



# Honsberger Health

A quarterly newsletter Dec. 2008



**Jennifer Stuart B. KIN, MScPT** Jennifer is a Registered Physiotherapist and also has an honours kinesiology degree. She works full time in the Markham location. She has a strong interest in women's health, and sports medicine and is currently working toward completing courses in manual therapy through the Orthopaedic Division of the Canadian Physiotherapy Association. She is very interested in basketball and volleyball and applying the Honsberger biomechanical approach to help these athletes.

## Why has upper back pain taken a back seat?

When it comes to research on back pain, the bulk of information available is focused on the lower back. Clinically, upper back pain is common yet it still manages to get overlooked when compared to lower back and neck symptoms. Still, the anatomical complexity of the thoracic spine makes it a prime candidate for pain or dysfunction and therefore shouldn't be ignored.

The thoracic spine consists of 12 vertebral bones spanning the upper and mid back. Attached to these 12 bones are the ribs, forming the rib cage that surrounds a number of organs, including the heart and lungs. Issues that originate in one of the organs can easily result in referred pain, with discomfort felt in the upper or mid back. Thus, the proximity of the thoracic spine to vital organs is enough to warrant a thorough examination when upper back pain arises.

From a biomechanical perspective, research indicates that upper back and neck pain often go hand in hand<sup>1</sup>. At Honsberger Physiotherapy, we find that stiffness in the thoracic spine is associated with a host of conditions, not just in the neck. This stiffness is often the result of poor posture, with rounding of the upper back known as excessive kyphosis. Such positioning is typical among computer users, with poor ergonomics playing a critical role.

*Jennifer and Gord demonstrate the Posture Arch and how it can be used for upper back mobility!*



We know that a high percentage of employed adults in the Western world are computer users<sup>2</sup> and that computer use promotes prolonged static posture. In other words, sitting in front of the computer means you are often stuck in one position for far too long. This promotes lengthening and weakening of the postural muscles in the upper back, in addition to limiting mobility of the thoracic spine. What can you do to avoid this?

- Take frequent breaks when using the computer
- Have your workstation ergonomics assessed by a qualified professional
- Have your therapist assess your posture and thoracic mobility to help catch potential problems before they start!

1. Fruth SJ. Differential diagnosis and treatment in a patient with posterior upper thoracic pain. *Phys. Ther.* 2006 February; 86(2):254-268.

2. Green BL, DeJoy DM, Olejnik S. Effects of an active ergonomics training program on risk expose, worker beliefs, and symptoms in computer users. *Work.* 2005; 24(1):41-52.

## Upcoming Events

For the month of December Honsberger Physio will once again be collecting donations to benefit Yellow Brick House. 100% of your donation goes toward helping Yellow Brick House provide emergency shelter, counseling, and education for abused women and their children in York region. In 2006 we collected over \$500! Lets do our best to raise even more this year!



### Honsberger Physiotherapy and Biomechanics Clinic

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**Christina Cellucci BSc BScPT** Christina holds a professional degree in Physical Therapy and an honours degree in Zoology from the University of Western Ontario. Christina has a strong interest in supporting the community and pursuing her interest in tennis and racquet related injuries. A strong area of focus are jaw related injuries (TMJ). She is currently working towards attaining her advanced manual therapy courses through the Orthopaedic Division of the Canadian Physiotherapy Association.

## OOOHH My Aching Back (again!)

Ever wonder why injuries come back or happen more often for no apparent reason? A key reason is muscular WEAKNESS. Our bodies are just not strong enough!

Weakness causes compensations and adaptations of how you move. Subsequent pain signals tell our body that something is wrong – like an engine light in the car. It can tell us that we are not strong enough to perform everyday activities, or our favourite sport.

Trauma such as injury or stress to the body leads to postural and alignment changes. If we don't address the problem our body will continue to compensate and further change the way we move. Muscles that act to stabilize our joints stop working and the muscles that act to move our joints take over. This causes excessive joint pulling or shearing leading to joint/muscle breakdown and pain. In short, we don't have enough core strength to maintain normal joint mobility and alignment. Another way to look at our muscles is by comparing them to a race:

- Stabilizing muscles are “marathon” muscles, or endurance muscles
- Prime moving muscles are “100 meter dash” muscles, or sprint muscles

Focus must be on building our "marathon" muscles. Numerous clinical studies provide evidence that our marathon muscles lose their ability to support the spine after injury. Therefore, these muscles must be specifically re-trained and re-strengthened after an injury.

For instance, part of a rehabilitation program for someone who has experienced an episode of low back pain would be core stability exercises to strengthen the muscles that stabilize the spine. Most typically we perform 3 sets of 10 repetitions. This specific group of muscles should be working *every time* you move. Thirty repetitions isn't even enough to get you from your house to your car! Therefore, we must train our muscles the way we use them.

## ***In the Community***

*On November 14<sup>th</sup> Honsberger Physiotherapy volunteered with the Salvation Army Northridge Community Centre.*

*Our crew packed and moved three truckloads of toys for children that will be distributed this holiday season to families in need from across York region. It was a good time for a great cause!*



*Christina and Karen demonstrate our “Cowboy” core stabilization exercise!*



Marathon muscles need to be trained for endurance so they can perform 1000 repetitions! Incorporate core stabilizing exercises in everyday activities such as when driving your car, talking on the phone, or watching TV. Before you know it, you will have performed over a 1000 repetitions! AND you are training your body to use these muscles when they should be used.

In order to stay healthy, avoid injuries, and maintain good alignment, rehabilitation must include the most important component – STRENGTH TRAINING – more specifically, we must focus on our “marathon” muscles – the ones that are responsible for supporting and stabilizing our body.

Once the pain is gone, why continue Physiotherapy?

- ✓ Prevent return of pain by strengthening
- ✓ Retrain the stabilizing or “marathon” muscles
- ✓ Correct muscle imbalance
- ✓ Correct abnormal movement patterns

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