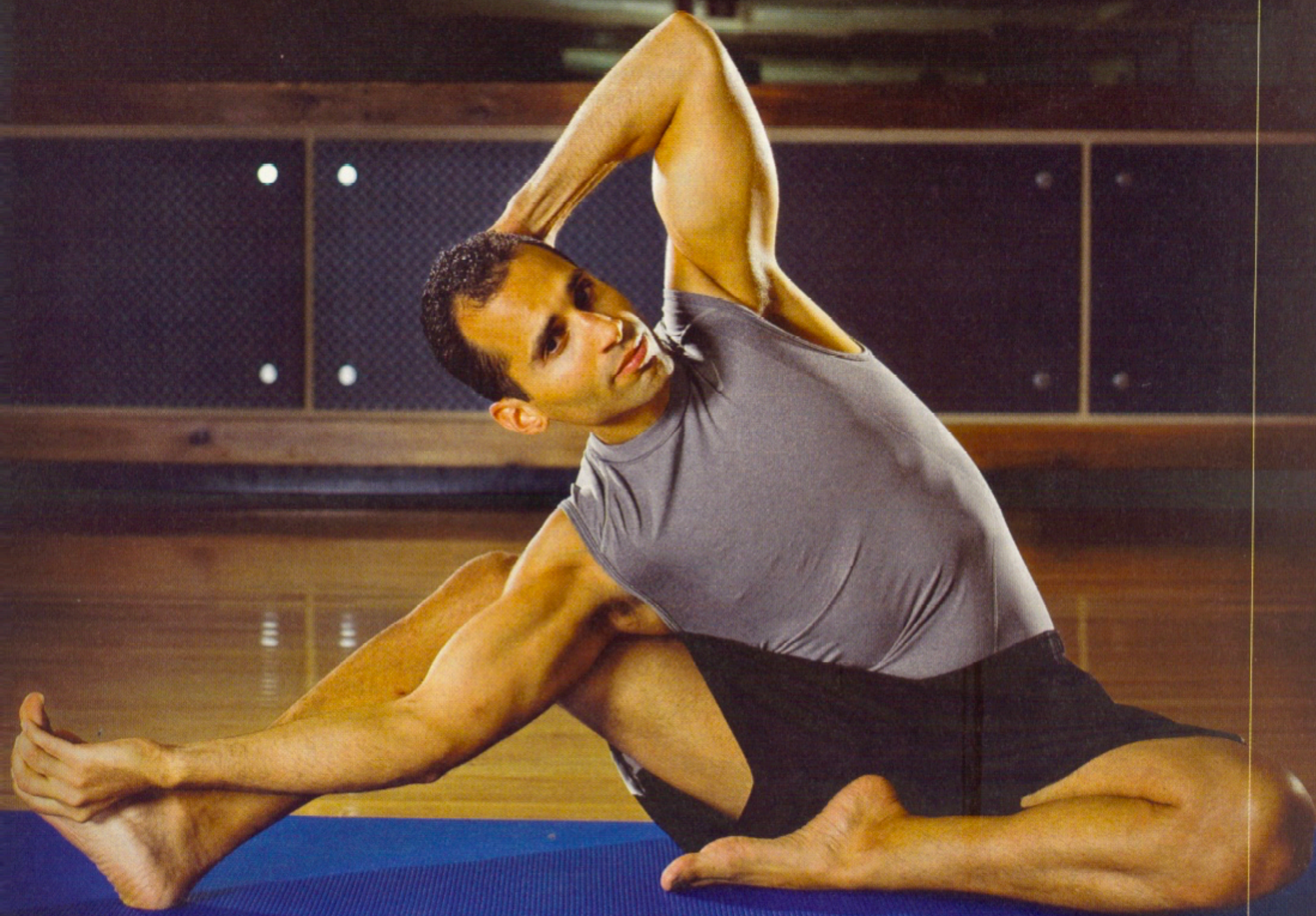


A BETTER WAY TO STRETCH

More pro and amateur athletes are discovering resistance stretching — and finding that it's an excellent workout in itself. *by DAN DUANE photographs by JOHN LOOMIS*



I HAD A SINGLE GOAL WHEN I TOOK up resistance stretching: to prevent myself from getting hurt. For about a year I'd been obsessed with running hills in San Francisco, where I live, and my calf muscles had become so tight and painful that I practically had to tiptoe for the first mile of every run to warm up. On top of that my Achilles tendons became so taut while I slept that just walking downstairs to breakfast elicited yelps of agony. I'd been there before — every big athletic push in my life has ended in a pulled muscle or a tweaked ligament — and I knew I was on the verge of

being sidelined again. I'd tried to stave off injury with two years of Ashtanga yoga, but while I did like stretching among young women in tights, yoga felt grossly incompatible with running. Yoga sessions basically transformed my legs into wobbly noodles that didn't want to run, and every run turned my legs into knotted piano wire, thereby making yoga practice an embarrassment.

Resistance stretching, I'd been told, is different from regular stretching, which simply lengthens strands of muscle fiber to expand range of motion. By contrast, resistance stretching contracts the muscle as it's

being stretched, actually building strength right in the lengthened muscle. Most sports injuries occur when muscles are stretched beyond their comfort zone because it's at that point that they're weakest. But by building greater strength into a stretched muscle, resistance stretching is supposed to eliminate strains and tears.

The practice is becoming increasingly popular among professional athletes, including Jayson Werth of the Philadelphia Phillies, Chukky Okobi, the 320-pound former NFL center who won a 2006 Super Bowl ring, and Dara Torres, the 41-year-old swimmer who claimed three medals at this past summer's Olympics. Torres has gone so far as to credit her comeback from retirement to the resistance stretching she does with Coral Springs, Florida-based Steven Sierra and Anne Tierney. That's when I decided I needed these two gurus of stretch to keep me injury-free. If they could help Torres win medals, they could certainly help my 41-year-old body run 12 miles without hurting.

LIKE BODYWORKERS EVERYWHERE, Sierra and Tierney are mellow, muscular, and almost always wearing sweats. They were early adopters of resistance stretching, which was invented by a trainer named Bob Cooley in 1976. In 2005, Sierra and Tierney opened Innovative Body Solutions and began spreading the resistance-stretching gospel. In 2007 they hooked up with Torres; since her success in Beijing they have seen business double. Fortunately for me, they happened to be in the Bay Area working with Torres and agreed to come over and lay a few mats on my living room floor for a primer.

First Sierra and Tierney explained the basic way resistance stretching works. Say you are bending over to touch your toes. Imagine that someone is pushing down on your back. At the same time, you are flexing your muscles and pushing back against him.

Sierra told me to lie flat on my back atop a mat with my legs extended. He put his hands beneath my right heel and with my knee bent, I pressed against his hand, but not so much that I prevented him from moving my leg entirely. Once he

reached my hamstring's limit (but well before the point of pain), he instructed me to resist more forcefully, to overcome the tension of his grip and press my leg down to the floor. When Sierra had done both legs, he told me to stand up, at which point I felt a kind of energized freedom of movement.

Andy O'Brien, strength and conditioning coach for the Florida Panthers hockey team, who teaches his athletes resistance stretching, divides all muscle tightness into two elemental categories: There's adaptive shortening, in which a muscle becomes permanently shortened, usually by scar tissue or injury, and tonic shortening, "like after you do a bunch of bench presses and you're tight the next day," he explains. "That's your nervous system tightening up that range of motion for you." Dr. Richard Lieber, of the National Skeletal Muscle Research Center in San Diego, says exercises like resistance stretching help you train your nervous system to relax, allowing you to be more flexible.

Resistance stretching appears to remedy tonic shortening by forcing practitioners to initiate a voluntary muscle contraction before a stretch can trigger an involuntary one. That way, when we pull a muscle toward its old set point, the muscle just slips on past without seizing up. It does stop eventually, but you quickly establish a greater range of motion while gaining strength, too. O'Brien points out that for a hockey goalie like the Panthers' Tomas Vokoun, the benefits are obvious. Every time Vokoun shoots a leg forward to block a shot, he must be able to count on its having strength and resilience when fully extended so he doesn't get injured.

After my first session with Sierra and Tierney, which took only 20 minutes, I felt as though I could be playing goalie for the Panthers. Before they left the two taught me a number of stretches to do on my own before and after workouts, three days a week. A few were a little tricky at first, and they all took practice, but once I had them figured out I was amazed. The pain was gone and I was running farther than ever and without worrying about injuries. Best of all, I don't yelp on my way downstairs to breakfast. ■

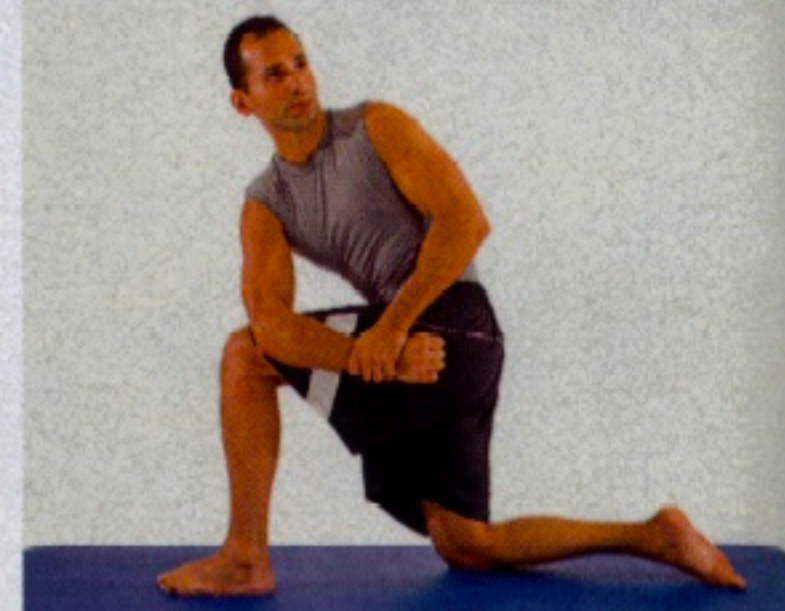
STRETCHING: THE RULES

FOUR THINGS YOU NEED TO KNOW ABOUT GETTING LIMBER

- 1. Old-School Stretching Is Harmful** Studies show that static stretching — extending a muscle and holding it there for 30 seconds — weakens muscles when done cold, before exercise.
- 2. Warming Up Is Better** Jogging in place and doing a few lunges or bodyweight squats to increase blood flow has been shown to decrease injury in athletes.
- 3. Stretch After Hard Exercise** Stretch as soon as you're done working out, because as the body ages, muscles cool off faster. This takes pressure off tendons and accelerates recovery.
- 4. Become a Resistance Stretcher** Because of its dynamic, back-and-forth movement, resistance stretching is a terrific pregame warm-up or post-workout injury-prevention program.

20 MINUTES IS ALL IT TAKES

STAY INJURY-FREE AND BUILD STRENGTH WITH THESE EIGHT RESISTANCE STRETCHES.



SHOULDER AND TRAPEZIUS
Kneel on your right knee and put your right elbow outside your left knee. Try to bring your right arm back in toward your hip while lightly pushing back against your own force for five seconds. Next, pull your right arm in toward your left hip while resisting the stretch for five seconds. Repeat five times, then switch sides.



GLUTE AND LATERAL HAMSTRING
Lying down, grab your right foot with your left hand and pull it toward your chest. Use your right hand to brace your right knee. Keep pulling your knee toward your chest while lightly resisting the pull. Hold for five seconds, then extend your leg up and repeat. Switch sides and repeat.



HIP FLEXOR AND QUAD
Kneel on your right knee, with your right foot propped against a wall or a physio ball (have someone hold it for you), then lean forward while flexing your right quad. Hold for five seconds, lean back while still flexing the quad, then hold for five more seconds. Repeat four times, switch sides, and repeat the stretch.



BACK, ARM, SHOULDER
Stretch your right arm down through your legs and your left arm around your back. Join your hands and bend forward as you pull your hands in opposite directions. Hold for five seconds, then rest for five seconds. Repeat four times, then switch sides and repeat the stretches.



UPPER ARM AND UPPER BACK
From a kneeling position, stretch your right hand back toward your left shoulder blade. Push your right elbow against your left hand and pull your body forward and to the left. Resist the pull, hold for five seconds, then rest for five seconds. Repeat four times, then switch sides and repeat the stretch.



CHEST
From a push-up position, with four-inch blocks under your hands, sink down so that you begin to feel a stretch in your chest. Doing a light push-up offers the resistance. Hold for five seconds, then rest for five seconds. Repeat four times.



OBLIQUES, LOWER BACK, LATS
Sit with right leg extended and left leg bent, grab the back of your head with your left hand and fold down, pressing your right thigh against your right shoulder. Use your left arm to open your torso toward the ceiling. Hold for five seconds, then rest for five seconds. Repeat four times, then switch sides and repeat the stretch.

CALVES
From a modified "downward dog" position, press your toes into the mat so that your calves are flexed. Move into a traditional downward dog position so that your calf muscles stretch while keeping knees flexed. Hold for five seconds, then rest for five seconds. Repeat four times.

