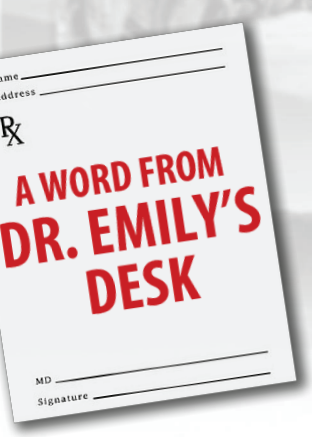
GROW WITH EBFA™

January, 2014

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



Hello Health & Fitness Professionals!

Happy New Year from EBFA! We hope that you all are having a great 2014 thus far.

Welcome to the January Issue of GROW with EBFA®. In this month's issue we celebrate the launch of EBFA's Master Instructor Program. This March, EBFA will be hosting our first-ever Master Instructor Training in Bangkok, Thailand.

Professionals will be in attendance from over 10 countries including China, Hong Kong, India, Japan, Korea, Malaysia, Singapore, Sri Lanka, Thailand & the Philippines. We look forward to having this group of professionals become part of the EBFA Team!

Wishing you the best in 2014 !

Dr. Emily

Featured Article

Barefoot Baby Boomers

Reducing Falls with Barefoot Science

-By Dr Emily Splichal

According to the CDC, one in three older adults (age 65 and older) fall each year, with an astounding 2.3 million fall-related injuries treated in U.S. emergency rooms in 2010.

If these statistics are not alarming enough, they are only going to increase as the U.S. population enters its largest growth within the 65 and older category. In fact, statisticians project that in 2030 one in five American adults will be over age 65.

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Featured

Barefoot Rehab Specialist®

Caroline Varriale, DPT, CAFS, CSCS
New York, NY

1. What initially attracted you to the BarefootRx® Program? Has this workshop changed the way you look at human movement and patient rehab programming?

The comprehensive, full-body approach of the BarefootRx® Program was what really interested me. I treat many endurance athletes, especially runners, so injuries of the foot/ankle and lower extremity are very common. However, focusing on just the area of injury almost never produces adequate and lasting effects. Looking at the impact of barefoot assessment and treatment on the entire kinetic chain is therefore extremely powerful for the population I work with.

The workshop strengthened my ability to view human movement as a bigger and more global event, not just an isolated part moving in space. It helped me with pattern recognition, and I am now more able to link observations with compensation strategies,

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soft tissue disorder, and movement dysfunction. The workshop also influenced my choices in rehab programming, making me much more specific in how I order exercises and whether I have patients in footwear or not. I am always thinking about what signals are likely being received by the bottom of the foot and how that is affecting the rest of a person's movement.

2. Overall how have your clients responded to the assessments and programming taught in the BarefootRx® Program? Any specific patient results you want to share?

My patients generally have positive responses to barefoot training. They usually find it a little strange and challenging at first, and some are pretty hesitant to jump and lunge without shoes on. However, they often express surprise and even enjoyment when they feel new muscles activating and sense changes in their own movement so quickly with barefoot activities. It is actually very fascinating and rewarding for me to watch patients start an exercise with caution, and after a few minutes demonstrate newly found confidence and control of motion as they activate and build natural connections between the environment and their bodies.

One man, who has had recurring calf injuries for several years, was quiet and concentrated while we were working on a barefoot loading strategy to lengthen and engage his posterior hip. I asked him how it felt and what he was thinking, and his response was, "Wow, I wish I had started doing this 15 years ago."

3. Would you recommend the BarefootRx® Program to your colleagues? Why or why not?

I would absolutely recommend the BarefootRx® Program to my colleagues. Anyone who is working in the movement, health/wellness, and fitness industries can benefit from increasing their understanding of barefoot science and its impact on the body.

Dr. Splichal is an engaging and expert instructor, and her workshop provides valuable background evidence and practical application strategies for using barefoot training with various patient/client cases. The program's focus on functional movement assessment and treatment makes it a great tool for anyone seeking to further understand the complex patterning of human movement. It definitely gave me a different and deeper appreciation for the power of the foot!

What is the cause for such growth?

Blame it on the end of World War II and the baby boom between 1946 and 1964. As the Baby Boom began to taper off, over 76 million babies were born – making up 40% of the U.S. population.

So how will this increasing age of our population affect healthcare, fitness and economics? Greatly! In 2010 alone the CDC reported fall-related medical costs to be over $30 billion!

With numbers like this, health and fitness professionals are going to play a pivotal role in the wellness and reduction of falls in this aging population.

Why are falls so prevalent in this population?

Although falls are multi-factorial and dependent on both intrinsic and extrinsic risk factors, one such area that studies have shown greatly impacts fall risk is – *footwear and the dampening of proprioceptive input.*

As a strong advocate for the benefits of barefoot training, I am often told by attendees in my workshops that "this information would be perfect for seniors and fall risk". And I agree!

Let's take a look at the evidence of why barefoot science would benefit the Baby Boomers.

Studies have shown that as we age the plantar mechanoceptors of the foot begin to degenerate. Robbins et al. demonstrated that vibratory threshold increases 20% by age 50 and 75% by age 80. (Remember that vibratory detection is a small nerve or plantar skin response.)

Another study by Robbins et al. demonstrated that plantar receptors actually begin to lose density as we age. His 1993 study demonstrated that Meissner's Corpuscle (which detects light touch) changes in density from 69 mm^2 at age 3 to $8mm^2$ at age 80!

So we know there is a decline in plantar proprioceptors. But what else may be contributing to falls in Seniors? If you guessed *"their footwear"* you are correct!

The negative impact of orthopedic footwear.

With the popularity of barefoot running, we are probably all familiar with the downsides of footwear on plantar proprioceptive input. Numerous studies have shown that footwear alters the foot's perception of impact forces and foot position sense.

Again we go to a study by Robbins et al. to see that as footwear sole thickness increases – foot position sense and stability decreases. However as the firmness of the sole increases – so does the foot position sense and stability.

If you look at orthopedic shoes most have thick soles moldable insoles to provide extra cushion and comfort. But are these orthopedic shoes compromising comfort for stability? Unfortunately yes.

The role of barefoot science!

So with this age-related degeneration of plantar proprioceptors, it really is no wonder that there are increased falls seen in the aging population. But do these Baby Boomers have to fall victim to their aging nervous system?

Perhaps not – this is where we look at the benefits of barefoot science and the reduction of falls.

Through barefoot training and frequent barefoot stimulation, this population will be able decrease the threshold of their plantar proprioceptors. As receptor threshold is decreased, stability in footwear will increase.

In addition, through barefoot movement, activation and recruitment of the intrinsic muscles will lead to improved foot posture and lower extremity kinematic alignment. Since a majority of falls occur during locomotion, improved lower extremity alignment will lead to better hip and core stability required for stance phase.

Getting started.

Some tips as you begin to introduce barefoot training in Seniors and a fall reduction program include:

- Avoid impact exercises.

The great thing about barefoot training is that you still gain the plantar stimulation and benefits without high impact forces. Simply standing on one leg, barefoot is still challenging plantar proprioceptors and stimulating skin stretch and foot position sense.

- Integrate short foot.

I strongly believe that the foundation of all barefoot programs is the short foot exercise. The benefits of short foot are vast and include improved foot posture, intrinsic muscle strengthening and co-activation patterns into the deep hip stabilizers - all of which translates to improved stability during ambulation!

- Integrate balance exercises.

A majority of falls occur during locomotion which means fall reduction programs need to focus on the primarily closed chain position the we are in during ambulation - the single leg stance. Teaching single leg foot position sense is critical to the reduction of falls. I often integrate simple balance exercises with head turns, gentle knee flexions (single leg squat teasers) and bowler's squats teasers.

- Be creative with plantar receptors.

When integrating barefoot stimulation in a fall reduction program, be creative with the types of plantar stimulation you integrate. Remember plantar receptors are sensitive to skin stretch, vibrations, light touch and texture. All receptors are at risk of degeneration which means all need to be stimulated and challenged.

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As we continuously explore the benefits of barefoot science it is important to share the vast benefits with the broadest scope of individuals. From children to Seniors, all can benefits from plantar stimulation and the co-activation patterns between the foot and hip.

Are you barefoot strong?

References:

Robbins, et al. Foot Position Awareness: The Effect of Footwear on Instability, Excessive Impact and Ankle Spraining. Phy Rehab Med, 1997.9(1): 53-74

Robbins, et al. Proprioception and Stability: Foot Position Awareness as a Function of Age and Footwear. Age and Ageing, 1995. 24:67-72.

Robbins, et al. Protective Sensation of the Plantar Aspect of the Foot. Foot & Ankle, 1993. 14(6):347-352.

LEADERS IN BAREFOOT FITNESS

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

March 19 – 21, 2014

Bangkok, Thailand

For more information please contact:

education@ebfafitness.com

BAREFOOT REHAB SPECIALIST

Upcoming Workshops

USA

Sat Jan. 25, 11am-5pm
Barefoot Training Specialist®- Rochester, MN
Empowered Wellness
1115 7th Street NW
Rochester, MN 55901

Sun Jan. 26, 12pm-6pm
Barefoot Rx - Barefoot Rehab Specialist St. Charles, MO
Emerge Fitness Training
3839 Mexico Road
St Charles, MO 63303

Sat. Feb. 1, 12pm-6pm
Foot & Ankle Fascial Movement Taping- NY, NY
H&D Physical Therapy
12 E 46Th St
New York, NY

Sat. Feb. 8, 12pm-3pm
Barefoot Training for Power & Agility- Denver, CO
willPower Fit Studio
2110 Market St
Denver, CO 80205

Sun. Feb. 9, 10am-4pm
Barefoot Rx: Barefoot Rehab Specialist- Colorado Springs, CO
Studio J Pilates
4960 Centennial Blvd
Colorado Springs, CO 80919

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

Foot Fact:

A study by McKay et al. found that the three greatest risk factors for ankle injury in basketball players included:

1. History of ankle injury increased re-injury risk by 5x

2. Air cells in the shoe heel increased injury risk by 4.3x

3. Not stretching before a game increased injury risk by 2.6x

Br J Sports Med, 2001.

Contacts

Dr Emily Splichal
Founder EBFA Fitness
dremily@ebfafitness.com

Sanjay Dev
Director of Global Initiatives
sanjay@ebfafitness.com

Doug Van Dalinda
Continuing Education Coordinator
doug@ebfafitness.com

EBFA returns to India February 2014!

After four successful workshops across India in 2013, EBFA proudly announces our return to India in February 2014!

EBFA's Dr Emily will return for a series of movement workshops and runner's clinics powered by Rocktape. For the first time ever, health and fitness professionals will be able to gain powerful tools in gait assessment, footwear science and kinesiology taping for the prevention of running-related injuries.

Cities already confirmed for February 14th - 23rd: Delhi, Kolkata, Bangalore & Hyderabad

For more information or to register, please contact: sanjay@ebfafitness.com

Recently Certified
Barefoot Training Specialist®

Barefoot Training Specialists ®

Gayle Earle - Bloomington, IN

Brandon LaVack - Beverly, MA

Catherine Marshall - Quincy, MA

Josh Caruthers - Beaverton, OR

Jeff Waskowiak - Beaverton, OR

Albert Lui - Kuala Lumpur, Malaysia

Jesse Garcia - Den Haag, The Netherlands

BARE ® Certified

Michelle Aluqdah - Brooklyn, NY

Crystal Dodson - New York, NY

Rebecca Navarro - New York, NY

Tamara Coleman - Washington DC

Caity Davis - Alexandria, VA

BarefootRx ® Certified

Fred Johnson - New York, NY

Santiago McCarthy - New York, NY

JoAnn Yanami - New York, NY

Michelle Yang - New York, NY

Upcoming Webinar

The Role of Barefoot Science & The Shod Athlete

Thurs. February 6, 2014 8pm-9pm EST

Reserve your Webinar seat now!

Register Here:

https://www3.gotomeeting.com/register/549622894

Robbins et al. demonstrated that shod athletes had a higher foot and ankle injury risk compared to barefoot athletes - yet footwear seems to provide the traction and "stability" needed for certain shod sports.

Join Dr Emily as she explores the role footwear plays in injury risk and challenges modern footwear design with advances in barefoot science. Learn the benefits of integrating barefoot activation and small nerve stimulation in the shod athlete to reduce injury and improve performance!

Past Archives

Make sure to view all of our past webinars on our Archive

www.youtube.com/ebfafitness

EBFA Barefoot Training Certifications

BARE® is the only barefoot balance training workout that is uniquely designed to improve balance, hip strength and core endurance.

Find out more by visiting http://barefootstrong.com

Fully prepares fitness professionals to better integrate barefoot training and foot fitness into their client's workout and running programming.

For more information visit http:/evidencebasedfitnessacademy.com/us-canada-workshops.html

Explore the benefits of barefoot training in the rehab setting.

For more information visit http:/evidencebasedfitnessacademy.com/us-canada-workshops.html

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

Leaders in Barefoot Fitness