practices are not recommended for people with certain medical conditions, such as those with diabetic retinopathy, who should avoid inverted positions that may increase pressure on ocular blood vessels.

The physician is actively involved in spreading the word on yoga to other practitioners and in bringing greater scientific rigor to the yoga world.

“Yoga has increased my awareness of myself and of others,” he says. “I’ve seen how subtle differences in anatomical alignment can make a big difference in symptoms. And I’ve learned to see a lot of little things that potentially have therapeutic value for many common ailments.”

McCall maintains a personal interest in yoga. “Everything I know about yoga really comes out of my practice, which currently amounts to four hours a day,” he says. “I still have limited movement due to the spinal issue, so any improvement I’ve seen has come as a result of an improved awareness of my body.”