

## Sports Performance:



The main objective of StretchingSA™ is to facilitate and enhance athletic performance.

The efficiency, precision and freedom with which the athlete is able to move will help regulate athletic performance. Efficiency is dependent upon training and conditioning. Facilitated stretching allows for more intense training. Restrictions from pain, spasms, and tension inhibit freedom of movement. Without freedom of movement, precision is adversely affected. The Mattes method with Active Isolated Stretching reduces many of these restrictions.

There are a lot of beneficial effects of a program in AIS, The Mattes Method. Including:

1. AIS improves oxygenation and nutrition of myofascial structures promoting growth and repair, and a much quicker ability to adapt and change with a intense training program.
2. AIS stimulate drainage of metabolic wastes and toxins from the body.
3. AIS improves flexibility and health of muscles, tendons, and ligaments
4. AIS breaks down friction between fascial sheaths
5. AIS separates fibrosis and helps in the breakdown of adhesions caused by trauma, injury and inflammation
6. AIS realigns collagen fibers, and the body
7. AIS reduces muscle spasms
8. AIS reduce the risk of muscle strain and tear and other injuries.
9. AIS helps athlete's to achieve peak performance quicker and sustain their condition longer
10. AIS helps in expanding the duration of competitiveness of any athlete
11. AIS reduce any delayed onset of muscle pain.

## FLEXIBILITY BOOSTS Performance

BY: J.W. De Wit

There are a number of components with regards to exercise and I have chosen to devote



this article to an area of exercise which I believe is sorely neglected but perhaps one of the most fundamental aspects to exercise and

boosting one's performance. In fact over the past year it has been my experience while treating some of the top athletes in South Africa that flexibility plays a greater role in performance than supplementation. It's a shame that many of these individuals, including allot of professional and amateur cyclists have little, if any, idea about stretching and the role it plays in performance enhancement. The notion that taking the latest ergogenic aid or steroid will be all that is necessary for maximum performance is absurd. I hope that this will entice the professional athlete, regular sport enthusiast, or anybody suffering from musculoskeletal disorders to make stretching a major part of the exercise or recovery program. Obviously the kind of stretching adopted for maximizing flexibility plays a vital role in determining what degree one will experience increased performance. Being an active sportsman myself, I have had the opportunity to experience and experiment with various forms of stretching, and over time it has become clear to me that Active Isolated Stretching stands out as the safest and most effective stretching technique.

#### Why is stretching so important?

Flexibility and proper stretching have played a very important role for enhancing performance, rehabilitation and wellness. Athletic performance and science have converged and established that flexibility is the prime determinant among top athletes. Athletic achievements and records have soared to new heights through the knowledge of proper stretching resulting in increased flexibility. Flexibility not only provides for maximal strength performance factors, such as momentum, acceleration, force, and inertia but it is probably the most important factor in the longevity of an athlete (or any active individual partaking in any regular exercise for that matter), and is key to the prevention and recovery of sports injuries.

#### →Benefits of stretching:

- Improve preparation for athletic activity – muscles respond more quickly and powerfully
- Optimize muscle and tendon range of motion up to 1.6 times resting length. At muscle lengths greater than 1.6 times its resting length, muscles will begin to tear and bleed
- Facilitate the removal of metabolic waste products. Improved oxygenation eliminates carbon dioxide formation and improved circulation reduces lactic acid buildup

- Reduce risk of muscle, tendon, ligament, and joint injuries
- Reduce postural tightness due to ageing – kyphosis, scoliosis, and many other postural imbalances are created by tightness of the muscular and connective tissue structures supporting the spine
- Rehabilitate muscle, tendon and ligament injuries
- Enhance athletic performance - optimal flexibility requires less energy expenditure in movement allowing for increased stamina and performance enhancement of speed, agility and strength
- Maximize potential and level of athletic performance – stretching, in combination with endurance training have promoted higher performance abilities, especially noted in ultra marathon runners and cyclists, as a result of increased muscle endurance and elasticity

### Active Isolated Stretching

For years prolonged static stretching was the gold standard for individuals and athletes. However a closer look at the physiological response of the body shows that a stretch greater than 5 seconds actually decreases the blood flow within the tissue creating localized ischaemia (inadequate blood flow to a part of the body) and lactic acid buildup. Ischaemia from a static stretch of greater than 5 seconds potentiates irritation or injury of local muscular, tendonous, lymphatic, as well as neural tissues, similar to the effects and consequences of trauma, overuse syndromes, and metabolic disease states. Many of the static stretch techniques hold to a “no pain, no gain” philosophy which is dangerous as any program which places the joints, muscles, and other connective tissues in jeopardy with prolonged force, multiple joint stretching exercises or improper protocols will endanger the tissues acted upon.

Active Isolated Stretching (AIS) is an innovative technique that promotes functional and physiological restoration of muscles, vertebrae, ligaments, and joints. This method utilizes a gradual stretch of no more than 2 *seconds* promoting full range of motion and flexibility without activating a reflex contraction of the muscles being stretched (stretch reflex). More so the focus of this form of stretching is to isolate the muscles to be stretched by using precise localized movements and by contracting the opposing muscles to the ones being stretched. The muscles being stretched will be held in the given position for 2 seconds and returned to resting position whereby the process is repeated

up to 10 times. This increases local blood flow, oxygen, and nutrition to tissues before and after activity.

AIS is an important part of warm-up, cool down, training or rehabilitation.

This form stretching has proven to be effective for some of the worlds top athletes, and the recreational sportsman as well. I have also had the privilege of seeing some of the most amazing recoveries from ankle injuries to spinal damage from gunshot wounds whilst my education with Aaron L. Mattes the inventor of active isolated stretching.

A detailed description of the technique itself will require an article of its own, however the technique is simple enough to learn and be applied in a short space of time and my suggestion is that you seek guidelines from a therapist trained in this method.

If being a world-ranked athlete or being part of an international sports team is not your aim, however you desire is to improve you overall state of health through proper exercise and nutrition my plea to you is that you make stretching an integral part of your quest for better health.

For those of you who believe that stretching is for the more serious sports enthusiast please keep in mind that in spite of our best attempts to avoid the inevitable ageing process, we succumb to a constricted posture in our torso and limbs. Fortunately, through proper stretching and restoration of flexibility, we can maintain a healthier, pain-free state, and enjoy better quality of life.