

Muscle BOUND

BOTHERED BY MUSCLE TIGHTNESS, SORENESS AND STRAIN? MUSCLE ACTIVATION TECHNIQUE SOOTHES DISCOMFORT, IMPROVES ALIGNMENT AND HELPS WARD OFF INJURY.

By KELLE WALSH

Ask athletes about the downside of keeping fit and they'll groan about sore muscles and joints. Anything that restricts mobility — whether a slight strain, tightness or something more painful — can slam on the workout brakes. Usually, the recommended solution is rest. Persistent problems are addressed with massage, stretching, sports creams or time on the heating pad.

Professional athletes have found an alternative solution — one that is now being embraced by fitness enthusiasts of all kinds. Muscle Activation Techniques (MAT) is a therapy that has been incorporated into the treatment programs of the Denver Broncos and Nuggets, the Utah Jazz and the New York Giants. But recently, it's made its way into a growing number of fitness clubs and clinics. Those who have tried MAT say it eliminates soreness and cuts down on injuries. For even the casual gym-goer stymied by persistent muscle pain or fatigue, MAT can build a stronger, more stable body. And that means stronger, more efficient workouts.

WEAK MUSCLES, SORE MUSCLES

MAT focuses on correcting muscle weakness. According to MAT developer Greg Roskopf, those muscle weaknesses are often the underlying problem in muscle soreness. He believes that tight muscles and nagging pain are signs of structural instability, which puts the body at greater risk for injury if left uncorrected.

"A core idea of MAT is that muscle tightness is actually a secondary symptom of muscle weakness," says Roskopf, who holds a master's degree in exercise physiology from Fresno State University, Fresno, Calif. When a muscle has been compromised, whether from trauma, overuse or stress, he explains, it makes the associated joint unstable. For example, an injury to the gastrocnemius, a calf muscle, can affect the stability of both your ankle and your knee. The body then naturally tries to protect a vulnerable joint by tightening other muscles in the area.

Roskopf compares the process to our innate reaction when we begin to slip on ice. "The first thing you do is tighten up because the body senses instability. It goes into protective mode," he says. "If you have muscle weakness, it's the same thing. The other muscles jump in to protect the body."

When surrounding muscles are forced to stabilize the area, it pushes them beyond their limits and creates greater fatigue in the body. Muscle weakness is further exacerbated through continued activity — a common issue for fitness buffs and athletes who push their bodies to the max. The result is sluggish muscles that tire more easily and are less efficient and more injury-prone.

RUNNING INTO TROUBLE

When marathoner Beth Brady, 47, began experiencing nagging pain in her right hip a few years ago, she had no clue why. She went from doctor to orthopedic surgeon to personal trainer and was repeatedly misdiagnosed — first with bursitis, then osteoporosis and then chronic tightness in her iliotibial band, the thick fascia that runs along the outside of →

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On the MAT

MORE THAN 100 MAT therapists in the United States have completed a 10-month training program and passed a written and hands-on certification test. Search for a MAT therapist by state through the Muscle Activation Techniques Web site (www.muscleactivation.com). An initial session lasts about 90 minutes with subsequent sessions lasting about an hour. Prices range from \$100 to \$200. MAT may be covered by health insurance when performed by a licensed healthcare professional, such as a physical or massage therapist. It is also available through some health clubs.



the thigh. Prescription drugs, cortisone shots and relentless stretching did little to help, and sometimes made the problem worse or triggered unpleasant side effects.

In February 2004, just one month before a marathon, she visited a MAT therapist at the suggestion of a friend. After the first session, Brady was warned that she would be sore — and she was. But she returned for her second appointment later that same week. “It was amazing,” says Brady. “The pain was almost gone. I could finally sleep through the night.” Brady got treated four times before the race. She ran pain-free and had no pain following the event.

MAT not only eased Brady’s immediate discomfort, but it also unearthed its origin: a torn meniscus she’d suffered 20 years earlier. The injury had been left to heal on its own, and Brady thought it had healed completely. But the resulting adaptive pattern in her body, compounded by 20 years of training and running, eventually showed up as chronically tight muscles and, finally, as

the mysterious pain in her hip.

When the therapist showed Brady how to increase her weak muscles’ strength through isometric exercises, those muscles were finally able to relax, and the pain dissipated. “I can sit [cross-legged] now and it doesn’t bother me. I can bend one knee out to the side when I’m lying down. I couldn’t do that for years,” Brady says. “Nothing else has worked liked this for me.”

BACK IN THE GROOVE

There’s some evidence that addressing muscle weakness can reverse certain physical ailments associated with aging, including joint degeneration. Some MAT clients rediscover abilities they had long since forfeited to the tolls of time. They boast about being able to touch their toes for the first time in their lives, or about taking up sports they had given up long ago.

That’s the story of Dan Cawley, 53. He had been active in competitive sports his entire life, but at age 45 he began to feel his body wasn’t up to the task anymore. “I had pain in my neck, shoulders, hips and feet. I just thought, ‘I’m getting old,’” he says.

Jason Stella, a trainer and MAT therapist at the Burr Ridge, Ill., Life Time Fitness, where Cawley works out, identified that his range of motion was compromised. “I had no idea how limiting my lack of flexibility was,” says Cawley, “or

that I had been habitually shortening my range of motion until I stopped feeling pain.” After just one MAT session, Cawley felt a difference in his mobility. After a year of regular therapy, he says, “I have been pain-free, and I have doubled my range of motion.” As a result, Cawley has returned to playing both basketball and racquetball — sports he’d given up a decade before.

SESSION WORK

Although MAT therapists are trained to analyze gait and range of motion to determine where muscle weakness exists, the therapy can be incorporated into any exercise program or massage treatment, Roskopf says. “This is different from physical therapy in that we do not treat pain, we treat muscular dysfunction.”

A MAT therapist will generally use muscle-contraction tests to determine your level of muscle function in problem areas. These tests entail sitting or lying

in loose-fitting clothes on a table while the therapist evaluates the strength and movement range of specific muscles. For example, the therapist may request that you contract a specific muscle while moving the related body part into different positions.

Weak muscles, once identified, are manually manipulated at their attachment points to jump-start them, Roskopf says. Think deep, focused massage, one muscle at a time. He admits this can be painful, and typically the massaged area is sore for a day or two following the session. After the muscles are activated, they are retested. A properly functioning muscle will have greater strength and contraction ability. To bring the previously dormant muscle up to speed, the therapist will prescribe isometric exercises to perform at home.

Just one MAT session, in some cases, can reactivate weak muscles and get the body back in full working order. Roskopf says this level of success is most common in young athletes, whose bodies adapt more easily to the change. For those who have pushed through years of pain or tightness, the process takes a bit longer. ●

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