Iliotibial Band Syndrome

Iliotibial band syndrome, while it's less familiar than the cartilage problems that cause the classic "runner's knee," it remains the second most common running injury , accounting for about 25 per cent of overuse injuries, and also afflicts many cyclists.

While traditional rehab has focused on lengthening and loosening the stubborn band, early results from a study by the University of Calgary's Running Injury Clinic show that strengthening the hip muscles may be more effective – not only for rehab, but for preventing the injury in the first place.

The iliotibial (IT) band is a tendon-like length of connective tissue that runs along the outside of the leg from the hip to the knee. The classic symptom is pain on the outside of the knee that gets worse after you've been running for a while, caused by the IT band pressing in and irritating fat tissue underneath it. Pain at the hip is also possible. The problem is usually blamed on a short, tight IT band, so the typical first line of defence is to relieve pressure by stretching the IT band to lengthen it. One stretch involves thrusting the bad hip outward while balancing on the bad leg and crossing the good leg in front of you – a complicated move that produces equivocal results.

More importantly, it's not clear that the problem is really caused by an IT band that's too short. In some research it has been found that injured runners actually had longer IT bands on average, but weaker hip muscles. That suggests that runners with IT band pain should try strengthening their hip muscles.

In a recent study by Dr. Ferber and his colleagues, they put nine runners with IT band problems through a six-week rehabilitation protocol that involved stretching, hip-strengthening and using a foam roller to self-massage the IT band.

The results showed that, despite stretching, the flexibility of the IT band didn't change. On the other hand, hip strength did increase – and all nine runners were able to resume running pain-free. Dr. Ferber believes the foam roller acts primarily to dull the pain sensations from the leg rather than cure the root problem (a hypothesis he's testing separately), leaving hip-strengthening as the key element in the program.

Since that initial study was completed, Dr. Ferber and his colleagues have treated a total of 23 IT band patients with the six-week protocol, which focuses on the gluteus maximus and gluteus medius muscles. The runners started with about 30-per-cent less hip strength on average than healthy runners and after correcting this deficiency, all returned to running pain-free.

Not all cures will be so straightforward. In some cases, the tissue around the IT band may be so inflamed that it is aggravated by just performing the strengthening exercises. Complete rest and anti-inflammatory drugs like ibuprofen may help. Plus, training factors such as running on hilly terrain can inflame IT problems. For cyclists, full leg extension can be a problem; lowering the seat so that the knee never straightens beyond about 30 degrees provides temporary relief.

Once the acute pain has been relieved strengthening seems to be the best bet. And during that rehab process, runners are encouraged to keep running to whatever extent they can without triggering pain.