



Time Magazine Cover Story on Yoga

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The Power of Yoga

By RICHARD CORLISS; Deborah Fowler/Odessa, Lise Funderburg/Philadelphia, Marc Hequet/Minneapolis, Alice Park/New York, Anne Moffett/Washington, and Jeffrey Ressler and Stacie Stukin/Los Angeles

Stars do it. Sports do it. Judges in the highest courts do it. Let's do it: that yoga thing. A path to enlightenment that winds back 5,000 years in its native India, yoga has suddenly become so hot, so cool, so very this minute. It's the exercise cum meditation for the new millennium, one that doesn't so much pump you up as bliss you out. Yoga now straddles the continent--from Hollywood, where \$20 million-a-picture actors queue for a session with their guru du jour, to Washington, where, in the gym of the Supreme Court, Justice Sandra Day O'Connor and 15 others faithfully take their class each Tuesday morning.

Everywhere else, Americans rush from their high-pressure jobs and tune in to the authoritatively mellow voice of an instructor, gently urging them to solder a union (the literal translation of the Sanskrit word yoga) between mind and body. These Type A strivers want to become Type B seekers, to lose their blues in an asana (pose), to graduate from distress to de-stress. Fifteen million Americans include some form of yoga in their fitness regimen--twice as many as did five years ago; 75% of all U.S. health clubs offer yoga classes. Many in those classes are looking not inward but behind. As supermodel Christy Turlington, a serious practitioner, says, "Some of my friends simply want to have a yoga butt." But others come to the discipline in hopes of restoring their troubled bodies. Yoga makes me feel better, they say. Maybe it can cure what ails me.

Oprah Winfrey, arbiter of moral and literary betterment for millions of American women, devoted a whole show to the benefits of yoga earlier this month, with guest appearances by Turlington and stud-muffin guru Rodney Yee. Testimonials from everyday yogis and yoginis clogged the hour: I lost weight; I quit smoking; I conquered my fear of flying; I can sleep again; it saved my marriage; it improved my daughter's grades and attitude. "We are more centered as a team," declared the El Monte Firefighters of Los Altos Hills, Calif.

Sounds great. Namaste, as your instructor says at the end of a session: the divine in me bows to the divine in you. But let's up the ante a bit. Is yoga more than the



power of positive breathing? Can it, say, cure cancer? Fend off heart attacks? Rejuvenate post-menopausal women? Just as important for yoga's application by mainstream doctors, can its presumed benefits be measured by conventional medical standards? Is yoga, in other words, a science?

By even asking the question, we provoke a clash of two powerful cultures, two very different ways of looking at the world. The Indian tradition develops metaphors and ways of describing the body (life forces, energy centers) as it is experienced, from the inside out. The Western tradition looks at the body from the outside in, peeling it back one layer at a time, believing only what it can see, measure and prove in randomized, double-blind tests. The East treats the person; the West treats the disease. "Our system of medicine is very fragmented," says Dr. Carrie Demers, who runs the Center for Health and Healing at the Himalayan International Institute of Yoga Science and Philosophy of the USA in Honesdale, Pa. "We send you to different specialists to look at different parts of you. Yoga is more holistic; it's interested in the integration of body, breath and mind."

The few controlled studies that have been done offer cause for hope. A 1990 study of patients who had coronary heart disease indicated that a regimen of aerobic exercise and stress reduction, including yoga, combined with a low-fat vegetarian diet, stabilized and in some cases reversed arterial blockage. The author Dr. Dean Ornish is in the midst of a study involving men with prostate cancer. Can diet, yoga and meditation affect the progress of this disease? So far, Ornish will say only that the data are encouraging.

To the skeptic, all evidence is anecdotal. But some anecdotes are more than encouraging; they are inspiring. Consider Sue Cohen, 54, an accountant, breast-cancer survivor and five-year yoga student at the Unity Woods studio in Bethesda, Md. "After my cancer surgery," Cohen says, "I thought I might never lift my arm again. Then here I am one day, standing on my head, leaning most of my 125-lb. body weight on that arm I thought I'd never be able to use again. Chemotherapy, surgery and some medications can rob you of mental acuity, but yoga helps compensate for the loss. It impels you to do things you never thought you were capable of doing."

A series of exercises as old as the Sphinx could prove to be the medical miracle of tomorrow--or just wishful thinking from the millions who have embraced yoga in a bit more than a generation.

Yoga was little known in the U.S.--perhaps only as an enthusiasm of Allen Ginsberg, Jack Kerouac and other icons of the Beat Generation--when the Beatles



and Mia Farrow journeyed to India to sit at the feet of the Maharishi Mahesh Yogi in 1968. Since then, yoga has endured more evolutions of popular consciousness than a morphing movie monster. First it signaled spiritual cleansing and rebirth, a nontoxic way to get high. Then it was seen as a kind of preventive medicine that helped manage and reduce stress. "The third wave was the fitness wave," says Richard Faulds, president of the Kripalu Center for Yoga and Health in Lenox, Mass. "And that's about strength and flexibility and endurance."

At each stage, the most persuasive advocates were movie idols and rock stars--salesmen, by example, of countless beguiling or corrosive fashions. If they could make cocaine and tattoos fashionable, perhaps they could goad the masses toward physical and spiritual enlightenment. Today yoga is practiced by so many stars with whom audiences are on a first-name basis--Madonna, Julia, Meg, Ricky, Michelle, Gwyneth, Sting--that it would be shorter work to list the actors who don't assume the asana. (James Gandolfini? We're just guessing.)

David Duchovny practices Kundalini yoga; Julia Louis-Dreyfuss prefers Ashtanga. Sabrina the Teenage Witch stars Melissa Joan Hart and Soleil Moon Frye throw yoga parties. Jane Fonda cut out aerobics for it; Angelina Jolie buffed up for Tomb Raider with it. The newly clean Charlie Sheen used yoga and dieting to shed 30 lbs. Add at least two Sex in the City vamps, Sarah Jessica Parker and Kristin Davis. All three Dixie Chicks. Sports stars from basketball legend Kareem Abdul-Jabbar to Yankee pitcher Orlando (El Duque) Hernandez are devotees. And speaking of athletes, who showed up the other day at Turlington's lower Manhattan haunt, the Jivamukti Yoga Center? Monica Lewinsky.

Where there's a yoga blitz, there must be yoga biz. To dress for a class, you need only some old, loose-fitting clothes--and since you perform barefoot, no fancy footwear. Yet Nike and J.Crew have developed exercise apparel, as has Turlington. For those who prefer stay-at-home yoga, the video-store racks groan with hot, moving tapes. The Living Yoga series of instructional videos taught by Yee and Patricia Walden occupies five of the top eight slots on Amazon's VHS best-seller list. "Vogue and Self are putting out the message of yoginis as buff and perfect," says Walden. "If you start doing yoga for those reasons, fine. Most people get beyond that and see that it's much, much more." By embodying the grace and strength of their system, Yee and Walden are its most charismatic proselytizers--new luminaries in the yoga firmament.

"Madonna found it first, and I'm following in the footsteps of the stars," groans Minneapolis attorney Patricia Bloodgood. "But I don't think you should reject



something just because it's trendy." Bloodgood had the bright idea to commandeer part of the lobby in the office building where she works for a Monday-evening yoga class. Yoginis can spend a weekend at (or devote their lives to) such retreats as Kripalu, where each year 20,000 visitors take part in programs ranging from "The Science of Pranayama and Bandha" to African-drum workshops and singles weekends. In L.A. they can mingle with the glamourati at Maha Yoga (where students bend to the strains of the Beatles' Baby You're a Rich Man) or Golden Bridge (where celebrity moms take prenatal yoga classes).

Yoga is where you find it and how you want it, from Big Time to small town. In the Texas town of Odessa, Therese Archer's Body & Soul Center for Well-Being has 15 dedicated students, including an 18-wheeler diesel mechanic who drives 50 miles from Andrews, Texas, to attend classes. "He is very West Texas," Archer says, "and I thought he would flip when he saw what we did." Yet in eight months the mechanic has sweated his way up from beginning to advanced work. At the 8 Count exercise studio in Monticello, Ga., Suzanne McGinnis runs a "yoga cardio class" that mixes postures with push-ups, all to the disco beat of tunes like Leo Sayer's You Make Me Feel Like Dancin'. As yoga classes go, this is not an arduous one, but the students don't know that. They grunt and groan exultantly with each stretch, and are happy to relax when McGinnis stops to check her teaching aids: torn-out magazine pages and *The Complete Idiot's Guide to Yoga*.

So yoga can be fun or be made fun of; it can help you look marvelous or feel marvelous. These aspects are not insignificant. They demonstrate the roots yoga has dug into America's cultural soil--deep enough for open-minded researchers to consider how it might bloom into a therapy to treat or prevent disease.

The sensible practice of yoga does more than slap a Happy Face on your cerebrum. It can also massage the lymph system, says Dr. Mehmet Oz, a cardiac surgeon at New York Presbyterian Hospital in Manhattan. Lymph is the body's dirty dishwater; a network of lymphatic vessels and storage sacs crisscross over the entire body, in parallel with the blood supply, carrying a fluid composed of infection-fighting white blood cells and the waste products of cellular activity. Exercise in general activates the flow of lymph through the body, speeding up the filtering process; but yoga in particular promotes the draining of the lymph. Certain yoga poses stretch muscles that from animal studies are known to stimulate the lymph system. Researchers have documented the increased lymph flow when dogs' paws are stretched in a position similar to the yoga "downward-facing dog."



Yoga relaxes you and, by relaxing, heals. At least that's the theory. "The autonomic nervous system," explains Kripalu's Faulds, "is divided into the sympathetic system, which is often identified with the fight-or-flight response, and the parasympathetic, which is identified with what's been called the Relaxation Response. When you do yoga--the deep breathing, the stretching, the movements that release muscle tension, the relaxed focus on being present in your body--you initiate a process that turns the fight-or-flight system off and the Relaxation Response on. That has a dramatic effect on the body. The heartbeat slows, respiration decreases, blood pressure decreases. The body seizes this chance to turn on the healing mechanisms."

But the process isn't automatic. Especially in their first sessions, yoga students may have trouble suppressing those competitive beta waves. We want to better ourselves, but also to do better than others; we force ourselves into the gym-rat race. "Genuine Hatha yoga is a balance of trying and relaxing," says Dr. Timothy McCall, an internist and the author of *Examining Your Doctor: A Patient's Guide to Avoiding Harmful Medical Care*. "But a lot of gym yoga is about who can do this really difficult contortion to display to everyone else in the class." The workout warriors have to realize that yoga is more an Athenian endeavor than a Spartan one. You don't win by punishing your body. You convince it, seduce it, talk it down from the ledge of ambition and anxiety. Yoga is not a struggle but a surrender.

It may take a while for the enlightenment bulb to switch on--for you to get the truth of the yoga maxim that what you can do is what you should do. But when it happens, it's an epiphany, like suddenly knowing, in your bones and your dreams, the foreign language you've been studying for months. In yoga, this is your mind-body language.

In daily life, that gym-rat pressure is even more intense: our jobs, our marriages, our lives are at stake. Says McCall: "We know that a high percentage of the maladies that people suffer from have at least some component of stress in them, if they're not overtly caused by stress. Stress causes a rise of blood pressure, the release of catecholamines [neurotransmitters and hormones that regulate many of the body's metabolic processes]. We know that when catecholamine levels are high, there tends to be more platelet aggregation, which makes a heart attack more likely." So instead of a drug, say devotees, prescribe yoga. "All the drugs we give people have side effects," McCall says. "Well, yoga has side effects too: better strength, better balance, peace of mind, stronger bones, cardiovascular conditioning, lots of stuff. Here is a natural health system that, once you learn the basics, you can do at home for free with very little equipment and that could help



you avoid expensive, invasive surgical and pharmacological interventions. I think this is going to be a big thing."

McCall, it should be said, is a true believer who teaches at the B.K.S. Iyengar Yoga Center in Boston. But more mainstream physicians seem ready to agree. At New York Presbyterian, all heart patients undergoing cardiac procedures are offered massages and yoga during recovery. At Cedars Sinai Medical Center in Los Angeles, cardiac doctors suggest that their patients enroll in the hospital's Preventive and Rehabilitative Cardiac Center, which offers yoga, among other therapies. "While we haven't tested yoga as a stand-alone therapy," says Dr. Noel Bairey Merz, the center's director, patients opting for yoga do show "tremendous benefits." These include lower cholesterol levels and blood pressure, increased cardiovascular circulation and, as the Ornish study showed, reversal of artery blockage in some cases.

Yoga may help post-menopausal women. Practitioners at Boston's Mind-Body Institute have incorporated forward-bending poses that massage the organs in the neuroendocrine axis (the line of glands that include the pituitary, hypothalamus, thyroid and adrenals) to bring into balance whatever hormones are askew, thus alleviating the insomnia and mood swings that often accompany menopause. The program is not recommended as a substitute for hormone-replacement therapy, only as an adjunct.

Some physicians wonder why it would be tried at all. "Theoretically, if you pressed hard enough on the thyroid, you possibly could affect secretion," says Dr. Yank Coble, an endocrinologist at the University of Florida. "But it's pretty rare. And the adrenal glands are carefully protected above the kidneys deep inside the body. To my knowledge, there is no evidence that you can manipulate the adrenals with body positions. That'd be a new one."

In 1998 Dr. Ralph Schumacher, of the University of Pennsylvania School of Medicine, and Marian Garfinkel, a yoga teacher, published a brief paper on carpal tunnel syndrome in the *Journal of the American Medical Association*. The eight-week study determined that "a yoga-based regimen was more effective than wrist splinting or no treatment in relieving some symptoms and signs of carpal tunnel syndrome." Letters to *JAMA* challenged the study's methodology. The authors replied that it was a preliminary investigation to determine if further research was merited. They said it was.

The most cited study around--Ornish's in 1990--tested 94 patients with angiographically documented coronary heart disease, of whom 53 were



prescribed yoga, group support and a vegetarian diet extremely low in fat--only 10% of total daily calories (most Americans consume 35% in fat; the American Heart Association recommends 30%). Cholesterol changes among the experimental group were about the same as if they had taken cholesterol-lowering drugs. After a year in the program, patients in this group showed "significant overall regression of coronary atherosclerosis as measured by quantitative coronary arteriography." Those in the control group "showed significant overall progression of coronary atherosclerosis." The findings were well received but open to a major challenge: that the severe diet, rather than yoga, may have been the crucial factor.

In 1998 Ornish published a new study, in the *American Journal of Cardiology*, stating that 80% of the 194 patients in the experimental group were able to avoid bypass or angioplasty by adhering to lifestyle changes, including yoga. He also argued that lifestyle interventions would save money--that the average cost per patient in the experimental group was about \$18,000, whereas the cost per patient in the control group was more than \$47,000. And this time, Ornish says, he is convinced that "adherence to the yoga and meditation program was as strongly correlated with the changes in the amount of blockage as was the adherence to diet."

Ornish hoped for more than the respect of his peers: he wanted action. "I used to think good science was enough to change medical practice," he says, "but I was naive. Most doctors still aren't prescribing yoga and meditation. We've shown that heart disease can be reversed. Yet doctors are still performing surgery; insurance companies are paying for medication--and they're not paying for diet and lifestyle-change education." (Medicare, however, recently agreed to pay for 1,800 patients taking Ornish's program for reversing heart disease.)

Why have so few studies tested the efficacy of yoga? For lots of reasons. Those sympathetic to yoga think the benefits are proved by millenniums of empirical evidence in India; those who are suspicious think it can't be proved. (Says Coble: "There seem to be no data to substantiate the argument that yoga can heal.") Further, its effects on the body and mind are so complex and pervasive that it would be nearly impossible to certify any specific changes in the body to yoga. The double-blind test, beloved of traditional researchers, is impossible when one group in a study is practicing healthy yoga; what is the control group to practice--bad yoga? Finally, the traditional funders of studies, the pharmaceutical giants, see no financial payoff in validating yoga: no patentable therapies, no pills. (Ornish's prostate-cancer study was funded by private organizations, including the Michael Milken Foundation.)



At the heart of the western medical establishment's skepticism of yoga is a profound hubris: the belief that what we have been able to prove so far is all that is true. At the beginning of the 20th century, doctors and researchers surely looked back at the beginning of the 19th and smiled at how primitive "medical science" had been. A century from now, we may look back at today's body of lore with the same condescension.

"In modern medicine, we're actually doing a lot more guesswork than we let on," says Demers. "We want to say we understand everything. We don't understand half of it. It's scary how clueless we are." Desperate patients consult half a dozen specialists and get half a dozen conflicting opinions. "Well, of course," Dr. Toby Brown, a Manassas, Va., radiologist says impatiently, "it's not as if medicine is a science." Hence the appeal of alternative medicine: aromatherapy, homeopathy, ginkgo biloba. Proponents may be crusading scientists or snake-oil salesmen, but either way, their pitch falls on eager ears: each year Americans spend some \$27 billion on so-called complementary medicine. "One lesson of the alternative health-care movement," McCall warns, "is that the public is not going to wait for doctors to get it together."

Late last month the National Institutes of Health held the first major conference on mind-body research. "There is a major reason that many in biomedicine reject mind-body research: it is the pervasive sound of the popularizers," noted Dr. Robert Rose, executive director at the MacArthur Foundation's Initiative on mind, brain, body and health research. "The loudest voices, the most passionate and articulate spokespersons for the power of the mind to heal come not from the research community but from the growing number of gurus...the hawkers on TV for alternative treatments, herbs, homeopathy, handbooks." Rose distinguished the nostrum pushers from those seeking to bring yoga and science together. "Thousands of research studies have shown that in the practice of yoga a person can learn to control such physiologic parameters as blood pressure, heart rate, respiratory function, metabolic rate, skin resistance, brain waves and body temperature, among other body functions." Critics are quick to note that few of those studies were published in leading science journals.

Two oddities attend yoga's vogue. One is that America has the fittest people in the world, and the most obese. Yoga, typically, is practiced by the fit. Exercise, the care and feeding of body and possibly mind, is their second career. The folks in urgent need of yoga are the ones who are at the fast-food counter getting their fries supersize; who would rather take a pill than devote a dozen hours a week to yoga; for whom meditation is staring glassily at six hours of football each Sunday;



and who might go under the surgeon's knife more readily than they would ingest anything more Indian than tandoori chicken.

Here's another peculiarity: this ritual of relaxation is cresting at a cultural moment when noise and agitation are everywhere. We work longer hours, with TVs and portable radios blaring as the sound track for frantic wage slaves. If a teen isn't trussed to his headphones or plugged into a chat room, it's because his cell phone has just beeped. America is running in place, in the spa or at work.

And after Letterman and Clinton, nobody takes the world seriously; everything is up for laughs.

In this modern maelstrom, yoga's tendency to stasis and silence seems at first insane, then inspired. The notion of bodies at rest becoming souls at peace is reactionary, radical and liberating. If it cures nagging backache, swell. But isn't it bliss just to sit this one out, to freeze-frame the frenzy, to say no to all that and om to what may be beyond it, or within ourselves?

Reported by: Deborah Fowler/Odessa, Lise Funderburg/ Philadelphia, Marc Hequet/Minneapolis, Alice Park/New York, Anne Moffett/Washington, and Jeffrey Ressler and Stacie Stukin/Los Angeles

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Timothy McCall, MD teaches yoga therapy seminars worldwide. He is a board-certified internist, the medical editor of *Yoga Journal* and the best selling author of [Yoga as Medicine](#). This article originally appeared in *Time* magazine. You can download a PDF of this article and other articles and view his teaching schedule at [DrMcCall.com](#).