

Active Isolated Fascial Stretching

By Perry Nickelston, DC, FMS, SFMA

How would you like to empower patients to increase coordination, reduce muscle tension, increase range of motion, prevent future injury, improve posture, develop body awareness, and enhance proper movement patterns? The good news is you can, by incorporating active isolated stretching (AIS) techniques and principles into your therapy program.

When recovering from an injury, you must follow certain guidelines to enhance performance and prevent exacerbation of the condition. One of the most important *missing* guidelines for injury prevention is regular stretching - but not just any type of stretching. Ninety percent of people who stretch usually do so ineffectively, performing the same old-style stretching exercises that most athletes, coaches, therapists and fitness magazines have recommended for years.

These programs often consist of holding the same boring positions to stretch the groin, hamstrings, hip flexors and low back at the same intensity and for the same duration, without regard for the uniqueness of each individual. People are likely to be worse off than they would have been if they hadn't stretched at all! Why? When stretched for too long, muscles will inherently tighten up as a self-protective mechanism. They are protecting themselves from potential tearing and injury. Unless you learn how to bypass this protective mechanism, your body will never allow an increase in flexibility to occur.

Basic Principles

AIS is based on the principle of *reciprocal inhibition*, which states that when you contract one muscle, an opposing muscle will relax. When this occurs we have an opportunity for a more effective stretch of the relaxed muscle. Hold the stretch for a maximum of 2 seconds to prevent the "stretch reflex" from occurring. This reflex occurs when a muscle is stretched for too long and too hard, and the nervous system actually tightens up that muscle in anticipation of an injury. The muscle becomes tighter as a rebound effect. Instead of gaining flexibility, you actually lose it.

The basic protocol for AIS consists of the following:

- 10 repetitions per stretch
- Hold stretch for 1-2 seconds
- Assist at end range into movement with approximately 2 pounds of additional pressure
- Exhale into each movement

The Role of Fascia

So, what then is the secret? *Fascia*. The fascial system is the most overlooked system in the human body when it comes to rehabilitation, prehabilitation, and the recovery phase of athletics or injury. Fascia is the missing element to unleashing one's potential. Currently the traditional medical system treats every other system except the fascial system when an athlete gets injured or when treating chronic pain. Although there are several forms of work that specifically address fascia, most people are unaware of the different types of fascial work that can be done to facilitate healing, optimize performance and provide the answers to many questions when it comes to dealing with chronic pain.

Fascia is a specialized system of the body (connective tissue) that plays a critical role in the support of our bodies. Fascia is a very dense connective tissue that envelops every muscle, bone, nerve, artery and vein, as well as all of our internal organs. It is an intricate, 3-D web that supports your organs and joints from head to toe and acts as a shock absorber to the body.

The fascial system is actually one structure that exists from head to toe without interruption. When there is tightening or restriction in one place, you can feel pain and dysfunction in another seemingly unrelated location. Most people stretch the painful area with little lasting results, while neglecting to stretch the actual site of dysfunction. Always stretching and never improving! Sound familiar? The secret is learning the most effective system of fascial stretching.

How can you self-stretch fascia? There are three fundamental ways: 1) myofascial release with foam rolling; 2) active isolated stretching with ropes and bands; 3) dynamic movement prep.

Foam rolling is a technique of self-myofascial release using body movements rolling on a compressed foam tube. It is a type of deep-tissue massage that enables you to stretch all the fascial lines. Patients will notice a significant and profound improvement in tissue elasticity (how muscles move) in just a few sessions. Foam

rolling is one of the easiest and most effective ways to stretch.

AIS works muscles, joints, ligaments and soft tissue. There is no need for a partner, thus making it easy to actively stretch difficult-to-reach muscles. Just a few sessions of *AIS* can equal weeks of old-school stretch-and-hold programs.

Dynamic movement prep teaches your muscles how to move and hold the new length of stretched muscle. It prevents your body from getting stiff and returning to a pre-stretch tightness. Injury prevention, athletics and fitness are all about proper movement. Dynamic prep ensures that your body has optimal healing and restorative power before, during and after activities of daily living.

Main Benefits of AIS

- Promotes muscle and tendon growth by increasing nutrition and oxygenation to the tissues.
- Helps eliminate metabolic waste from cells by stimulating and pumping the lymphatic drainage system.
- Increases muscle health and elasticity so you burn more body fat and become symmetrical.
- Breaks down fascial gluing between the muscles.
- Breaks down fibrotic scar-tissue adhesions and reduces inflammation.
- Realigns collagen fiber matrix in muscle and fascia (the building blocks of soft tissue).
- Reduces muscle spasm and functional tightness.
- Reduces the risk of muscle strains and tearing.
- Increases recovery and regeneration between workouts so you can train longer and more frequently while reducing the risk of overtraining.
- Increases peak performance and response time for movement, prolonging durability.

AIS takes just 5 minutes and can make you feel incredible. It takes a little practice, but the more you stick with it, the better you will get. Patients will become empowered to take back control of their life from pain. Stock stretching straps in your office to sell directly to patients for an alternative source of income. You will soon discover that *AIS* will become one of your primary "go to" therapy programs and the talk of your waiting room.

Resources

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