



ACTIVE RELEASE TECHNIQUE (A. R. T.)[®] and Soft Tissue Injury

BY: DR. ANDREO A. SPINA

Active Release Techniques Treatment Defined

Active Release Techniques treatment is a hands-on touch and case-management system that allows a practitioner to diagnose and treat soft-tissue injuries. Soft tissue refers primarily to muscle, tendon, fascia, and nerves. Specific injuries that apply are repetitive strains, cumulative trauma, adhesions, tissue hypoxia, and joint dysfunction.

Development of Chronic Soft Tissue Injury

One of the functions of the circulatory system is to act as a delivery system for oxygen (O₂), which is carried by the blood. Tissues such as muscle, ligaments, bone, and nerves utilize this oxygen in order to produce energy with which they carry out their daily functions. The circulation of blood is also used in order to remove waste products created by the tissues as they perform their tasks.

When a tissue is kept in a tightened or stressed position for a prolonged period of time, the blood supply to that tissue becomes compromised. Some examples in which this may occur is during prolonged endurance sports where the muscles are constantly being used; during repetitive tasks at work; or with poor posture where muscles are constantly being stressed. When an oxygen dependant tissue (such as muscle) does not receive enough oxygen (and thus energy) to function, this is referred to as "*tissue hypoxia*". If presented with this situation, your body will begin to replace oxygen dependant tissue with tissue that doesn't require as much oxygen to function...this tissue is called "**Fibrotic tissue**" or "**Scar tissue**". As scar tissue is deposited into the tissue, the function of the tissue is severely hindered. Using the example of muscle tissue, a scarred or fibrotic muscle will be unable to contract properly, and thus will be unable to carry out its desired function. Therefore your body will begin recruit other muscles compensate for the injured muscle. As these muscles begin to do the job of two muscles they remain tight, become hypoxic, develop scar tissue...etc.

In addition to causing tissue dysfunction, scar tissue (also known as adhesions):

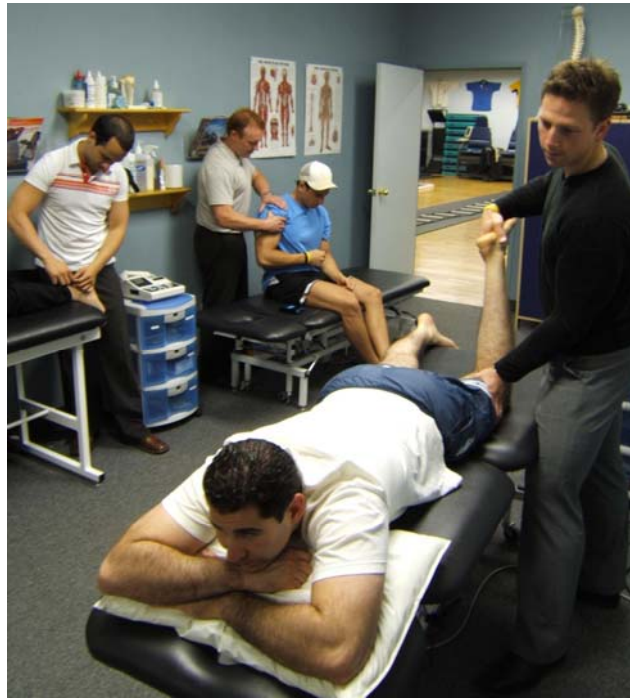
- Limits the available range of motion in the tissue
- Is a high friction substance thus irritates nerves causing pain
- Has the ability to cause tissues to "stick" (or adhere) to each other thus resulting in increased friction between tissues

How does Active Release Techniques (A. R. T.) ® Work?

The explanation of the effects of Active Release Techniques on soft tissue mechanics is a highly complex topic. There are in fact various effects on the tissues histo-patho-mechanics. However in simpler terms, the effects of active release techniques soft tissue therapy can be explained as such:

Certified A. R. T. practitioners are able to locate areas of fibrosis development in the body's tissue. Using a combination of digital pressure and tissue motion, the practitioner is able to selectively "stretch" specific soft tissue structures which "breaks-up" adhesions both within, and between tissues. Following this, specific exercises and stretches are prescribed which influence the body to repair and replace the formerly fibrotic tissue with healthy tissue.

When used in combination with a specifically tailored rehabilitation program, A. R. T. can help the body regenerate new tissues and correct biomechanical faults cause by adhesion development.



SPC – SPORTS PERFORMANCE CENTRES

THORNHILL

1416 CENTRE ST., THORNHILL, ON, L4J 8A1
905.709.4772

MISSISSAUGA

167 LAKESHORE RD. W, MISSISSAUGA, ON, L5H 1G3
905.891.1999