FROM THE ***SOLE***

Tips to keep you **running at your best**

intraining

running injury clinic

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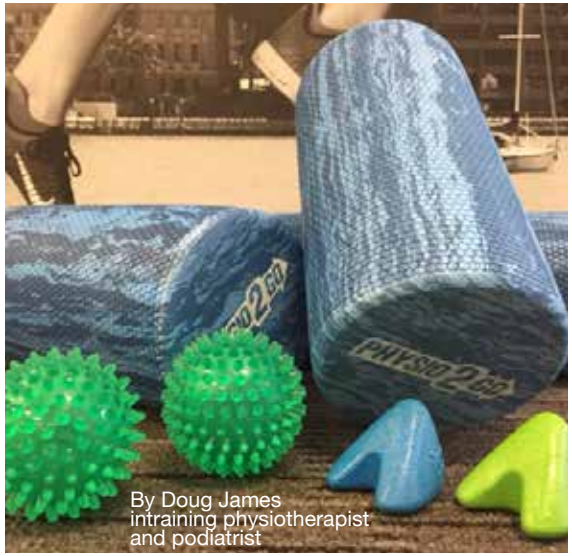
TREAT YOUR OWN TRIGGER POINTS

During the 'taper' period it's often a good idea to get a massage a few days before the event. If you don't have time or access to a massage therapist or Physio, some self (inflicted) 'trigger point therapy' may be a useful alternative to help release some trigger points (knots) in your muscles. Much of this can be achieved with a few simple tools, such as:



By Doug James
intraining physiotherapist and podiatrist

Foam roller: a foam roller can be used to help reduce tension in your leg and gluteus muscles. Position yourself with the target muscle on top of the roller, and gently glide backwards and forwards for a minute or two. You'll likely discover a few focal tender spots in the muscle which can be treated by resting on top of the foam roller for 30-60 seconds.

Spikey ball: when the foam roller isn't enough, the spikey ball can be used to apply greater pressure and reach deeper muscles. Laying or sitting on the ball over a tender spot can help release the muscle.

Pocket Physio: this can provide more specific and targeted relief than the roller or spikey ball, but take care not to bruise yourself.

The above techniques be used throughout the running season and when tapering, however take care not to be too aggressive immediately prior to an event to avoid injuring yourself.

JUVENILE HIP PAIN

It's not uncommon for growing kids to complain of some aches and pains. In some cases it's fine to 'wait and see' but hip and groin pain in kids and teenagers can be a serious issue that should be addressed as a matter of priority.

If your child complains about soreness on the outside of their hips and/or groin (and sometimes knee) this could be the sign of an issue with the growth plate in their femur (thigh bone) called 'Legg –Calve Perthe's Disease' (or sometimes just Perthe's). It is most commonly seen before the age of 10, but symptoms from the resulting injury may persist for years due to the development of arthritis. More often than not, it will occur only on one side, and it more commonly affects boys. In more stoic kids you may notice a limp when they walk or run, before they'd let you know anything is wrong.

Correct identification and diagnosis of this injury is important to guide management. A Physio can perform a hip assessment, and if necessary order X-rays or MRI to confirm the condition. Once diagnosed managing the amount and type of exercise is important, and is a conditioning program to maintain optimal function. If you have noticed your child having hip issues, contact intraining running injury clinic today for an appointment.

By Doug James
intraining physiotherapist and podiatrist

MAGNESIUM

By Liz Lovering, sports dietitian, runner, coach and chef

Magnesium is an essential mineral and has many important functions in the body including energy production, nerve transmission, muscle contraction and bone and cell formation. It is widely distributed in both plant and animal foods.

As a runner you may have read about oral magnesium supplements for the relief of Exercise Associated Muscle Cramping (EAMC). However evidence for this is inconclusive.

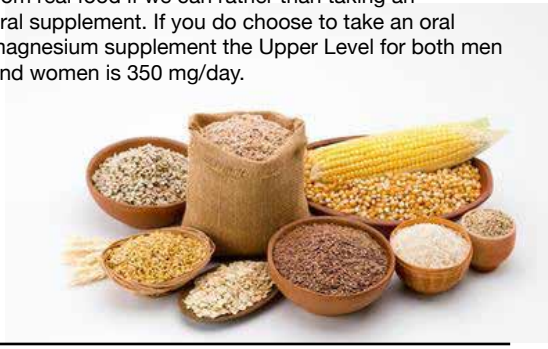
Current thinking is that EAMC is most likely caused by fatigue in the exercising muscle. There appears to be an increased risk if there is a family history of cramping, you have cramped previously or when there is an increase in exercise intensity and duration - such as cramping on race day.

From a nutrition standpoint a muscle may fatigue early due to muscle glycogen depletion. (A good reason to ensure you have adequate fuel available for the running you are doing). Adequate hydration is also important and although dehydration alone does not appear to cause a cramp it can contribute to premature muscle fatigue increasing the risk. By the same token electrolyte replacement (especially sodium) must be considered when running in the heat, or if you are a salty sweater (white residue on face and running gear).

As mentioned magnesium is found throughout the food supply. Most green leafy vegetables, wholegrains, legumes, peas, beans and nuts are rich in magnesium as are oily fish such as salmon.

Most people who consume a healthy varied diet will obtain adequate magnesium from food. The recommended daily intake for adults is 310-320mg for women and 400-420mg for men (depending on age).

It's always better to get all the nutrients we need from real food if we can rather than taking an oral supplement. If you do choose to take an oral magnesium supplement the Upper Level for both men and women is 350 mg/day.



BLISTER ISSUES

Blisters often form at inopportune times and there is no worse time for them to emerge than during a race. Running with blisters is painful which can not only undermine your race performance, but you may end up with other injuries from altering your running style due to pain.

Blisters usually form as a result of friction which can be due to a number of reasons. When racing, they can form as you are likely to be putting more force and pressure through your feet resulting in increased rubbing.

In hot, humid conditions, sweat can increase the friction between your foot and the shoe. More often than not, a decent sock can help. Technical running socks are made of materials that reduce friction and sweat retention. For blistering that occurs between toes, consider injinji toe socks.

Also consider whether your shoes are the problem – if they are worn out or a bad fit, they should be changed before race day, however allow enough time (at least a couple of runs) to test them out.

Biomechanical issues may also play a role in blister formation. In these instances, an appointment with a podiatrist to identify and treat the cause of your issue can help when other avenues have failed.

If you've had blister issues during training, or know you are prone to them on race day, take steps now to ensure you have a blister free race season.

By Doug James
intraining physiotherapist and podiatrist

CAN ACHILLES TENDON INJURIES BE PREVENTED?

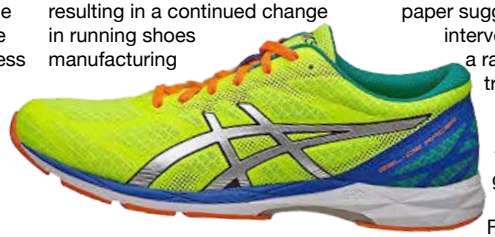
By Margot Manning
intraining podiatrist and running coach

Achilles tendon injuries are very difficult to treat due to their unique physiological structure and their ability to undergo huge changes in load and stresses. The rehabilitation of the tendon can be time-consuming, particularly if left untreated for some time. This will also be dependent on how the injury occurred, the age of the person, prior damage to the tendon, hormonal factors and the biomechanics associated with the individual. A management plan that is adaptable to the temperamental nature of the Achilles tendon is needed to address these many different aspects.

In an effort to avoid developing an Achilles tendon injury in the first place, you would think there might be some preventative measures that could be taken. Footwear, stretching and exercises, massage are all forms used by runners in an effort to stay injury free. The question would be is there any evidence to truly support any one of these areas?

In March, this year, a paper was published in the Journal of Science and Medicine in sport reviewing research on the preventative measures taken for tendon injuries. This paper divided its findings into three categories: stretch and exercise intervention, shoe adaptations, and other interventions. There was no evidence for stretching for most tendon injuries, unless done carefully for a long period of time (greater than 10 minutes). For Achilles tendon injuries, it was even found that stretching could be counterproductive due to the compressive load placed on the tendon as it is forced in a stretch onto the heel bone. Exercises that included balance work, showed no effect for the Achilles tendon, but some for the tendon at the knee.

Footwear with cushioning to provide shock attenuation did have a positive impact from a few studies. However, there has been so much debate resulting in a continued change in running shoes manufacturing



that this in itself disproves that there is any one type of footwear or that footwear alone can prevent Achilles injuries. Interestingly the current research on the early management of Achilles injuries does include heel lifts to decrease the load of the tendon. This does suggest that shoes with a greater difference in height (heel pitch) from the heel to toe may be effective in the healing process of an injured Achilles tendons.

The most interesting finding in this paper was the effect of hormones. In a paper by Jill Cook, a leading Achilles tendon researcher, it was found that 'HRT reduces the risk for structural Achilles changes in the active post-menopausal women."

There have been other papers published that have some evidence showing the effect that hormonal changes in the the week prior to the menstrual cycle effect tendon capacity to cope with excessive load, leading to an increased risk of injury.

Ultimately, there was nothing conclusive to suggest any one component could reduce the occurrence of Achilles tendon injuries. Instead this March paper suggested that preventative interventions needed to focus on a range of factors, including training and activity levels. What is widely known from other research, is that training is by far the greatest cause of injury.

From the perspective of managing training and Achilles injuries, it is about recognising when niggles have become an injury. Treating these quickly and seeking advice from health care providers like the team of podiatrists and physiotherapist at intraining, who are runners, have extensive knowledge of injuries, training and coaching. It is with this knowledge and experience that will provide you with a management plan that enables you to keep working towards your goal, or to help you return to running once injured.

Peters,J, et al. Preventive interventions for tendinopathy: A systematic review. Journal of Science and Medicine in Sport 2016; 19 (3):205