

# Apple THERAPY SERVICES

Manchester • Amherst • Londonderry • The Executive • Bedford • Nashua

July 2016

It is the height of race season for many runners and triathletes who come through our doors. We offer a multitude of treatment techniques from ART and Dry Needling, to video running gait analysis, to help these athletes get back to their normal activity level as fast as possible. In this month's newsletter we highlight research and education related to running gait. Cheers! - Karin Biskovich, MPT and Laura Jackson, DPT

## WHAT'S NEW AT APPLE THERAPY

Lisa Mazzini, PT of our Bedford office recently became Mckenzie certified. The Mckenzie Method is a reliable assessment process intended for all musculoskeletal problems, including pain in the back, neck and extremities.

## CURRENT RESEARCH IN PHYSICAL THERAPY

### Reliability of Qualitative Video Running Analysis

Running has been increasing in popularity and common musculoskeletal running-related injuries go hand in hand with this increase. Analyzing a runner's gait pattern is important to return the athlete to full activity faster and prevent re-injury. Hence, Apple Therapy invested in a video running gait analysis system at our Executive Health Club location. Research supporting the use of video analysis is important to us with education of doctors and potential clients. In the July 2016 issue of *Journal of Orthopaedic & Sports Physical Therapy*, Bryan Heiderscheid et al looked at the reliability of qualitative video running analysis. They found specific gait events to be highly reproducible. Also common kinematic variable such as rearfoot position, foot-strike pattern, tibial inclination angle, knee flexion angle, and forward trunk lean can also be used with confidence. Refer your next runner to have their running gait analysis done!



## SHOULD YOU CHANGE YOUR RUNNING FORM?

Running is one of those sports that you can pick up at any point in your life. All it really requires is a new pair of sneakers and usually a goal to finish your first 5k. There are races every weekend all over the country which inspires people to search for the next goal race. Typically, this increases the running mileage and the chance for small injuries to start. Running is a fantastic way to stay heart healthy and manage your weight so as a PT I want to help people continue with this endeavor and stay injury free.

There has been a lot of talk about foot strike in recent years. Do you know how your foot strikes the ground when you run? The simplest way to find out is to have someone take a video of you running. Do you land heel first with the front of your foot off the ground? Or do you land with your whole foot on the ground (midfoot)? Or do you land on just the front of the foot with your heel of the ground?

Most often, people land with their heel first. I would like to make the case to change from heel strike to midfoot strike to help prevent injury. Research has shown that heel striking causes an increase in ground reaction force. What does this mean? When you land on your heel, your body (ankles, knees, hips) has to absorb more force than if you were to land on your midfoot. Repeat this with every stride = repetitive stress to your joints.

Okay so how do you make the change? Well it has to be VERY gradual and best done over 3-6 month time period (or even longer). It probably took me over a year to switch. If you go for a 30 minute run, try to perform 6 intervals of 30 seconds where you consciously try to land with the ball of your foot first. You are using different muscles so they can get fatigued quickly. Once this gets easy increase your midfoot strike time by 10% for the next run. Continue to increase gradually as your muscles get better at performing the new form.

Apple Therapy Services | <http://www.appletherapy.com> | (800) 977-9041

