

THE LAW OF REPETITIVE MOTION:

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

I - degree of insult to the tissue as caused by friction or pressure

N-Number of repetitions of any action

F-Force or tension of each repetition as a percentage of the maximum strength

A-Amplitude of each repetition

R-Relaxation time between repetitions, a time with no pressure or tension on tissue involved

A typical cycling workout at a cadence of 85rpm sustained over a two hour period results in 10,200 repetitions per leg, a total of 20,400 “cycles”. A four day training week results in almost 50,000 cycles per leg. Nine months later you will have accrued over 1,468,800 cycles PER LEG! If this isn’t repetitive motion, nothing is. Add to the equation the extra effort required for sprints and climbs, pushing bigger gears, and riding with faster riders and you have increased Force and more than enough reason for some signs of repetitive motion injury.

Not all indications of repetitive motion injury are obvious. In some cases it is merely a “drop off” in performance as the season progresses towards the end. The tissues involved slowly becoming tight and weak from continued work over a length of time. In other cases it can be discerned by actual pain or discomfort when you attempt certain movements or assume positions, which exceed the elasticity of the involved fibers.

Whatever the case, utilizing techniques such as Active Release Technique® (ART®) can help to mitigate the effects thereby prolonging optimum performance. ART® has been designed to eliminate the fibrosis (adhesions) that build up when tissues suffer from prolonged cellular hypoxia, a lack of oxygen to the tissue. Hypoxia can be the result of either an acute injury such as a sprain or tear, or cumulative stress from overuse.

Common therapies such as medication, physiotherapy, chiropractic, massage, electrical muscle stimulation, rest, exercise, and surgery have all failed to effectively resolve repetitive strain injuries

ART® provides a means to effectively and rapidly resolve these stressful repetitive strain injuries without surgical intervention and allows patients to quickly return to their normal activities.

If you wish to progress and excel while avoiding the cumulative effects of your training, please consider ART® as an addition to your support arsenal. Contact Alan Whitsett of Vertical Empowerment soon.

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