

What I Learned This Week[®]

Excerpt from 07-30-09



2. **The world's greatest (continued).** One of the greatest healers of all time is Aaron Mattes, developer of the Active Isolated Stretching (AIS) method of muscle lengthening and fascial release. We recently spent five days with Aaron, and in those five days, we witnessed Aaron restore a chemotherapy patient's hearing, vastly improve the range of motion and overall well-being of a man suffering from MS, eliminate one woman's chronic lower back pain, and most amazingly of all, enable a recent stroke victim to use her right hand—something her doctors had told her could never be done—as well as speak in complete sentences instead of “yes” or “no” responses.

Perhaps more remarkable than Aaron's results is Aaron himself. During those five days—and indeed this is the norm for Aaron—he began every day at 5 a.m. and worked straight through with patients—never once stopping to rest or sit down for a meal—until 8 p.m. or 9 p.m. And then, after a quick dinner, he would log four or five more hours answering e-mails and writing articles to increase global awareness of AIS—**all part of his unquenchable desire to help his fellow man. He has become one of our heroes, a man who can never stop giving.**

Three years ago, when we began our world's greatest series, we posed a series of simple questions: What enables a person to become the greatest achiever in history? Is it drive? Is it ability? Is it finding an original solution to an age-old problem? Is it classic thinking outside the box? Is it unparalleled discipline, focus, and concentration? Aaron Mattes embodies each of these attributes.

His work ethic, along with his humility, knows no bounds. When Aaron is not putting in 16-hour days at his clinic in Sarasota, Florida, he is travelling internationally, giving 12 to 15 four-day seminars a year. There are now hundreds of AIS practitioners across the U.S, Europe and Asia—dozens of whom show up at each seminar to assist for free, further testament to Aaron and the virtues of AIS.

When Aaron is not teaching or working at his clinic, he is refining the AIS program or designing new equipment to improve his results. (Earlier this week our AIS trainer returned from a seminar with Aaron in Las Vegas buzzing that Aaron had developed several new stretches since he had worked with him last—just six weeks before.) As Aaron told us: **“You have to always stay open to change, to admitting you are wrong and starting from scratch. You have to keep your mind flexible to unorthodox decisions.”**

Despite the fact that his patients have enjoyed thousands of staggering successes, Aaron is not one to boast. In passing conversation, he mentioned a litany of past clients—a list that read like a “who's who” of sports' greatest. (Out of respect for his patients' privacy, Aaron does not want their names disclosed.) Aaron did, however, share his guiding credo:

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“Stay humble, work hard, believe in your work. You cannot be haughty. Be satisfied in others doing the work and seeing them come up with the same results.”
(The fact that people trained by Aaron are able to achieve the same results is testament to AIS’ efficacy.)

Above all, Aaron is the embodiment of compassion, a man who sincerely acts for the benefit of others without concern for profit or recognition. While Aaron exhibits this selflessness every day, one story he shared is particularly revealing.

When Aaron was the director of the Kinesiotherapy Clinic at the University of Toledo, he was also working part-time—nights and weekends. It was spring, but the ground was still frozen and Aaron was trying to hoist a railroad tie. He lost his footing and herniated five disks in his back. After an hour, he managed to drag himself to his car. Rather than drive to the hospital, Aaron drove home. We were stunned when he told us this. **“Why? You were in agony...why didn’t you go get medical attention?” He smiled. “Because most of my students in the degree program were foreigners...here on visas. I knew if I did not finish up the semester they would not earn their degrees and those visas would expire.”**

Aaron put off surgery for three years even though by his own admission he was in excruciating pain every minute of every day. But, as is so often the case, such setbacks also spur great insights or mind shifts. Aaron’s injury compelled him to rethink everything he had believed to be true and most effective about rehabilitative medicine and traditional Kinesiotherapies—it started him on a new path towards developing AIS.

Aaron has spent well over 200,000 hours in physical rehabilitation, sports and health instruction, sports medicine and training and prevention programs. He has helped tens of thousands of people, ranging from political figures to entertainers to thousands of professional athletes. But as Aaron told us, it is the common people that drive him—the child suffering with scoliosis, the grandmother battling Parkinson’s or the young woman incapacitated by fibromyalgia. Part of the impetus of Aaron’s drive can be traced back to his own father who was wheel-chair bound with advanced MS. As Aaron confided: “Because I was never able to help him, I decided pretty early on that somehow I wanted to make a difference.”

AIS has evolved from these hundreds of thousands of hours of rehabilitation therapy, as well as an extensive foundation in kinesiology, hundreds of hours of teaching cadaver anatomy, and, as discussed above, Mattes’ own life-changing back injury thirty years ago.

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The technique may be best understood as “out-of-the-box” stretching—it breaks all the conventional rules and in so doing it is infinitely more effective.¹

First, AIS movements are targeted to stretch individual muscles or parts of muscles, rather than entire muscle groups. For example, as opposed to doing a forward bend to stretch out the hamstrings, AIS uses six different stretches to focus on different combinations of the medial, lateral, oblique, proximal, and distal fibers. This enables the practitioner—the person assisting the stretches—to independently evaluate every aspect of the muscle and in turn more greatly enhance its flexibility. **Reflecting the infinite complexity of the human body, AIS has protocols for every primary muscle in the body, amounting to more than 170 separate stretches.** (The 18 specific stretches for the toes mean AIS patients can avoid most foot and bunion surgeries, while the nearly two dozen stretches for the fingers and hands can prevent or reverse carpal tunnel syndrome.)

Secondly, while AIS stretches are supported and assisted by the practitioner, each movement is initiated by the patient. As Ben Benjamin, a professional colleague of Mattes explains: “This enhances the stretch, since contracting a muscle on one side of a joint causes the muscle on the opposite side to relax, and that relaxation helps the muscle to stretch more efficiently. Moreover, having the muscles actively working helps to increase the temperature of the muscles and the fascia which enhances flexibility even further.”

AIS stretches are gentle and short. Most of us have been taught to hold our stretches for 60 seconds or longer. (This is referred to as static stretching.) Research has shown that this type of prolonged stretching initiates what is known as the “stretch reflex”, decreasing the blood flow within the tissues and leading to the buildup of waste products like lactic acid that contribute to muscle fatigue and soreness. As Benjamin elaborates: “When people stretch in this way, they’re working against themselves, causing a contraction of the very muscles they’re trying to lengthen (sort of like trying to drive a car with the parking break on.) As a result, the tendons and ligaments get stretched more than the muscles, which can lead to tendon irritation and even laxity, thereby predisposing these structures to further injury.”

Traditional stretching holds muscles and connective tissues at a constant length. After a while, the muscles eventually fatigue, release and lengthen. Results are slow at best. **By using 6 to 10 repetitions of no more than two seconds, AIS achieves results much more quickly.** We have witnessed this many times in our AIS practice—in just a few short minutes we have seen our range of motion improve 60 degrees.

¹ Our description of the specific aspects of AIS draws heavily on a recent essay co-authored by Ben Benjamin and Jeffery Haggquist, “[Discovering the Power of Aaron Mattes’ Active Isolated Stretching.](#)”

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AIS negates the old adage “no pain, no gain”. AIS movements are gentle, never approaching a muscle’s maximum sustainable force and never triggering the stretch reflex. At the end of the patient’s active range of motion, the practitioner provides just enough gentle assistance to help push the patient beyond what he or she could do on his or her own. In this way, flexibility is added incrementally with each repetition. The patient also coordinates his or her movements with regular breathing. Deep breathing helps to increase the flow of oxygen to the muscles, decreases muscles fatigue and encourages the release of muscle tension and fascial restrictions.

AIS’ benefits are many. In the year and a half that we have incorporated AIS into our daily routine, **we have seen the limitations that we had attributed to aging disappear, including declines in flexibility, eyesight and arthritis.** We have seen flexibility return to our shoulders, neck, back, hips and thighs and are enjoying a greater range of motion than we ever remember having. At the same time, we continue to grow progressively stronger. A reflexologist who has worked on us for 10 years was shocked beyond words by the changes that took place after Aaron’s visit. **She said all the calcification in our body was dissolving and our liver was working overtime to process it.** During our next session a week later, she was in a state bordering between disbelief and ecstasy—all the tissues in our body were re-aligning, the back was opening, almost as if our body was being reborn.

Aside from improving flexibility and building strength, **AIS also helps promote general well-being.** The gentle, repetitive motions improve the circulation of blood and nutrients, supporting the healthy growth and repair of all surrounding soft tissues. This also improves the circulation and drainage of lymph, the interstitial fluid found between cells, aiding in the elimination of waste products which can promote disease and degeneration. **Nearly ten years ago, 280 women began incorporated AIS upper-body stretches into their daily routines—not one of them has developed breast cancer.**

AIS also helps eliminate and speed recovery from injuries. Quite simply, **as muscles become stronger and more flexible, they also become less vulnerable to injury.** The increased strength allows them to absorb more force and the improved flexibility allows them to lengthen further before becoming strained. Recently, the San Francisco 49’ers incorporated AIS into their official training regime. Following the mini camps earlier in 2009, the team had not suffered any lingering soft tissue injuries.

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More amazing still, AIS reduces the symptoms associated with Parkinson's, MS, Alzheimer's, muscular dystrophy, polio and other debilitating diseases. A dear friend of ours has a father-in-law suffering from Alzheimer's. Not only was his mobility quite limited, but his willingness to communicate and be engaged had all but disappeared. We suggested he get him involved with AIS. After five sessions working with one of Aaron's top protégés, his father-in-law's mobility had significantly improved and he was also speaking in complete sentences, sharing jokes and enjoying his favorite TV programs again.

AIS achieves these results in part by stimulating neurogenesis (the development of nerve tissues), and helping to create new neural pathways. Since the stretches are active instead of passive, the connection between the muscles and the brain is reinforced. And as Ben Benjamin adds: "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."

Not surprisingly, **a number of parents are experimenting with AIS on their young children to help speed both physical and cognitive development.** We learned of one couple in Montana who have been using Aaron's protocol on their young daughter since birth. Now age five, the little girl reads at a fifth grade level. By increasing the number of neural pathways and accelerating the myelination of neurons, AIS not only promotes bonding between child and the parent acting as practitioner, it appears to provide a unique physical and mental leg-up. (Both of Aaron's grandsons were riding bikes, without training wheels, by age 3.)

More and more of us spend a greater part of our days sitting in chairs staring at computer monitors. As a result, our neck muscles are chronically contracted, which reduces the level of oxygen and nutrients being delivered to our brain cells. **By promoting blood flow and waste elimination, AIS enables us to reverse this situation, sharpening our defenses against dementia and other age-related neurodegenerative diseases.** We personally believe this is one, if not the most important, component of our longevity program.

Aaron is currently working with the National Institute of Health to design pilot studies to prove AIS' value to the scientific community. Meanwhile, he continues to keep his clinic doors open and refine AIS. During Aaron's stay with us earlier this summer, we hosted a cocktail party in his honor. Long after the guests had left, we went searching for Aaron as dinner was way overdue. We found him downstairs stretching one of our friends, who had mentioned he had shoulder pain—a typical day for a man who cannot rest while he

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knows someone nearby is suffering.

To learn more about AIS or to contact Aaron for details about his clinic or upcoming seminars, please visit his web site, [Stretching USA](#).