



# GROW WITH EBFA™

March, 2014

Educational newsletter brought to you by the Evidence Based Fitness Academy Inc.

## Hello Health & Fitness Professionals!

### Greetings from Singapore!

This month EBFA is taking a big step in changing the way the fitness industry looks at barefoot science, the foot & ankle and from the ground up programming.

EBFA has proudly partnered with SE Asia Education Company - FIT - to launch our EBFA Master Instructors Program. With branches in China, India, Indonesia, Malaysia, Philippines, Singapore and Thailand, FIT will be the official EBFA Education Partner for SE Asia.

This Partnership will allow EBFA to continue to spread out unique programming and Certifications to fitness professionals globally! To learn more about EBFA Master Instructor Program please check out Page 4 in this issue of GROW!

*Dr. Emily*



## Featured Barefoot Rehab Specialist®



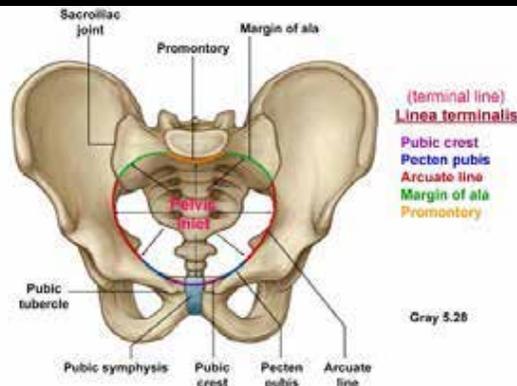
**Laurice D. Nemetz**  
MA, BC-DMT, E-RYT, LCAT  
Ossining, NY

### 1. How do you currently apply barefoot science with your patients and clients?

I am lucky to have incorporated barefoot work into a lot of my practice during the last 20 years. Working with yoga and other movement forms for such a long period of time has afforded me the ability to help lots of people explore how barefoot work can help them with the way they move.

Barefoot science is an important area to understand how change in one part of the body will influence the rest. I have been playing with exercises from short foot, to taping techniques, to other work in the BARE® workout to see where I can make changes with my clients in foot function, gait, and overall body performance.

## Featured Article



### The Pelvic Floor

*Our Second Diaphragm*

- By Jennifer Pilotti, MS

Over the last 8 months, I have become fascinated by the role pelvic position plays on the body's stability. More accurately, I discovered the importance of the pelvic floor on all things low back oriented. I train many people that suffer from low back pain - some of whom have had surgery, others that are trying to avoid surgery.

While many of them have positional similarities, the most striking similarity I have found (now that I know to look for it), is the inability to maintain pelvic position with activation of muscles that work in the transverse plane, such as the

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## **2. Why did you initially attend the BarefootRx® Workshop by EBFA?**

BarefootRx® work makes sense to me. We can train with it while recognizing that we often live in environments where we, of course, need protective footwear. I work with a lot of athletes who are amazed at their gains in general proprioception and balance once they work barefoot for some of their training time.

Working strength, balance, lower extremity alignment and lumbopelvic hip stability with techniques from BarefootRx® are a highly efficient way to prevent injuries, particularly in the lower body.

## **3. Would you recommend this workshop to your colleagues? Why or why not?**

I brought a friend and colleague with me to the BarefootRx® workshop and came to the workshop via recommendations from a PT friend as well as the TRIARQ organization. I have recommended the workshop already as a lot of my friends and colleagues work in related fields. I also like knowing the latest studies and speaking with PTs, OTs and doctors who work in this area.

## **4. Do you see the application of barefoot science in a rehab setting expanding with research? Or do you see it as more of a trend?**

I think the “barefoot” footwear is evolving and we’ll eventually see more of a shift towards minimalist footwear that still can work with people who are living in an urban environment, while weeding out the trendy. I think this research will help a lot. Science is supporting the ideas put forward from a lot of new thinkers of the interplay of muscles and fascia in the body.

I definitely like Dr. Emily Splichal taking the latest science and applying it to functional movement. In particular, with an aging population, I think the importance of fall prevention and improving balance via barefoot training will gain in popularity. We are also starting to realize the vast problems from hammertoes to bunions, etc. that have come with our modern footwear and are beginning to understand how to work effectively and knowledgeably with the feet as a means to connect to the rest of the body.

**To learn more about Laurice Nemetz and her work please [visit www.wellnessbridge.com](http://www.wellnessbridge.com)**

transverse abdominis and internal rotators of the hip. Once this is cued correctly and the person knows how to “find” the proper engagement, stability increases dramatically (and people feel their “core.” It’s pretty amazing).

While there are often other things that need to be addressed in these clients to improve function, this is an incredible starting point. The senior yoga people have been trying to explain this to me for years; however, rather than explain the anatomy, they use mystical terms such as mola bandha. I think many of the advanced pilates/gyrotonics people might know this, but I have never been fully immersed in that world, so I can’t speak for sure.

## **Pelvic Floor Anatomy**

The pelvic floor is often considered the body’s second diaphragm. When there is a physiological change in the diaphragm, either during inhalation, exhalation, or coughing, there is a symmetrical change in the pelvic floor activation (Bordoni and Zanier, 2013).

In order for proper intra-abdominal pressure to be maintained during respiration, support from the pelvic floor is required. This ensures trunk stability, and corresponds to activity in the transverse abdominis and internal obliques- therefore, if your pelvic floor isn’t working properly, your deep abdominal muscles probably aren’t working properly, causing an alternative (and less efficient) stabilizing strategy.

## **How does this relate to pelvis position?**

It is worthwhile to note that the pelvis is required to move in all three planes (sagittal, frontal, and transverse) during the gait cycle (Lee & Lee, 2011). The sacrum, which attaches to the pelvis at the sacroiliac joint, needs to nutate and counter-nutate during various movements.

For the purpose of this article, think of the sacrum as something that moves slightly to handle load dispersal. If the sacrum is unable to move because the pelvis isn’t able to move in all three planes, load will not travel well up the spine. If, for instance, someone remains in an extended posture most of the time, the anterior inlet spills forward and abducts, and the posterior inlet moves backward and adducts (see picture).

Think of what happens to the sacrum if the pelvis is stuck in this position- it can’t move and the muscles on the back of the pelvis (specifically the piriformis) are going to be “gripping” to keep a person upright. Further, the muscles in the pelvic floor are long and loose- they aren’t able to provide the support needed for the bottom of the canister to co-contract and provide stability.

This is going to lead to movement inefficiencies (and possibly SI joint “tightness” or pain). In this example, to move the pelvis to neutral, we need to inhibit the piriformis by activating the internal rotators of the hip, activate the hamstrings to pull the pelvis down in the back, and activate the transverse abdominis and internal obliques to pull the pelvis up in front.

In a sense, we are mobilizing the pelvis so it can move more freely during the gait cycle. (For some ideas on how to work with someone in an extension pattern on co-activation of the muscles in the pelvic floor, see the video: <http://youtu.be/UtJnY0MhIPA>).

As I have mentioned before, I view my job as a movement professional to help people move as efficiently as possible. This is directly related to the body's ability to stabilize on the deepest level, and really, it means having an understanding of what is required for the body to do that.

If the pelvic floor and the engagement of the deep abdominal muscles is ignored, performance will be hindered. The crazy thing is I have watched efficiency (and movement quality) improve dramatically in yoga practitioners, golfers, and triathletes by simply improving the function of the deep stabilizing system.

I have also seen grandparents pick up their grandchildren without pain, and low back pain lessen. Anatomy and physiology in the absence of disease is consistent- understanding how the body works dynamically is the most valuable tool a movement professional can have.

To read more of Jennifer Pilotti's articles please visit [www.bewellpt.blogspot.com](http://www.bewellpt.blogspot.com).

## EBFA RESEARCH

### Want to get involved in barefoot research?

It is with great excitement that EBFA officially launches our Barefoot Research Division. We recently received IRB approval for two studies that are set to begin Spring 2014. If you, a colleague or client match the following criteria and want to get involved in our barefoot research - please e-mail: [education@ebfafitness.com](mailto:education@ebfafitness.com).

#### Research Study #1

##### ***The Immediate Effect of Barefoot Neuromuscular Training on Gluteus Medius Activation in Active Females: A Comparative Study***

Of the lower extremity joints, the knee sustains the highest percentage of injuries, particularly among physically active individuals. Numerous studies including a 2009 study by Boling et al. have demonstrated that females sustain a higher number of overuse knee injuries compared to males. Reiman et al. cited 51 articles that provide biomechanical evidence that support the concept that proximal hip weakness, namely to the gluteus medius, may contribute to knee injury risk.

Current injury prevention programming primarily focuses on isolated hip strengthening, however Janda et al. has demonstrated that efficient hip stabilization requires initial activation of the deep hip external rotators. Janda et al. further demonstrated that deep hip stabilization can be achieved through plantar foot contraction and activation.

To date, minimal research has focused on the association between barefoot strengthening, hip activation and knee injury risk. Although numerous barefoot-based research studies have been published, a majority of these studies have focused on barefoot running biomechanics, not barefoot neuromuscular activation patterns.

It is the goal of EBFA to expand upon the concepts of Janda et al. and explore the benefit that barefoot stimulation may have on injury prevention. The primary purpose of our study is to evaluate the effects of barefoot neuromuscular training on gluteus medius time-to-fatigue, as well as peak muscle activation of the gluteus medius and upper gluteus maximus and the timing of hip activation during a single leg landing task.

#### Seeking:

Female participants ages 18 - 40 with no known history of trauma or surgery to the knees, hips and ankles. Must be able to participate in a one-day study in NYC.

#### Research Study #2

##### ***The Effect of Toe Spread Sandals on Mild to Moderate Bunion Pain: A Comparative Study***

A bunion (hallux valgus) is a deformity of the great toe, where the metatarsophalangeal joint protrudes laterally, and the head of the great toe turns inward toward the other toes, sometime crossing over or under the 2nd toe. Although causes of bunion formation may vary, some studies have demonstrated an imbalance between adductor hallucis and abductor hallucis strength as one such factor.

Although little research exists on the prevention of bunion formation through abductor hallucis strengthening, patients have reported decreased bunion pain when in shoes that promote abduction of the hallux. In the above study, we hope to demonstrate the benefit of toe spread sandals on the reduction of mild to moderate bunion pain.

#### Seeking:

Male & female participants ages 18 - 65 with history of mild to moderate bunion. No known history of trauma or surgery to the foot. Participants must submit current x-rays for the study but may participate if they are not based in NYC.

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# Master Instructor Program



## EBFA Launches New MI Program

-Dr Emily Splichal, Founder EBFA Fitness

### Do you have a passion for fitness and education?

We are looking to bring on a highly select group of Master Instructors to share the power behind our unique educational programming for health and fitness professionals.

The EBFA Master Instructor (MI) Team is made up of highly qualified, passionate instructors with extensive fitness industry experience. All EBFA MI's have been thoroughly trained to teach the core Certifications offered through the EBFA program. Our Master Instructors lead instructor trainings and continuing education workshops throughout the world.

### Do you want to join a team of leaders in barefoot education?

As the first and only fitness education company that focuses on programming from the ground up™, EBFA has become the leaders in barefoot education globally!

Started in 2011 by Podiatrist and Human Movement Specialist, Dr Emily Splichal, EBFA was her way of sharing with the industry her passion for both medicine and movement. With Dr Splichal's unique educational background and insight into human movement as it relates to the foot & ankle and barefoot science, EBFA quickly became recognized for our evidence-based barefoot training programming including:

- Barefoot Training Specialist® Certification
- BARE® Workout Instructor Training
- Barefoot Rx® Certification
- Foot Strike & Functional Movement (Gait Assessment)

### Requirements for becoming an EBFA Master Instructor:

1. Candidate must hold a current, Nationally-Accredited (NCCA) Personal Trainer or Group Fitness Certification such as ACE, AFAA, NASM, NSCA or hold an advanced degree such as BS, ATC, LMT, MS, DPT, DC, DPM, MD.
2. Candidate must have a minimum 5 years experience in the fitness industry and demonstrate a passion for continuing education through either advanced fitness Certifications or attendance at fitness conferences.
3. Candidate must be fluent in English, but upon successful completion of the EBFA MI Program, courses can be taught in native language. EBFA will assist in the translation of all EBFA manuals, power points and supplementary educational materials.
4. Although prior teaching experience is not required, EBFA MI must demonstrate proficiency in public speaking and must embody the passion for the foot & ankle, barefoot science and human movement.

Upon successful completion of the EBFA MI Program, the MI will join a team of like-minded, passionate professionals who are ready to change the way the fitness industry looks at human movement, injury prevention and athletic performance - **from the ground up™!**

## EBFA Master Instructor Training

May 9 – 11, 2014  
New York City

## Accepting Applications!

For more information please contact:

[education@ebfafitness.com](mailto:education@ebfafitness.com)



# Upcoming Workshops

## US & Canada

**Sat. Mar. 29, 12pm-6pm**

### **Barefoot Rx Barefoot Rehab Specialist - San Mateo, CA**

San Mateo Athletic Club  
Bldg. 5, 1700 W. Hillsdale Blvd.  
San Mateo, CA 94402

**Sun. Mar. 30, 10am-3pm**

### **Foot Strike & Functional Movement - San Francisco, CA**

Muscle Activation of San Francisco  
30 Hotaling Place, Lower Level  
San Francisco, CA 94111

**Sat. Apr. 5, 2pm-5pm**

### **Barefoot Training for Power & Agility- Little Falls, NJ**

Parabolic Performance & Rehab  
One Hall Drive  
Little Falls, NJ 07424

**Sat. Apr. 12, 11am-4pm**

### **Foot Strike & Functional Movement - Danvers, MA**

KiKi Pilates  
10 Elm Street  
Danvers, MA 01923

**Sat. Apr. 26, 10am-4pm**

### **Barefoot Rx Barefoot Rehab Specialist - New York, NY**

H&D Physical Therapy  
12 E 46th St  
New York, NY

**Sat. Apr. 27, 11am - 12:15pm**

### **Run Injury Free - Palo Alto, CA**

Nor-Cal Fitness Summit  
Residence Inn - Palo Alto  
1854 El Camino Real West

## International

**Sat. Mar 15, 10am - 5pm**

### **Foot Strike & Functional Movement - Singapore**

FIT Singapore  
335B Beach Road  
Singapore

**Sat. Mar 22, 10am - 5pm**

### **Foot Strike & Functional Movement - Bangkok**

Fitness Innovations Thailand  
884, 886 Ploenchit Road, Lumpini,  
Pathumwan  
Bangkok 10330, Thailand

**Sun. Mar 23, 10am - 5pm**

### **Barefoot Training Specialist® - Petaling Jaya**

FIT Malaysia  
No. 2-8, 2nd Floor, D19 Business  
Centre, Jalan PJU 8/3  
Bandar Damansara Perdana,  
47820 Petaling Jaya, Selangor,  
Malaysia 47820

**Sat. June 7, 9:30am - 6:30pm**

### **Movement From the Ground Up - Barcelona, Spain**

Avinguda Guiera, 6  
08290 Cerdanyola del Vallès,  
Barcelona, Spain

**Sun. June 8, 9:30am - 6:30pm**

### **Movement From the Ground Up - Barcelona, Spain**

Avinguda Guiera, 6  
08290 Cerdanyola del Vallès,  
Barcelona, Spain

## Contacts

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## Foot Fact:



### Did you know?

Did you know that as we age we actually lose mechanoreceptors in our feet requiring 2x the amount of stimuli to create a response? (Riberio et al. 2007)

Barefoot training can be neuroprotective by decreasing the threshold of these receptors - reducing fall risk & keeping us barefoot strong! Consider the role of small nerve proprioceptive training as we age.

# MOVEMENT FROM THE GROUND UP WEBINAR SERIES

## DATES

**EVERY WEDNESDAY, THIS MONTH OF APRIL 2014**

**This training meets 4 times. You are expected to attend all 4 sessions.**

**APRIL 9, 16, 23 and 30 from 8:00pm to 9:15pm EDT**

## DESCRIPTION

Join EBFA's Dr Emily for our first CEC webinar series introducing you to our unique from the ground up programming.

In this 4 part webinar series you will learn how barefoot science and foot activation are the foundation to faster stability and efficiency which translates to more functional movement.

**Week 1 (April 9)** - Introduction to from the ground up training. Learn how to improve foot to core sequencing through co-activation patterns, joint coupling and myofascial integration.

**Week 2 (April 16)** - Introduction to from the ground up functional movement. Learn how to assess the walking gait cycle to improve client programming and movement efficiency.

**Week 3 (April 23)** - Introduction to from the ground up movement efficiency. Learn how to improve movement through faster deceleration, eccentric endurance and better energy storage.

**Week 4 (April 30)** - Introduction to from the ground up programming. Learn through case studies in injury prevention, athletic performance and corrective exercise.

**Earn NASM, NSCA, ACE & AFAA cecs.**

## PRICE

**\$125.00 per registrant until APRIL 1st - Use Code EBFA!**

**\$160.00 per registrant after April 1st**

For information regarding cancellations and refunds, please contact the organizer at [dremily@ebfafitness.com](mailto:dremily@ebfafitness.com).

## HOW TO REGISTER

**Reserve your Webinar seat now!**

Register Here: <https://attendee.gototraining.com/r/5175918359356242433>

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**Leaders in Barefoot Fitness**