



# PHYSIO FOCUS

**PHYSIO FOCUS** is a monthly publication geared towards providing practical physiotherapy and health information.

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## NOI Fitness Classes

### **Summer Class Schedule**

Please sign up at front desk!

### **Pilates Mat**

#### **Mondays at 5:30 pm**

A floor based exercise program that uses your own body or small props to build core strength and retrain proper muscle patterns while increasing your mind-body awareness.



### **Hatha Yoga**

#### **Tuesdays at 7:00 pm**

Sequence of standing, seated and kneeling postures linked with your breath which will open the entire body and allow energy to flow more freely.



“THE PAIN OF DISCIPLINE IS FAR LESS THAN THE PAIN OF REGRET”  
– SARAH BOMBELL

## **Cervicogenic Headaches and Manual Therapy**

Headache presentation is quite common in society and is a symptom experienced by 90% of the population with 66% of men and 57% of women suffering from at least one headache yearly<sup>1</sup>. Chronic headache sufferers account for 2-3% of the population; these patients experience a migraine at least 8 times in 15 days. Based upon the high prevalence rate, a multitude of management strategies and treatments exist which include strengthening exercises, physiotherapy, postural awareness, therapeutic modalities, education and activity modification, stretching programs, proprioceptive training, massage therapy, and manual physical therapy.

Eui-Jun Shin's (2014) clinical objective was to investigate the effect of sustained natural apophyseal glides (SNAGs) on pain and headache duration in women. The SNAG technique evaluated included a facilitatory glide being applied through physiological neck movement with a sustained end-range hold. This technique was performed by a manual Physiotherapist trained in Mulligan principles. Pain levels (VAS) and Headache duration (NDI) were evaluated before treatment and after a 4-week treatment program.

Their results indicated that the group that received the SNAG intervention showed statistically significant greater improvements in both pain and headache duration ( $p < 0.05$ ) when compared to the placebo group! This improvement was noted in cervicogenic pain level, headache duration and overall function.

As such, the researchers conclude that the SNAGs technique should be routinely implemented as part of a physiotherapy program for relief of cervical pain and headache duration. Headaches have a substantial negative effect on activities of daily life and work performance. A comprehensive physiotherapy program that utilizes the SNAGs technique in conjunction with exercise prescription, joint mobilizations, soft tissue manipulation, education, and therapeutic modalities is the most evidence-based method to address this widespread orthopaedic condition.

The Registered Physiotherapists at the Niagara Orthopaedic Institute are trained in the form of manual mobilization used in this above study, Mulligan SNAGs. This technique, along with other forms of mobilization through movement, are utilized to treat other movement impairments in the lumbar spine, shoulder, knee, ankle, hand/wrist and elbow.

1. Boardman HF, Thomas E, Croft PR, Millson DS. Epidemiology of headache in an English district. *Cephalalgia* 2003; 23(2):129-137.
2. Eui-Ju Shin, Byoung-Hee Lee. The effect of sustained natural apophyseal glides on headache, duration and cervical function in women with cervicogenic headache. *Journal of exercise Rehabilitation* 2014; 10(2): 131-135.

## NOI Feature Athlete for August Victoria Rampado



Victoria began her basketball career at a young age where she was involved in the Red Raiders program. Victoria played on Team Ontario for two years where the team captured two national championships in 2010 and 2012. In the 2012 summer, Victoria was named captain of the team and she also won the tournament MVP. Victoria also had a successful high school career at A.N Myer. The Marauders had two opportunities in 2009 and 2011 to participate at the OFSAA AAA championships. While she was at Myer, she received the Harold Biggar award three times. Victoria earned a full athletic scholarship to Niagara University where she is currently playing on the Niagara Women's Basketball Team. Victoria had a successful freshman year as she was named MAAC Rookie of the Week four times and she was also named the MAAC Rookie of the Year.

### Acupuncture Explained

Acupuncture is recognized by the World Health Organization for treating a wide variety of conditions including neurological and muscular disorders, headaches, neck and back pain, neuralgia, frozen shoulder, tennis elbow, tendinitis, sciatica, nausea, and arthritis. There is an increasing amount of research supporting the use of acupuncture in a physiotherapy setting. At the Niagara Orthopaedic Institute, you have the option of having acupuncture added as part of your physiotherapy treatment.

Classical acupuncture was developed in China over centuries. It is based upon balancing forces (energy and blood) in the body. The Chinese have defined a network of channels distributed longitudinally over the body that carry energy and blood. Traditional Acupuncturists needle points along these channels to balance and move energy appropriately to restore health. Most traditional acupuncture points correspond with known anatomical structures. The approach for acupuncture treatments utilized at the Niagara Orthopaedic Institute combines classical acupuncture points with western-learned anatomy and physiology.

Acupuncture treatment involves the insertion of very fine sterile needles through the skin and tissues at specific points on the body. The needles are left in for 15 to 30 minutes. There is no injection of any substance. Therapeutic goals of acupuncture include pain control (stimulating the release of endorphins), decreasing inflammation, and normalizing autonomic and physical functioning. The treatment should not be painful but a sensation of achiness, heaviness, numbness and/or tingling may occur at or around the site of the needles. Patient response to acupuncture treatment is varied, some people feel immediate relief, but for others it can take longer. It is normal to feel relaxed or fatigued after an acupuncture treatment session.

For those who are not comfortable with the idea of needles, we offer the use of ETPS (Electro Therapeutic Point Stimulation) which utilizes low frequency electrical stimulation to stimulate acupuncture points. Clinically, a significant number of our patients have benefitted from adding acupuncture to their physiotherapy treatments.



## Health Corner

### Stabilization Training: Essential and Integral



The term "stability" is blindly used in the fitness and rehabilitation fields without much thought behind the true meaning of the term. The best definition is provided by Kisner and Colby (2002) where they maintain that stability is "the synergistic coordination of muscle contractions around a joint that provides a stable base for movement". The key point here is that it is multiple contractions of various muscles that occur in a coordinated manner. Once this optimal state of kinematics is achieved, effective and true biomechanical movement can occur. And this is extremely important when rehabilitating from an injury or looking to prevent injury in the future. Therefore, every exercise program must include exercises that incorporate "stability" through muscle recruitment patterning.

Kisner and Colby continue further in that a stabilization exercise is therefore a "form of exercise designed to develop control of proximal areas of the body in a stable, symptom-free position in response to fluctuating resistance loads. Exercises begin very easy so that control is maintained, and they progress in duration, intensity, speed, and variety (often referred to as a dynamic stabilization exercise)". This process of progressing their various loads placed on a joint is most effectively administered by health professionals trained in exercise prescription. This will ensure that the stability exercises are introduced in a safe manner to prevent further injury or new injuries. The health care professionals with the highest and most comprehensive training to prescribe, monitor, and progress stabilization exercises are Physiotherapists, Kinesiologists, and Personal Trainers. All practitioners that can be found as part of team NOI!

