

SELF

Bad karma

Sloppy teaching and growing numbers of overly competitive students are giving yoga lovers serious and scary injuries: slipped disks, torn tendons, even strokes. SELF reveals common poses that can be treacherous—and shows how to keep your favorite healing habit from landing you in the hospital.

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I remember only one pose from my first yoga class seven years ago: a modified seated forward bend known in Sanskrit as *Paschimottasana*. I sat on a mat with my legs slightly bent in front of me, my arms wrapped beneath my thighs as my forehead reached toward my toes. It was about an hour into class, and my body felt like a stuck door slowly easing open.

A warm current of something—call it blood, call it chi—coursed from shoulder to shoulder. I felt the muscles unfurling from my spine; then, in the other direction, the vertebrae unsticking from each other—click, click, click. It was a sensation of freedom and release I remember as vividly as the first time my husband touched me. This was how I was supposed to feel.

Years of hunching over my computer had left me stiff, almost breakable. One false move—getting out of bed too quickly, tying my shoe—could lay me flat on a heating pad for days. Friends and family commented that my shoulders were rounding, my back curving, my chin protruding beyond my chest. Sometimes I'd see little old ladies hobbled over canes, their tiny bodies twisted and contorted, and I'd wonder, Will that be me?

Now I knew it wouldn't. After a series of yoga classes, I gradually began to stand up straighter and move through the world more easily without hurting myself. If the hunch in my back was a measure of how hard I was working at my job, my new upright alignment served as testament to how hard I was working on myself. Yoga had become my salvation.

Until it became my damnation.

In 2005, I was at my first yoga class in quite a while, as my busy life had been getting in the way of my routine. I took a class open to all levels; after all those years of doing yoga, I didn't think to reenter with a beginner class that took things more slowly. That would have felt like a demotion of sorts, as if I'd been put back a grade in the middle of the school year.

The class went fine until we neared the end. The teacher directed us into Plow pose (*Halasana*): on your back, balancing hips over shoulders while your toes touch the floor behind your head. If done properly, Plow pose has the power to straighten your shoulders and lengthen your neck; at least, that's what it always felt like to me. I remember exalting in the tension release across my upper body, the liberation of muscle from bone that through my practice I had grown to depend on, almost addictively.

Then I felt the throbbing. It started at the base of my skull, like a slow burn crackling down my neck. Within a week, I couldn't toss a tennis ball before a serve or pick up one of my baby cousins. My husband had to carry my weekend bag. After a few weeks, I went to a sports medicine specialist to see what I'd done to myself. We looked at my MRI together. "This mass right here is a bulging disk. It's pinching your nerve, which is why you're having pain down to your fingers," said Jordan Metzl, M.D., a sports medicine physician at the Hospital for Special Surgery in New York City. That Plow pose was likely to blame. "Your disk could have been bulging before," Dr. Metzl said, noting that premature osteoarthritis (something I'd had no idea I had) was weakening my neck and spine. "But hyperextending your neck while putting weight on it most likely made it bulge even more, which pinched your nerve."

Several weeks of physical therapy later, my arm was functioning normally and painlessly. Still, I felt disillusioned. How could my beloved yoga have turned on me?

As it happens, I'm not the only one feeling done in by my practice: Nearly 4,500 people ended up in the emergency room after yoga injuries in 2006, slightly fewer than the year before but still up 18 percent since 2004, according to the U.S. Consumer Product Safety Commission (which tracks sports injuries even when they don't include equipment). Most often, the damage includes strained muscles, rotator cuff tears in the shoulders, exacerbated carpal tunnel syndrome in the wrists, torn cartilage in the knees, and lower-back and neck injuries such as herniated disks. "In my practice, I've seen a significant increase in yoga injuries in the past five years," says orthopedic surgeon Jeffrey Halbrecht, M.D., medical director for the Institute for Arthroscopy and Sports Medicine in San Francisco and a specialist in knee and hip problems. And it's not only those in the recent wave of newbies who are getting hurt, Dr. Halbrecht says: "I've treated more experienced yogis than rookies."

Overall, yoga has far more potential to heal than to hurt: Studies suggest it can help relieve chronic lower-back pain, depression and anxiety. And students tend to think of yoga as gentle and healing, even when done rigorously. But the fact is that the most basic of yoga poses—as with dance, gymnastics or any type of physical activity that requires strength and flexibility—call for a certain amount of skill and training to do properly. And when strength isn't a necessity, proper alignment is; sometimes the most benign-seeming poses, or asanas, can cause injury if hands, arms or legs are placed incorrectly. Devotees are even more vulnerable if they go through poses more quickly than their body can handle or push themselves too hard in an effort to keep up with the teacher or compete with other students. "Yoga is marketed as such an innocuous thing," says Loren Fishman, M.D., assistant clinical professor of rehabilitation medicine at Columbia University in New York City. "But without care, injuries can absolutely happen."

Susan Eaton, a 45-year-old physical therapist in San Francisco, has always been athletic. She runs, hikes and lifts weights, and started doing yoga in 2000. Even though she knew better than to push her body into an asana that didn't feel right, there was a part of her that wanted the challenge. "I was very competitive with myself," she says. "I felt that if this is how the teacher presents a pose, then this is how I want to perform it."

Eaton's spirited approach to yoga served her well for the two years she practiced two or three times a week. But toward the end of a class she took in December 2002, something went wrong.

The class was in Fish pose, a position that involves the student lying on her back, her spine arched, her chest up and open, the top of her head resting on her mat. In a modified version, the student supports herself with her elbows on the floor; in the advanced incarnation that Eaton did, more weight is borne by the head and neck. "It's a hyperextended neck pose that as a physical therapist I later questioned," Eaton recalls. "I had done this pose before, but this time I was uneasy, as though I knew I might be pushing myself to the edge."

Over the next three days, Eaton experienced intense head, neck and jaw pain. Then, on the fourth night, she woke up alone in the middle of the night to flashing lights and a popping sound in her head. She slipped out of bed and fell to the floor, the entire right side of her body limp—a symptom she recognized as a sign of a stroke. "I knew that if I let myself pass out, I'd

probably die because no one would have found me until I didn't show up for work," she says. She dragged her body to the phone to dial 911. It took five tries before she succeeded.

Rushed to a nearby emergency room, Eaton slipped between cognition and confusion, alert and focused one minute and unable to remember her daughter's name the next. She had torn her left carotid, one of the two arteries located in the front of the neck that supply the head with blood; a clot had then formed and traveled to her brain. And her doctors agreed that the likely cause of the tear was yoga.

Such a thing is unusual but not impossible. In 2001, *The New England Journal of Medicine* published an article that cites yoga as one of the many possible causes for arterial dissection in susceptible patients. "It's not likely, but if you extend your neck and look toward the sky, you can tear one of the carotid artery's layers," says Eaton's neurologist, Wade S. Smith, M.D., director of the Neurovascular Service at the University of California at San Francisco. "These things can happen spontaneously, and you don't want to falsely accuse a form of exercise. But in this case, it makes sense that yoga was involved in the tear because they were so closely coupled in time." Dr. Smith adds that Eaton tested negative for tissue disorders that might have predisposed her to the event.

Eaton was put on blood thinners to prevent clotting and remained in the hospital for three days. It was three months before she could return to work full time and ease into exercising again. Today, she is fully recovered, although she still sometimes has problems recalling words and numbers that should be familiar. "It was an accident," Eaton says. But one she learned from. "I adore yoga, but you have to be mindful when doing these things."

Not all teachers emphasize this mindfulness, the idea that students need to know their body's limits and heed the signals that it's time to cool it. The concept can be understandably hard to grasp for many women, who are rewarded for a can-do attitude in every aspect of their life. Dr. Fishman recently conducted a worldwide survey of more than 33,000 yoga teachers and therapists to investigate the most common injuries and their causes. He found that among the major reasons for injuries are inexperienced teachers and "egotistical," competitive students who push themselves too hard.

"The ambitions of the yoga student have changed," Dr. Fishman says. Many students come looking for a workout akin to aerobics or sports, with only ancillary meditative benefits. But, explains Terri Kennedy, founder of Ta Yoga House in New York City, "yoga is about intention, attention and breath." In soccer, the mere intent to get the ball in the net won't score you points. In yoga, your movement toward, say, touching your toes is what matters, not whether you are able to wrench your body into that position. "If you keep the breath steady, then you can begin to steady the mind," adds Kennedy, chairwoman of the board of Yoga Alliance, a national organization that sets standards for yoga teaching. "That's the essence of the practice. It's not about a perfect-looking posture."

In the tradition set forth roughly 5,000 years ago in ancient India, yoga instruction was one-on-one and individually tailored, the passage of a sacred discipline from guru to student. Today, of course, classes are a group affair—and packed; 15.8 million Americans practice yoga, according to *Yoga Journal*. More than 2 million get instruction at the gym; many experts feel students who learn at a specialized yoga studio are more likely to be taught the subtleties that can head off injury. "Some of today's yoga teachers have been recruited from the vast army of the unemployed, the kind of people who used to become waiters and waitresses while figuring out what to do with the rest of their life," says Dr. Fishman, who was once an expert witness in the lawsuit of a yogi who could no longer walk up stairs after she tore the cartilage in her knee doing a Hero pose. "That includes people who are eager to do the right thing but don't have the anatomical knowledge, physiological understanding, caring attitude and experience to be able to teach."

No certification or specific training is required before a person is allowed to teach yoga. Yoga Alliance recommends teachers get a bare minimum of 200 hours of training and has built a registry of teachers and schools that meet its standards. But participation is voluntary; teachers can just as easily get certified in weekend or online courses. "If you are a Spinning teacher and you want to tack on yoga, then you can take a two-day training," Kennedy says. "You may think you are qualified, but that has its challenges."

These quickie courses teach poses but not necessarily the nuances of proper alignment nor the ideal, noncompetitive mind-set. And they likely won't train teachers how to suss out previous injuries and medical problems that yoga could worsen. A preexisting arterial tear, often signaled by dizziness and neck pain, puts you at risk for a stroke; leg pain could warn that a bulging disk in the back is putting pressure on your sciatic nerve. If you have undiagnosed glaucoma, you can go blind doing headstands or shoulder stands.

Shula Sarnier, a 37-year-old medical writer in New York City, thought yoga would be a "peaceful and gentle" complement to her regimen, which includes weight lifting, kickboxing and marathon running. A former aerobics instructor—and one with a

history of rotator cuff injury—Sarner made a point of telling the teacher it was her first class. She didn't mention and wasn't asked about the old injury, which she considered healed.

When the class did headstands, the teacher told Sarner she didn't have to do them. But when a series of Sun Salutations, including multiple Downward Dogs, began to bother her arm, he didn't notice her stopping and stretching. Sarner carried on through the end of the class; her play-through-the-pain attitude had served her well in other activities. "There were people around me of all shapes and sizes, and I figured if they could do it, I should be able to," she says.

Within a few hours of class, Sarner's left arm was incapacitated, her rotator cuff reinjured. All those sports she thought yoga might complement were off-limits for months. "Here I was, this competitive athlete, and it was yoga that hurt me," Sarner laments. "If I had to do it again, with hindsight, I'd have stopped doing the poses that bothered me."

Students need to be wary of a teacher who conveys, either explicitly or through implication, that anyone can do every pose if she only tries. "Many of these positions aren't relevant to every body," says Gary Kraftsow, author of *Yoga for Transformation* (Penguin). Ashtanga, the popular fast-paced discipline often called power yoga, was originally designed to develop children's flexibility and joint strength, Kraftsow says. Although that doesn't mean a 40-year-old can't build the strength to do it, at that pace, even basic poses such as Downward Dog and Cobra pose will put much more of a strain on her joints than it would on a child's.

Elena Brower, founder of the Virayoga studio in New York City, has made regular trips to other studios to observe teaching styles. "I literally watched injuries happen," Brower says. "I saw hands that were turned in too far and sinking shoulders just begging for rotator cuff or wrist injuries. Over time, the tiniest misalignment of even a quarter inch can make the difference between something that is injurious and something that is healing." Alyssa Cooper, a 36-year-old television producer in New York City, put so much stress on her wrist in yoga classes that she developed a painful ganglion cyst (a liquid-filled pouch). A hand surgeon wanted to aspirate it, but a yoga teacher had another idea: better alignment. Five private sessions later, Cooper had learned how to put less pressure on her wrist as well as on an ankle she had injured skiing. The cyst went away on its own. "It's kind of amazing that a few adjustments helped turn something that was hurting me into something that healed me," she says.

Even without private lessons, it's possible to reap the benefits of yoga and avoid limping off your mat. Look for small classes, taught by an instructor registered with Yoga Alliance. Make sure you inform the instructor of any physical problems you have, and ask her for the modified versions of a pose. A good teacher, Kennedy says, will "teach in stages," explaining a posture bit by bit, so a student can stop when she is at her personal limit. "If a teacher says, 'Let's all get into a headstand now,' a student might feel bad if she can't do it. Instead, I say, 'Let me teach you how to get in a Dolphin'" —which involves the same arm positioning. "I tell them, you can remain right there, if that's what feels right for you today." Most important, Kennedy says, is to listen to your body. If you find yourself holding your breath in a pose, that's a simple sign you should ease up.

After her stroke, Susan Eaton avoided practicing yoga for roughly a year. "I felt betrayed by yoga, and the hardest thing was to return to my mat," she says. Rest and medication had helped heal her body. But now she needed to face her fears and regain her confidence.

She did so by becoming a teacher herself—the right way—training for 500 hours over the course of a year and a half with a Yoga Alliance—registered program. "I modify poses like headstands to avoid compression of the spine and hyperextension of the neck," she says. "And even in poses that don't affect my neck, I don't push anymore. I don't go to that place of uneasiness, and that's what I teach my students. Yoga is about practicing mindfully in your own body—and your body is different from everyone else's."

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