



## Bunion deformities & the athlete

By: *Terese J. Laughlin, DPM, FACFAS*

A bunion is a common foot condition which results in pain and discomfort in the great toe joint with activity. Altered alignment of the joint creates a bony prominence or “bump” on the side of the great toe. This bump may become red, painful and swollen, and often is irritated by shoe gear. In more advanced cases, arthritic changes cause pain with joint motion.

Bunions are the result of a complex biomechanical interaction of the foot's bone, joint and soft tissue architecture. The condition is more common in women than men, and also more common in

adults. Bunions in children and adolescents tend to be much more severe than those of adult onset. To date, no medical research has proven how to prevent bunion deformities. In both juvenile and adult varieties, the bunion deformity will progress over time and generally cause damage to the articular (joint) cartilage.

The first line of treatment for bunion deformities is shoe gear modification. Shoes with a wide and high toe box will accommodate the enlarged great toe joint, and often eliminates pain in early deformities. This is especially true with athletes. Oral anti-inflammatory medication may also help control some of the discomfort, but you should consult with



### MEET

### Terese Laughlin, DPM, FACFAS

Dr. Laughlin is a native of Downers Grove, Illinois. While in high school, she excelled in track and cross-country, earning All-American honors and receiving an athletic scholarship to The University of Texas at Austin.

In addition to being a four-year varsity letter winner and a member of an NCAA National Championship team in cross-country at UT, she also received a Bachelor's degree in Biology.

Following her undergraduate studies, Dr. Laughlin attended Dr. William M. Scholl College of Podiatric Medicine in Chicago. She then completed a three-year podiatric medicine and surgery residency at The University of Texas Health Science Center at San Antonio, serving as chief resident of the Podiatry Service in 1996 - 97.

Dr. Laughlin and her husband, Dr. John Fleischli, moved to central Illinois to begin their private practice in 1997.

Dr. Laughlin has published extensively on a variety of topics and has lectured at numerous medical seminars. She has a special interest in running related injuries and foot surgery. She also specializes in wound care, serving as a panel physician at St. John's Regional Wound Center.

your physician prior to their use.

Functional orthoses may help control the biomechanical forces, which contribute to the bunion deformity, but they do not correct the problem. At best, orthoses may slow the progression of the deformity and delay the need for surgical intervention. Sport specific orthoses can be very useful for these patients.

Surgical correction is the only definitive way to correct a bunion deformity. Surgery reduces pain and improves function. Surgical procedures are quite variable, depending on the severity of the deformity and the extent of cartilage damage. Most bunions require a procedure, which cuts and repositions the bones of the great toe joint, often using small metallic screws or pins to hold the bones in a corrected position. Although some cases may require cast immobilization following surgery, most procedures allow immediate weight bearing in a surgical shoe. Surgical intervention is generally indicated when the patient/athlete is significantly limited in their chosen activities because of the discomfort.

# The **right** track: Patellofemoral Pain Syndrome

By: *Jenette Lorimor, PTA*

Now that springtime conditioning is over, athletes and fun runners are pushing through the warm summer months to reach their personal goals before the end of the season. But those mid-season runs are not only becoming difficult for runners



## MEET Jenette Lorimor, PTA

Jenette is a physical therapist assistant in the Outpatient Clinic at St. John's Rehab South. She treats a variety of clients with aquatic and land-based therapies. Jenette joined the clinic in August 2011 after spending two years on the inpatient care staff at Blessing Hospital in Quincy, IL.

A regular on the Dean's list, Jenette earned her Associate's degree in Physical Therapy from Southern Illinois University Carbondale in August 2009. During which time she completed externships at Southern Illinois Orthopedic Center of Carbondale, IL, and Rehab Unlimited Fit for Work of Anna, IL.

Jenette served as an assistant in the practice of David Janecek, DC, in her hometown, Fairbury, IL, until she graduated from Prairie Central High School in May 2007.

Jenette enjoys reading, painting, rollerblading and cooking. She and her husband, Barton, reside in Springfield.

because their shoes are wearing out and the hot, humid temperatures are dampening their apparel day after day. Their bodies may be feeling the effects from consistent strain.

It's not only runners feeling these effects. A vast majority of clients at outpatient clinics come in with discomfort in their knees — a complex component of the body's structure. The knee is required to maintain stability and support body weight, yet stay agile enough to control diverse mechanical changes in body positioning.

One of the most commonly diagnosed knee conditions is patellofemoral pain syndrome. Discomfort originates from inflammation along supporting soft tissue structures in the knee. The patella, or kneecap, is designed to glide over the distal end of the femur along the femoral groove. When the kneecap is constantly strained, it can develop improper tracking. The kneecap is designed to move up and down along the patellar groove and the underlying surface of the kneecap tilts and rotates to sustain multidirectional stresses. Constant strain can occur if the kneecap is misaligned in the patellar groove and pressures persist on the backside of the kneecap. This may cause pain.

Contributing factors that lead to poor tracking include:

- Biomechanical strain — an increased angle from the hips to the knees, high arches with pressures on the outside of the foot, or flat feet with pressures on the inside of the foot.

- Overuse and overloading — high impact exercises, obesity and flexion of the knee while descending surfaces.
- Muscular dysfunction — decreased strength of the quads (the top portion of the leg) internal and external hip rotators, hip abductors and adductors.
- Flexibility — specifically the iliotibial band along the lateral portion of the thigh, hamstrings, and calves.

Patellofemoral pain can be linked to an individual dysfunction, but it is usually multifaceted. Usually, kneecap alignment can be seen with the naked eye. The knees should glide over the top of the toes when maintaining a squatting position. If pain is related to overuse, it is suggested that succession of impact exercise be excluded but supplemented by non-impact exercise such as swimming or cycling.

Specific strengthening of the quadriceps and stretching of the iliotibial band and hamstrings should be completed as well. Ice can be applied in 20-minute increments, especially after weight bearing activities. Knee sleeves, braces or athletic taping also can be used to apply counter forces to complete proper biomechanical tracking and support. Footwear, custom orthotics or inserts can be used to adjust foot alignment in relation to knee stresses.

If pain persists it may be necessary to consult with an orthopedic specialist because improper tracking can cause damaging wear on the knee joint.



# Foam rolling: painful, uncomfortable, intense ... **wonderful!**

By: *Brenda Reiling, PT, Cred. MDT*  
*St. John's AthletiCare™*



**Brenda Reiling, PT,**  
**Cred. MDT**

Of all the good words used to describe foam rolling, **effective** is probably the best. Foam rollers provide an effective, yet inexpensive, method of self massage and aid in stretching and recovery.

A foam roller is a cylinder composed of dense foam (more firm than a pool noodle) that is typically six inches in diameter and comes in a variety of lengths. Their popularity is evident by the mere fact they can readily purchased online,

in sports stores or even in large retail stores.

The art of foam rolling is easy to master. Basically, the individual uses their body weight to apply pressure to “trigger points” or sore spots in their muscles. The individual can either find a tender spot and sustain pressure over the area until



the discomfort decreases by 50 percent - 75 percent or roll along the muscle in long sweeping motions.

Major sites that respond well to the foam roller include:

- Iliotibial band (lie on side)
- Gluteal muscles, calves and hamstrings (on back propped on hands)
- Quadriceps (lie on stomach)

Foam rollers aid in the relaxation of muscles through the stimulation of receptors that perceive tension. Also, foam rollers assist in breaking up adhesions in soft tissue. This then decreases trigger points and improves circulation, which brings the necessary nutrients to the area to assist in repairing damaged muscles.

Overall, foam rollers are an inexpensive but effective adjunct to any training program. It is a “pain that never felt so good.”

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