

## **The Solution**

The Active Release Techniques® (ART®) Soft Tissue Management System is a new and highly successful approach for dealing with injuries to muscles, tendons, fascia, nerves, and the surrounding soft tissues.

Repetitive Strain Injuries result in symptoms of numbness, tingling, burning, and aching. Treatment of RSI with ART has a proven success rate that exceeds 90%. A result unmatched by any other treatment technique.

The ART® Soft Tissue Management System provides a means to diagnose and treat the underlying cause of Repetitive Strain Injuries. Trained providers examine tissue texture, tension, and movement to locate, diagnose, and treat abnormal inflammation and adhesions.

## **The Goal of Active Release Technique**

The goal of ART® is to restore optimal tissue texture and motion, restore the function of the soft tissue, and release any entrapped nerves or blood vessels. ART accomplishes this applying specific protocols that remove adhesions (or fibrosis) in the affected soft tissues.

ART® eliminates the pain and dysfunction associated with fibrosis, adhesions, and RSI.

We believe that the ART® Soft-Tissue Management System is your best choice for the treatment and resolution of Repetitive Strain Injuries.

**ART is over 90%  
effective at treating  
Repetitive Strain Injuries!**

## **Edgemont Chiropractic Soft Tissue Management Systems**

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# Repetitive Strain Injuries

## Active Release Technique

The preferred  
treatment...



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## About Repetitive Strain Injuries

Repetitive Strain Injuries (RSI) caused by cumulative trauma are now the major cause of injuries in the workforce.

Statistics show that the number of patients suffering from cumulative trauma has now surpassed those suffering from back pain. RSI cases have increased at a phenomenal rate of 670 % over the last five years.

Common therapies such as cross friction massage, heat, cold, electrical stimulation, rest, exercise, and surgery – have all failed to treat cumulative trauma effectively.

## Understanding RSI






Repetitive Strain Injuries are a result of specific, measurable, physical factors. To understand how repetitive strain injuries occur, it's helpful to review the model of repetitive motion shown in the next section.

## Repetitive Motion Formula

(Copyright Dr. Mike Leahy)

The following formula describes the impact of the various physical factors upon the tissues of the human body.

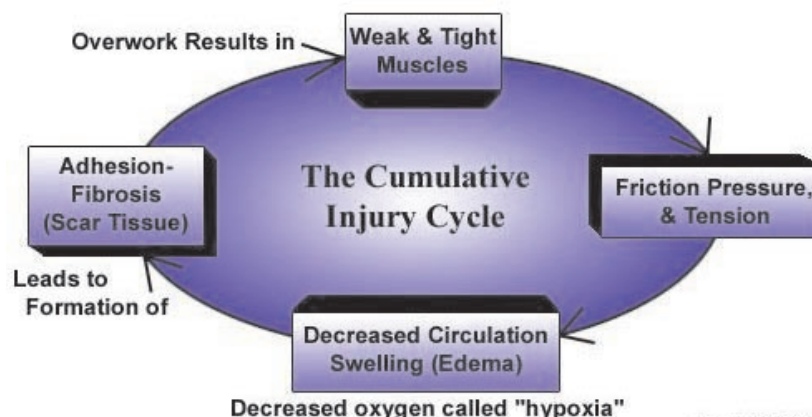
$$I = \frac{N * F}{A * R}$$

-  I = Insult to the tissue.
-  N = Number of repetitions.
-  F = Force of tension of each repetition as a percentage of maximum muscle strength.
-  A = Amplitude of each motion.
-  R = Time spent relaxing between repetitions (lack of pressure or tension on the involved tissue).

The only way to decrease the incidence of "carpal tunnel syndrome" or CTD is to manipulate these four factors (N, F, A, and R) to reduce the total insult to the tissues.

## The Cumulative Injury Cycle

The cyclic nature of injury -- one factor triggering the next in a circular series -- has been described for many years. The components of the cycle are defined in the following diagram.



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*Cumulative Trauma Disorder Defined*

### Weak and Tight Tissues

Repetitive effort, for example, tends to make muscles tighten. A tight muscle tends to weaken; a weak muscle tends to tighten. And on it goes.

### Friction - Pressure - Tension

As a result of weak and tight tissues, internal forces rise. Friction, pressure, or tension can be present at the same time. If one or more of these factors is high, an acute injury and inflammation can result -- even without external forces being applied.

### Decreased Circulation - Edema

Increased forces on tissues results in decreased circulation. Edema results if pressure is applied over one of the vulnerable, low-pressure lymphatic channels. External forces - in the form of a constant pressure or tension injury -- may also decrease circulation or cause edema.

### Adhesion - Fibrosis

Adhesions can occur as a result of acute injury, repetitive motion, and constant pressure or tension. Cellular hypoxia, from restricted circulation, causes fibrosis and adhesions to occur between tissues. When the friction-pressure-tension factor is severe, or when an acute injury occurs, two additional factors come into play.

 Tear/crush syndrome.

 Inflammatory response.




### Tear or Crush

The physical tearing and crushing of the tissues - microscopic or macroscopic - can occur when sufficient force is applied. This can be the result of an external force, result from acute injuries, or occur from internal stresses.

### Inflammation

Inflammation is a result of any injury and begins the adhesion process. The cycle progresses from inflammation into the "weak-and-tense" phase.

There are many extrinsic factors which affect the cycle, but, they do it in predictable ways.

-  Smoking and diabetes tend to decrease circulation and perpetuate the injury cycle.
-  Thyroid deficiencies increase muscular tension and accelerate the "weak and tense" factors of the Cumulative Injury Cycle.
-  Hormonal changes - due to excessive body weight, hysterectomy, and pregnancy lead to predictable alterations to affected tissues.