

injection treatments to laser therapies. Even ancient remedies, like acupuncture, are being infused with new technology for sports medicine purposes.

The medical mainstream has been quick to jump on board: “When I first decided to pursue sports medicine, the assumption was that I would go into orthopedics,” says Margot Putukian, M.D., head physician for Princeton University athletics. “But now a lot more general physicians are specializing in sports medicine and providing a variety of alternative treatments.”

My own trip back to the starting line was a long one: I logged a lot of time investigating available remedies, and based on my doctor’s recommendations, I tested four, outlined below. Prolotherapy injections were the magic bullet that launched me back into competition, but after a race-heavy weekend, a bit of knee achiness persisted, so I sought further treatment. The others were instrumental for full recovery. Use my experiences as a primer for exploring your own options.

**PROLOTHERAPY INJECTIONS** > Anti-inflammatory drugs reduce pain—but they may impede healing too, by stifling the flow of regenerative proteins to damaged areas. Prolotherapy is the anti-anti-inflammatory: It reignites the body’s natural inflammatory response with an injection of glucose, which helps build new stabilizing tissue in places where the existing tissue has grown weak. And it works: In a 2006 study at the University of British Columbia, prolotherapy successfully

treated Achilles tendinosis in 32 of 36 patients.

I shelled out \$125 for each session, though it can cost a lot more depending on the diagnosis. My doctor prescribed three injections over the course of two months. Each shot left my knee tender for a few days, but six months later, I returned to cycling full speed.

**ACTIVE RELEASE TECHNIQUES (ART)** > Overuse injuries, like tennis elbow and my own knee pain, are common in sports that stress repetitive movements. Your overworked muscles, tendons, and ligaments suffer micro-traumas and build up of scar tissue to stabilize the site of the injury—but that scar tissue also hinders the stressed area’s return to normal function.

Through the use of patented massage methods, practitioners of Active Release Techniques (ART) manually break apart the scar tissue. But it’s no spa treatment. ART therapists dig their fingers into the injured area with vigor. Data on its effectiveness is limited, but researchers at the University of California, San Diego, used ART to successfully treat over 70 percent of carpal tunnel syndrome patients. ART typically runs \$120 for the initial

## Alt Therapy 2.0

The bright side to getting injured? You now have more (legit) treatment options than ever before. BY IAN DILLE

■ SHORTLY AFTER TURNING PRO as a cyclist three years ago, I suffered a severe knee injury that sidelined me for months. It started with a slight ache in my hip, but I ignored it. When the pain spread to my knee, I stubbornly kept training and racing—but not for long. Weeks after the initial twinges, I had a hobbling overuse injury.

Every year nearly seven million Americans suffer sports-related injuries; they’re the second most common reason for doctor visits by boomers ages 48 to 64. But luckily, as sports ailments have increased, so have the resources for treating them.

Injured athletes no longer have to rely on the standard sports medicine regimen of anti-inflammatories, rest, and even surgery to bounce back. Recent clinical studies have endorsed an array of alternatives—everything from innovative massage techniques to

## HIGH PERFORMANCE

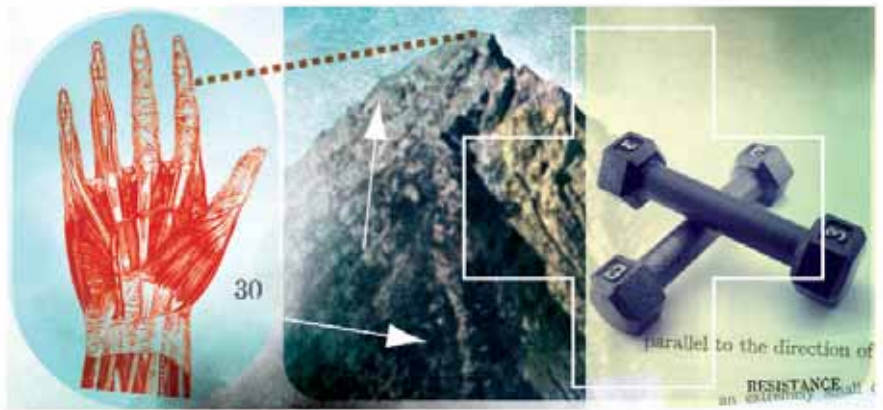
appointment and \$75 for each subsequent treatment. My knee felt more limber and moved with less pain moments after just one 20-minute session.

**LOW-LEVEL LASER THERAPY** > Consider it acupuncture sans needles: A low-level cold laser beam is directed at the injury to stimulate the production of adenosine triphosphate (ATP) in cell mitochondria, which reduces inflammation and causes tissue to regenerate more quickly, according to Kevin Reichlin, chiropractor for Tour de France cycling team Garmin-Chipotle. Reichlin regularly prescribes laser therapy for everything from tendinitis to road rash—even to reconnect damaged neurological pathways. “Next to my hands, the laser is my most important tool,” he says. In 2002, the FDA approved it as a safe and effective pain treatment, based on the success of a clinical study in which over 65 percent of test subjects with chronic neck pain reported significant improvement after laser treatment.

My prescribed two and half minutes of laser therapy cost \$20. The number of treatments generally depends on the severity of the injury and the rate of recovery; since I was only suffering from general achiness, I had just one session. It was totally painless. My knee felt oddly warm then, but less sore that afternoon.

**ELECTRO-ACUPUNCTURE** > One of the most promising new remedies is founded in the centuries-old art of acupuncture—with a modern twist: Jumper cable-like wires are attached to the needles and emit a pulsating electrical current to stimulate circulation. Scientific backing is sparse, but electro-acupuncture has increasingly been used in recent years to aid injury rehabilitation and post-race recovery.

My treatment, for instance, was administered at a sports medicine clinic, where my acupuncturist worked side by side with a physical therapist. In spite of the slight pinpricks, after just one hour-and-a-half session (\$100), I felt better physically—and spiritually. A benefit of the acupuncture, no doubt, but also because, finally, I was simply pedaling my bike again, pain free.



## Save Your Game

There's no need to suffer for the sake of your sport. Here's how to stop four common athletic injuries—before they strike.

SPORT	THE PROBLEM + THE PLAN
CLIMBING	<p><b>Problem:</b> Climber's elbow, or tendinitis of the medial epicondyle (the inside of the elbow), caused by overuse of the forearm muscles.</p> <p><b>Prevention:</b> Adequate rest between climbs; stretching and strengthening the forearm muscles.</p> <p><b>Key exercise:</b> Sit in a chair and rest your forearm along your thigh, with your palm up. Grasp a sledgehammer horizontally. Rotate your hand inward, lifting the hammerhead perpendicular to the ground, then lower back to horizontal. Work up to 15 repetitions with each arm.</p>
CYCLING	<p><b>Problem:</b> Iliotibial band syndrome, an irritation of the IT band (a fibrous tissue that runs along the outer thigh) where it crosses the knee.</p> <p><b>Prevention:</b> Proper seat positioning; stretching the IT band and strengthening the hip muscles.</p> <p><b>Key exercise:</b> Roll a foam roller or tennis ball along the outside of the thigh, from the knee to the hip, to loosen up prior to cycling.</p>
RUNNING	<p><b>Problem:</b> Shin splints, or tenderness along the shinbone caused by an overload on the connective tissues that attach your muscles to the bone.</p> <p><b>Prevention:</b> Running on soft surfaces like dirt or sand whenever possible; increasing mileage slowly; strengthening the shin and calf muscles.</p> <p><b>Key exercise:</b> Sit in a chair with your feet flat on the floor. Keeping your heels down, raise the balls of your feet as high as possible. Hold for five seconds, then lower. Work up to two sets of ten reps.</p>
SWIMMING	<p><b>Problem:</b> Swimmer's shoulder, or inflammation of the rotator cuff.</p> <p><b>Prevention:</b> Strengthening the rotator cuff, shoulder blades, and core.</p> <p><b>Key exercise:</b> Hold a tennis ball in one hand and place it against a wall, with arm fully extended and shoulder blades squeezed together. Roll the ball against the wall in small, counterclockwise circles for 15 seconds, then switch directions. Work up to two-minute bouts.</p>

## THE DOCTOR IS IN

### Q: How can I tell if a sports medicine doctor is qualified?

A: Any doctor can call himself a sports medicine specialist—some just slap that label on their credentials for advertising. Make sure your doctor is board-certified. Bonus points if he's associated with a professional sports team. And if he participates in your sport, even better: He understands the specific stresses it puts on your body—and how best to treat them. I play tennis regularly, for instance, so if a tennis player with a one-handed backhand came to me with elbow pain, I'd know well enough to suggest she switch to a two-handed backhand before resorting to drastic treatments.

W. Ben Kibler, M.D., medical director for Lexington Clinic Sports Medicine Center, is a fellow and former vice president of the American College of Sports Medicine.