



GROW WITH EBFA™

June, 2015

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

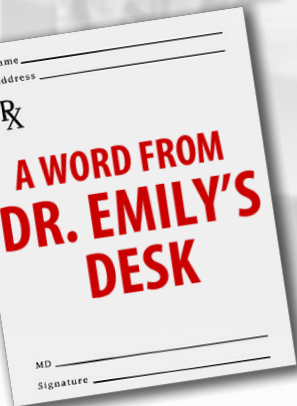
Hello Health & Fitness Professionals!

Over 2 weeks ago we completed our first-ever USA Barefoot Training Summit in Denver, CO. I wanted to send a special thank you to all who traveled and took the time out of their schedules to commit to the advancement of this method within the health and fitness industry.

With over 30 professionals attending from all across the USA and Europe we are looking to keep this annual event on the smaller side as to encourage community building and networking. We are very excited to announce dates and locations for 2016 and of course there will be another Asia Barefoot Training Summit in 2016!

To see pictures from the USA Barefoot Training Summit please see page 5 of this issue.

Dr. Emily



Research Review Texture and Balance



For anyone who has been following EBFA education knows that we talk a lot about small nerves, the plantar foot and balance. These small nerves of the plantar foot are sensitive to stimuli such as skin stretch, pressure, vibration and texture. In this article review we are going to focus on a study that compared different types of texture and their impact on medial / lateral sway and balance.

A 2011 study by Hatton et al. looked at the effect of two different textures on medial lateral sway with both eyes open and eyes closed. Texture 1 was pyramidal textures that were 2.5mm apart while

Featured Article

The Functional Impact of Navicular Drop by Dr Emily Splichal, DPM, MS, CES



Anyone who has ever attended one of my workshops knows that I do not like the simple classification of foot types based on "high arch" or "flat foot".

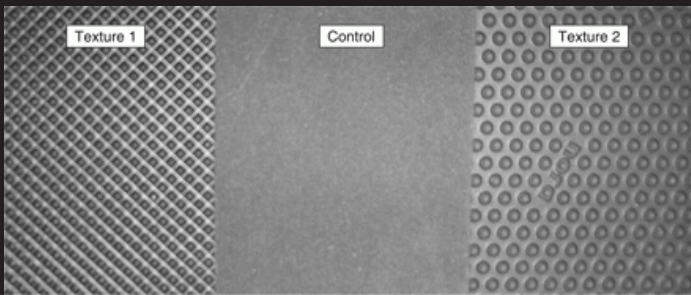
This type of classification system is too simplistic and does not really tell the practitioner anything about the mechanics of the foot.

(continued on page 2)



Connect with us

(continued from page 1)



Texture 2 was circular patterns that were 5mm apart. Both Texture 1 and Texture 2 were compared against a Control texture which was smooth.

What Hatton et al. found was that with eyes open and eyes closed Texture 1 (pyramids) had the greatest decrease in medial lateral sway and sway velocity with the greatest impact when eyes were closed. Although Texture 2 (circular) also showed a small decrease in the medial lateral sway distance in both conditions it actually increased the velocity of sway!

Medial lateral sway is important to assess as it generally increases with age and is associated with an increased fall risk. What this research study demonstrated was that texture can be a beneficial intervention to improve balance and decrease medial lateral sway however the texture must be specific. Not all textures have a positive effect on balance with some actually having a negative effect on balance and may possibly increase fall risk.

Hatton et al. Standing on textured surfaces: effects on standing balance in healthy older adults. *Age Ageing*, 2011. 40(3): 363 - 368.

To learn more about texture and barefoot training please visit
www.ebfafitness.com

Instead, in my BTS Level 1 courses I teach professionals to begin to classify foot types based on subtalar joint (STJ) position. It is important to identify if the STJ is inverted? Neutral? Or everted?

We must then understand how each STJ position can potentially impact injury risk or impede performance.

As we begin to take our understanding of foot function to the next level we want to begin to consider midfoot biomechanics and how they relate to rearfoot or STJ position.

Introducing the Talo-Navicular Joint (TNJ)



In the BTS Level 1 courses we learn how to master the biomechanics of the rearfoot which includes the ankle joint and STJ. For those who attend the BTS Level 2 course we will begin to look closer at the midfoot or specifically the talonavicular joint.

If we were to look at the foot from a medial view we can appreciate how the talus is sandwiched between the calcaneus below and the tibia above. This talar relationship is the foundation to foot function but what if we take it one step further and look how the talus is also in contact with the navicular distally.

It is this talus – navicular relationship which is referred to as the talo-navicular joint or TNJ. The TNJ is responsible for translating inversion and eversion of the STJ forward into the midfoot and ultimately comprises what we often refer to as **supination** and **pronation**.

Although I often do not discuss supination and pronation in the BTS Level 1 course, for the sake of this article and those who are looking to attend a BTS Level 2 course, we will begin to explore this concept.

As mentioned earlier it is the **STJ + TNJ** which creates supination and pronation.

Supination = STJ inversion + TNJ dorsiflexion and adduction

Pronation = STJ eversion + TNJ plantarflexion and abduction



When the foot supinates the navicular raises or shifts into a locked and stable position relative to the talus. This ultimately puts the posterior tibialis in a position in which it has maximum activation.

When the foot pronates the navicular is essentially dropping down and the talus slides off of the joint surface. This alters the length tension relationship of the posterior tibialis which if you remember attaches to the navicular bone.

Of these two the one we are going to explore closer is the pronation or TNJ plantarflexion and abduction – or what we will refer to as navicular drop.

Assessing Navicular Drop

When determining navicular drop start with the client's foot in STJ Neutral partial weight bearing. Mark the level of the navicular with a pen. Measure the height of the navicular relative to the ground.

Now have the client go into a full weight bearing position in their natural stance or what is referred to as relaxed calcaneal position. Measure the height of the navicular relative to the ground.

Subtract the difference between the neutral STJ and the relaxed STJ navicular height. The difference is your navicular drop.

A navicular drop of > 10 mm would be considered pathological.

Posterior Tibialis Function and Navicular Drop

Any shift in navicular position is ultimately going to impact the posterior tibialis as this is the muscle which attaches to this bone. As the navicular drops as in the pronated foot there is a shift in the lever arm of the posterior tibialis making it more difficult to activate this muscle.

Since we often refer to muscles in relation to fascial lines we know that the posterior tibialis is part of the Deep Front Line. Running from the bottom of the foot up the adductors and into the pelvic floor, an over-pronated foot or foot with navicular drop can have a hard time keeping this fascial line activated.

FitnessRx and Navicular Drop

So what do you do if you have a client who has navicular drop?

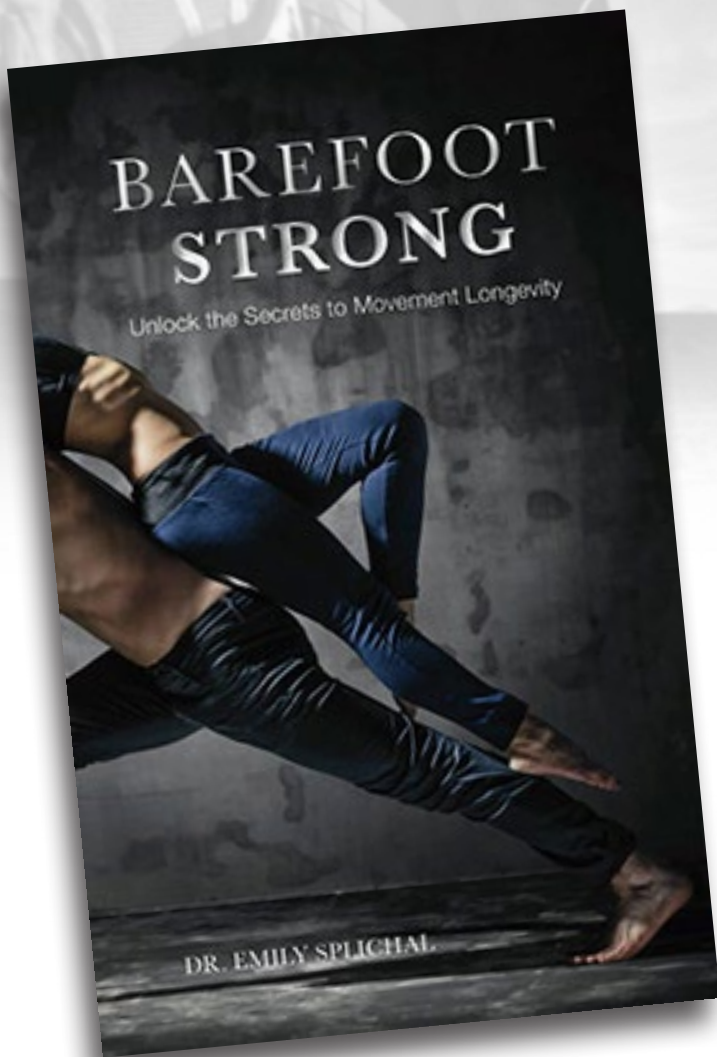
Short Foot – Short foot is one of the best exercises for someone with navicular drop as one of the functions of the abductor hallucis is the pick up the navicular. I often refer to this sling effect of the abductor hallucis during BTS Level 1

Ball between heels – Performing a calf raise with a ball between the heels (behind the medial malleoli) has been shown to have some of the highest posterior tibialis muscle activation. This exercise is also a great way to integrate the posterior tibialis function all the way up into hip external rotation.

Single leg glute exercises – Everyone knows I'm a big fan of barefoot balance exercises for the reason that it is a highly functional exercise for glute activation. Studies have shown that 6 weeks of glute strengthening can create a neutral STJ in a mildly everted foot.

To learn more about navicular drop and the BTS Level 2 course, please visit <http://www.ebfafitness.com>





BAREFOOT STRONG

Unlock the Secrets
to Movement Longevity

by Dr Emily Splichal

Available in print & e-book format!

ORDER NOW at

amazon.com



BARNES & NOBLE

EBFA
EVIDENCE BASED FITNESS ACADEMY
LEADERS IN BAREFOOT EDUCATION

Are you ready to unlock the secrets to anti-aging movement and become barefoot strong?

As one of the fastest growing areas within medicine, the anti-aging business is now a \$122 billion dollar industry with researchers dedicating their careers to finding the fountain of youth. Whether it be copper peptides or acai supplements, most of the anti-aging industry focuses on limited aspects of eternal youth and vitality.

For the first time ever, it is time to apply the latest research into a new area of anti-aging medicine known as movement longevity. Join Podiatrist & Human Movement Specialist Dr Emily Splichal as she explores the science behind barefoot training and how this often overlooked area of health and fitness is actually the secret to youthful movement.

As an internationally-renown educator on barefoot training, Dr. Emily has traveled the world exploring the concept of movement efficiency from the ground up. Through barefoot science, fascial fitness and neuromuscular conditioning, Dr Emily will show you how to survive the unnatural conditions of today's shod society and optimize your movement patterns.

From barefoot activation exercises, to vitamin supplements to protect your peripheral nerves, Barefoot Strong is your go-to guide to ensure years of efficient movement – one step at a time.

EBFA HOSTS US BAREFOOT TRAINING SUMMIT



On May 15 - 17, 2015 EBFA hosted the first-ever USA Barefoot Training Summit at Project MOVE in Littleton, CO. Over 40 professionals representing from across the United States and Europe were in attendance for this 3 day event.

Attendees were able to learn some of the latest science, movement and programming from top International presenters including: Mike Fitch of Animal Flow, Stacey Lei Krauss of willPower Method, Coach Loren Landow, Dr Mike Martino of Georgia College and EBFA Founder Dr Emily Splichal.

Some of the favorite sessions of the weekend included Animal Flow, Yamuna Foot Fitness, willPower & Grace® and RunInjuryFree! Post-Conference Certifications included Animal Flow and the Functional Aging Certification from FAI.

The mission of the Barefoot Training Summit is to increase the awareness to the benefits of barefoot training and from the ground up movement within fitness, performance and rehab. Since the development of EBFA's Barefoot Training Specialist® Program in 2012 the concept of barefoot training has rapidly increased and is now a common technique among clients, professionals athletes and patients.

2016 Barefoot Training Summit dates and locations to be announced soon!

To learn more please visit www.barefoottrainingsummit.com

Upcoming Workshops

US & Canada

Thurs. June 11, 10am - 5pm

Barefoot Training Specialist® Level 1 -

Phoenix, AZ

FAI Conference
Sheraton Phoenix Airport Hotel
1600 S 52nd Street
Tempe, AZ 85281

Fri. June 12

Functional Aging Conference -

Phoenix, AZ

FAI Conference
Sheraton Phoenix Airport Hotel
1600 S 52nd Street
Tempe, AZ 85281

Sat. June 20, 10am - 5pm and

Sun. June 21, 10am - 5pm

Movement from the Ground Up -

Barrie, Canada

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

Fri. June 26, 9am - 5pm

willPower Summit -

Denver, CO

Hilton Garden Inn
Denver Downtown
1400 Welton Street
Denver, Colorado, 80202

Sun. June 28, 1:30pm - 7:30pm

Barefoot Training Specialist® Level 1 -

Denver, CO

Hilton Garden Inn
Denver Downtown
1400 Welton Street
Denver, Colorado, 80202

Sun. June 28, 10am - 5pm

Barefoot Training Specialist® Level 1 -

Carle Place, NY

Crossfit Total Empowerment
231 Voice Rd.
Carle Place, NY 11514

Sat. July 18, 9am - 5pm

Perform Better 3-Day Summit -

Providence, RI

Location TBA
Providence, RI

Fri. July 24, 11am - 5pm

BARE® Workout Instructor Training -

Rochester, MN

Empowered Wellness
1115 7th St NW
Rochester, MN

Sat. July 25, 10am - 5pm and

Sun. July 26, 10am - 5pm

Movement from the Ground Up -

Rochester, MN

Empowered Wellness
1115 7th St NW
Rochester, MN

International

Sat. June 6, 10am - 5pm and

Sun. June 7, 10am - 5pm

Movement from the Ground Up -

Madrid, Spain

Zeebra Academy
Madrid, Spain

Sat. June 13, 10am - 5pm

Barefoot Training Specialist® Level 1 -

Shanghai, China

3HFit
666 Tian Yao Lu
Shanghai Stadium
Shanghai, China

Sat. June 13, 10:00 - 18:00

Barefoot Training Specialist® Level 1 -

Rome, Italy

3HFit
666 Tian Yao Lu
Shanghai Stadium
Shanghai, China

Sat. June 13, 10am - 5pm and

Sun. June 14, 10am - 5pm

Barefoot Training Specialist® Level 2 -

Madrid, Spain

Zeebra Academy
Madrid, Spain

Sun. June 14, 9am - 5pm

Barefoot Training Specialist® Level 1 -

Tokyo, Japan

Location TBA
Tokyo, Japan

Sun. June 21, 9am - 5pm

Barefoot Training Specialist® Level 1 -

Nagoya, Japan

Location TBA
Nagoya, Japan

Sat. June 27, 9am - 5pm and

Sun. June 28, 9am - 5pm

Barefoot Training Specialist® Level 1 -

Manila, Philippines

The Podium
4th Level
Manila, Philippines

Sat. July 4, 9am - 5pm

Barefoot Training Specialist® Level 2 -

Manila, Philippines

The Podium
4th Level
Manila, Philippines

Sun. July 12, 9am - 5pm

Barefoot Training Specialist® Level 2 -

Tokyo, Japan

Location TBA
Tokyo, Japan

Not a subscriber? Sign up now to get free monthly education from EBFA!



Leaders in Barefoot Fitness