



## Fenton Physical Therapy

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## The Truth Hurts

### *Pain Facts Everyone Should Know*

#### **Sleep Deprivation Will Increase the Frequency and Intensity of Pain Symptoms**



A pain that is ranked as a 2 on a one to ten scale can easily become a 7 level pain with three or four nights of limited sleep. When we sleep our brain regenerates the neurotransmitters that help modulate the intensity of pain perception. If you are not getting seven to eight hours of restful sleep, your pain levels will escalate because the brain is unable to manage

pain signals appropriately. Individuals with ongoing pain problems should be aware of this connection and speak to their doctors about difficulties with sleep.

#### **Education Reduces Pain**

If you understand the nature of your surgery, injury, or disease process, you are far less likely to develop the emotional anxiety that exacerbates pain. Studies on a diverse number of pain problems that range from arthritis to cancer have demonstrated a decrease in the need for medication and improvement in pain levels when patients are provided with appropriate education. In physical therapy patients, the reassurance that their pain is normal and will resolve with time and appropriate care can lower symptoms overnight. Education takes time and teaching is an under-valued skill. Both of these are limited in many health care settings.

#### **There Is No Way of Knowing Whether You Have a High Tolerance For Pain**

Pain has many neural pathways and we are discovering new biochemical pain components on a regular basis. How pain is perceived and managed is different from person to person. While some people claim to have a "high tolerance for pain" there is no accurate way to measure or compare pain tolerance among individuals. Having a high tolerance of pain may not be in your best interest as it often prevents people from seeking medical attention. Small, easily remedied problems are then given the opportunity to develop into chronic difficulties that can only be managed and never eliminated.

#### **Diagnostic Imaging Tests (MRI, CT scans, X rays) Are Poor Predictors of the Cause of Your Pain**

We will all develop some "abnormalities" in our peripheral joints and spines. The older you are and the more active you have been, the more likely a sophisticated instrument like a magnetic imaging unit is to pick up a bulged disc, arthritic spur, or some spinal stenosis. Several studies have documented that these changes are fairly common. A 2010 study of shoulder MRIs in 220 individuals, who had all reached the 40 year mark, identified torn rotator cuffs and labral tears in 34% of those individuals. None of the individuals reported pain or functional difficulties with their shoulders. A similar study performed on individuals sixty years or older, who had no symptoms of low back pain, found that 36% had herniated discs, 21% had spinal stenosis and more than 90% had degenerated or bulged discs. It is also not uncommon for physical therapy patients with neck and lower back pain to have imaging tests that are normal.

#### **The Best Pain Management Modality Is Exercise**

In studies of chronic pain patients, pain scores decrease and reports of functional capacity improve in

the groups that undertake a consistent exercise regimen. Exercise studies on octogenarians (a group that has more pain) reveal that participants in a daily exercise program have fewer pain complaints and a greater sense of emotional wellbeing. Many individuals with chronic problems such as arthritis avoid exercise out of concern that it may worsen their conditions. PACE (People with Arthritis Can Exercise) is the Arthritis Foundation's call for arthritis patients to adopt a regular exercise program. Unlike muscle relaxers, anti-inflammatories, and narcotic pain medications, the side effects of exercise are that you may get stronger, stop having to use insulin, move better, lower your blood pressure, improve your cardio respiratory function, and sleep soundly.

### **The Pain Location and the Source of the Pain Are Often Far Apart**

Head and facial pain are frequently produced by structures in the cervical spine. Pain symptoms in the lower leg are often generated by tissues in the lower back. Doctors Travell and Simons injected irritant solutions into muscles and have documented pain patterns far from the injected muscle. Dr. Bogduk injected irritants into the various levels of the cervical spine and has documented pain in the face and head at nearly every intervertebral level. Many people with chronic pain problems have not responded to treatment because the source of the pain has never been discovered.

### **Pain Medication Has Become a Health Problem**

Pain medication abuse has become a debilitating and expensive national health problem. In 2003 we reached the point that more people died from prescription medication overdose than illicit street drugs such as heroin and cocaine. The cost of a workers compensation claim is nearly double if the patient is prescribed a short acting opioid and triples if taking a long acting opioid. The present system is a challenging dilemma for both the patient and the doctor. In the recent past, physicians were encouraged to be



more aggressive in the control of their patients' pain. Pharmaceutical companies responded with ever more effective medica-

tions. Health care corporations' concerns about "satisfaction surveys" can lead to poor decisions in regards to pain medicine prescription. Unbelievably, some states permit doctors to prescribe and then sell pain medications in the same office. If taken for too long narcotic pain medications alter brain chemistry making withdrawal of the drug difficult and pain management a far more challenging task.

### **The Presence of Pain Can Alter How You Move**

Long standing pain problems such as an arthritic knee, a painful lower back, or an irritated plantar fascia can alter how you stand, walk, transfer, and even roll over in bed. Your brain will find a way to accommodate the pain and produce the limp, lean, or stride alteration that can become a permanent part of your neurological make up. These motor control alterations often end up affecting other areas of your body. The painful lower back produces the limited stride that then overloads the right knee and leads to a hamstring pain problem. After years of a painful arthritic hip, the patient has a hip replacement and, despite being pain free, is unable to resolve the limp pattern he practiced for years. If pain is affecting your ability to move, it is time to seek care.

*Michael O'Hara, PT, OCS, CSCS and  
Barbara O'Hara, Rph*

## **Join Our Email List**



This newsletter, published monthly, is available by email. If you would like to be added to our email list, simply give your email address to any staff member or send your request to [barb@fentonphysicaltherapy.com](mailto:barb@fentonphysicaltherapy.com). You will receive the newsletter, as well as updates on events at our physical therapy clinics and fitness center.

## Why M3B?

### *Movement Quality Matters*

In July, we will introduce yet another addition to our Team Training schedule: **Move More, Move Better (or M3B)**. This workout will be unlike anything we have offered in the past. These workouts will drastically improve your movement quality, stability, and control which will vastly improve your overall fitness level and greatly reduce your chance of injury in the future. These workouts are easily modified so that virtually everyone will be able to participate in and benefit from the exercises.

The workouts will start with a series of exercises pairing Active Isolated Stretching (AIS) with exercises that train the just stretched musculature. We will then transition into a series of core stability exercises to strengthen your core and improve alignment. Next, you can expect strength work and reactive drills. This will be a key workout to add to your weekly schedule, as it addresses several areas of fitness

that are often skipped, rushed, or done incorrectly. By improving your mobility, stability, reaction time, and body alignment, not only will you feel better and reduce your chance of injury, but you will also

be physically prepared to train harder, move faster, and lift heavier weights during your other workouts.

I would recommend incorporating M3B into your schedule 1-3 times/week depending on your goals and fitness level.

-Jeff Tirrell, B.S., CSCS



## Fenton Fitness Introduces **FIT**Kids

### *A New PE For Today's Kids Ages 8-12*



For the first time in the history of mankind, today's kids are not expected to live as long as their parents.

Nearly 70% of American children do not get enough physical activity. Nearly 30% of American children are overweight or obese. Only 4% of children have access to physical education.

**Fenton Fitness** believes in *fitness for life*, so we've introduced FITKids. Our programs are designed by Certified Personal Trainers and Physical Therapists to improve overall movement quality in kids ages 8-12. With this philosophy in mind, our goal is to address the problems associated with the increased lack of physical activity and the dangers of sports overspecialization, creating physically literate kids who have the tools they need to live active, healthy, pain-free lives.

If you are ready to unplug your kids from TV, video games, iPads, and phones, it's time for FITkids. If you are ready to get your kids off the couch and into health, fitness, and performance, it's time for FITkids. We will instill in them an attitude of hard work, determination, and confidence through fun, game-centered activities and drills. It's time!

# **FIT**Kids

Summer 2014  
Tuesdays and Thursdays at 1pm

- 60 minute sessions
- Programs are designed by Certified Personal Trainers and Physical Therapists
- Improve coordination and movement quality
- Decrease risk of injury
- Get fit through games and play
- Have fun!

## Hacking The Neuromuscular Hard Drive

### *Improve Mobility With Active Isolated Stretching*

Your joints, muscles, and brain all are connected through a system of nerves carrying signals that control movement. Active Isolated Stretching (AIS) manipulates the neural feedback mechanisms to produce a greater and more functional level of joint mobility.

AIS requires some attention to detail and most people will get better results with formal instruction. Respiration control is an important part of AIS.

I have found AIS performed at the end of an exercise session results in longer lasting gains in mobility. For stubborn areas, some dedicated foam rolling before AIS can be helpful. You need a stretch strap, eight foot rope, or a heavy resistance band to perform AIS techniques. Two of the most commonly performed AIS exercises are discussed and demonstrated below. Start with five repetitions of each drill on both legs.

#### **AIS IT Band and Glutes**



Lie supine with a strap wrapped around the outside of the right ankle and then looped around underneath the leg. Keep the left knee straight and the ankle dorsiflexed. The toes of the left foot should stay pointed at the ceiling. Hold the strap in the left hand and press the right arm into the floor for stability. Lift the right leg up and across the body by contracting the hip adductor (inner thigh) muscles. When you reach the limit you can bring the leg across with the muscles. Assist the movement with a gentle pull of the rope to facilitate a stretch in the right hip and thigh. Maintain contraction of the adductor muscles. Hold the stretch for three counts and then lower. Exhale in a controlled fashion as you lift the leg and inhale as you lower the leg. Keep the abdominals braced so that you hold the spine and the pelvis stable during the exercise. Keep the right shoulder on the floor and do not permit the body to rotate during the exercise.

#### **AIS Hamstring**

Lie supine with a strap wrapped around your right forefoot. Keep the left knee straight and the ankle dorsiflexed, or pulled up. Lift the right leg up by contracting the hip flexor and quadriceps muscles. Once you have reached the limit you



can raise the right leg with your muscle, pull the leg up into a gentle stretch with the rope. Keep tensing the muscles that lift the leg, hold the stretch for three counts and then lower. Exhale in a controlled fashion as you lift the leg and inhale as you lower the leg. Keep the abdominal muscles braced to hold the spine and the pelvis stable during the exercise.



**Video demonstration of the exercises shown here can be seen on our youtube channel at:**  
<http://youtu.be/BCvDuhiY87Y>

#### **Feelings Are Misleading**

If a muscle feels tight it does not necessarily mean that it requires stretching. The sensation of tightness is often produced in a muscle that must work harder to make up for a lazy functional teammate. After your tennis match, the "hamstrings feel tight" because weak gluteal muscles did not fully participate in the game. You develop a "tight neck" after golf because the scapula depressor muscles are not functioning properly. Your neck muscles and hamstrings get over worked and you develop the sensation of tightness. Overstretching a normal length muscle often creates greater problems.

*Michael S. O'Hara, P.T. OCS, CSCS*