

# Honsberger Health

A quarterly newsletter September 2010

**Lada Ellis MScPT** Lada graduated from the University of Guelph with an Honours Degree in Human Kinetics and then went on to complete her Masters of Science in Physical Therapy from Queen's University. Since graduating she has completed many post graduate courses including; Acupuncture, Manual Therapy Level 1, Soft Tissue Release, Functional Fascial Release and McKenzie Level A. Lada also works as a ski instructor at Mansfield Ski Club.

## Tight turns...tight back!

It's right around this time of year when I catch myself daydreaming about snow and the feeling of perfect turns. Carving turns and gliding across the snow has always been something I have loved and tried to perfect, and with today's technology this feeling of world cup style is achievable by most.

When a shaped ski is put on edge, its natural tendency is to start the turn automatically. By building pressure through the turn, this shorter ski with side-cut turns a tighter arc.

What many of us don't think about is the tighter the arc the greater the rotational force going through your low back. Skiing is a sport in which the moving force is gravity and our muscles have to create the opposite force so that we stay balanced and don't fall. How much we rely on our muscles depends on the terrain and how aggressively we ski.

Most low back injuries in skiing occur because of repetitive twisting motion in the lumbar spine and a lack of stability or control in the supporting muscles. Most people know that they need strong legs with a lot of endurance for skiing, but it is also crucial that you strengthen the deep core muscles.

The lumbar spine (lower back) is the stability centre for the whole body.

The multifidus and transverse abdominal muscles are deep postural muscles that work to stabilize the low back and pelvis before movement of the arms or legs occur.

A strong and stable lumbar spine is achieved by strengthening the deep core and the multifidus muscles. While the lumbar spine is a stability region other regions are intended for mobility; important mobility regions are the thoracic spine (upper back) and the hips. Since, proper skeletal alignment allows us to achieve balance between stability and mobility; good alignment is the key to good balance and the key to good alignment is core strength. In order to have dynamic balance (balance in motion) you have to have a strong and flexible core so that the upper and lower body can work independently to turn the skis while allowing the upper body to take a more direct path downhill – the core is where all the torque (muscle stress) occurs.

Start getting ready for ski season early. Whether you are a weekend warrior, a competitive athlete a masters class racer or a recreational skier planning a trip out West, you and your skiing can benefit from a core stability program.

Ask us how we can help prevent injury and get you ready to ski like the pros!

## Sport Science International New Vision Training Centre

We are pleased to announce that we have teamed up with Vizual Edge and *Dynavision Sports* to open a new sports vision training centre in Markham.

The new centre will incorporate "D2 Reactive Training" and "I Span Dynamic Training" with sport specific movements to help improve an athlete's explosive reaction time as well as visual response time.

Call 905-940-2627 or  
[www.honsbergerphysio.com](http://www.honsbergerphysio.com)

### Honsberger Physiotherapy and Biomechanics Clinic

81 Temperance Street, Aurora, On L4G 2R1 Telephone (905) 841-0411 Fax (905)841-7311  
675 Cochrane Drive, Markham ON L3R 0B8 Telephone (905) 940-2627 Fax (905) 940-3136

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**Karen Theimer** RMT, Karen graduated from the Southerland Chan Massage School. She has worked in multiple clinics throughout York Region treating a variety of acute and chronic injuries, including motor vehicle accidents. Karen has training in Soft Tissue Release, Chronic Pelvic Pain, Myofascial Release, and Craniosacral therapy. Karen has been riding horses since the age of ten and previously competed in hunter jumping. She continues to ride for pleasure whenever she can.

## Horse and Rider Biomechanics

Horse and rider work together as a team in the sport. The rider controls his/her body over the horse's center of gravity to provide the optimal pathway for balance, communication, and cooperation between horse and rider.

Proper mechanics of the rider are defined by correct alignment in riding specific movements. Correct postural alignment of a rider consists of:

- 1) Weight being distributed evenly over the center line of foot on or behind stirrup. With the foot positioned properly, this will allow correct usage of leg muscles and contact of lower leg on the horse.
- 2) Rotation of the thigh away from the hip joint accommodates for the saddle.
- 3) Contraction of abdominal and back muscles control the connection of upper and lower extremities.
- 4) Shoulder and hips should remain aligned in the same plane for maximum stability.
- 5) Head is brought back so that the base of skull is aligned over the shoulder complex.

Incorrect postural alignment directly corresponds with joint stress, compensatory changes and shifts throughout the entire body.

As specific exercises are introduced with correct alignment, the rider will develop balance, strength, optimal muscle tension, and the precision control of their center of gravity that passes directly through and works in conjunction with the horses center of gravity. The slightest tilt of the riders head or torso can unbalance a horse making it far more difficult for the horse to move on that side. The slightest biomechanical imbalance of a rider can affect the horses' balance and performance. Speak to our therapists about checking your alignment off -and on - your horse!

## ***Upcoming Events***

***Foot Week is here again!***

Sept 20<sup>th</sup> to 24<sup>th</sup>

Complimentary 15 minute assessment

Gait analysis

Running analysis

Custom Orthotic advice

Skate and ski boot fitting

Call to book your session today!

***Injury Prevention and Stretching Talk  
Running Room Aurora***

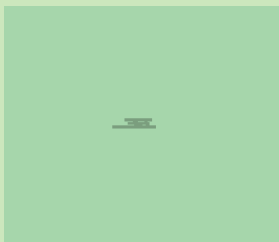
September 20<sup>th</sup> Nora de Graaff PT

November 16<sup>th</sup> Lada Ellis PT

Our therapists are always happy to give complimentary talks to teams, sporting or business groups.

### **Meet the Team**

Honsberger Physiotherapy is also pleased to welcome Patricia Vogel to our team. She is physiotherapist from Switzerland and brings with her a wealth of knowledge in sport and women's health.



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