

OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Wayne Terai

Iliotibial Band Syndrome

If you spend a lot of time running or bicycling, you may be all too familiar with iliotibial band syndrome (ITBS). This injury is the second most common cause of knee pain for runners and is often seen in cyclists as well.

Fortunately, with proper care, you can recover from ITBS and return to your normal exercise routine. Dr. Terai explains the usual causes of ITBS, ways to find relief and tips for prevention.

What is ITBS?

The iliotibial band is a band of tissue extending from the hip to the outside of the shin, just below the knee. It works in conjunction with leg muscles to support and stabilize the knee.

Normally, the iliotibial band slides easily over the knee joint, but if it becomes inflamed, it causes friction. This friction causes further irritation, in turn worsening inflammation. Since the band's purpose is to stabilize the knee, knee pain results. Hip and thigh pain may also take place. Typically, pain initially occurs after exercise. Next, it strikes during exercise as well. If the condition continues untreated, it can cause discomfort around the clock.

Common Causes of ITBS

When a patient has ITBS, Dr. Terai checks for common causes of this injury. Is an important race coming up?



Overtraining, particularly involving a sudden increase in training, is often to blame. Excessive downhill running also ups an athlete's risk of ITBS.

Muscle weakness can also spark inflammation of the iliotibial band. Muscles in the hips and buttocks help keep the pelvis adequately stable during exercise. If these muscles are weak, other muscles must compensate. This may lead to excessive leg rotation, which puts undue strain on the iliotibial band.

Misaligned bones may also spark excessive leg rotation and ITBS. A chiropractic evaluation of the spinal bones of the low back and hips often reveals misalignments that cause or worsen inflammation of the iliotibial band. Dr. Terai corrects these misalignments — called *subluxations* — with gentle maneuvers called *chiropractic adjustments*.

Running mechanics can trigger subluxations in the low back and hips, in turn causing ITBS. For instance, a study published last year compared the strides of 35 runners who had suffered from ITBS with 35 runners who had never experienced ITBS. Runners in the ITBS group were more likely to run with *rearfoot strike* — landing on the back half of the foot — and exhibit internal knee and hip rotation, compared with the injury-free runners (*J Orthop Sports Phys Ther* 2010;40:52).



Structural irregularities such as leg length discrepancies or bowed legs are also linked with an elevated risk of subluxations and ITBS.

Chiropractic Relief for ITBS

Dr. Terai uses several tools to diagnose and relieve ITBS. By correcting alignment of the spine and pelvis, chiropractic adjustments often bring immediate relief from a number of musculoskeletal complaints. Studies show that chiropractic care is effective at relieving ITBS (*J Chiropr Med* 2003;2:37-40).

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In addition to adjustments, the doctor may use soft tissue manipulation therapies that are ideal for breaking down tough tissue fibers like those in ITBS. A case study of a 16-year-old Canadian athlete shows the power of one of these therapies, Active Release Technique® (ART). After suffering from ITBS for two years, she received weekly ART® sessions to release tension in the iliotibial band. She also performed prescribed daily exercises at home. Four weeks later, she was pain-free, and she reported no further problems at a follow-up exam one year later (*J Can Chiropr Assoc* 2007;51:23-9).

An Action Plan

In addition to in-office care, the doctor may recommend other all-natural approaches for patients with ITBS to try at home.

Ice is a powerful inflammation blocker. Ice packs should be applied to the knee at least twice a day for 15 minutes each time. Arnica, a homeopathic preparation for inflammation, is available as a cream or pellets to take orally. Studies confirm this safe and gentle remedy reduces swelling and need for conventional medication (*J R Soc Med* 2003;96:204-12).

In some chronic cases of ITBS, heat may help quell the pain. However, in acute cases it may exacerbate it. So it is crucial to check with the doctor before applying heat.

Properly stretching the iliotibial band is key to recovery, and strengthening the muscles of the hip reduces the risk of future injury. Ask the doctor for instruction on these techniques.

Research also reveals that a modified training regimen helps an athlete with ITBS to safely return to peak form (*Am Fam Physician* 2005;71:1545-50).

Completely stopping exercise is not always necessary, but reducing intensity and duration while avoiding hills gives the iliotibial band time to heal. Low-impact activities like swimming

and rollerblading are also ideal for maintaining physical condition while recovering from ITBS.

Prevention of ITBS

Regular chiropractic care is fundamental to preventing ITBS and other musculoskeletal injuries. This is especially true for runners and other athletes, whether elite or amateur. Chiropractic helps keep the body in peak condition by monitoring and adjusting the alignment of the spine, as well as detecting injuries early before they become serious.

Chiropractic care may even improve performance — research suggests that chiropractic adjustments improve hip extension, allowing a longer stride for runners (*J Chiropr Med* 2008;7:39).

The doctor recommends plenty of

stretching before exercise. Training increases should be gradual to avoid the risk of overuse injuries.

Avoid running on hard surfaces like asphalt and concrete. Shoe fit and proper running form also have a huge impact on the iliotibial band — check with the doctor, a specialty running shoe store or a coach for guidance.

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