



# PHYSIO FOCUS

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

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**NOI Fitness Classes**

**April 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.

**Meditation for Healing...**

**Mondays at 6:35 pm**

Learn to use your breath and awareness to connect to the healing power that lies within you.

**Hatha Yoga Level 1...**

**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.

**Hatha Yoga Level 2...**

**Wednesdays at 6:45pm**

A natural progression from Hatha Level 1; you will be guided into intermediate postures helping to increase your strength, flexibility and stamina.

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“YOU ARE AS IMPORTANT TO YOUR HEALTH AS IT IS TO YOU”  
 – TERRI GUILLEMETS

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**Low Back Pain and Benefits of Motor Control Exercises**

Current literature reveals that at least *80 percent* of the population in North America will experience mechanical low back pain in their lifetime. As the incidence of low back pain continues to rise, a simultaneous increase in health care utilization costs and physician visits for low back pain has been observed.

A recent meta-analysis of 16 randomized control trials was conducted to evaluate the effectiveness of motor control exercises (MCE) in improving pain and disability in patients with chronic and recurrent low back pain<sup>1</sup>. Data extraction included five categories: MCE vs. general exercise, MCE vs. spinal manual therapy, MCE vs. minimal intervention, MCE vs. multimodal physical therapy, and MCE as part of a multimodal intervention vs. other components of that intervention. The follow-up periods were short term (6 weeks to 4 months), intermediate term (4-8 months), and long term (8-15 months).

***The results indicated that motor control exercise was superior to general exercise and minimal intervention in regards to pain and disability; when compared to spinal manual therapy, MCE was superior only in terms of disability.***

These results support the benefits of physiotherapist driven motor control exercises over general exercise for clients with low back pain. Also, one can extrapolate that MCE as part of a multidisciplinary rehabilitation program accompanied by spinal manual therapy and education is effective in managing both pain and disability associated with low back pain.

Multidisciplinary spinal treatment programs, that include motor control exercises and spinal manual therapy, are individualized and functionally applicable to all clients attending the Niagara Orthopaedic Institute!

<sup>1</sup>Bystrom MG, Rasmussen-Barr E, Grooten WJ. **Low back pain: motor control exercise superior to general exercise for pain and disability.** *Spine* 2013; 38 (6).

Many of us can attest to the fact that the real work comes after we have lost weight. Following a "diet" for a period of time can often produce short-term weight loss, but what is the "secret" to long term success?

The National Weight Control Registry (NWCR) follows more than 10,000 people who have lost significant amounts of weight and kept it off for long periods of time. NWCR's goal is to determine the characteristics of people who have succeeded at long term weight loss.

Here are some of their findings:

- ❖ 78% eat breakfast everyday
- ❖ 75% weigh themselves at least once a week
- ❖ 62% watch less than 10 hours of TV per week
- ❖ 90% exercise, on average about 1 hour per day

Remember, a healthy lifestyle is all about consistency. It should not be viewed as something we will do for a short period of time to help us "lose weight" or "tone up". The benefits of eating well and exercising, as well as limiting stress and fatigue are well beyond our outside physical appearance. A healthy lifestyle means being healthy physically, mentally and emotionally. Reflect on where you can make small changes to your daily regimen to enhance your health today!

<http://www.nwcr.ws/>



## Health Corner

### Benefits of Active Sitting Postures

The popularity of the stability ball has led to their increased utilization in a multitude of disciplines including fitness, physiotherapy, sports rehabilitation, and exercise prevention programs. From an ergonomic perspective, many people are using a stability ball or a specifically designed ball chair in their home or office.

Much debate exists between professionals regarding the relative benefits and potential risks in using a stability ball as an ergonomic sitting option. Merritt and Merritt 2007<sup>2</sup> conducted a case report to examine the proposed benefits of ergonomically designed ball chair. This study, when coupled with the work of D. Marcarian 2005<sup>3</sup>, provides some key benefits of utilizing an ergonomically designed ball chair:



1. Improved lumbar and cervical spine in sitting
2. Reduced point pressure over ischial tuberosities/gluteal region
3. Increased static EMG of postural muscle groups
4. Promotes balanced activity between the abdominals and lumbar spine muscles
5. Supports development of core muscle groups
6. Improved sitting balance and equilibrium
7. Some studies have proposed that ball chairs help students learn better!

Of key note is the introduction of a ball chair in the office or home setting needs to be gradual. You are only advised to sit on the chair as long as you feel comfortable and as long as your pain does not increase.

Overall, active sitting is an effective way to improve posture and activate the underutilized core muscle groups in a sitting position!

<sup>2</sup>Merritt LG & Merritt CM: **The gym ball as a chair for back pain patient.** *J Can Chiropr Assoc* 2007; 51 (1): 50-55.

<sup>3</sup>D Marcarian: **Comparison between evolution chair and standard high back chair with arm rests.** *NASA Trained SEMG Researcher* 2005; May 26<sup>th</sup>.

### Treating Rheumatoid Arthritis from a Naturopathic Perspective

Rheumatoid arthritis (RA) is an autoimmune and chronic inflammatory condition that mainly affects the small joints. The onset of RA typically occurs between ages of 30-50. Overtime, the inflammation involved with RA can result in progressive destruction of the joints, leading to pain. When treating RA from a holistic perspective, it is important to examine the patients' digestive health to determine the root cause. To heal the joints, one must also heal the gut. Let's take a look at some of the possible connections between the gastrointestinal system and RA.

**Food Allergies and Intolerances:** Allergens cause the release of pro-inflammatory immune cells such as leukotrienes and eosinophils. This leads to systemic inflammation which can exacerbate joint inflammation. For example, the nightshade vegetables (tomatoes, potatoes, eggplant and peppers) contain a substance called solanine. For some allergy sufferers, solanine is a common allergen that can trigger an allergic response, followed by pain and inflammation.

**Low Stomach Acidity:** One study found that up to 50% of patients with rheumatoid arthritis did not produce sufficient quantities of hydrochloric acid. Another study involving female patients with severe RA found that more than one-third of the patients had basal achlorhydria and 25% were achlorhydric or had a very low acid response after stimulation.

**Increased Intestinal Permeability:** This is also known as "leaky gut". It allows for antigens to pass through the intestinal wall, leading to the formation of antibody-antigen immune complexes within the blood. These immune complexes can be deposited into joint tissue, where they are sought out and destroyed by white blood cells. When destruction occurs, the surrounding joint tissue is also damaged.

Murray Michael (1994) *Arthritis: Your Natural Guide to Healing with Diet, Vitamins, Minerals, Herbs, Exercise, and Other Natural Methods* Prima.  
 Hobbs Ron, Bucco Gloria, Barton Anna (1999) *Natural Treatments for Arthritis* Prima.  
 Prousky Jonathan (2008) *Principles and Practices of Naturopathic Clinical Nutrition* CCNM Press Inc. p 391  
 Henriksson K., et al. Gastrin, gastrin acid secretions, and gastric microflora in patients with rheumatoid arthritis. 1986; 45:475-83  
 Nakamura H., et al. Hypochlorhydria and hypergastrinaemia in rheumatoid arthritis.

To learn more about naturopathic medicine, please contact a local naturopathic doctor.  
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