



# GROW WITH EBFA™

August, 2015

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

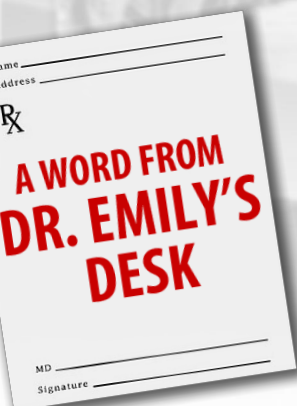
## Hello Health & Fitness Professionals!

Welcome to the August Issue of GROW! This month we have many exciting updates for EBFA including the launch of our barefoot education in the Middle East, our new Keep Calm tank tops and another upcoming Master Instructor Training in the Middle East.

With each month EBFA continues to try to lead the way in the advancement of barefoot science in fitness, performance and rehab. If you have not yet attended one of our Barefoot Training Specialist Certifications we encourage you to explore how this Certification can advance your career.

To find a workshop near you please visit [www.ebfafitness.com](http://www.ebfafitness.com). As always we appreciate your support and remember to stay barefoot strong!

*Dr. Emily*



## Featured Article

### Great Toe Mobility : The Linchpin to Movement Longevity | (Part 1 – Anatomy) by Dr Emily Splichal, DPM, MS, CES

This past weekend I was fortunate to present at the Perform Better Summit in Providence, Rhode Island. This 3-day educational event is comprised of some of the best educators and most enthusiastic professionals in the industry. A common theme throughout a couple of the sessions was the association between great toe mobility and function.

The seemingly simple process of hallux dorsiflexion during push-off is actually quite complex and if great toe mobility is compromised it can cause a slew of movement compensations and pain patterns.

In this 3-part blog series we will begin to explore how this joint is stabilized, simple

*(continued on page 2)*

## Featured Barefoot Training Facility



### Trager Healing Center Naperville, Illinois

This month's Featured Accredited Barefoot Training Facility is Trager Healing Center which is a complete wellness center, focusing on each individual's optimal health and vitality.

Earlier this year I had the pleasure of meeting and training Drs Kim Trager and Jeanene Livanos and Al Meo. As Certified Barefoot Training Specialists and wellness practitioners the team at Trager is able to offer their patients an evidence-based program, applying from the ground up principles to improve patient results.

Trager offers patients and clients services including Chiropractic Medicine, myotherapy, therapeutic stretches and nutritional guidelines.

**Do you want to become an  
Accredited Barefoot Training Facility?**

Contact [education@ebfafitness.com](mailto:education@ebfafitness.com)  
to learn more!

Connect with us



assessment techniques and programming which you can easily implement with your clients and athletes. Please note that these articles are not all-inclusive of every anatomical detail or compensation pattern – to learn more on this topic please check out our EBFA Certifications.

### The 1st Metatarsophalangeal Joint (MPJ)



Formed by the head of the first metatarsal and base of the proximal phalanx this ginglymoarthrodial or hinge joint allows sagittal plane progression during walking, running,

jumping etc.

With the movements of plantar flexion and dorsiflexion, optimal push-off during the gait cycle requires at least 30 degrees of dorsiflexion but having closer to 65 – 75 degrees dorsiflexion is ideal.

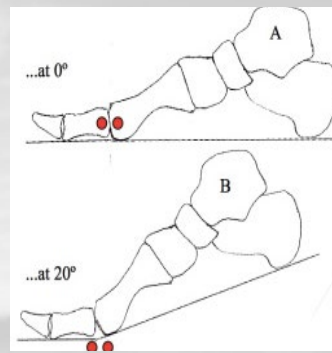
Limited hallux dorsiflexion during push-off can be associated with a low-gear push off position, early heel rise, overactive adductors and under active gluteus maximus.

### Complexity of Hallux Dorsiflexion

At first glance 1st MPJ dorsiflexion seems quite straight forward and based on the increasing emphasis on the great toe in many fitness and performance lectures – I think it is imperative that professionals truly understand this joint and the complexity associated with hallux dorsiflexion. Improving hallux dorsiflexion requires much more than simply integrating great toe stretches or putting a wedge under the big toe.

*So here we go.*

In closed chain movements such as walking, the propulsive phase of gait is the phase in which maximum great toe dorsiflexion is



required. As the foot prepares for the large amount of power output during propulsion, the flexor hallucis longus (FHL) engages thereby anchoring the distal aspect of the hallux to

the ground.

This fixed hallux provides a stable base or lever for propulsion thus allowing the metatarsal head to move relative to the base of the proximal phalanx.

### Sliding, Gliding and Jamming

If we break down hallux dorsiflexion even further will find that the first 20 degrees of dorsiflexion – the head of the 1st metatarsal slides over the base of the proximal phalanx.

The next 10 degrees – 50 degrees of dorsiflexion requires the 1st metatarsal to plantarflex relative to the base of the proximal phalanx creating a gliding movement as the foot moves over the hallux.

The final stage of hallux dorsiflexion is a jamming phase which holds the joint in a stable position.

To repeat – with each step we take – hallux push-off requires a timed movement pattern of sliding, gliding and jamming of the 1st metatarsal head relative to the base of the proximal phalanx. If the timing is shifted or the 1st metatarsal head cannot plantarflex relative to the proximal phalanx, then hallux dorsiflexion will be limited and compensation results.

### So how do we ensure proper sliding, gliding and jamming?

1st ray stability!

Of the above phases the most important phase would be gliding phase or the plantarflexion of

the 1st metatarsal head relative to the base of the proximal phalynx.

So then the question should be – *how do we ensure that the 1st metatarsal head plantar flexes relative to the base of the proximal phalynx?*

To answer this question we must know which muscle plantarflexes the 1st metatarsal.



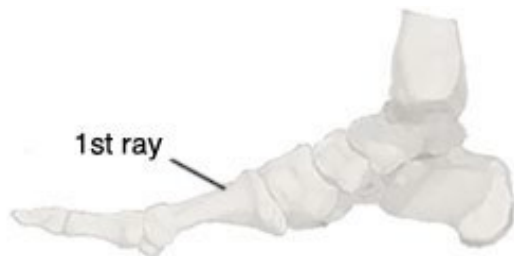
For those who have taken my Barefoot Training Specialist courses – especially the Level 2 – you should recall that the muscle that plantarflexes the 1st metatarsal is the peroneus longus.

Running along the lateral aspect of the lower leg, behind the lateral malleolus and under the cuboid, this muscle attaches to the base of the 1st metatarsal and to the medial cuneiform.

If we look closer at the peroneus longus insertion we see that it inserts 90% on the base of the 1st metatarsal and only 10% on the medial cuneiform. Together this insertion controls the metatarso-cuneiform joint – or the 1st ray.

Joining the peroneus longus tendon on the medial side is the tibialis anterior, with both of these muscles together contributing to the Spiral Fascial Line.

### 1st Ray / Met-Cuneiform Stability



With the tibialis anterior and peroneus longus as direct antagonists of each other, balance between these two muscles is critical for 1st ray stability or hallux dorsiflexion.

If for some biomechanical or neuromuscular reason the tibialis anterior is more active or

dominant compared to the peroneus longus then the 1st metatarsal (1st ray) begins to dorsiflex.



If the 1st metatarsal is dorsiflexed then the gliding phase of hallux dorsiflexion cannot occur and we get premature jamming of the 1st MPJ, limited dorsiflexion and compensation.

So how do we ensure balance between the tibialis anterior and peroneus longus?

To answer this question we must go to the rear foot where we will find the subtalar joint (STJ). STJ position greatly dictates the stability of not just the rear foot, but the entire foot in general.

STJ eversion is often associated with a hyper mobile, flexible and unstable foot and often has trouble locking or stabilizing in a timely manner. STJ eversion as indicted in the picture to the left also causes the peroneus longus tendon to go on slack thus giving a mechanical advantage to the tibialis anterior.



Once the tibialis anterior is given an advantage, the 1st metatarsal begins to dorsiflex, the stability of the 1st ray is compromised and hallux dorsiflexion is limited.

But what if you have a client with limited hallux dorsiflexion and they have a neutral STJ position? This is where understanding both open-chain and closed-chain assessment techniques is important.

In Part 2 of this blog series we will explore how to begin to assess for both structural and functional causes of limited hallux dorsiflexion.

Until then.....stay barefoot strong!



# Upcoming EBFA Educational Webinar

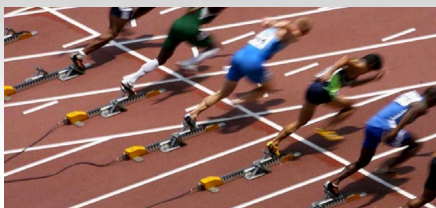
## Optimizing Power at Push-Off | High Gear vs. Low Gear Position

with Dr Emily Splichal

Wednesday, August 19, 2015, 9:00 PM - 10:00 PM EDT

Reserve your Webinar seat now at: <https://attendee.gotowebinar.com/register/4430283458507741186>

After registering you will receive a confirmation email containing information about joining the Webinar. Space is limited.



EBFA's focus on the great toe continues into our August webinar series as Dr Emily reviews the difference between a high gear and a low gear push-off and how optimizing push-off position influence power production.

Learn assessment techniques, common causes of altered push-off position and programming to restore optimal push-off position.



**Do you integrate barefoot training principles at your facility?**  
**Do you employ at least one Certified Barefoot Training Specialist®?**  
**Apply to become an Accredited Barefoot Training Facility!**

With EBFA's Barefoot Training Specialist® Program now in over 21 countries, 7 continents and translated into 9 languages it is time to celebrate those facilities who are making barefoot training principles a key feature in all their training programs and into the mission of their training facility.

By holding the official seal or identity as an Accredited Barefoot Training Facility you are advertising to your members and clients that you believe in evidence-based principles and the safety of progressive barefoot training. It also demonstrates that you understand and believe that barefoot training far exceeds that of simply running.

By becoming an Accredited Barefoot Training Facility you must believe in the benefits of barefoot training as a form of neuromuscular training.

### What does it take to be an Accredited Barefoot Training Facility?

To become listed as an Accredited Barefoot Training Facility you must:

1. Employee at least one Certified Barefoot Training Specialist®.
2. Advertise on your website or in programming that you promote or encourage members and clients to train sans footwear or at least warm-up without shoes.
3. Be a facility that is set up for evidence-based programming which means you must demonstrate an understanding for different surfaces and how each can positively or negatively effect barefoot training benefits.
4. Integrate the Barefoot Training Specialist® or Accredited Barefoot Training Facility logo on your website and in your facility so that potential members and clients are made aware of your mission to spread the importance of barefoot training.
5. Apply to become Accredited through EBFA as well as agree to the mission statement of EBFA for the greater benefit of barefoot training.
6. Remit payment for annual membership fee. Membership fee includes listing on EBFA site, access to Online Portal, Welcome Kit includes logos and t-shirts, discount to all future EBFA workshops.

**To apply to become an Accredited Barefoot Training Facility please contact [education@ebfafitness.com](mailto:education@ebfafitness.com)**

# Upcoming Workshops

## US & Canada

**Sat. August 8, 10am - 5pm and**

**Sun. August 9, 10am - 5pm**

**Movement from the Ground Up -**

**Barrie, Canada**

Lifesource Wellness  
102 Commerce Park Drive  
Barrie, Ontario L4N 8W8

**Sun. August 23, 8am - 9:45pm**

**Art of Movement Efficiency -**

**Chandler, AZ**

NASM Optima  
Sheraton Wild Horse Pass  
5594 W Wild Horse Pass Blvd  
Chandler, Arizona, 85226

**Sat. September 19, 10am - 5pm**

**Barefoot Training Specialist® Level 1 -  
Hollywood, CA**

Atomic Pilates  
4655 Lankershim Blvd North  
Hollywood, CA 91602

**Sun. September 20, 10am - 5pm**

**Barefoot Training Specialist® Level 1 -  
Massapequa Park, NY**

AMP Training  
125 Front Street  
Massapequa Park, NY 11762

**Sat. September 26, 11am - 6pm**

**Barefoot Training Specialist® Level 1 -  
New York, NY**

Elev8  
32 West 28th St  
4th Floor  
New York NY 10001

**Sat. October 24, 10am - 5pm and**

**Sun. October 25, 10am - 5pm**

**Barefoot Training Specialist® Level 2 -  
Portland, OR**

Training Day PDX  
5516 SE Foster Rd  
Portland, OR 97206

**Sat. October 31, 10am - 5pm and**

**Sun. November 1, 10am - 5pm**

**Barefoot Training Specialist® Level 2 -  
New York, NY**

Lucille Roberts  
50 E 42nd St.  
New York, NY 10027

**Thurs. November 5, 10am - 5pm**

**Foot Strike & Functional Movement -  
Uncasville, CT**

NEHRSA/IHRSA  
Fall Conference  
Mohegan Sun  
Uncasville, CT

**Sat. November 7, 10am - 4pm**

**BARE® Workout Instructor Training -  
Naperville, IL**

MK Lab Pilates  
20 W. Jefferson  
Naperville, IL 60564

## International

**Sun. August 9, 9am - 5pm**

**Barefoot Training Specialist® Level 2 -  
Sendai, Japan**

Location TBA  
Tokyo, Japan

**Sun. August 9, 10am - 5pm**

**Barefoot Training Specialist® Level 2 -  
Seoul, Korea**

Midas Fitness  
T1689-2 Seocho-dong  
Seoul, Korea

**Fri. August 28, 10am - 5pm**

**Barefoot Training Specialist® Level 1 -  
Kolkatta, India**

Location TBA  
Kolkatta, India

**Sat. August 29, 10am - 5pm**

**Barefoot Rx® -  
New Delhi, India**

Location TBA  
New Delhi, India

**Sun. August 30, 10am - 5pm**

**Barefoot Training Specialist® Level 1 -  
Mumbai, India**

Reebok Fitness Studio  
Linking Road, Khar  
Mumbai, India

**Sun. August 30, 10am - 5pm**

**Barefoot Training Specialist® Level 1 -  
Tokyo, Japan**

Location TBA  
Tokyo, Japan

**Fri. September 4, 10am - 5pm**

**Barefoot Training Specialist® Level 1 -  
Bangalore, India**

We Fit Gym  
#1, 23 Road Main Fifth Phase  
Bangalore, India

**Sat. September 5, 10am - 5pm and**

**Sun. September 6, 10am - 5pm**

**Barefoot Training Specialist® Level 2 -  
Bangalore, India**

We Fit Gym  
#1, 23 Road Main Fifth Phase  
Bangalore, India

**Tues. September 8, 9am - 5pm and**

**Thurs. September 10, 9am - 5pm**

**EBFA Master Instructor Training -  
Dubai, U.A.E.**

Pilates Academy Dubai  
Jumeirah Bay X2 Tower, Suite 4201  
JLT, Cluster X  
Dubai, UAE

**Tues. September 8, 9am - 5pm and**

**Wed. September 9, 9am - 5pm**

**Movement from the Ground Up -  
Dubai, U.A.E.**

Pilates Academy Dubai  
Jumeirah Bay X2 Tower, Suite 4201  
JLT, Cluster X  
Dubai, UAE

**Fri. September 11, 9am - 5pm and**

**Sat. September 12, 9am - 5pm**

**Movement from the Ground Up -  
Manila, Philippines**

Location TBA  
Manila, Philippines

# EBFA Barefoot Education Launches in the Middle East

**8, Sept - 9, Sept**

**Movement from the Ground Up  
Dubai, U.A.E.**

**2, Oct - 3, Oct**

**Movement from the Ground Up  
Dohar, Qatar**



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**Leaders in Barefoot Fitness**