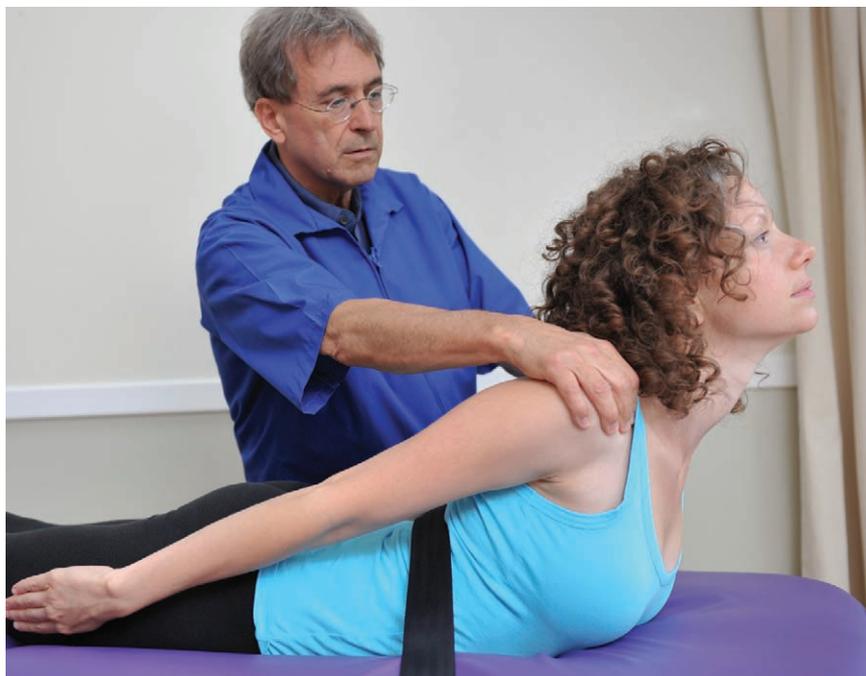
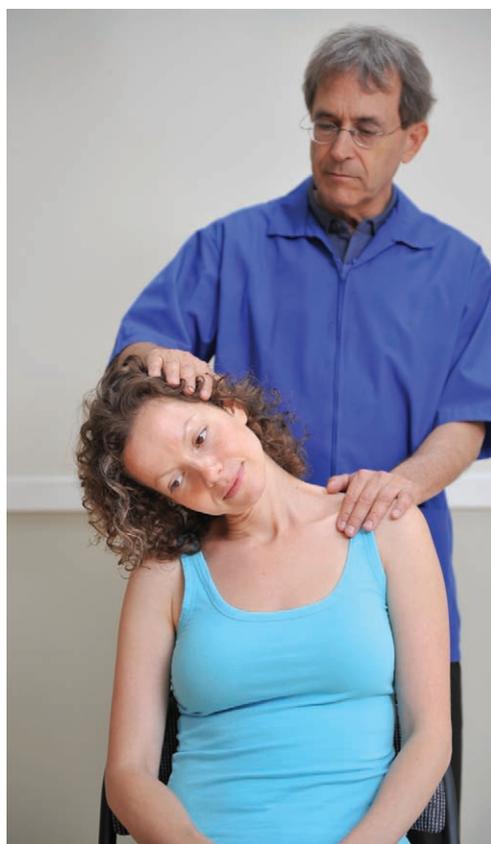


essential skills

BY BEN E. BENJAMIN WITH JEFFREY P. HAGGQUIST



ACTIVE ISOLATED STRETCHING

The Mattes Method, Part 2

In Part 1 of this article, I began describing Aaron Mattes's Active Isolated Stretching (AIS), explaining the seven defining characteristics of this uniquely effective modality. Here in Part 2, I'll talk in greater depth about the specific ways in which AIS can complement other forms of bodywork and increase a therapist's efficiency and effectiveness. I'll also give a brief overview of how these techniques can be incorporated into a massage therapy practice.

To consider combining a new skill with the work we already do, we need to know what specific, additional benefits it will bring to the clients we see. I've found that AIS adds to the efficiency and effectiveness of bodywork in four different areas: general health enhancement; injury prevention; pain and injury treatment; and improvement of degenerative conditions.

GENERAL HEALTH ENHANCEMENT

While many clients seek out massage therapy to help with particular pain or injury problems, these conditions are often tied to deeper health issues. For most clients I see, regaining full, healthy functioning requires not just healing a few isolated tissues, but helping to restore balance and resilience to the entire body. AIS can play a central role in that process by enhancing flexibility, strength, and the overall health of both joints and soft tissues.

It should come as no surprise that AIS improves flexibility; that's the least we can expect from any stretching program. What's remarkable is the amount of improvement it can bring, particularly to those who have experienced severe limitations due to aging, arthritis, or chronic injuries. I have always believed that as we age, our flexibility diminishes permanently. When I saw the range of motion in my own joints gradually decline (despite regular exercise and stretching), I attributed this to mild age-related arthritis that would probably continue to worsen over time. I was surprised and delighted to find that AIS could

not only stop that decline, but even reverse it—I've seen flexibility return to my shoulders, neck, back, hips, thighs, and feet, and I have greater freedom and range of motion than I remember ever having. For instance, I can now reach my lower scapula with my fingers from above and below, something I assumed I would never be able to do. At the same time, I've grown progressively stronger, even building strength at the end of my range of motion, where we are all generally weakest. Overall, I feel about 20 years younger than I did when I began. Clients with whom I've done AIS work have shown similar, striking changes.

In addition to working on muscles, AIS also helps to develop healthy joints. When the practitioner places repeated, gentle tension on the fibers contained in a joint structure at multiple angles, the fibers of the joint itself are exercised and strengthened. Joint sensitivity and irritation diminish and often disappear with this type of stretching, especially in the hands and feet. Another benefit is that by simultaneously stretching the muscle on one side of a joint and strengthening its counterpart on the other side, AIS creates a balance of muscular tone that leaves the joint stronger and more resilient. Furthermore, the gentle, repetitive motion improves the circulation of blood and nutrients, supporting the healthy growth and repair of all the surrounding soft tissues. It also improves the circulation and drainage of lymph, helping to eliminate waste products.¹

INJURY PREVENTION

As muscles become stronger and more flexible, they also become less vulnerable to injury. Increased strength allows them to absorb a greater amount of force, and increased flexibility allows them to lengthen further before becoming strained. Increased range of motion without muscle strength to control that new range of motion can be risky. AIS strengthens the muscles within an expanded range of motion, helping to ensure that the person will be able to function safely within that larger range.

Equally important is the support that AIS provides for tendons, ligaments, and fascia. By placing repeated gentle stress on these structures, it helps to build their strength and integrity. And, when minor strains or tears do occur, continued AIS work helps to prevent the buildup of scar tissue—a major contributor to stiffness, inflexibility, chronic injury, and pain conditions.²

PAIN AND INJURY TREATMENT

Readers of my past articles will be familiar with the types of treatment plans I generally recommend for tendon and ligament injuries, involving some combination of rest, friction therapy, deep massage, and a few specific exercises for the client to do at home. For more than 30 years, I understood this to be the most effective and efficient path to recovery. I still believe this is true, with one caveat: adding AIS to the mix makes the healing proceed much more rapidly. For instance, I recently treated a woman who had fairly severe tears in her sacroiliac ligaments, injuries that would generally take six to eight weeks to heal. This time, in addition to my usual methods, I applied the AIS protocols for the hips, legs, and low back (a total of nearly 60 separate movements). After three sessions over the course of a week and a half, this person was out of pain and functioning completely normally.



In some cases, I've even found AIS alone to be sufficient for healing. Not only do these stretches seem to prevent adhesive scar tissue from forming, but they may also help break down adhesions that have already formed. One client with an injured infraspinatus tendon (one of the rotator cuff tendons) recovered fully with just two sessions of AIS. Typically, I would expect it to take at least 10 sessions of friction therapy and massage for this type of injury to heal.

One great advantage of AIS is that it enables therapists to treat structures that simply cannot be reached with the hands (such as the piriformis attachment to the sacrum). For years, I had a nagging pain from one of the tiny ligaments deep in my foot that would come and go from time to time. No practitioner had been able to treat it successfully. Ever since I began having AIS work done on my feet, it has completely disappeared.

IMPROVEMENT OF DEGENERATIVE CONDITIONS

In addition to enhancing my work with injuries, AIS has given me the skills to help an entirely new population of clients—people with serious neuromuscular conditions who don't respond to the other forms of treatment I offer. When I first heard reports that AIS could reduce the symptoms associated with Parkinson's, multiple sclerosis, muscular dystrophy, polio, and other debilitating diseases, I didn't believe it. It still seems almost too good to be true, but I've seen it happen and the results are unmistakable.

After I'd been using AIS for some time, I offered a free session to an acquaintance of mine with multiple sclerosis, whose symptoms had been worsening for 12 years. Her mobility was quite limited; she was extremely unstable and shaky on her feet, and even had trouble moving around in bed. She had been in a wheelchair for three years. That initial session left her feeling energized, and she decided to try

coming regularly as a client. Following her third treatment, she called me up to tell me that her ability to walk had significantly improved—she was able to use her feet normally (with a heel-to-toe walking action) for the first time in three years. After five treatments, she regained her ability to move her legs in bed. By the eighth treatment, her coordination had improved to the point where she could make crawling movements. She continues to be amazed at the progress she’s made with both stability and coordinated motion.

Talk to any experienced AIS practitioner, and you’ll hear many similar stories. I spoke with one woman who has Parkinson’s disease and uses AIS to stop her tremors. When she’s under stress, the tremors tend to return, but after a few sessions they go away again, for months at a time.

AIS achieves these impressive results partly by stimulating neurogenesis (the development of nerve tissues) and helping to create new neural pathways. Because the stretches are active, rather than passive, they reinforce the connections between the brain and the muscles.³ Furthermore, because the range of motion is gently increased at the end of each stretch, the muscles are continually moving into novel territory. Essentially, the brain-muscle connection keeps learning to do something new and different, which means new neural pathways are always being created.⁴ Repetition of the stretches also promotes nerve development.

Another relevant factor is the reduction of muscle spasticity. Spasticity—excessive tone in a muscle that leads it to involuntarily contract when it is stretched or lengthened—is a symptom common to both multiple sclerosis and Parkinson’s disease. It can vary in severity from mild muscle stiffness to severe, painful spasms. In many cases, AIS can effectively resolve spasms and lessen spasticity.

One great advantage of AIS is that it enables therapists to treat structures that simply cannot be reached with the hands.



In addition, some of the other positive effects that I mentioned earlier—promoting blood flow, nutrition delivery, waste elimination, and the general health of the muscles—are particularly helpful with degenerative neuromuscular diseases. AIS helps restore the supply of oxygen and nutrients to chronically contracted, blood-starved tissue. As a further benefit, the promotion of active, healthy muscle simultaneously promotes the health and growth of the surrounding nerves.

Some of the most affected tissues in multiple sclerosis and Parkinson’s patients are the “two joint” muscles—muscles that act across more than one joint.⁵ These include the hamstrings and rectus femoris (hip and knee joints), the gastrocnemius (knee and ankle joints), and the psoas (hip joint and multiple joints in the low back). With AIS, we can isolate and perform focused stretching on each of these muscles, working toward restoring normal posture and gait.

INTEGRATING AIS INTO A MASSAGE THERAPY PRACTICE

AIS is probably best known in the context of professional sports (Aaron Mattes has worked with hundreds of Olympic and professional athletes), but it’s equally valuable for combating the more commonplace physical limitations we all develop as we go about our daily lives. As we grow older, most of us accept declines in our body’s functioning—such as a reduced range of motion, decreased

strength and flexibility, and impaired coordination or fine motor skills—as an inevitable result of injuries and aging. It was a revelation for me to discover that, through AIS, many of those declines can be successfully prevented or reversed. I am convinced that the majority of people who come for massage therapy could benefit from this work in one way or another, and I’ve started using it with most of my clients.

Typically, I combine AIS with other hands-on work, splitting the session in half—after 30–45 minutes of AIS, I’ll do 30 minutes of friction therapy and/or massage. The stretching leaves the body looser and more pliable, making the later work easier and more effective. I focus on the areas that need the most attention, working on both sides of the body to prevent any imbalances from developing. (AIS is almost always done on limited sections of the body, since performing the protocols for the entire body, from the neck down to the feet and toes, can take up to four or five hours.) Between sessions, I teach clients certain AIS stretching and exercise protocols they can do on their own. That’s another benefit of this method: most of the techniques can be done independently by the client with the use of a seven- to nine-foot rope and a few weights. In this way, people can participate actively in their own healing, both in and out of the treatment room. The only thing better than a remarkably efficient and effective new treatment is one that



+ Additional Resources

Haggquist, J.P. 2004. Flexibility and efficient stretching: its use to benefit chronic pain and rehabilitation patients. Grand Rounds, Physical Medicine and Rehabilitation Department, Thomas Jefferson University Hospital, Philadelphia, Pennsylvania.

Mattes, A.L. 2007. Flexible fascia: how active isolated stretching combats restricted range of motion. *Massage Magazine* 137.

For information about AIS training, visit www.stretchingusa.com (the official Active Isolated Stretching website) or www.benbenjamin.com. www.stretchingusa.com

also leaves a client with a sense of empowerment and accomplishment for a job well done—and even a little bit of sweat to show for it. **m&b**

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Editor's note: *Massage & Bodywork* is dedicated to educating readers within the scope of practice for massage therapy. Essential Skills is based on author Ben E. Benjamin's years of experience and education. The column is meant to add to readers' knowledge, not to dictate their treatment protocols.

NOTES

1. A.L. Mattes, Active Isolated Stretching: The Mattes Method (Sarasota, FL: Aaron Mattes Therapy, 2000), 5.
2. James Cyriax, Textbook of Orthopedic Medicine 8th ed., vol. 1 (London: Bailliere Tindall, 1982), 16–19.
3. A.L. Mattes, Active Isolated Strengthening: The Mattes Method, 5–6.
4. Extrapolated from H. van Praag, T. Shubert, C. Zhao, and F.H. Gage, "Exercise Enhances Learning and Hippocampal Neurogenesis in Aged Mice," *The Journal of Neuroscience* 25, no. 38 (September 2005): 8680–5.
5. Observations drawn from Dr. Haggquist's clinical data.