

*Happy 4th of July!*



*Your 1<sup>st</sup> Choice!*



Peter Szymanski, PT, IOC, CFMT



Karen Voss Szymanski, MS, OTR, IMC

2727 Bryant Street, Suite 540 Denver, CO 80211 303-458-9660 www.CatalystTherapies.com

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## Physical & Occupational Therapy News

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*You don't have to live with repeated injury and pain.*

*Make a difference in your health for life!*

For many, an injury, particularly of the ankle, can be a “set up” for reoccurring injuries unless properly cared for. The following summary is an example of failed treatment followed by appropriate treatment of an ankle injury of a 21 year old tennis player.

A 21 year-old male college tennis player injured his right ankle and for 6 weeks received anti-inflammatory medication, rest, ice. He performed basic exercises as instructed from the athletic trainer at his college. He progressed to being able to walk without pain but was not able to return to playing tennis competitively due to severe pain with lateral movements of his foot and ankle.

After 6 weeks, without return of function required for tennis, he sought care from a manual therapist. He had no previous injuries to his ankle and the current x-rays did not show any sign of fracture. There was no obvious deformity of his ankle except for some mild localized swelling. There was no bruising and he was able to place full weight on it. Closer examination revealed limitation in ankle bending (dorsiflexion), pinpoint tenderness over the anterior talofibular and tibiofibular ligaments and along the peroneal muscles. All other tests for instability were ruled as negative and he was given a diagnosis of a mild sprain. This injury however was anything but mild, it was keeping him from playing tennis competitively on a scholarship. Soft tissue treatment was applied to the ankle and surrounding tissues for 2 visits.

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## Therapy News Brief

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The patient resumed his basic ankle exercises and level of activity returning to play tennis the following day with only mild lower leg discomfort. After his second visit, he was able to resume his tennis activity. He played in a tournament one week after his second visit and reported no ankle pain or problems 9 months later.

This case study was summarized from the article: Gemmell H et al; A Theoretical Model for Treatment of Soft Tissue Injuries; *J Manipulative and Physiological Therapeutics*, May, 2005, 285-288

Some comments regarding soft tissue treatment:

Soft tissue restrictions include muscles, tendons, ligaments, and their surrounding fascia in relation to bone attachment and joint function. Soft tissue damage, dysfunction, or distortion, when overlooked, may be a common cause of an individual's recurrent or persistent ankle problems. Assessment and treatment of the surrounding soft tissue structures will help you regain the level of movement and responsiveness you had prior to the injury. If left unchecked in any part of your body, dysfunction may occur in your tissues ability to provide mobility combined with stability. Tissues may become less flexible and restrict normal movement setting up a condition susceptible to re-injury. It is important to perform basic care for your injuries such as the standard rest, ice, compression (stabilize or immobilize) and elevation. It is very important to go further and to use techniques to repair and re-instate the flexibility and stability to the surrounding tissues particularly after trauma followed by immobility. This is necessary for your return to your prior level of activity.

Common signs of soft tissue dysfunction:

- May not be obvious inflammation but pinpoint pain in one or more spots when touched.
- Burning or pulling sensation with certain movements. Muscle tension or strain.
- Feels like a taut band or cord along a muscle.
- Aching when "at rest".

About Us



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**Neuro-rehab & Interactive Metronome**

*TBI, post concussion, whiplash, stroke*

*Sustained Mental Focus & Motor Accuracy*

**Motor performance following a mild traumatic brain injury in children ages 5 to 15:** An Exploratory Study, *Brain Injury* 1998, vol. 12, no. 10, 843-853.

This exploratory study was performed by pediatric physical therapists. They found more than 40% of the children performed below average in the areas of running speed and agility, motor response time and balance. These same children performed average or above average in the areas of upper limb coordination and visual-motor tests. The authors of this study stated that children included in this sample were carefully screened and did not have any history of motor or attention performance difficulties. There were 28 children in this sample, all who had sustained a mild TBI and were considered normal per standard neurological exam at the time of their discharge.

Their concern was “the belief that *no motor performance deficits* (per standard neuro exam) would potentially lead to misconceptions about patient’s complaints following a mild TBI”. This leads to a potential for health care professionals and care-takers or parents to attribute any reported symptoms or complaints to emotional factors and not to possible later physiological deficits. The potential risk is these children may be more susceptible to accidents/falls other injury due to the deficits in motor response time and balance or delayed postural reactions.

Children with mild TBI are followed more closely today but still are not likely to receive appropriate treatment. Symptoms may be easily overlooked or seen as “behavioral” instead of related to physiological changes the child does not understand. Just as adults report headaches or some difficulty with balance and sustained attention after a concussion or mild TBI; children may have the same symptoms but not know to report it. They may not recognize the symptoms as a problem. If your child is struggling and has a history of concussions or mild TBI, it may be beneficial to have your child tested. The areas of motor timing, processing speed, and postural reactions are all basic automatic functions we don’t have to think about but when disrupted, impact our overall focus and attention skills within natural environments. They impact our sense of organization, safety, and confidence in our ability to adjust and adapt to our surroundings and to make a positive impact on our surroundings.



**Interactive Metronome®** was developed in the early 1990s and first used to help children with learning and developmental disorders. The pediatric patients using IM were able to develop significant increases in neurological and motor areas that they had not sufficiently developed such as: Attention and Concentration; Motor Coordination; Language Processing; and Control of Impulsivity.

Through years of clinical research and the efforts of innovative therapists, IM was soon being implemented as part of a therapy program with older patients who also exhibited the same deficits as pediatric patients. These adult patients had suffered from a stroke, brain injury, amputation, or had been diagnosed with Parkinson’s. The IM program provides a challenging, goal-oriented process that motivates patients to improve motor accuracy along with their overall ability to sustain their focus and attention.

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Physical Therapy



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If you've been thinking the *Running Well Seminar*<sup>™</sup> would be a good idea, well procrastinate no longer, we have another one starting in July!

This one is just in time to get you ready for a fall event from hiking in the mountains to running a marathon or taking on a multi-sport event like a triathlon.

**Six- Week *Running Well Seminar*<sup>™</sup> on Tuesday Evenings, 6pm, 90 minute sessions.  
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*We really like telling people about this stuff!* Contact us if you would like a free one hour information session presented to you and your co-workers, running buddies, group, etc. The session is about running form efficiency, injury prevention, and will provide you with 2 "tools" to use.

For more information contact Karen or Peter at 303-458-9660  
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